

# Fire Prevention Education 1

## P-101



NFES 2880

**Instructor Guide**

**DECEMBER 2006**



## CERTIFICATION STATEMENT

on behalf of the

### NATIONAL WILDFIRE COORDINATING GROUP

*The following training material attains the standards prescribed for courses developed under the interagency curriculum established and coordinated by the National Wildfire Coordinating Group. The instruction is certified for interagency use and is known as:*

Fire Prevention Education 1, P-101  
Certified at Level I

This product is part of an established NWCG curriculum. It meets the COURSE DEVELOPMENT AND FORMAT STANDARDS – Sixth Edition, 2003 and has received a technical review and a professional edit.

  
Member NWCG and Training Working Team Liaison

Date

12/8/2006

  
Chairperson, Training Working Team

Date

11/20/06

# **Fire Prevention Education 1**

## **P-101**

### **Instructor Guide**

#### **DECEMBER 2006**

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Comments regarding the content of this publication should be directed to:  
National Interagency Fire Center, Fire Training, 3833 S. Development Ave., Boise, Idaho 83705.  
E-mail: [nwcg\\_standards@nifc.blm.gov](mailto:nwcg_standards@nifc.blm.gov).

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Additional copies of this publication may be ordered from National Interagency Fire Center,  
ATTN: Great Basin Cache Supply Office, 3833 South Development Avenue, Boise, Idaho 83705.  
Order NFES 2880.

**National Wildfire Coordinating Group  
Training Working Team  
Position on Course Presentation and Materials**

The suggested hours listed in the Field Manager's Course Guide are developed by Subject Matter Experts based on their estimation of the time required to present all material needed to adequately teach the unit and course objectives. The hours listed can vary slightly due to factors such as the addition of local materials. NWCG is aware that there have been courses presented in an abbreviated form, varying greatly from the suggested course hours. Instructors and students are cautioned that in order to be recognized as an NWCG certified course certain guidelines must be followed:

- Lead instructors are encouraged to enhance course materials to reflect the conditions, resources and policies of the local unit and area as long as the objectives of the course and each unit are not compromised.
- Exercises can be modified to reflect local fuel types, resources and conditions where the student will be likely to fill incident assignments. The objectives and intent of the exercises must remain intact.
- Test questions may be added that reflect any local information that may have been added to the course. However, test questions in the certified course materials should not be deleted to ensure the accurate testing of course and unit objectives.
- Test grades, to determine successful completion of the course, shall be based only on the questions in the certified course materials.

If lead instructors feel that any course materials are inaccurate, that information should be submitted by e-mail to NWCG Fire Training at [nwcg\\_standards@nifc.blm.gov](mailto:nwcg_standards@nifc.blm.gov). Materials submitted will be evaluated and, where and when appropriate, incorporated into the appropriate courses.

**Course Length for NWCG Courses**

If a course is available through PMS the *recommended* course hours and the "NWCG Position on Course Presentation and Materials" will be adhered to by the course instructors.

If the course is not available through PMS, e.g., L-380, and has been developed using NWCG course criteria, *minimum* course hour requirements have been established and must be adhered to by the course developer and the course instructors.

Course hours for all NWCG courses can be found in the Field Manager's Course Guide online at <http://www.nwcg.gov/pms/training/fmcg.pdf>. If the hours are a minimum versus recommended they will be stated as such.

## PREFACE

This course is sponsored by the National Wildfire Coordinating Group (NWCG). It is based on the task analysis and job performance requirements prepared and reviewed by the Wildland Fire Prevention Education Working Team.

This course has been prepared by personnel from: United States Department of Agriculture, Forest Service; United States Department of the Interior, Bureau of Land Management; National Park Service; Fish and Wildlife Service; Bureau of Indian Affairs; and the National Association of State Foresters.

This is one in a series of courses and guides developed to assist the Wildland Fire Prevention community.

Comments regarding this package or additional information may be addressed to:

National Interagency Fire Center  
Fire Training  
Standards Unit  
3833 S. Development Avenue  
Boise, Idaho 83705

E-mail: [nwcg\\_standards@nifc.blm.gov](mailto:nwcg_standards@nifc.blm.gov)



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## COURSE INSTRUCTIONS

**This section contains instructions and information essential to the instructor in making an effective presentation. All instructors must be thoroughly familiar with this section and all other course material prior to presenting the course.**

### I. INTRODUCTION

Fire Prevention Education 1, P-101 is a 32 hour course designed for Fire Prevention Specialists, Fire Managers, Public Information Officers, and others with Wildland Fire Prevention Education/Mitigation responsibilities.

The instructor guide contains all information and references necessary for the course coordinator, instructors, and students. The course instructions contain information concerning course administration. Subject material is presented in units/lessons of instruction. Exercises in the lessons are designed to demonstrate procedures. Reference material is provided to assist students in the classroom and on the job.

The course units and lessons provide History of Fire Prevention, Fundamentals of Fire Prevention, Interagency Cooperation, National Emphasis Programs, Fire Prevention/Mitigation Planning, Communication/Education, Cooperative Forest Fire Prevention – Smokey Bear, Fire Prevention and the Media, Fire Prevention Signing, Children’s Fire Prevention Programs, Fire Prevention Material, Fire Prevention and Fuels Management, FIREWISE/Fire Safe Programs, Fire Prevention Home Evaluations, Spark Arresters, Industrial Operations, Powerlines, Railroads, Recreation Area Fire Prevention, Fire Use Restrictions, Fire Prevention Patrol, and Fire Prevention Permits.

The course is designed to be interactive in nature. It contains several exercises designed to facilitate group and class interaction and discussion. The instructor cadre must be familiar with the course instructions and exercises.

While lead instructors are encouraged to enhance course materials to reflect conditions, resources and policies of the local unit, they must ensure that objectives of the course and each unit are not compromised. Test questions may be added to reflect any local information that may have been added to the course. However, test questions in the certified course materials should not be deleted to ensure accurate testing of the course and unit objectives.

## II. COURSE OBJECTIVES

Course objectives are stated in broad terms that define what the student will be able to accomplish after successful completion of the course.

The student will develop the skills and knowledge necessary to perform the field applications of the basic fundamentals of wildland fire prevention.

## III. INSTRUCTOR PREREQUISITES

As of the printing of this document, the Field Manager's Course Guide (FMCG) states the instructor prerequisites as follows:

### A. Instructor Levels

Lead instructors must have sufficient experience in presenting all units of the course to be capable of last-minute substitution for unit instructors. It is recognized that exceptions may occur where courses are of such a technical nature that no one person may be technically competent to instruct all units. They must be position qualified at the next higher job level.

For P-101, Fire Prevention Education 1 the Lead Instructor must be skilled in all aspects of Fire Prevention Education.

Unit Instructors/Coaches must be experienced in the lesson content they are presenting. They must be position qualified at the job level to which the training is targeted.

## B. Training Requirement for Instructors

Unit instructors should have 32 hours of instructor training (M-410, Facilitative Instructor or equivalent course).

Note: For current information refer to the Field Manager's Course Guide, PMS 901-1 for instructor prerequisites. This guide is on-line at: <http://www.nwcg.gov/pms/training/fmcg.pdf>.

## IV. INSTRUCTOR PREPARATION

The material in this course is designed to be presented through a series of facilitated discussions, classroom exercises, including tactical decision simulation exercises. Instructors must devote adequate time for their presentations and should draw from their experiences to add realism and credibility to the information provided. The instructors must work through the exercises together and agree upon the solutions.

## V. PRESENTATION OPTIONS

This course is designed for small or large group use. The optimum class size is 24 students. The course cadre consists of a course coordinator, lead instructor, and unit instructors. The instructor should consider adapting the course to local needs. Suggested additions could include changing graphic slides to live action slides or video and additional exercises to reinforce classroom learning.

## VI. STUDENT TARGET GROUP

This course is designed as a basic course in the wildland fire prevention education training curriculum. The target group includes Fire Prevention Specialists, Mitigation Specialists, Fire Managers, Public Information Officers, and other individuals who actively participate in wildland fire prevention/mitigation activities.

## VII. STUDENT TRAINING PREREQUISITES

Satisfactory performance in fire prevention, education, information, or related activities.

## VIII. STUDENT PERFORMANCE

Students must obtain 70 percent or higher on the final exam to receive a certificate of completion for the course. (Location of final exam is in Appendix E.)

## IX. COURSE SELECTION LETTER

See the Course Coordinator's Guide, PMS 907, for information on selection letters (accessible at: <http://www.nwccg.gov/pms/training/PMS907.pdf>).

An example of the course selection letter is located at the end of this introduction section. This letter will identify class start time, class location, lodging and dining locations.

## X. COURSE MATERIALS

See Appendix A for course ordering and support information. The appendix contains information on course presentation materials that need to be ordered as well as support material and equipment.

### A. Instructor Material

The Instructor Guide and accompanying CD-ROM contain all the information needed for course presentation and lists references for the course coordinator and instructors. The CD-ROM contains complete copies of the Instructor Guide, Appendixes, and Student Workbooks in portable document format (pdf).

The guide is structured so the instructor and student can follow the visual presentation. It may be taken apart to insert changes or to duplicate material. Its integral parts, however, should not be disassembled or otherwise separated; such action would destroy the effectiveness of the instructional tool.

Unit handouts, exercises, exercise solutions, and course evaluations must be printed locally from the appendixes and provided to the students as indicated in each unit.

## B. Key to Instructor Materials

The Instructor Guide provides instructor notes in **BOLD CAPS** to assist with teaching techniques in the lesson plan.

The “Aids and Cues” column serves as a reminder to display or refer to specific lesson materials, such as Student Workbook page numbers. The codes listed in the Aids and Cues column are as follows:

IR – Instructor Reference  
EP – Electronic Presentation (PowerPoint)  
SW – Student Workbook (page number reference)  
HO – Handout  
SR – Student Reference  
DVD – Course DVD

## XI. SPACE AND CLASSROOM REQUIREMENTS

Refer to the course coordinators guide, PMS 907. This guide is accessible at: <http://www.nwcg.gov/pms/training/PMS907.pdf>.

The classroom should be chosen and viewed well in advance of the presentation. The choice should be based on, but not limited to, the following characteristics:

- Provide adequate area for students and materials.
- Be free from outside interruptions and interferences.
- Have controlled lighting to permit showing of slides or computer presentation.
- Have good acoustics.
- Have good ventilation.
- Computer, LCD projector, and screen.
- White board with markers, chalkboard with chalk, or flip chart with paper and felt tip markers, for the instructors.
- Flip charts with paper, felt tip markers, tables, chairs, pencils, pens, and notebook paper should be supplied for the students.
- Provide breakout rooms sufficient to handle the class size.
- Support services and facilities, restrooms and break areas.

## XII. EVALUATIONS

This course relies on the simulation and class participation to evaluate student performance.

### A. Student Evaluation

Exercises/Simulations are evaluated by assigned instructor/coach, using observable performance, technical procedures and course objectives.

### B. Course Evaluations

Copies of the evaluation forms are located in Appendix E of the Course Materials CD-ROM.

#### 1. Student course evaluation

This is an opportunity for students to comment on the course and the instructors for the purpose of improving future course sessions.

#### 2. Training course evaluation

The course coordinator and the lead instructor are to complete the course evaluation following the course and submit to:

National Interagency Fire Center  
Fire Training  
Standards Unit  
3833 South Development Avenue  
Boise, ID 83705-5354

or via email to: [nwcg\\_standards@nifc.blm.gov](mailto:nwcg_standards@nifc.blm.gov)

### XIII. APPENDIXES

**The following appendix is included in this Instructor Guide:**

- Course Ordering and Support Information (Appendix A)

A list of materials needed is included in this appendix. Refer to the National Fire Equipment System Catalog, Part 2: Publications ([www.nwcf.org/pms/pubs/](http://www.nwcf.org/pms/pubs/)) for materials that need to be ordered.

**The following appendixes are on the P-101 Course Materials CD-ROM:**

- Electronic Presentations (Appendix B)
- Student Workbook (Appendix C)
- Handout Masters (Appendix D)
- Evaluations/Testing (Appendix E)

## SAMPLE AGENDA

### Fire Prevention Education 1 (date, location)

#### Day 1

- 1:00 p.m. Welcome and Introduction
- 2:00 p.m. History of Wildland Fire Prevention
- 3:00 p.m. Break
- 3:15 p.m. Fundamentals of Fire Prevention
- 4:00 p.m. Interagency Cooperation
- 5:00 p.m. End of the day

#### Day 2

- 8:00 a.m. National Emphasis Programs
- 9:00 a.m. Introduction to Fire Prevention/Mitigation Planning
- 10:00 a.m. Break
- 10:15 a.m. Fire Prevention Education Teams
- 11:00 a.m. Fire Danger Rating and Fire Prevention
- 12:00 p.m. Lunch
- 1:00 p.m. Fire Prevention Communication/Education
- 3:00 p.m. Break
- 3:15 p.m. Fire Prevention Signing
- 4:00 p.m. Fire Prevention and the Media
- 5:00 p.m. End of the day

#### Day 3

- 8:00 a.m. CFFP Program – Smokey Bear
- 10:00 a.m. Break
- 10:15 a.m. Children’s Fire Prevention Programs
- 12:00 p.m. Fire Prevention Materials
- 3:00 p.m. Break
- 3:15 p.m. Fire / Public Use Restrictions
- 4:00 p.m. Recreation Area Fire Prevention
- 5:00 p.m. End of the day



## Day 4

8:00 a.m. Fire Prevention and Fuels Management  
9:00 a.m. FIREWISE/Fire Safe Programs  
10:00 a.m. Break  
10:15 a.m. Fire Prevention Home Evaluations  
12:00 p.m. Lunch  
1:00 p.m. Spark Arresters  
3:00 p.m. Break  
3:15p.m. Industrial Operations Fire Prevention  
4:00 p.m. Power Line Fire Prevention  
5:00 p.m. End of the day

## Day 5

8:00 a.m. Railroad Fire Prevention  
9:00 a.m. Fire Prevention Patrol  
10:00 a.m. Break  
10:15 a.m. Fire Prevention Permits  
11:00 a.m. Test/Course Summary  
12:00 p.m. End of the session.

P-101, FIRE PREVENTION EDUCATION 1  
SELECTION LETTER  
***EXAMPLE***

Congratulations on being selected to attend P-101, Fire Prevention Education 1 course to be held at (*location*).

The primary emphasis of this course will be to prepare individuals to work in fire prevention activities.

If you desire to receive a certificate of completion for the course, please do not make travel arrangements to arrive after the scheduled start time or to depart prior to the scheduled course completion time.

In the event you cannot attend the course, please contact the course coordinator prior to the beginning of the class. This allows time for notifying personnel that may be on the waiting list to be contacted to fill the vacancy.

If you have any questions please contact the course coordinator, *Name, phone number, email*.

**COURSE:** Fire Prevention Education 1, P-101

**UNIT:** 0 - Introduction

**SUGGESTED TIME:** 1 Hour

**TRAINING AIDS:** Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

**OBJECTIVES:** During this unit, the instructor will:

1. Introduce students, instructors, and course expectations.
2. Identify unit/lesson topics, required performance levels, and logistical concerns.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	0-01-P101-EP
A. Introduce Students, Instructors, And Course Expectations.	0-02-P101-EP
B. Identify Unit/Lesson Topics, Required Performance Levels, And Logistical Concerns.	
II. INTRODUCTION  P-101, Fire Prevention Education 1, has been developed as part of a multi-course national curriculum. These courses are designed to enhance skill and knowledge of personnel assigned responsibilities for wildfire prevention activities. This is an introduction course covering many aspects of wildfire prevention.	0-03-P101-EP

OUTLINE	AIDS & CUES
<p>III. COURSE OBJECTIVE</p> <p>The student will develop the skills and knowledge necessary to perform the field applications of the basic fundamentals of wildland fire prevention.</p>	<p>0-04-P101-EP</p>
<p>IV. UNIT OBJECTIVES</p> <p>A. Unit 1 Objectives: Wildland Fire Prevention Administration</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform and describe the tasks of wildland fire prevention history, fundamentals of fire prevention, interagency cooperation, National emphasis programs, fire prevention/mitigation planning, fire prevention education teams, and national fire danger rating systems.</p> <p>B. Unit 2 Objectives: Wildland Fire Prevention Education</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform and describe the tasks of wildland fire prevention communications, Cooperative Forest Fire Prevention - Smokey Bear, media, signing, children's programs, and fire prevention materials.</p>	<p>0-05-P101-EP</p> <p>0-06-P101-EP</p> <p>0-07-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Unit 3 Objectives: Wildland Fire Prevention Engineering</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform and describe the tasks of fire prevention and fuels management, FIREWISE/fire safe programs, and fire prevention home evaluations.</p>	0-08-P101-EP
<p>Fundamentals of spark arresters, industrial operations fire prevention, powerline fire prevention, railroad fire prevention, and recreation area fire prevention.</p>	0-09-P101-EP
<p>D. Unit 4 Objectives: Wildland Fire Prevention Enforcement</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform the tasks of fire use restrictions, fire prevention patrol, and fire prevention permits.</p>	0-10-P101-EP

OUTLINE	AIDS & CUES
<p>E. Unit 5 Objectives: Summary And Testing</p> <p>Upon successful completion of this unit, the student will demonstrate the skills, and abilities to effectively perform the Fire Prevention Education 1 fundamentals.</p>	0-11-P101-EP
<p>V. FACULTY EXPECTATIONS</p> <p>A. Develop A Fire Prevention Network To Improve Skill And Knowledge Of The Principles Of Wildland Fire Prevention.</p> <p>B. Participate As An Active Student In All Exercises And Discussions.</p> <p>C. Participate In Daily Course Evaluations.</p> <p>D. Demonstrate Knowledge And Skills In The Final Test.</p>	0-12-P101-EP
<p>VI. INTRODUCTIONS</p> <p>A. Faculty</p> <p>B. Students</p>	0-13-P101-EP
<p>VII. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <p>A. Introduce Students, Instructors, And Course Expectations.</p> <p>B. Identify Unit/Lesson Topics, Required Performance Levels, And Logistical Concerns.</p>	0-14-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1A — History of Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. List two major fire events that shaped the direction of fire prevention
2. List two fire prevention programs created in the 1990s.
3. State when the Smokey Bear program was created.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	1A-01-P101-EP
A. List Two Major Fire Events That Shaped The Direction Of Fire Prevention.	1A-02-P101-EP
B. List Two Fire Prevention Programs Created In The 1990s.	
C. State When The Smokey Bear Program Was Created.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>The evolution of fire prevention is an important element of the fire management program. Prior to the establishment of public land preserves, fire prevention was concentrated in communities to protect their property.</p> <p>Fire in the wild was not considered bad or unnatural. When several devastating fires happened late in the 1800s and early 1900s, public and official opinion began to change.</p> <p>This presentation of the history of forest fire prevention will provide the Fire Prevention Specialist with a background and overview of where fire prevention began and how it evolved over the last 130 years.</p>	<p>1A-03-P101-EP</p>
<p>III. THE HISTORY OF FIRE PREVENTION</p> <p>A. Does anyone recognize this person? He was the founding father of resource conservancy, Gifford Pinchot.</p> <p>B. His philosophies about conserving and Protecting our natural resources set the tone for forestry agencies in the beginning of their existence.</p> <p>Protecting those resources from harm by the public was the first prevention policy to gain nationwide acceptance.</p>	<p>1A-04-P101-EP</p>



OUTLINE	AIDS & CUES
<p>C. He took pride in his work and set the Example for those who came behind him. His recruitment posters stated, “wanted, men that can do all, must be multifunctional and only the strong need apply, not the feeble or weak of heart. They must be able to use a shotgun, rope, mend fences, work pack strings (mules), climb and cut trees, possess carpentry skills, and fight fire. All stations will be kept neat and clean, just like the military. That’s what pride in who you are and who you represent is all about.”</p> <p>D. Much of the history around the evolution of forest fire prevention has been lost or sits in people’s attics or basements waiting for a new home. This collection took four years of research to compile.</p>	
<p>IV. THE VIDEO HISTORY OF FIRE PREVENTION HAS TAKEN US THROUGH THE EARLY DAYS, FROM HERE WE LOOK AT MORE RECENT TIMES.</p>	1A-05-P101-EP
<p><b>INSTRUCTOR NOTE: PRESENT “THE HISTORY OF FIRE PREVENTION” ON THE COURSE DVD 1, MOVIE 1.</b></p>	1A-01-P101-DVD
<p><b>INSTRUCTOR NOTE: PROVIDE STUDENTS WITH THE HANDOUT, “HISTORY OF FIRE PREVENTION TIME LINE.”</b></p>	1A-01-P101-HO

OUTLINE	AIDS & CUES
<p>V. FIRE PREVENTION IN THE 1980S AND 1990S</p> <p>A. As The 1980s Came To A Close, An Increased Interest In Putting Fire Back Into The Landscape Began.</p> <ol style="list-style-type: none"> <li>1. The integration of fuels management and prevention programs was aimed at reducing the threat of fire to the wildland urban interface and the protection of natural resources.</li> <li>2. The words mitigation and education became part of the mission.</li> </ol> <p>B. During The 1990s, Fire Prevention Faced Many Challenges.</p> <ol style="list-style-type: none"> <li>1. Population growth had more than doubled, there were now more homes than ever in and near our wildland areas.</li> <li>2. Due to continuing budget cuts, fire officials were now eliminating prevention positions in order to fund their shrinking fire suppression forces.</li> </ol> <p>C. While the debate raged over prescribed fire, mechanical thinning, and inadequate funding, a fire in October of 1991 almost brought the fire service to its knees.</p>	<p>1A-06-P101-EP</p> <p>1A-07-P101-EP</p>

OUTLINE	AIDS & CUES
<p>1. Twenty-five lives were lost in the Oakland Hills Fire, along with 3,000 structures at a cost of over one billion dollars.</p> <p>2. We were now experiencing fires like Oakland Hills all over the country.</p> <p style="padding-left: 40px;">a. No longer affecting isolated pockets of homes, these fires were now threatening cities and communities from Alaska to Florida.</p> <p style="padding-left: 40px;">b. It seems like entire communities are now in danger from wildfires every year.</p> <p>D. In 1992, a national Wildland Urban Interface program began, designed to educate homeowners as well as get them involved to take responsibility for where they had chosen to live.</p> <p>By 1996 this group, known today as FIREWISE, put together a web page and began workshops around the country aimed at increasing the public knowledge of the role fire plays in the Wildland Urban Interface.</p>	<p>1A-08-P101-EP</p>

OUTLINE	AIDS & CUES
<p>E. Fire prevention began to broaden the educational scope by integrating good fire and bad fire into school programs as well as promoting fire’s role in the ecosystem. Smokey, of course, was still being used to promote the prevention of accidental fire starts.</p>	<p>1A-09-P101-EP</p>
<p>F. By 1996, a severe drought in the southwest U. S. took fire prevention to the next level. A request for help resulted in a small group of prevention specialists being sent to the area to assist the local agencies and communities. The success of that effort resulted in what is known today as “Fire Prevention Education Teams.”</p> <ol style="list-style-type: none"> <li>1. Because fire knows no boundaries, Fire Prevention Education Teams are multi-agency and multi-jurisdictional, advancing partnerships with state, county, and local agencies.</li> <li>2. Prevention teams have been used in numerous states, as well as Guam and Samoa, to educate and assist communities and homeowners in all aspects of fire prevention.</li> </ol>	<p>1A-10-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Fire Prevention Education Teams are an integral part of the wildland fire management effort and Fire Prevention Education Team Member training, P-310, is now available as an NWCG course.</p> <p>VI. THE FUTURE</p> <p>A. As the 21<sup>st</sup> century evolved, numerous new fire prevention campaigns have been introduced as additional tools to reach the public.</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE OR DISCUSS NEW PROGRAMS THAT HAVE BEEN DEVELOPED, SUCH AS; “BEWARE AND PREPARE,” “I’M CONCERNED,” “KNOW BEFORE YOU GO,” ETC. USE PERSONAL EXPERIENCE.</b></p> <p>B. Innovative and more creative ways to get the fire prevention message across are now being used to reach the ever-growing and diverse population.</p> <p>C. The Big Burn Of 1910 Was A Defining Moment In Fire Management History.</p> <p>War was declared on all fire and from that point on, all wildland fire was suppressed.</p>	<p>1A-11-P101-EP</p>

OUTLINE	AIDS & CUES
<p>D. The long-term effects of fire suppression was a grim reminder of past history when Idaho and Montana were hit by a drought, high winds and lightning in 2000.</p> <p>1. Homes were threatened and destroyed as fire rolled over the two states devastating their local economy and resources.</p> <p>2. Nationwide, the country was in an unprecedented fire season burning over 6 million acres. That would amount to a fire 50 miles wide running from Las Vegas almost to Phoenix, the entire coast range, or 24 times the size of the big island of Hawaii.</p> <p>The start of the next century of fire management and prevention began much as the previous century started.</p> <p>3. In 2000 alone, there were 83,144 fires, 13,000 above the 10-year average, 1,650 engines were committed which is over 10 times the number used in 1996.</p> <p>The big change in tactics and cost was due to structure protection.</p> <p>There were over \$43 million dollars resource damage and over \$800 million in fire suppression costs.</p>	<p>1A-12-P101-EP</p> <p>1A-13-P101-EP</p>

OUTLINE	AIDS & CUES
<p>E. The 21<sup>st</sup> century is here and the threat to our natural resources, communities, and human life is greater now than ever.</p> <p>Fire has burned six times more homes than the previous decade. In the fall of 2003, Southern California experienced a fire event that was unheard of only a few years before.</p> <p>It is now recognized that the possibility of this kind of event could occur any year and in any state.</p> <ol style="list-style-type: none"> <li>1. A combined interagency fire prevention program, utilizing all agencies to get the message across, and a fire management program that effectively utilizes suppression, fuels, and prevention is a requirement.</li> <li>2. The scars of the past are a stark reminder that as a nation, and the fire service in particular, should not tolerate devastating wildfires.</li> <li>3. The challenge continues as work goes forward on a united front in the new century.</li> </ol>	<p>1A-14-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VII. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. List Two Major Fire Events That Shaped The Direction Of Fire Prevention.</li> <li>B. List Two Fire Prevention Programs Created In The 1990s.</li> <li>C. State When The Smokey Bear Program Was Created.</li> </ul>	<p>1A-15-P101-EP</p>



COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1B— Fundamentals of Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Explain the fire prevention triangle.
2. List examples of risk, hazard, and value as related to fire prevention.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	1B-01-P101-EP
A. Explain The Fire Prevention Triangle.	1B-02-P101-EP
B. List Examples Of Risk, Hazard, And Value As Related To Fire Prevention.	
II. INTRODUCTION	1B-03-P101-EP
Over half of the United States, about one billion acres is forest, brush, and grass lands. Annually, about 100,000 fires start on these lands, burning more than five million acres, destroying structures, resources, and lives.	1B-04-P101-EP
The average cost to suppress these fires exceed \$1.2 billion dollars.	
<b>INSTRUCTOR NOTE: UPDATE FIGURES AS NECESSARY, STRESS THESE ARE AVERAGES.</b>	

OUTLINE	AIDS & CUES
<p>This lesson will cover the fundamentals of wildland fire prevention.</p>	
<p>III. THE SERIOUS WILDLAND FIRE PROBLEM IN THE UNITED STATES</p> <p>A. More than 90 percent of all wildland fires are caused by people. These fires account for a large percentage of the acres burned.</p> <ol style="list-style-type: none"> <li>1. Different regions of the United States often have unique fire causes.</li> <li>2. For example, in the west, lightning may be the biggest problem where as human-caused fires are the biggest problem in the northeast and southeast.</li> </ol>	<p>1B-05-P101-EP</p>
<p>B. The Major Causes Of Wildfires Include:</p> <ol style="list-style-type: none"> <li>1. Arson</li> <li>2. Campfires</li> <li>3. Debris Burning</li> <li>4. Equipment Use</li> <li>5. Smoking</li> <li>6. Other causes: Children playing with matches, railroads and fireworks are also problems.</li> </ol>	<p>1B-06-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DISCUSS THE FIRE PROBLEM IN THE LOCAL AREA.</b></p>	





OUTLINE	AIDS & CUES
3. Railroads	1B-14-P101-EP
4. Activities associated with roads and highways	1B-15-P101-EP
5. Smoking	1B-16-P101-EP
6. Children with matches	1B-17-P101-EP
7. Structures	1B-18-P101-EP
8. Incendiary	1B-19-P101-EP
B. Hazard is fuel as defined by its volume, type, condition, arrangement, and location. Topographic and weather features determine the ease of ignition and the fire suppression difficulty. It is “the potential to burn.” Examples of hazards:	1B-20-P101-EP
1. Activity debris/slash	1B-21-P101-EP
2. Homes/structures	
3. Dry grass	
4. Dead trees	
5. Trash	
6. Ground litter	

OUTLINE	AIDS & CUES
C. Combine risk and hazard and that can equal fire.	1B-23-P101-EP
D. Value is defined as any area, whether it be natural or developed.	1B-24-P101-EP
An asset designated of value may be determined to be classified high value where loss or damage from wildland fire would be unacceptable.	
Examples of values:	1B-25-P101-EP
1. Developments	
2. Watershed	
3. Cultural	
4. Aesthetic/scenic	
5. Soils	
6. Plants	
<p><b>INSTRUCTOR NOTE: DEMONSTRATE LOCAL RISKS, HAZARDS, AND VALUES.</b></p>	







OUTLINE	AIDS & CUES
<p>B. There Are Four Key Factors Which Must Be Brought Together For Education To Be Successful:</p> <ol style="list-style-type: none"> <li>1. Target the right people.</li> <li>2. Use the right message.</li> <li>3. Time the message appropriately.</li> <li>4. Use appropriate vehicle/transmission.</li> </ol>	<p>1B-31-P101-EP</p>
<p>C. Types Of Educational Activities That Help Deliver Wildfire Prevention Messages Could Include:</p> <ol style="list-style-type: none"> <li>1. Mass media - radio, television, written mediums, and the web are powerful tools which can help deliver wildfire prevention messages.</li> <li>2. Group presentations are an effective way of matching prevention messages with the appropriate group of people.</li> </ol> <p>These activities may include:</p> <ol style="list-style-type: none"> <li>a. Classroom visits by the costumed character and agency personnel.</li> <li>b. Presentations to local groups or cooperators.</li> <li>c. Tours and “show-me” trips.</li> <li>d. Demonstrations - defensible space.</li> </ol>	<p>1B-32-P101-EP</p> <p>1B-33-P101-EP</p> <p>1B-34-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Exhibits, displays, and parades can be used as methods to deliver the fire prevention message.</p> <p>Fairs, business places, and other public places serve as effective places to involve the public.</p> <p>a. Exhibits can be made effective by the use of audiovisual aids or the presence of a person to speak with the people and to answer questions.</p> <p>b. Parades offer an opportunity for participation in a high visibility event.</p>	<p>1B-35-P101-EP</p> <p>1B-36-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DEMONSTRATE LOCAL FIRE PREVENTION EDUCATION EXAMPLES.</b></p>	
<p>4. Printed material such as brochures and booklets can address specific fire prevention problems and be distributed to the appropriate publics.</p> <p>a. Printed material can be used by itself or in conjunction with group presentations, exhibits, or other events.</p> <p>b. Wildfire prevention statistics can be a type of printed material with a powerful message. Statistics can help create an awareness of the wildfire problem.</p>	<p>1B-37-P101-EP</p>

OUTLINE	AIDS & CUES
<p>5. Signs and posters are another effective way of prevention message delivery.</p> <p>a. They may range from nationally produced Smokey Bear posters to locally produced posters dealing with a specific problem.</p> <p>b. Road signs may be effective. They can carry information on restrictions in effect, fire danger, or more general cautions or information.</p>	1B-38-P101-EP
<p>6. A variety of miscellaneous handouts are available and may be acquired through the National Cooperative Forest Fire Prevention Program (CFFP) or other programs.</p> <p>a. Fire prevention messages or information are printed on them.</p> <p>b. They are also useful for a wide variety of age groups, from children to adults.</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE LOCAL EXAMPLES OF MATERIALS USED.</b></p>	1B-39-P101-EP

OUTLINE	AIDS & CUES
<p>VIII. THE FUNDAMENTALS OF WILDLAND FIRE PREVENTION - THE FIRE PREVENTION TRIANGLE - ENGINEERING</p>	<p>1B-40-P101-EP</p>
<p>The engineering component of the fire prevention triangle includes:</p>	
<p>A. Removing The Heat Source From The Fuel</p>	<p>1B-41-P101-EP</p>
<p>This involves such actions as using spark arresters and closing an area to the public or allowing smoking only in a designated area.</p>	<p>1B-42-P101-EP 1B-43-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DEMONSTRATE LOCAL APPLICATIONS OF REMOVING THE HEAT SOURCE FROM THE FUEL.</b></p>	
<p>B. Reducing Or Eliminating Fuels</p>	<p>1B-44-P101-EP</p>
<p>1. Prescribed fire</p>	<p>1B-45-P101-EP</p>
<p>2. Clearing of fuels from around structures and building fuel breaks</p>	<p>1B-46-P101-EP</p>
<p>3. Clearing fuels from around campfire or burning sites and recreation areas</p>	<p>1B-47-P101-EP</p>
<p>4. Fire safe roofing</p>	<p>1B-48-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DEMONSTRATE LOCAL APPLICATIONS OF REDUCING OR ELIMINATING THE HEAT SOURCE FROM THE FUEL.</b></p>	
<p>C. Through Engineering And Education, We Can Provide A Safer Environment For The Public To Enjoy.</p>	<p>1B-49-P101-EP</p>

OUTLINE	AIDS & CUES
<p>IX. THE FUNDAMENTALS OF WILDLAND FIRE PREVENTION - THE FIRE PREVENTION TRIANGLE - ENFORCEMENT</p> <p>The enforcement component of fire prevention strategies include:</p> <ul style="list-style-type: none"> <li>A. Fire Investigations</li> <li>B. Inspections</li> <li>C. Permits/Contracts</li> <li>D. Citations And Warnings</li> <li>E. Patrol</li> </ul>	<p>1B-50-P101-EP</p> <p>1B-51-P101-EP</p> <p>1B-52-P101-EP</p> <p>1B-53-P101-EP</p> <p>1B-54-P101-EP</p> <p>1B-55-P101-EP</p>
<p>X. ONCE HAZARDS AND RISKS HAVE BEEN IDENTIFIED, EDUCATION, ENGINEERING, AND ENFORCEMENT CAN TAKE PLACE</p> <p>The Fire Triangle</p>	<p>1B-56-P101-EP</p> <p>1B-57-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DEMONSTRATE LOCAL APPLICATIONS OF FIRE PREVENTION LAW ENFORCEMENT ACTIVITIES.</b></p>	
<p>XI. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. Explain The Fire Prevention Triangle.</li> <li>B. List Examples Of Risk, Hazard, And Value As Related To Fire Prevention.</li> </ul>	<p>1B-58-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1C — Interagency Cooperation

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Participate in interagency fire prevention activities, partnerships, cooperatives, and committees.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	1C-01-P101-EP
Participate in interagency fire prevention activities, partnerships, cooperatives, and committees.	1C-02-P101-EP
II. INTRODUCTION	1C-03-P101-EP
Interagency cooperation is not new, nor is there much mystery about the concept. It does, however, seem to be one of the most difficult concepts to carry out. It basically requires considerable effort and initiative by people of diverse backgrounds and interests.	
Without a concerted effort, fire prevention can become a disjointed, unsuccessful effort.	
With a united effort, a meaningful and effective message can be portrayed to the public.	

OUTLINE	AIDS & CUES
<p>III. INTERAGENCY COOPERATION</p> <p>A. Fire Protection Agencies Deal With The Same Public.</p> <p>The agencies really aren't selling a different product to anyone; therefore, it really matters little who does the job for a specific area.</p> <p>Whoever can do the job more effectively and efficiently in a specific area, should do so.</p>	1C-04-P101-EP
<p>B. Why Cooperate?</p> <p>1. Rapid urban expansion and use of resources challenges land and resource managers, urban planners, governing entities, and emergency service agencies.</p> <p>It also has the potential to greatly affect the quality of life for people who use and choose to live in the area known as the Wildland Urban Interface.</p> <p>2. Fires in the Wildland Urban Interface can be unique. They challenge both structural and wildland firefighters who are trained and equipped differently.</p>	1C-05-P101-EP
<p>Wildland firefighting agencies are now faced with an increased number of homes built in the path of wildfires, and their municipal counterparts are grappling with multiple ignitions from fast-burning vegetative fires. Everyone agrees that no single agency is adequately prepared to handle both types of firefighting.</p>	1C-06-P101-EP

OUTLINE	AIDS & CUES
<p>3. The problem is compounded by the fact that wildfires do not respect political boundaries of land management agencies or fire districts. Therefore, agencies responding to fires in Wildland Urban Interface areas must develop combined, coordinated, and effective efforts.</p> <p>As the Wildland Urban Interface continues to expand, it is more important than ever to strengthen cooperative relationships.</p>	1C-07-P101-EP
<p>4. Fire managers must realize that wildfire suppression is only one of the challenges presented by the Wildland Urban Interface. Fire prevention must be considered a high priority.</p> <p>a. Recreational needs, insect and disease encroachment, hydrologic impacts, impaired scenic views, wildlife impacts, and increased environmental education demands represent other areas requiring management.</p> <p>b. Fire prevention agencies must be willing to understand these “quality of life” issues, as valued by people living in local areas.</p> <p>This understanding will help provide opportunities for cooperation between citizens and fire service agencies mandated to protect their properties and the adjacent resources from wildfire.</p>	1C-08-P101-EP



OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>c. Government agencies must ensure that the public is made aware of their responsibility to help resolve these problems.</li> <li>d. Addressing the fire prevention problem requires a community and interagency understanding of all resource management challenges associated with the wildland urban interface. This is best accomplished at the local level where problems are the most obvious and immediate.</li> </ul> <p>C. There Are Many Different Possible Types Of Cooperation In Delivering Wildfire Prevention To The Public.</p> <p>An example of wildfire cooperation on a national level is the National Wildfire Coordinating Group (NWCG).</p> <ul style="list-style-type: none"> <li>1. One purpose of the NWCG is to design and coordinate programs of the participating agencies to avoid wasteful duplication and to provide a means of constructively working together.</li> </ul>	<p>1C-09-P101-EP</p>

OUTLINE	AIDS & CUES
<p>2. Wildfire coordinating groups of smaller scope (regional, state, and local) can be found across the country.</p> <p>Often these coordinating groups use subgroups or task groups to deal with specific areas of interest (e.g., prevention, training, safety, and equipment).</p> <p>Other examples of cooperation can be found in the efforts of private associations, citizen groups and government organizations.</p> <p>D. Cooperative agreements can facilitate interagency fire prevention work across jurisdictional boundaries supported by individual agency laws and authorities.</p> <p>1. The primary purpose of written cooperative agreements are:</p> <ul style="list-style-type: none"> <li>a. To establish standards.</li> <li>b. To document and define working relationships.</li> <li>c. To provide a legal basis for financial exchange.</li> </ul>	<p>1C-10-P101-EP</p>

OUTLINE	AIDS & CUES
<p>2. Regardless of how efforts are separated, a certain segment of the public is going to hear the message from more than one agency. The important aspect here is that the message should be similar and compatible.</p> <p>Developing fire prevention cooperatives can satisfy the need for separation of effort. Cooperatives can't be set up every where, however, normal cooperative efforts among agencies on a local basis should help to at least provide a continuity of messages.</p>	1C-11-P101-EP
<p>IV. ADVANTAGES OF WORKING TOGETHER</p> <p>Advantages of developing prevention programs by working together include:</p> <p>A. Addressing a particular wildfire problem that is too large and is beyond one agency's jurisdiction or capability. Combining local resources to collectively attack the problem.</p> <p>B. Sharing Ideas And Resources Which Save Public Funds.</p> <p>C. Minimizing Duplication Or Overlapping Of Services. Examples: Fair displays, And Team Teaching.</p> <p>D. Presenting a "united" front to the public that indicates a collective, cooperative approach to protecting the public.</p>	1C-12-P101-EP

OUTLINE	AIDS & CUES
<p>E. Establishing A Communication Network, Finding Out Who's Who.</p> <p>F. Providing Solutions, Passing Ordinances, Etc.</p> <p>G. There will be efforts that each agency in a cooperative mode will still want to accomplish on their own.</p> <p>When the timely thrust is toward dispersed recreation on public lands, it may be obvious who can best do that job!</p> <p>Debris burners in the Wildland Urban Interface could, at the same time, get assistance from the state, local, and/or industry representatives.</p>	<p>1C-13-P101-EP</p>
<p>V. COMMON FIRE PREVENTION INTERESTS</p> <p>Areas where prevention interests have common goals can be found in such programs as:</p> <p>A. Cooperative Forest Fire Prevention— Smokey Bear Materials And Prevention Messages.</p> <p>B. Public/Private Organizations.</p> <p>C. Public Information Programming During Periods Of High Fire Danger And/Or Risk.</p> <p>D. Any Media Output Has Common Ground For Agencies To Inform The Public.</p>	<p>1C-14-P101-EP</p>



OUTLINE	AIDS & CUES
<p>E. Once organized, and after having identified key wildfire or structural fire causes, projects can be undertaken to attack the problems.</p> <ol style="list-style-type: none"> <li>1. Newspaper inserts</li> <li>2. Stationary and logos, identification</li> <li>3. Wood stove safety, firewood cutting campaigns</li> <li>4. Brochures and publications</li> <li>5. Team teaching programs</li> <li>6. Displays and fair exhibits</li> <li>7. Posters</li> <li>8. Prevent-O-Grams, public service announcements</li> <li>9. Periodic prevention message themes</li> <li>10. Highway signing</li> <li>11. Hunter safety programs</li> <li>12. Fire awareness time campaigns</li> </ol>	<p>1C-17-P101-EP</p>

OUTLINE	AIDS & CUES
<p>F. The Accomplishments Of Working Together May Not Require A Formal Fire Prevention Cooperative.</p> <p>It does, however, require that someone is interested in fire prevention that can be effective.</p> <p>Tools and background are now available to implement a cooperative fire prevention program.</p> <p><b>INSTRUCTOR NOTE: CONDUCT A STUDENT EXERCISE TO PROVIDE TEAM BUILDING AND COOPERATION. BREAK STUDENTS INTO TEAMS (ENSURE STUDENTS ARE FROM VARIOUS AREAS AND AGENCIES) TO DEVELOP A CAMPAIGN THEME, SLOGAN, POSTER, OR SCRIPT. CONSIDER PROVIDING IDEAS BUT EMPHASIZE TO EACH TEAM TO BE CREATIVE.</b></p>	<p>1C-18-P101-EP</p>
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 2597 “ESTABLISHING FIRE PREVENTION EDUCATION COOPERATIVE PROGRAMS AND PARTNERSHIPS” OR DUPLICATE 1C-01-P101-HO.</b></p>	<p>1C-01-P101-HO</p>
<p>VII. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <p>Participate in interagency fire prevention activities, partnerships, cooperatives, and committees.</p>	<p>1C-19-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1D — National Emphasis Programs

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

1. Identify which year the fire season helped change the “fire world.”
2. List two keys to the success of the National Fire Plan.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	1D-01-P101-EP
A. Identify Which Year The Fire Season Helped Change The “Fire World.”	1D-02-P101-EP
B. List Two Keys To The Success Of The National Fire Plan.	
<p><b>INSTRUCTOR NOTE: RESEARCH CURRENT OR MOST RECENT FIGURES THROUGHOUT THIS LESSON. PROVIDE UPDATED INFORMATION.</b></p>	



OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>Fire prevention/mitigation and education have undergone major change and emphasis. With the implementation of the National Fire Plan, Healthy Forest Initiative (HFI), and the Healthy Forest Restoration Act (HFRA), the perceptions and activities that drive the way things have changed.</p> <p>INSTRUCTOR NOTE: THIS LESSON DELIVERS THE MOST RECENT PROGRAM (UPDATE) INFORMATION. THIS PROGRAM IS A “WORK IN PROGRESS” EFFORT AND THINGS CAN CHANGE RAPIDLY.</p> <p>It is the Fire Prevention Education/Mitigation Specialists responsibility to keep themselves current in the agency activities and policies.</p>	<p>1D-03-P101-EP</p> <p>1D-04-P101-EP</p>
<p>III. BACKGROUND</p> <p>A. The Year 2000 Changed The Wildland Fire World.</p> <p>Unhealthy ecosystems created unhealthy conditions and an extensive Wildland Urban Interface (WUI).</p> <p>B. The wildland fires in 2000 were a unique convergence of several factors that forever changed the wildland fire world.</p> <p>Over the past century we have become so effective at fire suppression that we essentially removed fire from the environment and created unhealthy ecosystems.</p>	<p>1D-05-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. While our success had a temporary positive effect of protecting lives and natural resources, the long-term cumulative effect left the landscape choked with hazardous fuels and primed for severe fire behavior.</p> <p>Those crowded, overgrown conditions also stressed the vegetation which, in turn, led to increased insect damage.</p>	1D-05-P101-EP
<p>D. In addition, the west in particular has seen a steady growth of population in wildland areas, creating an extensive wildland-urban interface.</p> <p>E. The convergence of weather, ignitions, unhealthy fuel conditions, stressed ecosystems, and expansive urban interface areas made 2000 a landmark year.</p> <p>More than 122,827 fires resulted in 8 million acres were scorched, 841 homes were burned, and community economies were hit hard.</p> <p>The fire conditions and fire problems on the land became the subject of a sharp focus for fire managers, elected officials, and the public as suppression costs exceeded \$1.3 billion dollars.</p>	1D-06-P101-EP

OUTLINE	AIDS & CUES
<p>F. By August of 2000, the events of the summer had galvanized broad and strong bipartisan support for a new federal land management objective:</p> <p>To reduce the risk and consequences of catastrophic wildfire on the landscape and to communities.</p>	1D-07-P101-EP
<p>G. A report to the President, dated September 8, 2000, outlined a number of initiatives and supporting budgets to achieve short-and long-term steps toward this new objective.</p> <p>This report was subsequently referred to as the “National Fire Plan.”</p>	1D-08-P101-EP
<p>H. On the heels of the report to the President, the Western Governor’s Association developed a collaborative 10-year strategy and implementation plan to create healthier landscapes and better protect communities.</p> <p>This strategy became the guidebook and the map for how agencies were to move forward.</p>	

OUTLINE	AIDS & CUES
<p>IV. NATIONAL FIRE PLAN KEYPOINTS</p> <p>Working together, the agencies began quickly taking steps to address the key points of the National Fire Plan. These points were further refined and identified as goals in the 10-Year Comprehensive Strategy and Implementation Plan. These goals were laid out to:</p> <ul style="list-style-type: none"> <li>A. Improve Fire Prevention And Suppression</li> <li>B. Reduce Hazardous Fuels</li> <li>C. Restore Fire-adapted Ecosystems</li> <li>D. Promote Community Assistance</li> </ul>	1D-09-P101-EP
<p>V. IT'S MAKING A DIFFERENCE</p> <p>In striving to achieve these goals, unprecedented levels of cooperation, collaboration, and consultation among federal agencies, states, tribal, and local interests have been seen.</p> <p>There has been strong, bipartisan support from Congress.</p> <p>As a result, numerous programs have been successfully implemented and have made a difference both on the landscape and in communities across the west and the nation.</p>	1D-10-P101-EP

OUTLINE	AIDS & CUES
VI. PROGRAMS AND OVERALL ACCOMPLISHMENTS	1D-11-P101-EP
Hazardous Fuel Reduction	1D-12-P101-EP
<p>A. At the inception of the National Fire Plan, there were 190 million acres of public land identified as needing some form of fuels treatment.</p>	
<p>Although all agencies had been treating hazardous fuels at a steady pace for a decade or more, the creation of the National Fire Plan and associated funding pushed these efforts into high gear.</p>	
<p>B. By the end of 2004, fuels management funding was 250 percent more than it was prior to the advent of the National Fire Plan.</p>	
<p>C. Through the combined agency efforts more than 13 million acres have been treated for hazardous fuels just since the creation of the National Fire Plan on September 8, 2000.</p>	1D-13-P101-EP
<p>These lands are now in a healthier condition and more resistant to severe fire activity.</p>	
<p>D. As we move forward, we are continuing to focus more of our fuels reduction efforts on Wildland Urban Interface (WUI) areas.</p>	1D-14-P101-EP
<p>In 2001, fewer than 1 million acres were treated inside WUI areas while roughly 1.5 million acres were treated outside these populated areas.</p>	
<p>In 2004, more than six million acres in the Wildland Urban Interface were treated.</p>	

OUTLINE	AIDS & CUES
<p>E. We have actively utilized a combination of prescribed fire and mechanical methods to thin and remove hazardous fuels.</p> <p>More than 50 percent of this work is contracted, which has the added benefit of assisting local economies while creating healthier, more fire-resistant landscapes.</p>	1D-15-P101-EP
<p>F. As we focus our efforts and funding more on high-priority urban interface areas, we may see the number of total acres treated decline. Those being treated, however, are critical to protecting communities and local economies.</p>	1D-16-P101-EP
<p>G. Although we are dealing with flat and declining budgets in most fire program areas, the treatment of hazardous fuels continues to be viewed as a high priority, and one of the few areas to see significant increases in proposed funding.</p>	
<p><b>INSTRUCTOR NOTE: RESEARCH CURRENT OR MOST RECENT BUDGET FIGURES FROM FEDERAL AND/OR STATE AGENCIES TO SHARE.</b></p>	

OUTLINE	AIDS & CUES
<p>VII. PRESIDENT’S HEALTHY FOREST INITIATIVE AND HEALTHY FOREST RESTORATION ACT</p> <p>A. The Healthy Forests Initiative in 2002, followed by the Healthy Forest Restoration Act in 2003, provided federal fire and land agencies new tools to facilitate fuels management work on the ground.</p> <p>B. Administrative reforms and legislative action associated with these two documents helped remove some challenges we’d faced in accomplishing work in the field.</p> <p>Where projects were once delayed by administrative actions and appeals, the HFI and HFRA reforms enhanced and sped up the approval process to remove hazardous fuels.</p> <p>C. These actions have helped us move forward more effectively and efficiently in getting projects on the ground and make strides toward healthier and more fire resistant landscapes.</p>	<p>1D-17-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VIII. STEWARDSHIP CONTRACTING AND BIOMASS UTILIZATION</p> <p>A. Another trend regarding hazardous fuels reduction that we've seen as an outgrowth of the National Fire Plan is a move toward more stewardship contracts and biomass utilization.</p> <p>These contracts allow private companies, communities, and others to retain forest and rangeland products in exchange for the service of thinning trees and brush and removing dead wood.</p> <p>B. Long-term contracts foster a public/private partnership to restore forest and rangeland health by giving those who undertake the contract the ability to invest in equipment and infrastructure.</p> <p>This equipment and infrastructure are needed to productively use material generated from forest thinning, such as brush and other woody biomass, to make wood products or to produce biomass energy, all at a savings to taxpayers.</p>	1D-18-P101-EP
<p>C. These Contracts Allow Us To Achieve Several Goals.</p> <p>They facilitate the removal of hazardous fuels, create new products, and contribute to local economies, maintain healthy landscapes, and save tax dollars. This is a win-win situation for all.</p>	1D-19-P101-EP



OUTLINE	AIDS & CUES
<p>IX. COMMUNITY ASSISTANCE</p> <p>A. One of the primary goals of the National Fire Plan and the 10-Year Implementation Strategy is to better protect communities and local economies from the impacts of wildfire.</p> <p>In 2001, more than 11,000 communities were considered at risk from fire. Addressing these community issues was a daunting task.</p>	<p>1D-20-P101-EP</p>
<p>B. Perhaps one of the most significant impacts of the National Fire Plan has been to create new partnerships and new avenues of collaboration, cooperation, and consultation.</p> <p>C. The net effect is that we are all working together, the federal agencies, states, counties, and local entities, and individual citizens in ways we've never seen before.</p>	<p>1D-21-P101-EP</p>
<p>D. Agencies began collaborating with communities immediately to produce Community Wildfire Protection Plans (CWPP). These plans were, and continue to be, developed in a cooperative manner with local governments, fire chiefs, neighborhood groups, and individual citizens.</p>	<p>1D-22-P101-EP</p>

OUTLINE	AIDS & CUES
<p>E. These community plans serve several purposes. First and foremost, they bring all interested parties together at the table to identify fire threats and mitigation projects.</p> <p>Having communities take the lead in developing these plans creates local ownership and commitment, as well as strengthens the partnership among all parties.</p> <p>Through federal funding for these efforts and contracting locally for services, local economies see a range of benefits.</p>	
<p>F. Agencies have worked with local entities and contractors to produce an average of 3,000 local fire mitigation plans per year since 2001.</p> <p>Approximately 150,000 citizens have participated in this effort. As these plans are completed, efforts transition into accomplishing identified projects on the ground.</p>	1D-23-P101-EP
<p>X. FIREWISE COMMUNITIES PROGRAM</p> <p>A. The FIREWISE Communities Program, funded by the National Fire Protection Association, the Departments of Agriculture and the Interior, and many state and nonprofit partners, is a highly successful part of community fire hazard mitigation efforts.</p> <p>B. This program encourages communities and homeowners to take responsibility for hazard mitigation through land use planning, building codes, landscaping codes, zoning, and fire protection.</p>	1D-24-P101-EP

OUTLINE	AIDS & CUES
<p>C. More Than 30 National-level Firewise Workshops Have Been Held.</p> <ol style="list-style-type: none"> <li>1. These have attracted more than 3,500 people from 2,000 communities and 48 states.</li> <li>2. As a spin-off from the national-level workshops, approximately 500 state and local one-day workshops were conducted across the country, reaching 5,000 community leaders in more than 1,000 communities.</li> </ol>	1D-25-P101-EP
<p>D. Through programs such as FIREWISE and the community assistance program, we are making a difference. Tremendous levels of cooperation and partnerships are making a difference in creating more fire-resistant communities.</p>	1D-26-P101-EP
<p>XI. STATE FIRE ASSISTANCE PROGRAM</p> <p>A. This USDA Forest Service program differs from the DOI community assistance program in its implementation, but the intent, goals, and achievements are the same; namely, to assist communities in being better educated about wildfire threats and aiding them in mitigating their exposure to those threats.</p>	1D-27-P101-EP

OUTLINE	AIDS & CUES
<p>B. Funding for these efforts is provided to the states which, in turn, provide it to community-level efforts.</p> <p>C. This program has provided the means to achieve thousands of education campaigns, create thousands of local fire management plans, and conduct projects. In one recent year alone, this program funded 4,500 mitigation projects that reduced hazardous fuels on 135,000 acres of non-federal lands.</p>	<p>1D-28-P101-EP</p>
<p>XII. RURAL FIRE ASSISTANCE</p> <p>A. The Department of the Interior’s Rural Fire Assistance Program (RFA) has been a tremendous success not only in terms of creating strong partnerships, but in better preparing and equipping small fire departments to deal with wildland fire.</p> <p>Starting in 2001 and by the end of 2004, the DOI alone provided more than \$10 million to rural and community fire departments to enhance wildland fire training, prevention programs, equipment, and their overall capabilities and effectiveness in reducing wildfire losses to communities and resources.</p>	<p>1D-29-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. The RFA Program was designed specifically for departments serving a small population base of no more than 10,000, and having some wildland areas within their response area. Each department was eligible for up to \$20,000 per year for training, fire prevention, and equipment.</p> <p>The RFA program also provided an avenue for small, often under-funded fire departments to acquire surplus wildland fire engines, foam units, and more. This type of equipment has enhanced these departments' capabilities in protecting communities from wildland fire.</p>	1D-30-P101-EP
<p>C. DOI is working with FEMA to facilitate Increased grant funding opportunities for rural fire departments through the assistance to firefighters (AFF) grant program.</p> <p>DOI also is hosting grant writing workshops to assist rural fire departments in enhancing their competitiveness for these and other government, private, and foundation grants.</p>	1D-31-P101-EP
<p>XIII. VOLUNTEER FIRE ASSISTANCE PROGRAM</p> <p>The USDA Forest Service Volunteer Fire Assistance Program is similar to DOI's RFA program in that it is aimed at providing training and equipment to small volunteer fire departments serving a small population base, but having wildlands within their jurisdiction.</p>	1D-32-P101-EP



OUTLINE	AIDS & CUES
<p>XV. NATIONAL FIRE PLAN AND THE FUTURE</p> <p>A. Perhaps one of the greatest things to come from the National Fire Plan over the past few years has been the unprecedented collaboration, cooperation, and partnerships.</p> <p>From a single citizen in a Colorado neighborhood, to a county commission in Arizona, to a volunteer fire department in Oregon, and to the top managers of national fire programs, all are focused on finding solutions together.</p> <p>B. One thing is certain, the 2000 fire season and the creation of the National Fire Plan has forever changed the way business is done.</p> <p>It has changed the way both resources and fires are managed.</p> <p>It has changed the way agencies view and respond to wildfire.</p> <p>It has given a broader perspective and made better and more forward thinking ways to accomplish work.</p> <p>It has set a path to achieve healthier land and safer communities.</p>	<p>1D-35-P101-EP</p> <p>1D-36-P101-EP</p>

OUTLINE	AIDS & CUES
<p>XVI. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"><li>A. Identify Which Year The Fire Season Helped Change The “Fire World.”</li><li>B. List Two Keys To The Success Of The National Fire Plan.</li></ul>	1D-37-P101-EP



COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1E — Fire Prevention/Mitigation Planning

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Describe basic fire prevention/mitigation planning, planning elements, and standards.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	1E-01-P101-EP
Describe basic fire prevention/mitigation planning, planning elements, and standards.	1E-02-P101-EP
II. INTRODUCTION	1E-03-P101-EP
A. The goal of fire prevention/mitigation planning is to develop and implement programs that maintain a high level of efficiency in both time and cost effectiveness.	
B. A plan represents current trends and management decisions based upon ecosystem management direction.	1E-04-P101-EP

OUTLINE	AIDS & CUES
<p>C. Activities In Fire Prevention And Mitigation Must Be:</p> <ol style="list-style-type: none"> <li>1. Simple and practical in order to plan, educate, and inform all people using the wildlands, as well as people who live adjacent to wildland, urban, and rural areas.</li> <li>2. Effort must be focused on those causes which start the greatest number of unwanted human-caused fires and which indicate increasing trends.</li> </ol>	<p>1E-05-P101-EP</p> <p>1E-06-P101-EP</p>
<p>III. FIRE PREVENTION/MITIGATION RECOMMENDED PLANNING MINIMUM CRITERIA</p>	<p>1E-07-P101-EP</p>
<p>This is the planning criteria that should provide policy, direction, and establish implementation/program standards. The following areas should be addressed:</p> <p>A. Wildfire Prevention/Mitigation Plan Recommended Planning Guidelines</p> <ol style="list-style-type: none"> <li>1. Purpose</li> <li>2. Introduction</li> <li>3. Objectives <ol style="list-style-type: none"> <li>a. What is trying to be accomplished?</li> <li>b. Review existing documents: National Fire Plan, National Fire Policy, Land Management Plan, etc.</li> </ol> </li> </ol>	<p>1E-08-P101-EP</p>

OUTLINE	AIDS & CUES
<p>4. Fire Prevention Problems</p> <p>Identify and explain the area problems, examples could be, arson, equipment, etc.</p>	
<p>5. Description</p> <p>The area the plan covers, district, forest, unit, state, etc.</p>	
<p>6. Large fire potential</p>	
<p>7. Fire occurrence analysis</p> <p>Establish the evaluation period, 10 years, 20 years</p>	
<p>8. Fire prevention treatments</p> <ul style="list-style-type: none"> <li>a. Education</li> <li>b. Engineering</li> <li>c. Enforcement</li> <li>d. Administration</li> <li>e. Cooperatives</li> </ul>	<p>1E-09-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Fire Prevention/Mitigation Planning</p> <p>1. Recommended Planning Elements</p> <p>a. Planning area designation is the area the plan will cover.</p> <p>b. Identify and describe fire management units or other land based unit.</p> <p>c. Code and describe fire prevention compartments, this could be fire planning units or fire management units or some other breakdown.</p> <p>2. Specific planning evaluations</p> <p>a. Identify the communities at risk.</p> <p>b. Describe vulnerability (fire behavior characteristics) factors for the planning unit.</p> <p>c. Describe planned initial attack arrival times for the planning unit to determine protection capability.</p> <p>d. Develop fire prevention objectives for the planning unit.</p> <p>e. Describe vulnerability (fire behavior) factors by fire prevention compartment.</p>	<p>1E-10-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>f. Perform a fire prevention plan/ mitigation risk analysis.</li> <li>g. Describe the fire history.</li> <li>h. Determine catastrophic fire potential.</li> <li>i. Determine values at risk.</li> <li>j. Develop community at risk planning criteria.</li> </ul>	1E-11-P101-EP
<p>C. Considerations In The Development Of The Fire Prevention Plan</p> <ul style="list-style-type: none"> <li>1. Develop fire prevention program options.</li> <li>2. Develop fire prevention general actions. <ul style="list-style-type: none"> <li>a. Actions that affect the entire planning unit (news releases, school programs).</li> <li>b. Actions in multiple units.</li> </ul> </li> <li>3. Develop fire prevention specific actions. <p>Actions that affect the part of the planning unit, like a compartment (signs, patrol).</p> </li> </ul>	1E-12-P101-EP

OUTLINE	AIDS & CUES
<p>4. Describe non-personnel expenses.</p> <p>Those items required to manage a program like materials, vehicle, etc.</p> <p>5. Describe fire prevention program responsibilities.</p> <p>Who is going to do what and when?</p> <p>D. Fire Prevention/Mitigation Criteria “The National Fire Plan”</p> <p>1. Communities at Risk (CAR) - AGENCY.</p> <p>2. Communities at Risk – Vicinity “The National Register.”</p> <p>Are you stepping out of your boundaries to do work because you will be affected by them?</p> <p>3. Community at risk assessment standards.</p> <p>Community Wildfire Protection standards or other local applications exist.</p> <p>4. Community at risk – educational component.</p> <p>Is there an educational component in place?</p>	<p>1E-13-P101-EP</p>

OUTLINE	AIDS & CUES
<p>E. Fire Prevention/Mitigation Communication Strategy, “The Road Map”</p> <p>Develop standardized applications to communicate the program to cooperators and affected people.</p>	1E-14-P101-EP
<p>F. Fire Prevention/Mitigation Measures</p> <p>1. Public Education</p> <p>a. Public education activities</p> <p>b. Fire prevention media</p> <p>c. Bilingual fire prevention programs</p> <p>d. Fire prevention youth programs, youth camps, organized groups, schools</p> <p>e. Burning Issues</p> <p>f. Fire prevention adult programs</p> <p>g. Arson awareness</p> <p>h. Event management</p> <p>Provide adequate assessment for the target audience.</p> <p>i. The Wildland Urban Interface</p>	<p>1E-15-P101-EP</p> <p>1E-16-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>2. Community outreach <ul style="list-style-type: none"> <li>Fairs, exhibits, etc.</li> </ul> </li> <li>3. Community involvement <ul style="list-style-type: none"> <li>a. The Fire Safe Community Awareness Program</li> <li>b. FIREWISE Action Programs</li> <li>c. Firewise Community Awareness</li> <li>d. “Wildfire: Preventing Home Ignitions” - Video</li> <li>e. Fire Safe Councils</li> </ul> </li> </ul>	1E-17-P101-EP
<ul style="list-style-type: none"> <li>G. Fire Prevention/Mitigation Engineering <ul style="list-style-type: none"> <li>1. Wildland urban interface/community at risk fuels assessment evaluation.</li> <li>2. Wildland urban interface/community at risk fuels minimum planning.</li> </ul> </li> </ul>	1E-18-P101-EP
<ul style="list-style-type: none"> <li>3. Recreation Areas - How safe are they from a fire standpoint? <ul style="list-style-type: none"> <li>a. Recreation area fire protection considerations.</li> <li>b. Recreation area fire prevention activities.</li> <li>c. Recreation area site evaluation.</li> </ul> </li> </ul>	1E-19-P101-EP



OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>4. Conducting recreation area fire safe evaluations.</li> <li>Recommended recreation site fire prevention/mitigation evaluation standards.</li> <li>5. Agency requirements.</li> </ul>	
<ul style="list-style-type: none"> <li>H. Fire Prevention/Mitigation Enforcement <ul style="list-style-type: none"> <li>1. Restricted public use - fire restrictions <ul style="list-style-type: none"> <li>Fire prevention permit requirements, burning/campfire/blasting</li> </ul> </li> <li>2. Fire prevention/mitigation code enforcement <ul style="list-style-type: none"> <li>Enforcement of State Laws and Code of Federal Regulations (CFRs)</li> </ul> </li> <li>3. Fire investigation standards</li> <li>4. Fire inspections <ul style="list-style-type: none"> <li>Fire prevention minimum inspection elements</li> </ul> </li> </ul> </li> </ul>	1E-20-P101-EP
<ul style="list-style-type: none"> <li>5. Fire prevention patrol <ul style="list-style-type: none"> <li>Fire prevention patrol requirements</li> </ul> </li> </ul>	1E-21-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>6. Developing a patrol plan <ul style="list-style-type: none"> <li>a. Tools required</li> <li>b. Qualifications of personnel</li> <li>c. Types of patrol</li> <li>d. Patrol activities</li> <li>e. Enforcement</li> <li>f. Safety</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>I. Fire Prevention/Mitigation Administration And Management Functions <ul style="list-style-type: none"> <li>1. Staffing/budget procedures</li> <li>2. Existing fire prevention staffing</li> <li>3. Preparedness criteria</li> <li>4. Training/certification/skill development</li> <li>5. Fire prevention/mitigation unit job standards</li> </ul> </li> </ul>	<p>1E-22-P101-EP</p>

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: DEMONSTRATE AN EXAMPLE OF A COMPLETED OPERATIONAL FIRE PREVENTION PLAN.</b></p>	
<p>IV. DEVELOPING A COMMUNITY WILDFIRE PROTECTION PLAN (CWPP)</p> <p>A. The process for developing a Community Wildfire Protection Plan can help a community clarify and refine its priorities for the protection of life, property, and critical infrastructure in the Wildland Urban Interface.</p> <p>It also can lead community members through valuable discussions regarding management options and implications for the surrounding watershed.</p> <p>B. The role of the Community Wildfire Protection Plan is to provide communities a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal land and how additional federal funds may be distributed for projects on non-federal land.</p>	<p>1E-23-P101-EP</p>
<p>C. Developing Of The Community Wildfire Protection Plan (CWPP).</p> <p>1. Address wildfire in the Wildland Urban Interface (WUI) challenges.</p> <p>2. Develops thorough, locally supported solutions.</p> <p>3. Provides needed leadership and teamwork.</p>	<p>1E-24-P101-EP</p>

OUTLINE	AIDS & CUES
D. Background, The CWPP Will:	1E-25-P101-EP
1. Speed up the development and implementation of hazardous fuels projects.	
2. Expedite environmental review authorities in the WUI.	
3. Allow Agencies/Communities to collaborate on:	1E-26-P101-EP
a. Hazardous fuel reduction (HFR).	
b. Priority is placed on projects identified in the CWPP.	
c. The CWPP gives communities a chance to influence how agencies implement fuels projects.	
4. CWPP Key Points	1E-27-P101-EP
a. Development of the CWPP is by local government with help from federal/state agencies.	
b. CWPP plans can be simple or complex.	
c. CWPP plans should include:	1E-28-P101-EP
(1) Forest/range conditions	
(2) Values-at-risk	
(3) Priorities for action	



OUTLINE	AIDS & CUES
<p>3. CWPPs help prioritize projects as envisioned in the National Fire Plan and the 10-year Comprehensive Strategy</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE OR PROVIDE AN EXAMPLE OF A COMPLETED COMMUNITY WILDFIRE PROTECTION PLAN.</b></p>	<p>1E-33-P101-EP</p>
<p>V. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <p>Describe basic fire prevention/mitigation planning, planning elements, and standards.</p>	<p>1E-34-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1F — Fire Prevention Education Teams

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Explain the roles, mobilization, and utilization of Fire Prevention Education Teams (FPET).

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	1F-01-P101-EP
Explain the roles, mobilization, and utilization of Fire Prevention Education Teams (FPET).	1F-02-P101-EP
II. INTRODUCTION	1F-03-P101-EP
Change is always constant. Just the fact that there are more people in the world each day means the potential for careless accidental wildfires increases.	1F-04-P101-EP
When you combine this fact with the number of communities popping up near the wildlands, the only thing that will reduce loss are those actions taken before the fire burns.	
Use of Fire Prevention Education Teams offers a new aspect to the wildfire scenario.	

OUTLINE	AIDS & CUES
<p>III. THE HISTORY OF FIRE PREVENTION EDUCATION TEAMS</p>	<p>1F-05-P101-EP</p>
<p>The Story</p>	<p>1F-06-P101-EP</p>
<p>A. Started In The Fire Season Of 1996, In The Southwestern Geographic Area of The United States.</p>	
<p>B. Department Of The Interior Sent A Diagnostic Team To Determine If A Team Approach Could Be Successful.</p>	
<p>C. National Park Service Funded The First Activity.</p>	
<p>D. Teams Were Activated Throughout The Southwestern Geographical Area.</p>	<p>1F-07-P101-EP</p>
<p>E. End Of Season Evaluation Panel Determined The Program Was A Success.</p>	
<p>F. A Plan Was Developed To Implement A National Program.</p>	
<p>G. In 1997, Training Programs Began For Both Team Leaders And Team Members.</p>	<p>1F-08-P101-EP</p>
<p>H. In 2002, NWCG Approved A Multi-Year Implementation Plan.</p>	
<p>I. Wildland Fire Education Working Team Provides Oversight.</p>	



OUTLINE	AIDS & CUES
<p>J. NWCG Training Courses Have Been Developed.</p> <ol style="list-style-type: none"> <li>1. P-310 Fire Prevention Education Team Member</li> <li>2. P-410 Fire Prevention Education Team Leader</li> </ol>	1F-09-P101-EP
<p>IV. UTILIZATION</p>	1F-10-P101-EP
<p>Historical use patterns</p>	1F-11-P101-EP
<p>A. Activation Expectation- Annually, An Average Of 22 Teams Are Deployed</p>	
<p>B. Activation Period Historically - April/ November, Until Recently</p>	
<p>C. Usually 70 Percent Of Teams Are Activated Between July/August</p>	
<p>D. Agency Activation</p>	
<p>Historically, 76 percent, activation to forest service. The others include: BLM, BIA, states, and FEMA</p>	
<p>E. The Core Team = Three, Most Of The Teams Are Made Up Of Four To Five People</p>	

OUTLINE	AIDS & CUES
<p>V. AVAILABLE RESOURCES</p> <p>Personnel available</p> <p>A. Training Completed =100 + Team Leaders</p> <p>B. Training Completed = 420 + Team Members And Public Affairs</p> <p>C. PIO 1 And 2</p> <p>D. Regional Fire Prevention Area Coordinators, Provides Geographic Program Support</p> <p>E. National Fire Prevention Branch Director, Provides National Program Support</p>	<p>1F-12-P101-EP</p> <p>1F-13-P101-EP</p>
<p>VI. FIRE PREVENTION EDUCATION TEAM STANDARDS</p> <p>Program standards:</p> <p>A. Position Code - PETL - Fire Prevention Education Team Leader</p> <p>B. Position Code - PETM - Fire Prevention Education Team Member</p> <p>C. Position Code - PREV - Fire Prevention Technician</p> <p>D. The Wildland Fire Qualification System Guide, 310-1, P-310 Is Recommended</p> <p>E. Forest Service Handbook, 5109.17 P-310 Is Required</p>	<p>1F-14-P101-EP</p> <p>1F-15-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VII. WHEN SHOULD FIRE PREVENTION EDUCATION TEAMS BE USED?</p> <p>The following are some examples why FPETs are activated:</p> <ul style="list-style-type: none"> <li>A. Severity Conditions</li> <li>B. Catastrophic Fire Events</li> <li>C. Multiple Fire Occurrence</li> <li>D. Increased Risk Management</li> <li>E. Severe Conditions - Natural Disasters</li> </ul>	<p>1F-16-P101-EP</p> <p>1F-17-P101-EP</p> <p>1F-18-P101-EP</p> <p>1F-19-P101-EP</p> <p>1F-20-P101-EP</p> <p>1F-21-P101-EP</p>
<p>VIII. WHAT ARE TEAMS EXPECTED TO DO?</p> <p>The following are elements that FPETs might be called on to do:</p> <ul style="list-style-type: none"> <li>A. Public Education</li> <li>B. Community Protection Planning</li> <li>C. Campaign Development</li> <li>D. Mass Media</li> <li>E. Public Awareness</li> <li>F. Establishing Cooperatives And Partnerships</li> </ul>	<p>1F-22-P101-EP</p> <p>1F-23-P101-EP</p> <p>1F-24-P101-EP</p> <p>1F-25-P101-EP</p> <p>1F-26-P101-EP</p> <p>1F-27-P101-EP</p> <p>1F-28-P101-EP</p>

OUTLINE	AIDS & CUES
IX. FIRE PREVENTION EDUCATION TEAM CONFIGURATION	1F-29-P101-EP
<p>A. The minimum mobilization will be one Team Leader and two team members, consisting of the following positions:</p> <ol style="list-style-type: none"> <li>1. PETL - Fire Prevention Education Team Leader</li> <li>2. PETM - Fire Prevention Education Team Member</li> <li>3. One of the following: PIO - Public Information Officer Type 1 or 2, or THSP - Public Affairs (agency employee only)</li> </ol>	1F-30-P101-EP
<p>B. Additional Positions That Can Be Utilized Include:</p> <ol style="list-style-type: none"> <li>1. PETL (T) - Fire Prevention Education Team Leader Trainee</li> <li>2. PREV - Fire Prevention Technician</li> </ol>	1F-31-P101-EP
<p>C. Actual team composition will be determined by the Team Leader and the ordering unit on a case-by-case basis, to be determined by the needs of the assignment.</p>	1F-32-P101-EP
<p><b>INSTRUCTOR NOTE: RESEARCH THE MOST RECENT NATIONAL MOBILIZATION GUIDE TO DETERMINE IF CHANGES TO THE MOBILIZATION SYSTEM HAS TAKEN PLACE. UPDATE AS NECESSARY.</b></p>	

OUTLINE	AIDS & CUES
<p>X. FIRE PREVENTION EDUCATION TEAM ROTATION PROCESS</p>	<p>1F-33-P101-EP</p>
<p>A. Mobilization Standards:</p>	
<p>1. Fire Prevention Education Teams will be on a maximum 14-day rotation.</p>	<p>1F-34-P101-EP</p>
<p>2. Fire Prevention Education Teams have a 72-hour call status and will remain in the call status for the duration of the 14 days.</p>	
<p>3. Geographic Areas with more than one Fire Prevention Education Team may decide which team responds to the National call.</p>	
<p>4. Geographic Areas should commit all internal teams before placing requests to NICC.</p>	
<p>5. If NICC receives a request, the first available team in the scheduled rotation will be ordered.</p>	<p>1F-35-P101-EP</p>
<p>6. The rotation will change on alternate Tuesdays, at 2400 Mountain time.</p>	

OUTLINE	AIDS & CUES
<p>XI. MOBILIZING FIRE PREVENTION TEAM RESOURCES</p> <p>A. Mobilization Guidelines - Participating Geographic Areas In Mobilization Order:</p> <ol style="list-style-type: none"> <li>1. Northern Rockies</li> <li>2. Rocky Mountain</li> <li>3. Southwest</li> <li>4. Eastern Great Basin</li> <li>5. Pacific Southwest</li> <li>6. Northwest</li> <li>7. Southern</li> <li>8. Eastern</li> </ol> <p>B. Fire Prevention Education Teams Will Be Released Through Established Ordering Channels.</p>	<p>1F-36-P101-EP</p> <p>1F-37-P101-EP</p>

OUTLINE	AIDS & CUES
<p>XII. FIRE PREVENTION EDUCATION TEAM “AN OUNCE OF PREVENTION”</p>	<p>1F-38-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DEMONSTRATE THE VISUAL PRESENTATION ON COURSE DVD 1, MOVIE 2.</b></p>	<p>1F-01-P101-DVD</p>
<p><b>INSTRUCTOR NOTE: DISTRIBUTE TO EACH STUDENT THE “PARTICIPATING ON WILDLAND FIRE PREVENTION EDUCATION TEAMS GUIDE,” NFES 2750.</b></p>	<p>1F-01-P101-HO</p>
<p>XIII. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <p>Explain the roles, mobilization, and utilization of Fire Prevention Education Teams (FPET).</p>	<p>1F-39-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 1 — Wildland Fire Prevention Administration

LESSON: 1G— Fire Danger Rating and Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. List three elements used to determine fire danger rating
2. List the five “standard” fire danger rating levels

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	1G-01-P101-EP
A. List Three Elements Used To Determine Fire Danger Rating.	1G-02-P101-EP
B. List The Five “Standard” Fire Danger Rating Levels.	
<b>INSTRUCTOR NOTE: AN INSTRUCTOR EXPERIENCED IN FIRE BEHAVIOR AND THE NATIONAL FIRE DANGER RATING SYSTEM SHOULD PRESENT THIS LESSON.</b>	



OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>Fire Prevention/Mitigation Specialists should constantly be aware of fire weather conditions and forecasts. The fire danger affects most of what these specialists do on a day to day basis.</p> <p>This lesson is intended to present an overview of fire danger ratings and the National Fire Danger Rating System. It is not intended to be a lesson in fire behavior.</p> <p><b>INSTRUCTOR NOTE: AN INSTRUCTOR MAY WANT TO USE CURRENT/LOCAL MAPS AND CHARTS FOR NFDRS COMPONENTS.</b></p>	<p>1G-03-P101-EP</p> <p>1G-04-P101-EP</p>
<p>III. THE NATIONAL FIRE DANGER RATING SYSTEM</p> <p>The National Fire Danger Rating System (NFDRS) is used to determine fire danger in the area.</p> <p>Based on the fire danger, managers may impose restrictions or closures to public lands and in some states private land.</p> <p>Plan for or preposition staff and equipment to fight new fires and to make decisions whether to suppress or allow fires to burn under prescribed conditions.</p>	<p>1G-05-P101-EP</p>

OUTLINE	AIDS & CUES
IV. THE IMPORTANCE OF FIRE BEHAVIOR TO FIRE PREVENTION	1G-06-P101-EP
A. The importance of the basic aspects of fire behavior, ease of ignition, rate of spread, and the rate of combustion cannot be over emphasized since they dictate what is needed to control a wildfire.	1G-07-P101-EP
B. Any System Or Scheme That Attempts To Rate Fire Danger Should Provide Predictions Of These Variables.	
C. Fire Behavior Components Are Principle Keys To Fire Danger Rating.	1G-08-P101-EP
D. It Sets The Numbers That Managers Can Use For Limiting Use, Setting Restrictions, And For Fire Planning.	
V. UNDERSTANDING FIRE DANGER	1G-09-P101-EP
Fire danger is a description of the combination of both constant and variable factors that affect the initiation, spread, and difficulty to control wildfire in an area.	
Since 1974, five adjective fire danger ratings have been used to describe danger levels in public information releases and fire prevention signing.	1G-10-P101-EP
Several areas have added an administrative element. This is not the normal and is used here as information only. They are:	

OUTLINE	AIDS & CUES
<p>A. Low (Green)</p> <p>Fire starts are unlikely. Weather and fuel conditions will lead to slow fire spread, low intensity and relatively easy control with light mop-up. Controlled burns can usually be executed with reasonable safety.</p>	1G-11-P101-EP
<p>B. Moderate (Blue)</p> <p>Some wildfires may be expected. Expect moderate flame length and rate of spread. Control is usually not difficult and light to moderate mop-up can be expected.</p>	1G-12-P101-EP
<p>C. High (Yellow)</p> <p>Wildfires are likely. Fires in heavy, continuous fuel will be difficult to control under windy conditions. Control through direct attack may be difficult but possible, and mop-up will be required.</p>	1G-13-P101-EP
<p>D. Very High (Orange)</p> <p>Fires start easily and may spread faster than suppression resources can travel. Flame lengths will be long with high intensity, making control very difficult. Suppression and mop-up will require an extended and very thorough effort.</p>	1G-14-P101-EP
<p>E. Extreme (Red)</p> <p>Fires will start and spread rapidly. Every fire start has the potential to become large. Expect extreme, erratic fire behavior.</p>	1G-15-P101-EP

OUTLINE	AIDS & CUES
<p>F. Critical (Black)</p> <p>Information only. This element is being used in several areas as a management and public relations tool. When conditions are critical, (major fires, extreme weather forecasts, resource drawdown, natural disasters, etc.) this level is used.</p>	1G-16-P101-EP
<p>VI. FUNDAMENTALS OF FIRE DANGER</p> <p>A. Fuel Moisture</p> <p>Fuel moistures are measured for live herbaceous (annual and perennial) and woody (shrubs, branches, and foliage) fuels and dry (dead) fuels.</p> <ol style="list-style-type: none"> <li>1. These are calculated values representing approximate moisture content of the fuel.</li> <li>2. Fuel moisture in live fuels varies through the growing season.</li> <li>3. There are 20 different fuel models used.</li> <li>4. Dead fuel moisture is the moisture content of dead organic fuels, expressed as a percentage of the oven dry weight of a sample.</li> <li>5. Dead fuel moisture is controlled solely by exposure to environmental conditions and is critical in determining fire potential.</li> </ol>	1G-17-P101-EP

OUTLINE	AIDS & CUES
<p>6. Dead fuel moistures are classed by time lag. A fuel's time lag is the time necessary for a fuel particle of a particular size to reach 63 percent of equilibrium between its initial moisture content and its current environment.</p> <p>B. Live Fuel Moisture</p> <p>Live fuel moisture is the water content of live herbaceous plants expressed as a percentage of the oven-dry weight of the plant.</p> <p>Typical herbaceous fuel moisture values start low and increase rapidly as the growing season progresses.</p> <p>Lower values indicate drier materials and higher fire danger.</p>	<p>1G-18-P101-EP</p>
<p>C. Dead Fuels In NFDRS Have Four Time Lag Classes:</p> <ol style="list-style-type: none"> <li>1. 1-hr: Fine flashy fuels, less than 1/4" diameter. Also includes the uppermost layer of litter on the forest floor. Responds quickly to weather changes. It varies greatly throughout the day.</li> <li>2. 10-hr: Round wood 1/4" to 1" diameters and the layer of litter that extends to 4" below the surface.</li> <li>3. 100-hr: 1 to 3" diameter.</li> <li>4. 1,000-hr: 3 to 6 " diameter.</li> </ol>	<p>1G-19-P101-EP</p> <p>1G-20-P101-EP</p>

OUTLINE	AIDS & CUES
<p>D. Relative Humidity</p> <ol style="list-style-type: none"> <li>1. Relative humidity (RH) is the ratio of the amount of moisture in the air to the amount of moisture necessary to saturate the air at the same temperature and pressure.</li> </ol> <p>Relative humidity is expressed in percent.</p> <ol style="list-style-type: none"> <li>2. Relative humidity is important because dead forest fuels and the air are always exchanging moisture.</li> </ol> <p>Low humidity takes moisture from the fuels; fuels in turn, take moisture from the air when the humidity is high. Light fuels, such as grass and pine needles, gain and lose moisture quickly with changes in relative humidity.</p>	<p>1G-21-P130-EP</p>
<p>VII. DROUGHT INDICATOR SYSTEMS</p> <p>Several drought indicator systems are in use.</p> <p>The Keetch- Byram Drought Index (KBDI).</p> <p>INSTRUCTOR NOTE: CONSIDER A DEMONSTRATION OF EXISTING MAPPING SYSTEMS AVAILABLE ON THE INTERNET. SOURCES COULD INCLUDE NIFC PREDICTIVE SERVICE AND THE NATIONAL WEATHER SERVICE.</p>	<p>1G-22-P101-EP</p>

OUTLINE	AIDS & CUES
<p>A. This Can Be Used To Measure The Affects Of Seasonal Drought On Fire Potential.</p> <p>The actual numeric value of the index is an estimate of the amount of precipitation (in 100ths of inches) needed to bring soil back to saturation (a value of 0 being saturated).</p> <p>B. The index deals with the top 8 inches of soil profile so the maximum KBDI value is 800 (8 inches), the amount of precipitation needed to bring the soil back to saturation.</p> <p>C. The index's relationship to fire is that as the index values increase, the vegetation is subjected to greater stress because of moisture deficiency.</p> <p>D. KBDI = 0–200</p> <p>Soil moisture and large class fuel moistures are high and do not contribute much to fire intensity. This is typical of spring dormant season following winter precipitation.</p> <p>E. KBDI = 200–400</p> <p>Typical of late spring, early growing season. Lower litter and duff layers are drying and beginning to contribute to fire intensity.</p>	<p>1G-23-P101-EP</p>

OUTLINE	AIDS & CUES
<p>F. KBDI = 400–600</p> <p>Typical of late summer, early fall. Lower litter and duff layers actively contribute to fire intensity and will burn actively.</p> <p>G. KBDI = 600–800</p> <p>Often associated with more severe drought with increased wildfire occurrence. Intense, deep burning fires with significant downwind spotting can be expected. Live fuels can also be expected to burn actively at these levels.</p>	
<p>VIII. LOWER ATMOSPHERE STABILITY INDEX</p> <p>The Lower Atmosphere Stability Index, or Haines Index, is computed from the morning (12 Zulu) soundings from Radiosonde Observation (RAOB) stations across North America.</p> <p>A. The index is composed of a stability term and a moisture term. The stability term is derived from the temperature difference at two atmosphere levels.</p> <p>B. The Moisture Term Is Derived From The Dew Point Depression At A Single Atmosphere Level.</p> <p>This index has been shown to correlate with large fire growth on initiating and existing fires where surface winds do not dominate fire behavior.</p>	<p>1G-24-P101-EP</p>



OUTLINE	AIDS & CUES
<p>C. Haines Indexes Range From 2 To 6 For Indicating The Potential For Large Fire Growth:</p> <ol style="list-style-type: none"> <li>1. 2 Very Low Potential (Moist Stable Lower Atmosphere)</li> <li>2. 3 Very Low Potential</li> <li>3. 4 Low Potential</li> <li>4. 5 Moderate Potential</li> <li>5. 6 High Potential (Dry Unstable Lower Atmosphere)</li> </ol>	
<p>IX. ENERGY RELEASE COMPONENT</p> <p>A. The energy release component (ERC) is based on the estimated potential available energy released per unit area in the flaming front of a fire.</p> <p>B. The day-to-day variations of the ERC are caused by changes in the moisture contents of the various fuel classes, including the 1,000-hour time-lag class.</p> <p>C. The ERC is defined as the potential available energy per square foot of flaming front of the fire and is expressed in British Thermal Units (BTU) per square foot.</p> <p>Like the spread component, the ERC is calculated using tables unique to each fuel model.</p>	<p>1G-25-P101-EP</p> <p>1G-26-P101-EP</p>

OUTLINE	AIDS & CUES
<p>X. IGNITION COMPONENT (IC)</p> <p>A. The Ignition Component is a number that relates to the probability that a fire will result if a firebrand is introduced into fine fuels.</p> <p>B. The Ignition Component can range from 0 when conditions are cool and damp, to 100 on days when the weather is dry and windy.</p> <p>Theoretically, on a day when the Ignition Component registers 60, approximately 60 percent of firebrands that come into contact with wildland fuels will cause a fire.</p> <p>Ignition normally takes place in the dead component of the fine fuels. Three distinct steps must be considered in this ignition process. They are:</p> <ol style="list-style-type: none"> <li>1. A fire brand must come into contact with the dead fuel.</li> <li>2. The fuel particle must be dry.</li> <li>3. The temperature of the fuel particle must be raised to the kindling point.</li> </ol>	<p>1G-27-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Living material in the fine fuel complex reduces the efficiency of ignition. Therefore, an adjustment to the ignition component is made based on the percentage of live fuel (herbaceous vegetation) in the fine fuel complex.</p> <ol style="list-style-type: none"><li>1. The moisture content of the dead component of the fine fuel (1-hour timelag fuel moisture) is determined by the state of the weather (sunny or cloudy), air temperature, and relative humidity at 2 p.m. fire weather observation.</li><li>2. The condition of the herbaceous (live) vegetation and the 1-hour timelag fuel moisture are then integrated into the calculation the fine fuel moisture (FFM) which expresses the effective moisture content of the fine fuels.</li><li>3. The closer the initial temperature of the fuel is to the ignition temperature, the more likely a fire will result when a firebrand is introduced into the fine fuel complex, since not as much energy is required to raise the fuel particle to its ignition temperature.</li></ol>	

OUTLINE	AIDS & CUES
<p>XI. SPREAD COMPONENT (SC)</p> <p>The Spread Component is a numerical value derived from a mathematical model that integrates the effects of wind and slope with fuel bed and fuel particle properties to compute the forward rate of spread at the head of the fire. Output is in units of feet per minute.</p> <p>A. A Spread Component of 31 indicates a worst-case, forward rate of spread approximately 31 feet per minute.</p> <p>B. The inputs required to calculate the SC are wind speed, slope, fine fuel moisture (including the effects of green herbaceous plants), and the moisture content of the foliage and twigs of living, woody plants.</p> <p>C. Since the characteristics through which the fire is burning are so basic in determining the forward rate of spread of the fire front, a unique SC table is required for each fuel type.</p>	<p>1G-28-P101-EP</p>
<p>XII. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <p>A. List The Elements Used To Determine Fire Danger Rating</p> <p>B. List The Five “Standard” Fire Danger Rating Levels</p>	<p>1G-29-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 2 — Wildland Fire Prevention Education

LESSON: 2A — Communications/Education

SUGGESTED TIME: 2 Hours

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Describe where to find the fire messages on the internet.
2. Utilize the Communicator’s Guide - Wildland Fire.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	2A-01-P101-EP
A. Describe Where To Find The Fire Messages On The Internet	2A-02-P101-EP
B. Utilize the Communicator’s Guide - Wildland Fire	2A-03-P101-EP
II. INTRODUCTION	
Communicating the fire prevention/education message is essential to the job of the Fire Prevention Specialist. It is important that a consistent message be delivered to the public.	

OUTLINE	AIDS & CUES
<p>This lesson will deliver the latest efforts by the agencies, represented by the National Wildfire Coordinating Group (NWCG), by way of the Wildland Fire Education Working Team (WFEWT) to communicate the fire prevention/education message.</p> <p>The lesson will cover the National Messaging Project and the Communicators Guide-Wildland Fire.</p> <p><b>INSTRUCTOR NOTE: HAVE AVAILABLE HARD COPIES OF THE COMMUNICATOR’S GUIDE - WILDLAND FIRE FOR DEMONSTRATION.</b></p> <p>III. THE NATIONAL WILDFIRE COORDINATING GROUP (NWCG)</p> <p>A. The NWCG is an interagency group comprised of a parent group and 16 working teams with special fire responsibilities.</p> <p>The parent group consists of the National Directors from federal agencies and a representative from the National Association of State Foresters.</p> <p>B. The NWCG strives to assure continuity and standards for training, equipment, qualifications, and operational functions.</p> <p>Products from the WFEWT include: Fire messaging materials, standard position descriptions, NWCG training courses, guides, publication management system, qualification standards, etc.</p> <p><b>INSTRUCTOR NOTE: EMPHASIZE EXTERNAL AND INTERNAL AUDIENCES.</b></p>	<p>2A-04-P101-EP</p> <p>2A-05-P101-EP</p>

OUTLINE	AIDS & CUES
IV. THE FIRE EDUCATION MESSAGING PROJECT	2A-06-P101-EP
<p>A. Wildland fire management agencies and organizations share common goals to enhance personal safety, reduce loss of life while preserving and enhancing the health of ecosystems.</p> <ol style="list-style-type: none"> <li>1. Those who live or recreate in wildland areas are encouraged to be aware of the role of wildland fire in ecosystems.</li> <li>2. Land management agencies are taking action to reduce risks and realize benefits of wildland fire.</li> </ol>	2A-07-P101-EP
<ol style="list-style-type: none"> <li>3. There is a need for partnerships among agencies, tribes, residents, and communities to understand and prepare for wildland fire.</li> </ol>	2A-08-P101-EP
<p>B. NWCG Members Use And Distribute Products Developed To Assist With Communication About Wildland Fire.</p> <ol style="list-style-type: none"> <li>1. Communication of fire issues is extensive throughout the wildland fire community, but messages have not been consistent.</li> <li>2. For the public to understand the role of wildland fire, clear and consistent messages must be communicated across all agencies.</li> </ol>	

OUTLINE	AIDS & CUES
<p>C. Interagency messages have been developed by an interagency team and approved by the National Wildfire Coordinating Group.</p> <p>These materials can be accessed from the National Messaging website at: <a href="http://www.nwccg.gov/teams/wfewt/wfewtm.htm">http://www.nwccg.gov/teams/wfewt/wfewtm.htm</a>.</p> <p>D. The WFEWT will continue to produce new products for land management agencies and their staff to use in communicating about wildland fire.</p> <p>E. The natural role fire plays in the environment must be understood. Society's influence has altered historic fire cycles, leading to a dangerous buildup of vegetation in the wildlands. As a result, fires become difficult to manage and can threaten areas of residential development and plant and animal life.</p> <p><b>INSTRUCTOR NOTE: PASS OUT "WILDLAND FIRE IN THE UNITED STATES BROCHURE" AND/OR "WILDLAND FIRE: A NATURAL PROCESS" FACT SHEET, IF AVAILABLE.</b></p>	<p>2A-09-P101-EP</p>



OUTLINE	AIDS & CUES
<b>INSTRUCTOR NOTE: EMPHASIZE INVOLVEMENT WITH LOCAL SUBJECT MATTER EXPERTS</b>	
<p>F. Messaging Project Evolution</p> <ol style="list-style-type: none"> <li>1. Communicators Guide - Wildland Fire (ecological, social and policy aspect of wildland fire, community education, school programming)</li> <li>2. Brochure - Wildfire in the United States</li> <li>3. The National Messaging Project Fact Sheet</li> <li>4. Future products</li> </ol>	2A-10-P101-EP
V. Developing Key Messages	
A. What Is A Key Message?	2A-11-P101-EP
<p>Key messages are general concepts that agencies are encouraged to incorporate into print materials and other resources used in communication, education, and prevention efforts.</p>	2A-12-P101-EP
<p>Key messages are umbrella statements that may require additional supporting points and examples for context.</p>	2A-13-P101-EP
B. Supporting Points	2A-14-P101-EP
<p>Supporting points provide detail for the key messages and enable users to further explain the roles of wildland fire in ecosystems, land management agencies, tribes, and partners.</p>	

OUTLINE	AIDS & CUES
<p>VI. KEY MESSAGES - (1) WILDLAND FIRE IS AN ESSENTIAL, NATURAL PROCESS</p> <p>Supporting Points</p> <p>A. Fire has helped shape our wildlands for thousands of years and is important for the survival of many plants and animals.</p> <ol style="list-style-type: none"> <li>1. Fire reduces accumulation of vegetation that can inhibit plant growth.</li> <li>2. Some plants and animals depend on fire for survival.</li> </ol> <p>Periodic fire stimulates growth, reproduction of plants, and provides wildlife habitat.</p> <p>Use local or regional examples.</p> <p>B. Fires Behave Differently Throughout The Country.</p> <ol style="list-style-type: none"> <li>1. In addition to fuels (vegetation), fire behavior is affected by weather and terrain.</li> <li>2. Virtually all vegetation types in the United States can experience wildland fire.</li> </ol> <p>Use local or regional examples.</p>	<p>2A-15-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VII. KEY MESSAGES - (2) SOCIETY’S INFLUENCE HAS ALTERED HISTORIC FIRE CYCLES, LEADING TO A DANGEROUS AND DIFFICULT BUILDUP OF VEGETATION IN OUR WILDLANDS</p> <p>Supporting points</p> <p>A. Social and cultural approaches to wildland fire over the past century have focused on preventing and suppressing all wildland fire.</p> <p>B. When paired with the right terrain and weather conditions, dense buildup of vegetation leads to fires that burn hotter, last longer, and spread faster than in the past.</p> <p>In addition, excess vegetation and lack of fire in some areas are threatening plant and animal life.</p> <p>Use local or regional examples.</p>	<p>2A-16-P101-EP</p>
<p>VIII. KEY MESSAGES - (3) LAND MANAGEMENT AGENCIES ARE COMMITTED TO A BALANCED FIRE PROGRAM THAT WILL REDUCE RISKS AND REALIZE THE BENEFITS OF FIRE.</p> <p>Supporting Points</p> <p>A. Safety of firefighters and the public is the number one priority of land management agencies.</p> <p>B. Land management agencies’ fire management programs are customized to address specific wildland areas.</p>	<p>2A-17-P101-EP</p>

OUTLINE	AIDS & CUES
<p>Fire management programs are based on a balance of needs including fire suppression, prevention, and fire use.</p> <p>There will always be a need for prevention and suppression to protect people and communities.</p> <p>C. Fire Is A Management Tool Used To Accomplish Specific Objectives In A Resource Plan.</p> <ol style="list-style-type: none"> <li>1. Naturally occurring fires (lightning, etc.) are either suppressed or allowed to burn in a closely monitored and confined area, based on the fire plan for the area.</li> <li>2.. Sometimes it may become necessary or beneficial for land managers to ignite fires in a closely monitored and confined area. These fires are referred to as “prescribed fires.”</li> <li>3. A fire program also may include non-fire treatments to prepare the land before natural or prescribed fire can be applied safely and effectively.</li> </ol> <p>Use local or regional examples.</p>	

OUTLINE	AIDS & CUES
<p>IX. KEY MESSAGES - (4) IMPROVING THE HEALTH OF THE LAND AND REDUCING RISKS TO COMMUNITIES REQUIRES PARTNERSHIPS AMONG FEDERAL AND STATE AGENCIES, TRIBAL GOVERNMENTS, FIRE DEPARTMENTS, COMMUNITIES, AND LANDOWNERS</p> <p>Supporting points</p> <p>A. Fire burns where conditions are right. Fire does not acknowledge jurisdictional boundaries of federal, state, and local agencies, tribes or private landowners.</p> <p>B. Agencies, tribes, and communities are working together to understand and accept what it means to live in a fire-prone area and to realize the benefits of managing fire in the wildlands.</p> <ol style="list-style-type: none"> <li>1. Agencies and tribes manage public and tribal lands through cooperative fire management plans and programs.</li> <li>2. Agencies and tribes are also working to educate local governments and property owners of ways to make their land and property more survivable during wildfire.</li> </ol> <p>Use local or regional examples.</p>	<p>2A-18-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. People who live and recreate in fire-prone lands assume a certain level of risk and responsibility due to the condition of the surrounding environment.</p> <p>a. People can live compatibly with fire if actions are taken to be aware of, and prepared for, local fire conditions.</p> <p>b. Smoke from prescribed fire is a sign that steps are being taken to reduce risks and realize benefits of fire.</p>	
<p>X. KEY MESSAGES - (5) PUBLIC EDUCATION IS NECESSARY TO THE SUCCESS OF FIRE MANAGEMENT PROGRAMS</p> <p>Supporting Points</p> <p>The following messages and supporting points are intended for internal audiences within land management agencies.</p> <p>A. Fire is an important issue for the public, and public understanding is key to our ability to manage wildland fire.</p> <p>1. For many years, people have learned to fear and avoid fires of all kinds in wildland areas.</p> <p>2. Individuals act based on their perceptions. Understanding the role of fire will help landowners and land users appreciate and support the efforts of fire management organizations.</p>	<p>2A-19-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Education must occur within fire service agencies to ensure that staff understand and support fire management and public education concerns.</p> <p>4. Motivation of landowners and land users must occur to mitigate fire hazards and support fire management efforts. This will ultimately reduce loss of life, property, and natural resources.</p> <p>B. Communication With Neighbors About The Role Of Wildland Fire In A Consistent, Simple Way Is Necessary.</p> <p>1. The importance of fire management must be demonstrated by continually showing support for these practices.</p> <p>Every year, millions of people visit and use wildland areas across the country. People are fascinated with fire, and the opportunity must be taken to introduce them to its benefits and role in ecosystems.</p>	

OUTLINE	AIDS & CUES
<p>2. Communication must be clear about both the benefits and risks of wildland fire.</p> <p>Use local or regional examples.</p> <p>3. Often people’s perception of fire is shaped by the media’s representation of fire. The media must have a clear understanding about the role of fire. Provide them with more comprehensive information about fire.</p>	
<p><b>INSTRUCTOR NOTE: DEMONSTRATE THE FIRE MESSAGING MATERIALS CD, IF AVAILABLE.</b></p>	
<p>XI. ORIENTATION TO THE “COMMUNICATOR’S GUIDE: WILDLAND FIRE”</p>	<p>2A-20-P101-EP</p>
<p><b>INSTRUCTOR NOTE: UTILIZING THE ELECTRONIC VERSION OF THE COMMUNICATOR’S GUIDE, PROVIDE A DEMONSTRATION OF EACH OF THE FOLLOWING ELEMENTS:</b></p>	<p>2A-21-P101-EP</p>
<p>A. Introduction</p> <ol style="list-style-type: none"> <li>1. Introduction and organization of Guide</li> <li>2. The National Interagency Fire Center and National Wildfire Coordinating Group</li> <li>3. Managing Wildland Fire: Balancing America’s Natural Heritage and the Public Interest</li> </ol>	



OUTLINE	AIDS & CUES
<p>B. Ecological Aspects Of Wildland Fire</p> <ol style="list-style-type: none"> <li>1. The science of wildland fire</li> <li>2. Condition class attributes: Defining fire regimes</li> <li>3. Fire dependent ecosystems of the United States</li> <li>4. Fire effects</li> </ol> <p>C. Social Aspects Of Wildland Fire</p> <ol style="list-style-type: none"> <li>1. Wildland fire history</li> <li>2. The I-Zone: A human dimension of wildland fire</li> <li>3. Effects of wildland fire on cultural resources</li> </ol> <p>D. Policy Aspects Of Wildland Fire</p> <ol style="list-style-type: none"> <li>1. Accessing and using the fire policy implementation CD-Rom</li> <li>2. Wildland fire policy and resource management planning</li> <li>3. Wildland fire and ecosystem approach to management</li> </ol>	

OUTLINE	AIDS & CUES
<p>E. Educating The Public About Wildland Fire</p> <ol style="list-style-type: none"> <li>1. A perspective from wildland fire communicators</li> <li>2. Public perceptions and attitudes toward wildland fire</li> <li>3. Wildland fire - a tool for stewardship</li> <li>4. Smokey and prescribed fire-conflicting messages?</li> <li>5. Communication planning for wildland fire</li> <li>6. Interpreting wildland fire</li> <li>7. The role of media packets in public information and education</li> <li>8. Risk communication and wildland fire</li> </ol> <p>F. Wildland Fire And School Programming</p> <ol style="list-style-type: none"> <li>1. Reaching out to teachers and students</li> <li>2. Ecological management issues-finding a curricular fit</li> <li>3. Discovery Channel Pictures</li> <li>4. Fire ecology-resource management education</li> </ol>	

OUTLINE	AIDS & CUES
<p>G. Resources For The Wildland Fire Communicator</p> <ol style="list-style-type: none"> <li>1. Wildland fire education and outreach case studies</li> <li>2. Seeking wildland fire information on the internet</li> <li>3. Resources</li> <li>4. Acknowledgments</li> </ol>	
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 2602 “FIRE COMMUNICATIONS AND EDUCATION” OR DUPLICATE 2A-01-P101-HO.</b></p>	<p>2A-01-P101-H0</p>
<p>XII. SUMMARY AND REVIEW LESSON OBJECTIVES</p>	<p>2A-22-P101-EP</p>
<p>A. Describe Where To Find The Fire Messages On The Internet.</p>	<p>2A-23-P101-EP</p>
<p>B. Utilize The Communicator’s Guide - Wildland Fire.</p>	

COURSE: Fire Prevention Education 1, P-101

UNIT: 2 — Wildland Fire Prevention Education

LESSON: 2B — Cooperative Forest Fire Prevention Program - Smokey Bear

SUGGESTED TIME: 2 Hours

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Utilize the Cooperative Forest Fire Prevention Program and name its various components.
2. Explain the history of Smokey Bear and policies for the program.
3. Implement a Smokey Bear program.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	2B-02-P101-EP
A. Utilize The Cooperative Forest Fire Prevention Program And Name Its Various Components.	2B-01-P101-EP
B. Explain The History Of Smokey Bear And Policies For The Program.	
C. Implement A Smokey Bear Program.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>The Cooperative Forest Fire Prevention (CFFP) program, commonly known as the Smokey Bear program, was created to maintain public awareness of the need to prevent wildfires. It is managed by the Forest Service in cooperation with the Advertising Council, Inc. and the National Association of State Foresters (NASF).</p> <p>This lesson will inform and educate students about all aspects of the CFFP Program. It will also introduce them to tools and techniques for accomplishing prevention activities and administrative requirements of the program.</p>	<p>2B-03-P101-EP</p> <p>2B-04-P101-EP</p>
<p>III. HISTORY OF SMOKEY BEAR</p> <p>A. The guardian of the forest has been a part of the American scene for so many years it is hard to remember when he first appeared.</p> <p>Dressed in a ranger’s hat, belted blue jeans, and carrying a shovel, he has been the recognized wildfire prevention symbol since 1944.</p> <p>Today, Smokey Bear is a highly recognized advertising symbol and is protected by Federal law: PL 82-359, as amended by PL 92-318. He even has his own private zip code 20252.</p>	<p>2B-05-P101-EP</p> <p>2B-06-P101-EP</p> <p>2B-07-P101-EP</p>

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: USE THE “HISTORY OF SMOKEY BEAR” VIDEO PRESENTATION ON THE COURSE DVD 1, MOVIE 3.</b></p>	<p>2B-08-P101-EP 2B-01-P101-DVD</p>
<p>B. Smokey Bear Milestones</p> <ol style="list-style-type: none"> <li>1. The 40th Birthday celebration - 1984</li> <li>2. The 50th Birthday celebration - 1994</li> <li>3. The 60th Birthday celebration - 2004 <ol style="list-style-type: none"> <li>a. The 75th Birthday celebration- 2019</li> <li>b. Mark your calendars</li> </ol> </li> </ol>	<p>2B-09-P101-EP 2B-10-P101-EP 2B-11-P101-EP</p>
<p>IV. COOPERATIVE FOREST FIRE PREVENTION PROGRAM OBJECTIVE</p> <p>A. The objective of the Cooperative Forest Fire Prevention (CFFP) Program is to create and maintain a public awareness about wildfire prevention through the Ad Council campaigns and promotional material.</p>	<p>2B-12-P101-EP</p>
<p><b>INSTRUCTOR NOTE: PROVIDE “SMOKEY BEAR GUIDELINES.”</b></p>	<p>2B-01-P101-HO</p>

OUTLINE	AIDS & CUES
<p>B. CFFP Program Policy</p> <p>1. The National CFFP Program provides a framework which can be expanded upon by Regional, State, and local efforts.</p> <p>The State and local programs will identify specific problem areas and planned solutions.</p> <p>Using Smokey Bear as the vehicle for wildfire prevention messages, using a variety of techniques stimulates active support and cooperation with other public agencies, educators, businesses, industry and people interested in working to prevent unwanted human-caused wildfires.</p>	2B-13-P101-EP
<p>2. The official Forest Service program policy and guidelines can be found in the Forest Service Manual, Chapter 3110; Cooperative Forest Fire Prevention (CFFP); and Forest Service Handbook, 5109.18, Chapter 20, Cooperative Forest Fire Prevention Program (CFFP).</p>	2B-14-P101-EP
<p>V. CFFP PROGRAM RESPONSIBILITIES</p>	2B-15-P101-EP
<p>A. CFFP Committee</p> <p>The CFFP Committee consists of three State Foresters, The Ad Council, and the USDA Forest Service.</p>	2B-16-P101-EP

OUTLINE	AIDS & CUES
<p>The Committee meets three times a year or as needed. The National Association of State Foresters, The Ad Council, and the USDA Forest Service are in constant communication about the elements and the development of the program usually weekly and often daily.</p> <p>The Committee sets the direction of the CFFP program, reviews the elements and creative art work, and once a year selects the winners of the Smokey Bear awards.</p> <p>B. The Ad Council</p> <p>The Ad Council has a professional advertising firm that donates its time and talent to the creative products used in the Smokey Bear Campaign.</p> <p>Their work is reviewed by the CFFP Committee and the National Ad Council before the products ever reach production.</p> <p>Their creative work consists of posters, print ads, radio, and TV Public Service Announcements and other related campaign material.</p> <p>The quality of the products and the experience of the ad agency are critical to the success of the fire prevention program.</p> <p>Foote, Cone and Belding have been the advertising agency who handles Smokey Bear since 1944.</p>	<p>2B-17-P101-EP</p>



OUTLINE	AIDS & CUES
<p>C. Washington Office/USDA Forest Service</p> <p>The CFFP Program is administered by the Director of Fire and Aviation Management (F&amp;AM) through the Program Manager, Branch Chief, Fire Prevention.</p> <p>It is responsive to the wildland fire prevention needs of the National Forest System, state forestry organizations, other federal agencies, fire service organizations, local and private groups.</p>	2B-18-P101-EP
<p>D. Regions And Area/USDA Forest Service</p> <p>Each Regional Forester and the Area Director assigns the primary responsibility for the CFFP Program to one staff unit.</p> <p>A member of that staff should be assigned as Regional/Area CFFP Coordinator.</p> <p>The Regional/Area Coordinators facilitate resolution of issues and concerns, implement programs of work, organize activities, and provide liaison between the Washington Office and local areas.</p>	2B-19-P101-EP
<p>E. State Foresters</p> <p>Each State Forester must assign responsibility for managing the CFFP program. This responsibility may differ from state to state.</p>	2B-20-P101-EP

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: IF THERE ARE STATE REPRESENTATIVES IN THE CLASS, SURVEY HOW THEIR RESPECTIVE STATE HANDLES THIS RESPONSIBILITY.</b></p>	
<p>VI. CFFP PROGRAM COMPONENTS</p>	<p>2B-21-P101-EP</p>
<p>There are five major components to the CFFP Program:</p>	<p>2B-22-P101-EP</p>
<p>A. Public service advertising using the media, through educational and community involvement activities, corporate sponsorships, and special prevention promotions with collateral materials</p>	
<p>B. Campaign and educational activities including classroom programs, National Cache materials, and the Junior Forest Ranger Program</p>	
<p>C. Commercial Licensing</p>	
<p>D. Image and appearance including standards and quality control for trademark protection, presentation, artwork, and costume use</p>	
<p>E. Awards And Recognition</p>	

OUTLINE	AIDS & CUES
<p>VII. PUBLIC SERVICE ADVERTISING (PSA)</p> <p>A. Public service advertising is an important component of the CFFP program. It presents The wildfire prevention message to the public via the media and with campaign collateral materials.</p> <p>Public service advertising can also be accomplished through educational and community involvement activities, corporate sponsorships, and with sports promotions.</p> <p>B. The Advertising Council, under the direction of the USDA Forest Service and The National Association of State Foresters, creates and produces national media CFFP public service advertising.</p> <p>Materials are designed for distribution to audio, video, Internet, and print outlets.</p> <p>Since the inception of the CFFP Program, the advertising firm of Foote, Cone and Belding (FCB), Los Angeles, has contributed resources and talents to create program materials.</p>	<p>2B-23-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VIII. MEDIA</p> <p><b>INSTRUCTOR NOTE: BE PREPARED TO DEMONSTRATE THE CURRENT RADIO AND TELEVISION KITS AS YOU COVER THE LESSON POINTS.</b></p> <p>A. Radio And Television</p> <ol style="list-style-type: none"> <li>1. The Advertising Council packages national public service advertising into television and radio kits (PSAs). <p>One or more PSAs may be distributed in each category.</p> <p>Television kits include photo-storyboards and videotapes.</p> <p>Radio kits include a live script and recorded copy.</p> <p>Both include a letter describing the focus of the advertising campaign, some statistical information, a map displaying the appropriate time for use, and a memento for the user.</p> </li> <li>2. These kits are distributed to networks, cable network, syndicated and spot television stations, and all combinations of AM/FM radio stations.</li> </ol>	<p>2B-24-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Personal contact should be made with television and radio station program managers in local areas of influence to advise them of local fire issues and situations and to encourage them to use the public service advertising.</p> <p>B. Newspaper And Magazines</p> <p>1. The Advertising Council packages national PSAs for the print media. Newspaper and magazine kits are distributed to dailies and weeklies, specialty, consumer, and children's magazines across the country.</p> <p>2. These kits contain black and white or color slicks, in a variety of sizes, a letter describing the focus of the advertising campaign, some statistical information, and a memento.</p> <p>3. Following distribution of the newspaper and magazine kits, visits should be scheduled with local editors to encourage the use of the materials and provide advice on the local fire issues and situations.</p> <p>4. The Director of Fire and Aviation Management in the Washington Office of the Forest Service notifies the Regions and Areas of the planned distribution dates.</p> <p>States in the south (13) receive distribution in January, the rest of the country receives theirs in the spring of the year.</p>	

OUTLINE	AIDS & CUES
<p>5. During personal visits to local media offices, you should take the opportunity to distribute appropriate CFFP campaign materials.</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE THE CURRENT PRINT MEDIA KIT. INFORMATION CAN BE FOUND ON THE AD COUNCIL WEBSITE. WWW.ADCOUNCIL.ORG.</b></p> <p>C. Other Media</p> <p>The Advertising Council also produces and distributes PSAs for transit authorities, transportation shelters, and outdoor advertisers.</p> <p>Transit authorities, transportation companies, and outdoor advertisers should be approached to donate vacant space.</p> <p>These materials must be requested by the advertisers and are not automatically shipped.</p> <p>D. Field Production Of Public Service Advertising</p> <p>Local wildland fire agencies and units are encouraged to produce PSAs for local media, and advertising for community and other information awareness purposes when it is determined that they are needed to supplement the national campaign, or to address specific local or regional problems.</p>	

OUTLINE	AIDS & CUES
<p>Use local material in conjunction with the PSAs produced by the Advertising Council for the national campaign.</p> <p>1. Ensure that locally produced advertising deals exclusively with fire prevention and that it will not detract from the national image of Smokey Bear.</p> <p>Standard wording on a credit line is “A public service in wildfire prevention is brought to you by the USDA Forest Service, your State Forester (or specific State Forester), and supported by _____.”</p> <p>2. Reproduction or resale is prohibited under 16 USC 580.</p> <p>Local spots shall not portray Smokey Bear as a spokesman for any issue other than wildfire prevention.</p> <p>Do not include other advertising symbols, such as Woodsy Owl, McGruff, or Sparkey without the express approval of the Director, F&amp;AM, Washington Office.</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE, IF AVAILABLE, LOCALLY PRODUCED PUBLIC SERVICE ANNOUNCEMENTS.</b></p>	

OUTLINE	AIDS & CUES
<p>IX. CAMPAIGN AND EDUCATIONAL MATERIALS</p> <p>Campaign and fire prevention educational materials are developed and maintained at the National Symbols Cache.</p> <p>The materials are developed in cooperation with the Conservation Education Staff, Fire and Aviation Management, and the CFFP Committee.</p> <p>The current objective is to provide fire prevention materials that are suitable for teachers and meet standards of learning.</p> <p>A. Campaign Materials</p> <p>Campaign materials are created to reinforce the fire prevention message and to maintain public awareness of the need to prevent wildfires.</p> <p>The items are designed to provide maximum educational value. They are offered based on usability, functionality, and practicality.</p> <p>B. Campaign materials may feature a basic poster using Smokey Bear’s image and a fire prevention message.</p> <p>Specialty posters featuring nature groups with teacher education materials are also available.</p> <p>Posters should be conspicuously placed in schools, libraries, Federal and State offices, fire departments, and on community bulletin boards.</p>	<p>2B-25-P101-EP</p>



OUTLINE	AIDS & CUES
<p>They should also be displayed in places where youth activity groups meet. Extensive use of these fire prevention materials should be encouraged at the local levels. Replace posters when they become weathered or are no longer timely.</p> <p>Obtain permission from the owner before placing posters on private property, such as in store windows.</p> <p>C. Bookmarks, decals, rulers, pens and pencils, erasers, and coloring sheets place the wildfire prevention message in front of elementary school children and others on a continuing basis.</p> <p>Place bookmarks in libraries, schools, bookmobiles, and bookstores. Other campaign materials should be distributed as appropriate.</p> <p>D. Campaign materials are designed and made available for all age groups. They are designed to bring the prevention message home on a continuing basis. Distributed materials should be appropriate to the age group involved.</p> <p>E. The National Association of State Foresters</p> <p>The National Association of State Foresters (NASF) sends its catalog to all State Foresters and National Forests.</p> <p>Any Federal agency may order their products for use in wildfire prevention programs. As with CFFP items, they may not be sold. Availability of these materials is further discussed in Lesson 2F, Fire Prevention Materials.</p>	

OUTLINE	AIDS & CUES
<p>F. Distribution</p> <p>Materials should be purchased and distributed where they will be most effective. They must be made available without cost, and cannot be resold.</p> <p>G. Numerous approved Smokey Bear Licensees have materials available for purchase and use in the fire prevention program.</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE EXAMPLES OF SMOKEY BEAR CAMPAIGN MATERIALS.</b></p>	
<p>X. FIELD PRODUCTION OF CAMPAIGN MATERIALS</p> <p>A. Field units are strongly encouraged to design, produce, and distribute materials which meet a specific need and may not be available through the cache, NASF annual campaign catalog, or commercial licensees.</p> <p>B. In order to insure that the high standards which apply to the national campaign are met in any field production, and to insure uniformity of Smokey's image, it is important that geographic area coordinators be involved in the very earliest development stages.</p> <p>Only approved Smokey Bear artwork shall be used, and care must be taken that the field production does not conflict with or detract from the National effort.</p>	<p>2B-26-P101-EP</p>

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: DEMONSTRATE SAMPLES OF FIELD PRODUCTIONS OF SMOKEY BEAR MATERIALS. DEMONSTRATE APPROPRIATE AND INAPPROPRIATE EXAMPLES.</b></p> <p>C. There are areas that are especially subject to abuse. These are t-shirt and jacket arts for fire crews, employee associations, ranger stations, and special events, such as fun runs, fax cover sheets, book/folders, conference notices, and computer generated graphics.</p> <p>Only approved and dated art will be permitted. Smokey’s image will not be demeaned or tarnished. If, for any reason, these products are offered for sale they are subject to regulations governing licensing.</p> <p>XI. EDUCATIONAL ACTIVITIES AND MATERIALS</p> <p>A. The educational component of the CFFP program is designed to create and maintain an awareness of the need to prevent wildfires by providing a method of reminding children of their fire prevention responsibilities.</p> <p>B. Many of the CFFP campaign items can enhance teaching opportunities. Take advantage of opportunities to work with teachers and supply them with CFFP materials that will support their teaching efforts.</p>	<p>2B-27-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Material that is old, outdated and/or discontinued, along with items which no longer support the CFFP emphasis <u>should not be</u> distributed. These materials may convey misinformation or conflict with current program strategy.</p>	
<p>XII. COMMERCIAL LICENSING</p> <p>A. Objectives</p> <p>The Smokey Bear Act, P.L. 82-359, as amended by P.L. 92-318, and regulations of the Secretary of Agriculture (36 CFR 271) provide for the commercial use of the character and name of Smokey Bear. The objectives of commercial licensing are:</p> <ol style="list-style-type: none"> <li>1. To assist in communicating Smokey Bear’s wildfire prevention message.</li> <li>2. To maintain the integrity of the Smokey Bear image as the National symbol of wildfire prevention.</li> <li>3. To insure that all products maintain standards of high quality and good taste.</li> <li>4. To generate funds to further nationwide wildfire prevention activities.</li> </ol>	<p>2B-28-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Licensing Policy</p> <ol style="list-style-type: none"> <li>1. The Director, Fire and Aviation Management, USDA Forest Service, after consultation with the National Association of State Foresters and the Advertising Council, is responsible for approving commercial licensing activities.</li> <li>2. Day-to-day administration has been contracted to a licensing contractor.</li> <li>3. The use of Smokey Bear as a proprietary brand name is prohibited. <ol style="list-style-type: none"> <li>a. By words or illustrations, Smokey Bear will not endorse a commercial product or service.</li> <li>b. The Smokey Bear symbol will always be used in conjunction with an approved fire prevention message.</li> <li>c. All licenses shall display the official logo on products, packaging, or advertising. Unauthorized commercial uses are punishable by law.</li> </ol> </li> </ol>	<p>2B-29-P101-EP</p> <p>2B-30-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Application/Approval Procedure</p> <p>Persons interested in submitting a License Proposal should contact the Branch Chief for Fire Prevention or the licensing contractor for the appropriate forms and rules.</p> <p>D. Official Logo</p> <p>An official Smokey Bear Licensee has the right to use the official Smokey Licensee Logo.</p> <p>No one other than official licensees may use this logo.</p> <p>The logo should appear on all licensed products.</p> <p>No product bearing Smokey’s image may be produced without a license or be sold without this logo.</p> <p>The logo should also be used in all advertising and promotional materials for officially licensed Smokey Bear items.</p> <p>E. All Products Are Approved Prior To Production.</p>	<p>2B-31-P101-EP</p>

OUTLINE	AIDS & CUES
<p>F. The PMS Color System Of Acceptable Colors For Use On Smokey Bear Is:</p> <ul style="list-style-type: none"> <li>• Hat: PMS 467 (Beige)</li> <li>• Hatband: PMS 472 (Light Brown)</li> <li>• Eyes: PMS 469 (Dark Brown)</li> <li>• Muzzle: PMS 468 (Light Beige)</li> <li>• Face: PMS 470 (Medium Brown)</li> <li>• Body: PMS 470 (Medium Brown)</li> <li>• Pants: PMS 299 (Blue)</li> <li>• Belt: PMS 469 (Dark Brown)</li> <li>• Buckle: PMS 131 (Gold)</li> <li>• “SMOKEY:” PMS 472 (Light Brown)</li> </ul> <p>G. Smokey may not be depicted as endorsing a Product, but he may appear with the product. Smokey’s message should always address wildfire prevention.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Remember, Only YOU Can Prevent Wildfires!</li> <li>• Prevent Wildfires!</li> <li>• Break Your Matches!</li> <li>• Drown Your Campfires!</li> <li>• Help Smokey Prevent Wildfires!</li> <li>• Smokey’s Friends Don’t Play With Matches!</li> <li>• Careless Campers Cause Fires!</li> </ul>	<p>2B-32-P101-EP</p>

OUTLINE	AIDS & CUES
<p>H. Violations</p> <p>Items produced for commercial sale that contain or use the Smokey Bear image, name, or message without benefit of a license violate Public Law 82-359, as amended by P.L. 92-318.</p> <p>Report suspected violations directly to the Director, F&amp;AM, Washington Office, who shall take action necessary up to and including civil and criminal court actions to stop the violator.</p>	
<p>XIII. IMAGE AND APPEARANCE</p> <p>The key to Smokey’s worldwide recognition is credited to the positive image that has been promoted since the inception of the Program. Uniform standards have been identified for all aspects of Smokey’s image, from drawings to the manufacture of the costume to public appearances.</p> <p>A. Official Approved Artwork</p> <ol style="list-style-type: none"> <li>1. Only Smokey Bear artwork, approved, and dated by the Director, F&amp;AM, Washington Office, may be used.</li> <li>2. Reproductions of existing art may not be approved. WHEN IN DOUBT, CHECK IT OUT! Glossy black-and-white and color prints of the official photograph may also be obtained from the Director.</li> </ol>	<p>2B-33-P101-EP</p>



OUTLINE	AIDS & CUES
<p>B. Costume</p> <ol style="list-style-type: none"> <li>1. Official Smokey Bear costumes must be ordered from official licensees. The price of the costumes should be obtained from the respective licensees.</li> <li>2. Effective uses of the Smokey Bear costumes are for: <ul style="list-style-type: none"> <li>• Parades</li> <li>• Appearances at schools</li> <li>• Fairs</li> <li>• Youth-group meetings</li> <li>• Conservation activities</li> <li>• Television appearances</li> <li>• Sporting events</li> <li>• Civic and community events</li> <li>• Trade and trademark shows</li> <li>• Similar functions where a fire prevention message can be conveyed.</li> </ul> </li> <li>3. Examples of inappropriate uses are: Christmas parties, summer picnics, Halloween parties, Job Fairs, the Combined Federal Campaign, or any situation that might compromise Smokey's integrity or give the appearance of impropriety.</li> </ol>	

OUTLINE	AIDS & CUES
<p>C. Acquisition And Use</p> <ol style="list-style-type: none"> <li>1. Only USDA Forest Service and State Forestry agencies may purchase costumes without prior approval.</li> <li>2. On a case-by-case basis, the Director, F&amp;AM, through the Regional/Area Coordinators, approves costume ownership by other Federal and international agencies.</li> <li>3. Local fire departments and other fire protection organizations may be granted permission to purchase a costume after State Forester approval.</li> </ol> <p>Both approvals require certification that the costume will be used only for wildfire prevention purposes.</p> <ol style="list-style-type: none"> <li>4. Authorization shall be in the form of a Cooperative Interagency Agreement and shall cover a period of not more than five years.</li> </ol>	

OUTLINE	AIDS & CUES
<p>5. Individuals who wear and use the costume must agree to:</p> <ul style="list-style-type: none"> <li>a. Use the costume only to further public information, education, and awareness of the prevention of wildfires.</li> <li>b. NOT SPEAK during appearances. Conversations or explanations should be carried out by the accompanying uniformed official (escort).</li> <li>c. Never appear in less than full costume.</li> </ul> <p>6. Remain anonymous at every appearance and in any publicity connected with an appearance.</p> <p>NEVER allow being photographed without the head.</p> <p>7. Use only costumes that are clean, complete, and in good condition.</p> <p>8. Keep costume out-of-sight before and after use.</p>	

OUTLINE	AIDS & CUES
<p>9. Appear dignified and friendly. Avoid clowning and horseplay.</p> <p>10. Always be accompanied by appropriately uniformed escort during public appearances, except when not practical, such as on a parade float where space is limited.</p> <p>11. Refrain from using alcohol or drugs prior to and during the Smokey Bear appearance. This condition applies to officials as well.</p> <p>D. Appearances</p> <p>1. The person wearing the costume must exhibit appropriate animation to be effective. Express sincerity and interest in the appearance by moving paws, head, and legs.</p> <p>2. There shall be at least one uniformed escort to accompany the Bear. The escort shall guide the Bear at the elbow.</p>	
<p><b>INSTRUCTOR NOTE: ACQUIRE THE SMOKEY BEAR COSTUME AND DEMONSTRATE ITS USE. HAVE A STUDENT DON THE COSTUME WITH THE HELP OF TWO STUDENT ESCORTS DURING THIS PART OF THE PRESENTATION.</b></p>	

OUTLINE	AIDS & CUES
<p>3. After donning the costume, the escort shall inspect the suit. Check for the following:</p> <ul style="list-style-type: none"> <li>a. Is the draw string tucked in?</li> <li>b. Is the zipper out of sight?</li> <li>c. Are the buttons fastened?</li> <li>d. Is the belt firmly fastened to the pants?</li> <li>e. Are the pant cuffs neat?</li> <li>f. Is the hat crown up?</li> <li>g. Is the head straight on the shoulders?</li> <li>h. Is the fur brushed generously?</li> </ul> <p>4. A private dressing room is necessary for putting on and taking off the costume.</p> <p>5. The costumed bear should not force itself on anyone. Do not walk rapidly toward small children.</p> <p>6. A round-point shovel is part of the Smokey Bear image. It shall be used for appearances, when appropriate.</p>	

OUTLINE	AIDS & CUES
<p>7. The costume becomes hot to the wearer after a very short period. Success has been noted with the use of compartmentalized vests and “Blue Ice” and the addition of a battery-operated fan in the hat. Several cooling options are available from the costume manufacturers.</p> <p>Limit appearances to 15-20 minute segments to minimize personal discomfort.</p> <p>8. After each appearance, check the costume for needed repairs or cleaning. Note this on the outside of the storage box for immediate follow-up by the owner/manager of the costume.</p> <p>E. Care And Maintenance</p> <p>1. The Smokey costume is not used unless it is clean, complete, and in good repair.</p> <p>Ideally, the costume should be dry-cleaned. Laundering is permitted according to manufacturer’s specifications.</p> <p>If the suit is not cleaned after several hours of use, it will begin to smell and cause deterioration that will shorten the life expectancy.</p>	

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>2. The costume is inspected after each use and any required maintenance is performed.</li> <li>3. The costume is not placed into the costume box wet. Thoroughly air-dry the suit first.</li> <li>4. The manufacturer's recommendations for proper placement of the components into the storage box must be followed.</li> <li>5. Costumes can be returned to their respective manufacturers for maintenance, refurbishment and repair. Contact the manufacturer for price quotations.</li> </ol>	
<p>F. Security And Disposal</p> <p>Protect the Smokey Bear costume from theft or vandalism to eliminate unauthorized use, which may result in bad publicity and immeasurable harm to the integrity of Smokey as a symbol of wildfire prevention.</p> <ol style="list-style-type: none"> <li>1. Keep the Smokey Bear costume under lock-and-key when it is not in use.</li> </ol>	<p>2B-34-P101-EP</p>

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>2. Use a sign-in/sign-out system to control costume use.</li> <li>3. Mark the costume box to say, “Warning: Unauthorized use or possession of this costume is not permitted.”</li> <li>4. Immediately report thefts of Smokey Bear costumes to the appropriate law enforcement authorities and request prompt action to assure recovery.</li> <li>5. When it is determined by the owner/manager that the costume is no longer fit to wear and must be disposed of, the suit shall be rendered unrecognizable as a Smokey Bear costume by cutting, tearing and/or burning all components.</li> </ol>	
<p>G. Trademark Protection</p> <ol style="list-style-type: none"> <li>1. The respected and recognized name of Smokey Bear and his well-known message, as well as the property rights in the trademark and the service mark, are valued.</li> <li>2. There is an important need to distinguish Smokey Bear, his message, information and education materials, advertising, and commercially licensed products from those of other symbols; and to prevent their improper use.</li> </ol>	



OUTLINE	AIDS & CUES
<p>3. To accomplish this requires vigorous protection. The benefit to this position is that integrity is maintained and is reflected back to the sponsoring organizations.</p>	
<p>XIV. CHARACTER APPEARANCE GUIDELINES</p> <p>The costumed character's popular image can be utilized in many ways to focus attention to fire/life safety education programs.</p>	2B-35-P101-EP
<p>Guidelines for the character appearances are:</p> <p>A. Small problems arise with wearing the costume that can be minimized with advance preparation. Be aware of general reaction patterns of various age groups.</p> <p>B. They Are Categorized As Follows:</p> <ol style="list-style-type: none"> <li>1. 1 to 2 years old – This age group usually does not react to the character. If children do react, it could be with fear.</li> <li>2. 2 to 4 years old – Children will react with some fear. It is best to approach slowly.</li> <li>3. 4 years old – Some children are very timid. Many cower behind their parents and may not approach the character. Stand still and let them walk to you.</li> <li>4. 5 years old – Most children will approach the character and will want to shake his hand or hug him.</li> </ol>	2B-36-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>5. 6 to 8 years old – Children are curious about the suit and try to detect flaws. This is also the most interested group.</li> <li>6. 9 to 13 years old – This can be an effective group, but the character may need to offer encouragement. It seems best to have the escort ask questions and attempt to establish a teacher-student relationship. It may be difficult to control the behavior of a group of children if too much familiarity is established.</li> <li>7. 13 to 21 years old – This group might ignore the character.</li> <li>8. Adults – Conversation with the escort should not exceed 30 seconds unless initiated by the other person.</li> </ul>	2B-37-P101-EP
<p>C. School Programs</p> <ul style="list-style-type: none"> <li>1. The character's appearance in schools is effective in classroom situations or assembly programs.</li> <li>2. In early elementary grades, a surprise visit by the character may be the most effective.</li> <li>3. In later elementary grades, the character is most effective when used as a reinforcement tool for material already presented.</li> </ul>	2B-38-P101-EP

OUTLINE	AIDS & CUES
<p>4. Classroom situations should have the following elements:</p> <ul style="list-style-type: none"> <li>a. Establishment of rapport.</li> <li>b. Explanation of the need for fire/life safety by the character.</li> <li>c. Question and answer period or summary with the character and the escort reinforcing the messages.</li> </ul> <p>D. Large Crowds</p> <ul style="list-style-type: none"> <li>1. It is suggested that the character have at least two escorts for purposes of crowd control and effective contacts.</li> <li>2. When shaking hands, the character should put his hand where the other party can reach it. Do not grab hands that are extended. Children should be allowed to touch him if they wish.</li> <li>3. Contact should normally be brief. Uniformed personnel should speak to as many individuals as possible.</li> </ul> <p>E. Special Education Children</p> <ul style="list-style-type: none"> <li>1. Approach special children slowly.</li> <li>2. The child or adult in attendance will usually set the behavior pattern for the character.</li> <li>3. Allow blind children to touch the character from helmet to muscles.</li> </ul>	

OUTLINE	AIDS & CUES
<p>XV. AWARDS AND RECOGNITION</p> <p>A. Objective</p> <p>The objective of CFFP awards is to recognize individuals and organizations for outstanding service in wildland fire prevention, and through that recognition increase public awareness of the need for continuing fire prevention efforts.</p> <p>B. Policy</p> <p>Awards shall be given to recognize and encourage leadership in wildfire prevention.</p> <p>C. Description</p> <p>There are five official awards: Golden, Silver, and Bronze statuettes; an Appreciation Plaque; and a Citation.</p> <p>1. National</p> <p>Nominations for the Golden, Silver, and Bronze Smokey Bear Awards are approved by the CFFP Executive Committee. Each award is a 9-inch metal figurine of Smokey mounted on a wooden base with a metal plate on the front of the base for inscription and a corresponding lapel pin. The letter should be signed by the Co-Chairs of the Executive Committee and the Advertising Council, Inc.</p>	<p>2B-39-P101-EP</p>

OUTLINE	AIDS & CUES
<p>2. Other</p> <p>a. The Smokey Bear Appreciation Award is a plaque with a brass plate for inscription. The award is approved by a Deputy Chief, Regional Forester, Station or Area Director, or State Forester.</p> <p>b. The Smokey Bear Citation is a vellum certificate that is approved by the appropriate line officer.</p> <p>D. Selection Criteria</p> <p>1. Golden Smokey</p> <p>This award is given to organizations or individuals that have provided sustained outstanding National service for wildfire prevention over a minimum two-year period. There may be no more than three given annually.</p> <p>2. Silver Smokey</p> <p>This award is given to organizations or individuals that have provided outstanding or Regional (multi-state) service for wildfire prevention over a minimum two-year period. There may be no more than five given annually.</p>	

OUTLINE	AIDS & CUES
<p>3. Bronze Smokey</p> <p>This award is given to organizations or individuals that have provided outstanding or State-wide service for wildfire prevention over a minimum two-year period. There may be no more than ten given annually.</p> <p>4. Appreciation Plaques</p> <p>This award is given to organizations or individuals that have provided outstanding local service for wildfire prevention over a minimum two-year period. Number awarded is at the discretion of the issuing office.</p> <p>5. Citation</p> <p>This award is given to organizations or individuals for significant service for wildfire prevention at any level for a minimum one-year period. Number awarded is the discretion of the issuing office.</p>	

OUTLINE	AIDS & CUES
<p>E. Nomination Process</p> <p>1. National Awards</p> <p>Nominations for all National Smokey Bear awards can be made by anyone having knowledge of the outstanding wildfire prevention efforts of the nominee.</p> <p>Submit nominations on the official form in accordance with instructions provided at <a href="http://www.smokeybear.com">www.smokeybear.com</a>, including newspaper and magazine clippings, photos, and other relevant materials to the Symbols Program Manager, Washington Office, through the appropriate Regional Forester, Station Director, Area Director, or State Forester who will determine who meets minimum requirements and send those nominations forward to the Washington Office.</p> <p>2. Keep records of nominations received and of their dispositions.</p> <p>3. National award nominations must be recommended by a Deputy Chief, Regional Forester, Area Director, or State Forester.</p>	

OUTLINE	AIDS & CUES
<p>F. Other Awards</p> <p>Regional Foresters, the Area Director, and State Forester shall prescribe specific procedures for submitting nominations for these awards. Keep records of nominations received and of their disposition.</p> <p>G. Selection Process</p> <p>1. National Awards</p> <p>Select an appropriate forum for the awards presentation and provide for appropriate publicity and media coverage.</p> <p>These awards should be presented by the highest level National or State Official. The Regional Office, Area Office, or the State Forester’s Office coordinates plans for the awards ceremony.</p> <p>Every attempt should be made to present the award in the presence of the recipient’s peers.</p>	<p>2B-40-P101-EP</p>



OUTLINE	AIDS & CUES
<p>2. Other Awards</p> <p>The Regional Forester or State Forester should present these awards; however when appropriate, this task may be handled by the Forest Supervisor or an immediate subordinate to the State Forester.</p> <ul style="list-style-type: none"> <li>a. Frame the citations or place them in a high-quality award binder prior to presentation.</li> <li>b. Obtain the frames and award folders through normal procurement channels.</li> <li>c. Schedule the presentation and publicity as deemed appropriate.</li> </ul> <p>H. Source of Supply</p> <p>The F&amp;AM Staff, Washington Office, shall provide the National awards. Order appreciation and citation awards through Cache at <a href="http://www.symbols.gov">www.symbols.gov</a>.</p>	
<p>XVI. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. Utilize The Cooperative Forest Fire Prevention Program And Name Its Various Components.</li> <li>B. Explain The History Of Smokey Bear And Policies For The Program.</li> <li>C. Implement A Smokey Bear Program.</li> </ul>	<p>2B-41-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 2 — Wildland Fire Prevention Education

LESSON: 2C — Fire Prevention and the Media

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Explain the types of media, its use as a fire prevention tool and messages to be delivered.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	2C-01-P101-EP
Explain the types of media, its use as a fire prevention tool and messages to be delivered.	2C-02-P101-EP
II. INTRODUCTION	2C-03-P101-EP
During fire season, stories about major wildfires that besiege the nation's forests and range lands, as well as surrounding communities, appear almost daily in newspapers and on radio and television broadcasts. But how many of these stories take the time to present information about wildfire prevention?	2C-04-P101-EP

OUTLINE	AIDS & CUES
<p>Communicating wildfire prevention messages to the public, through the news media, requires an aggressive, proactive approach.</p>	2C-05-P101-EP
<p>You cannot wait for the media to come to you for information—you must go to them.</p>	
<p>Remember, follow your agency protocols in media contacts.</p>	2C-06-P101-EP
<p>III. WORKING WITH THE MEDIA</p>	2C-07-P101-EP
<p>Why work with the media?</p>	2C-08-P101-EP
<p>A. Most Effective Way To Increase Awareness</p>	
<p>B. Communicate To More People</p>	
<p>C. Provide A Link To The Public</p>	
<p>E. Relay Information To Stem Panic And Rumors From Spreading</p>	
<p>F. Report Areas Not Involved</p>	2C-09-P101-EP
<p>G. Educate The Public On Fire Safety</p>	
<p>H. As An Employee, You Are The Expert</p>	
<p>I. You Represent The Agency</p>	
<p>J. You Have The Knowledge, And It Should Be Shared</p>	
<p>K. Show And Tell</p>	



OUTLINE	AIDS & CUES
<p>C. Third, reporters are pressed for time. Based on this premise, approach them in an intelligent, concise manner.</p>	2C-12-P101-EP
<p>V. THE FIRE PREVENTION SPECIALIST ROLE WITH THE MEDIA</p> <p>A. The media controls the content, length, times, and frequency of publications and broadcasts.</p> <p>B. From your standpoint, an interview of any length with a capable interviewer should be a comfortable and invigorating experience.</p> <p>C. There may be occasions when the interviewer will be a hindrance in reaching the interview goals.</p>	2C-13-P101-EP
<p>1. Welcome interviews</p> <p>2. Master the role</p> <p>3. Be the best you can be</p> <p>4. Be just as good in the role as the interviewer is in their role</p>	2C-14-P101-EP
<p>VI. FIRE PREVENTION MESSAGES</p> <p>A. Analyze the community and the wildfire problems that need to be addressed; then focus your efforts on problems that do exist.</p> <p>B. Next, determine the groups of people that are the target audience. Then decide what they need to know.</p>	2C-15-P101-EP

OUTLINE	AIDS & CUES
<p>C. Target Audiences For Fire Prevention Messages Might Include:</p> <ol style="list-style-type: none"> <li>1. Fireworks users</li> <li>2. Off-road vehicle users</li> <li>3. Outdoor recreationists</li> <li>4. Hunters</li> <li>5. Children playing with matches</li> <li>6. Wildland/urban interface homeowners</li> </ol>	2C-16-P101-EP
<p>D. Messages Targeted For These Groups Might Include:</p> <ol style="list-style-type: none"> <li>1. Prevent wildfire</li> <li>2. Use approved spark arresters</li> <li>3. Don't burn toilet paper, bury it</li> <li>4. Put campfires dead out</li> <li>5. Don't play with matches</li> <li>6. Protect your home from wildfire</li> </ol>	2C-17-P101-EP
<p>E. The Message To Be Given Depends On The Time Of The Year And The Current Or Predicted Situation.</p>	2C-18-P101-EP

OUTLINE	AIDS & CUES
VII. DIFFERENCES BETWEEN THE MEDIA	2C-19-P101-EP
A. Newspapers	2C-20-P101-EP
1. Daily and weekly newspapers need detailed information and several sources to interview.	
2. They appreciate local story ideas that relate to current news, especially human interest stories. Fire prevention can often fill this need.	
3. They can use maps, graphics, and photos.	
4. An editor usually decides what stories reporters and photographers will cover and can provide ongoing coverage of a wildfire prevention program.	
5. Deadlines vary depending on the type of publication. Morning newspaper deadlines are usually in the late afternoon or early evening the day before publication.	
<p>Afternoon newspapers usually have an early morning, same-day deadline. Weekly newspapers have one designated deadline day per week.</p>	

OUTLINE	AIDS & CUES
<p>6. Advantages of newspapers</p> <ul style="list-style-type: none"> <li>a. Can help get the message delivered</li> <li>b. Allows more time to speak</li> <li>c. Can handle a lot of information</li> <li>d. Write stories</li> <li>e. Want good photo opportunities</li> </ul>	2C-21-P101-EP
<p>B. Radio</p> <p>1. Radio is an often-forgotten medium, but can provide the most effective means to reach target audiences.</p> <p>2. Radio news is immediate and ready to deliver your message NOW.</p>	2C-22-P101-EP
<p>3. Radio needs current, concise information with short soundbites. Small radio stations often have a one-person staff who appreciate your help in delivering an interesting story.</p> <p>Larger stations have reporters, producers, news directors, program directors, and public affairs directors.</p>	2C-23-P101-EP



OUTLINE	AIDS & CUES
<p>4. Advantages of radio</p> <ul style="list-style-type: none"> <li>a. Want fast information, interviews, 30-60 seconds.</li> <li>b. Broadcast every hour to half hour.</li> <li>c. More of the message, not personality.</li> <li>d. Taped and live interviews.</li> <li>e. It's an interview not a conversation.</li> <li>f. Talk radio offers an opportunity for a detailed, in-depth on air discussion and may include an opportunity to answer calls from listeners.</li> </ul>	<p>2C-24-P101-EP</p>
<p>C. Television</p> <ul style="list-style-type: none"> <li>1. Television is a powerful medium for wildfire prevention messages. Television reporters and photographers want to be where the action is.</li> <li>2. Television news have two key elements, strong visuals and soundbites. Interesting and exciting visuals, such as flames at a prescribed fire, will enhance a story.</li> </ul>	<p>2C-25-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Soundbites are the answers people give on camera to questions asked by reporters. They are the broadcast equivalent of quotes.</p> <p>Soundbites should be short, no more than 30 seconds. Agency employees should appear on camera in uniform.</p> <p>4. Advantages of television</p> <ul style="list-style-type: none"> <li>a. Depends on visuals/work fast</li> <li>b. Taping 1-2 minutes to a hour</li> <li>c. Gets across feelings</li> <li>d. Good locations</li> <li>e. No off the record</li> </ul> <p>D. If Relations With Media Have Not Gone Well:</p> <ul style="list-style-type: none"> <li>1. Talk to the reporter</li> <li>2. Offer to clarify information</li> <li>3. Ask how to be of more assistance</li> <li>4. End on a positive note</li> </ul>	<p>2C-26-P101-EP</p> <p>2C-27-P101-EP</p>

OUTLINE	AIDS & CUES
VIII. WHAT TO DO OR NOT DO	2C-28-P101-EP
<p>A. Do's:</p> <ol style="list-style-type: none"> <li>1. Prepare ahead of time, be ready.</li> <li>2. Assume you are being recorded.</li> <li>3. Offer tours or show-me trips or demonstrations.</li> <li>4. Respect all media deadlines/schedules.</li> <li>5. Practice before you do anything.</li> <li>6. Media laws must be respected.</li> <li>7. Listen carefully.</li> <li>8. Tell the whole story.</li> <li>9. Treat all reporters and individuals equally.</li> <li>10. Say "I don't know, but I will try to find out" if you do not know the answer to a question.</li> <li>11. Anticipate questions.</li> <li>12. Correct media mistakes.</li> <li>13. Suggest stories.</li> <li>14. Organize your thoughts.</li> </ol>	2C-29-P101-EP

OUTLINE	AIDS & CUES
<p>15. Wear uniform or official attire.</p> <p>16. Stay on the message.</p> <p>B. Don'ts:</p> <ol style="list-style-type: none"> <li>1. Fake it.</li> <li>2. Speak off the record.</li> <li>3. Offer no comment.</li> <li>4. Use slang.</li> <li>5. Speculate.</li> <li>6. Make flippant remarks.</li> <li>7. Wear sunglasses.</li> <li>8. Argue.</li> <li>9. Say everything at once.</li> <li>10. If you don't want it used, don't say it.</li> <li>11. Disappear, be available.</li> <li>12. Identify names of the injured.</li> </ol>	<p>2C-30-P101-EP</p>

OUTLINE	AIDS & CUES
<p>IX. THE INTERVIEW</p> <p>Most times, you are not able to choose the type of interview in which you participate. To be most effective, you should initiate contact, thereby selecting the medium and the format best suited to your strengths and your message.</p> <p>A. Remember You Are The Expert</p> <p>B. Summary</p> <ol style="list-style-type: none"> <li>1. The key to a successful interview is preparation and practice.</li> <li>2. It is the opportunity to educate the public and represent the agency.</li> <li>3. The media is a powerful tool that should be utilized and become a partner with.</li> <li>4. When we are familiar with something, be it lights and microphones, it loses it's threat.</li> <li>5. Always smile!</li> </ol>	<p>2C-31-P101-EP</p> <p>2C-32-P101-EP</p> <p>2C-33-P101-EP</p> <p>2C-34-P101-EP</p>
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 1877 "WILDFIRE PREVENTION AND THE MEDIA" OR DUPLICATE 2C-01-P101-HO.</b></p>	<p>2C-01-P101-HO</p>
<p>X. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <p>Explain the types of media, its use as a fire prevention tool and messages to be delivered.</p>	<p>2C-35-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 2 — Wildland Fire Prevention Education

LESSON: 2D — Fire Prevention Signing

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers, Fire Prevention Sign Guide

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Describe the principles and guidelines of a wildfire prevention sign program.
2. List the components of a sign plan.
3. Describe sign procurement procedures.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	2D-01-P101-EP
A. Describe The Principles And Guidelines Of A Wildfire Prevention Sign Program.	2D-02-P101-EP
B. List The Components Of A Sign Plan.	
C. Describe Sign Procurement Procedures.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>This lesson will provide principles and guidelines that will help fire prevention specialists create a consistent, effective, and economic signing program.</p> <p>Fire Prevention signing is an effective way of getting the message to the public.</p> <p>Fire Prevention specialists can create a consistent, effective, and economic signing program.</p>	2D-03-P101-EP
<p>III. THE FIRE PREVENTION SIGNING PROGRAM</p> <p><b>INSTRUCTOR NOTE: DISTRIBUTE TO EACH STUDENT THE WILDFIRE PREVENTION SIGN AND POSTER GUIDE, PMS 469, NFES 2753.</b></p>	2D-04-P101-EP
<p>A. Principles and Guidelines</p> <p>Provides basic principles, standards, and guidelines for the use, installation, and maintenance of wildfire prevention signs and posters. It also includes information on ordering procedures.</p>	2D-05-P101-EP
<p>B. Requirements</p> <p>Fire prevention signs and posters must be designed, installed, and maintained to achieve the important goals of effectively conveying a wildfire prevention message while portraying a positive agency image.</p>	2D-06-P101-EP

OUTLINE	AIDS & CUES
To be effective, signs and posters should:	
1. Convey the proper message for the location.	2D-07-P101-EP
2. Be sure signs are up-to-date with appropriate messaging.	2D-08-P101-EP
3. Convey a clear, positive, friendly, and simple message(s).	2D-09-P101-EP
4. Avoid “No” and “Do Not” messages. Avoid too many signs/posters with conflicting messages at one location.	
5. Command attention and generate respect.	2D-10-P101-EP
6. Display signs and posters where they are visible and can be read easily.	2D-11-P101-EP
7. Never post signs on trees, fence posts, etc.	2D-12-P101-EP
6. Display signs and posters on proper and well-maintained mounts.	2D-13-P101-EP
9. Keep signs and posters in good condition and clear of vegetation and clutter.	
10. Promptly replace signs and posters that are worn or damaged.	
C. Agency Identification	2D-14-P101-EP
Consider interagency signing programs.	



OUTLINE	AIDS & CUES
<p>D. Placement</p> <ol style="list-style-type: none"> <li>1. Signs should be located with both the viewer and the message in mind.</li> <li>2. Additionally, select locations which maximize the opportunity for the sign to convey its intended message. For example, a campfire message would be more appropriate and effective along a road leading to popular camping areas than it would be if located in an urban area.</li> </ol>	<p>2D-15-P101-EP</p>
<p>E. Installation</p> <p>As a general rule, place signs on the right-hand side of the roadway as close to the roadway as standards allow.</p> <p>Consider the following guidelines when selecting sign installation locations:</p> <ol style="list-style-type: none"> <li>1. Obtain necessary approvals from the right-of-way owner.</li> <li>2. Place signs where they provide adequate time for viewers to see and read the message, considering approach speed and road conditions.</li> </ol>	<p>2D-16-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Select locations that minimize viewing obstructions. Some common placement locations to be avoided, if possible, include:</p> <ul style="list-style-type: none"> <li>a. Dips in the roadway or trail.</li> <li>b. Just beyond the crest of a hill.</li> <li>c. Where the sign may interfere with the operation of a business or industry.</li> <li>d. Too close to trees or other foliage that could cover the face of the sign.</li> </ul>	2D-17-P101-EP
<p>4. Place roadway signs within the driver's "cone of vision."</p>	2D-18-P101-EP
<p><b>INSTRUCTOR NOTE: HAVE STUDENTS GO TO PAGE 7 IN THE SIGN GUIDE.</b></p>	
<ul style="list-style-type: none"> <li>a. As speed increases, driver concentration increases the focal point is more distant but also more narrowly defined.</li> <li>b. As speed decreases, driver concentration wanes.</li> </ul> <p>At 25 m.p.h., the eye's natural focus point lies 600 feet ahead of the car.</p> <p>At 45 m.p.h., it lies 1,200 feet ahead.</p>	

OUTLINE	AIDS & CUES
<p>c. As speed increases, the driver's peripheral vision decreases.</p> <p>On low speed roads, the signs can be set further back from the right-of-way and still be seen and be effective.</p> <p>At 25 m.p.h., a driver's "cone of vision" is 90 degrees wide. At 45 m.p.h., it narrows to 65 degrees and at 60 m.p.h. is only 40 degrees wide.</p> <p>d. As speed increases, a driver's ability to focus on foreground detail decreases.</p> <p>At 40 m.p.h., the closest point of clear vision lies 80 feet ahead of the car. At 60 m.p.h., the driver can see clearly only that detail within an area 1,000 to 1,400 feet in front of the car and within that 40 degree "cone of vision."</p> <p>At that speed, the car travels the distance between 110 feet and 1,400 feet in about 15 seconds.</p>	

OUTLINE	AIDS & CUES
<p>5. Guidelines for the installation of signs along roadsides are as follows:</p> <p><b>INSTRUCTOR NOTE: HAVE STUDENTS GO TO PAGE 6 IN THE SIGN GUIDE.</b></p> <p>a. Height - The bottom of the sign should be a minimum of five feet above the level of the roadway.</p> <p>b. Lateral Clearance - The distance from the edge of a roadway to the inner edge of the sign can range from six to twelve feet. The normal minimum is six feet.</p> <p>In cases where roadside topography precludes the six-foot minimum, the inner edge of the sign should be no closer than two feet from the outer edge of a road's shoulder.</p> <p>c. Canting - Normally, signs should be mounted approximately 93 degrees to the direction of, and facing, those they are intended to serve.</p> <p>Sign faces are normally vertical; but on grades, it may be desirable to tilt a sign 3 degrees back from the vertical.</p>	<p>2D-19-P101-EP</p>

OUTLINE	AIDS & CUES
<p>6. When choosing and maintaining a site for a sign, be aware of and avoid “sign clutter,” a situation in which new and different signs are added to a location over time.</p>	
<p>7. Locate fire prevention signs away from other informational signs.</p> <p>Where this is not possible, work with the other sign owners to reduce the number of signs to avoid a cluttered appearance.</p>	2D-20-P101-EP
<p>F. Sign Mounts</p> <p>Signs should be individually erected on separate posts or mounting, except where one sign supplements another. Signs should be located so they do not obscure each other or are hidden by other objects.</p>	2D-21-P101-EP
<p><b>INSTRUCTOR NOTE: HAVE STUDENTS GO TO PAGE 25 IN THE SIGN GUIDE.</b></p>	
<p>1. Use wood or metal posts. Use a suitable break away or yielding design.</p> <p>Concrete bases for sign posts should be flush with the ground level.</p> <p>2. Metal posts should be unpainted galvanized metal. All hardware should be either aluminum or galvanized.</p>	2D-22-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>3. After a sign installation is complete, the ends of the bolts should be snipped off and the threads disfigured or fractured to prevent removal of the nut by vandals or thieves.</li> <li>4. Posts should be proportional to the size of the sign. Generally, <ul style="list-style-type: none"> <li>a. Signs up to 36 inches across, one post.</li> <li>b. Signs from 37 inches to 72 inches across, two posts.</li> <li>c. Signs from 72 inches to 96 inches across, three posts.</li> </ul> </li> </ul>	
<p>G. Posters</p> <ul style="list-style-type: none"> <li>1. Introduction</li> </ul> <p>Posters are seasonal notices.</p> <ul style="list-style-type: none"> <li>2. Use</li> </ul> <p>Posters are ideal ways of getting important messages to the target audience quickly. Little more is needed than the poster and a staple gun. It is important that outdated posters be promptly removed.</p>	2D-23-P101-EP
<ul style="list-style-type: none"> <li>a. Use the largest posters only on high-speed highways.</li> </ul>	2D-24-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>b. The smaller posters, such as 14" x 12" and 11" x 9" are designed for pedestrian traffic and for trails, campgrounds, trail heads, bulletin boards, roadside rests, and so on. The largest of these generally has adequate visibility.</li> </ul>	2D-25-P101-EP
<ul style="list-style-type: none"> <li>c. Medium - slow speed roads use 16" x 44" signs.</li> </ul>	2D-26-P101-EP
<p>H. Maintenance</p> <ul style="list-style-type: none"> <li>1. Replace or repair signs that have been defaced.</li> <li>2. Remove or cover signs when they are no longer needed or when the message is no longer applicable.</li> <li>3. Remove weeds, brush and other obstacles that obstruct the visibility of the sign.</li> </ul>	2D-27-P101-EP
<p>IV. THE SIGN PLAN</p> <p>Most wildland agencies require field units to prepare an area sign plan. These plans give direction on all phases of the general signing program. This includes fire prevention signs and posters.</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE AN EXAMPLE OF AN AGENCY SIGN PLAN. SEE PAGE 51 OF THE SIGN GUIDE.</b></p>	2D-28-P101-EP

OUTLINE	AIDS & CUES
<p>V. ORDERING FIRE PREVENTION SIGNS AND POSTERS</p> <p>A. Procurement Procedures</p> <p><b>INSTRUCTOR NOTE: HAVE STUDENTS GO TO PAGE 66 IN THE SIGN GUIDE.</b></p> <p>B. Ordering From Unicorn</p> <ol style="list-style-type: none"> <li>1. Any wildland fire agency or fire department can order from Unicorn.</li> <li>2. General fire prevention signs and posters can be purchased from this source.</li> <li>3. Smokey Bear fire danger wooden signs can be ordered.</li> <li>4. Unicorn is part of the federal prison industry</li> <li>5. Catalogs and on-line information is available on the internet, <a href="http://www.unicor.gov">http://www.unicor.gov</a>.</li> </ol> <p><b>INSTRUCTOR NOTE: DEMONSTRATE THE UNICOR CATALOG AND ORDERING PROCEDURES.</b></p>	<p>2D-29-P101-EP</p>
<p>VI. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <ol style="list-style-type: none"> <li>A. Describe The Principles And Guidelines Of A Wildfire Prevention Sign Program.</li> <li>B. List The Components Of A Sign Plan.</li> <li>C. Describe Sign Procurement Procedures.</li> </ol>	<p>2D-30-P101-EP</p>



COURSE: Fire Prevention Education 1, P-101

UNIT: 2 — Wildland Fire Prevention Education

LESSON: 2E — Children’s Fire Prevention Programs

SUGGESTED TIME: 2 Hours

TESTING METHOD: Interactive Participation, Demonstration, Final Test

PRESENTATION: Lecture, Audio Visual, Exercise

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. List three elements that need to be considered when establishing a school program.
2. Identify three concerns and issues needed to discuss with the teacher when planning school presentations.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	2E-01-P101-EP
A. List Three Elements That Need To Be Considered When Establishing A School Program.	2E-02-P101-EP
B. Identify Three Concerns And Issues Needed To Discuss With The Teacher When Planning School Presentations.	

OUTLINE	AIDS & CUES
II. INTRODUCTION	2E-03-P101-EP
A. Understanding The Education Setting  The first step in reaching out to students and presenting a fire prevention message is to know and understand the education setting and local school system.	
B. Steps in selling the fire prevention message. This is the chance to “sell” the wildfire prevention goals. Initial steps to take include the following: <ol style="list-style-type: none"> <li>1. Contact school administrators.</li> <li>2. Be prepared to present an outline and supportive materials to school officials when applying for approval of the wildfire prevention program presentation.</li> <li>3. Be aware of current demands on school time.</li> </ol>	2E-04-P101-EP
4. Examine state and local requirements and see where fire education fits.	2E-05-P101-EP
5. Make personal contacts with teachers.	
6. Make contacts through other means (e.g., Parent-Teacher Association, Project Learning Tree).	2E-06-P101-EP
7. Contact teacher organizations for input.	

OUTLINE	AIDS & CUES
<p>III. THE TEACHER'S INPUT</p> <p>The presentation of a wildfire prevention program will be enhanced if input is obtained from the teacher during the planning process. This will show interest and professionalism as well as provide helpful information to improve the effectiveness of the presentation.</p> <p>A. What You Need To Learn To Set Up A School Program:</p> <ol style="list-style-type: none"> <li>1. Speak with the teacher and try to get a feel for current understanding of fire and wildfire prevention by the students.</li> <li>2. Ask what fire safety issues have been presented in the past.</li> <li>3. Ask what objective the presentation must meet for the class/teacher/school.</li> <li>4. Learn what the teacher's time constraints are and tailor the presentation to meet those constraints.</li> <li>5. Ask the teacher about problem children.</li> </ol>	<p>2E-07-P101-EP</p> <p>2E-08-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. What You Need To Do.</p> <ol style="list-style-type: none"> <li>1. Visit the school in advance to ensure the facilities and classroom layout are adequate for the presentation.  If a visit is not possible in advance, ask for detailed information by phone or mail.</li> <li>2. Ask for the number of students and if there are any students with special needs (deaf, physically impaired, non-English speaking students, etc.).</li> <li>3. If audiovisual aids are to be used, BE SURE to ask about special needs such as room setup, power supply, screens, window shades, etc.</li> <li>4. A good rule of thumb for supervision is to have one adult for every 10 children. It is also a good idea to send information, guidelines, and rules to the teacher or program leader in advance of the presentation.</li> </ol>	<p>2E-09-P101-EP</p>

OUTLINE	AIDS & CUES
IV. GUIDELINES FOR TARGETING SPECIFIC AGE GROUPS	2E-10-P101-EP
A. Preschool - Ages 3-5	2E-11-P101-EP
1. What you should know	2E-12-P101-EP
a. Studies have shown that reaching children of preschool age with a fire prevention message is essential in our effort to reduce wildland fires.	
Effective wildfire prevention and fire safety education geared toward preschool children can substantially reduce the number of wildland fires.	
b. Preschool children are just beginning to be more aware of what goes on around them and may have some mistaken concepts.	2E-13-P101-EP
First hand experience is helpful and should be included when talking to preschoolers.	
c. Clarify their concepts.	
d. Try to involve the whole class.	

OUTLINE	AIDS & CUES
<p>2. Keys to the presentation</p> <p>You can help these children develop correct concepts of fire prevention by using the following methods:</p> <p>a. Give simple information.</p> <p>Simple fire prevention materials should be used and thoroughly explained to the children.</p> <p>Complicated materials are not understood and should never be used.</p> <p>b. Let them touch and see.</p> <p>To increase the children's understanding of the message, include items that allow the children to use all of their senses.</p> <p>c. Present information a little at a time.</p> <p>Too much information at once is usually overwhelming and is not absorbed by a preschool child.</p>	<p>2E-14-P101-EP</p>

OUTLINE	AIDS & CUES
<p>d. Answer all questions to the children's satisfaction.</p> <p>If you're not sure you have done so, ask them. Some children will use this opportunity to tell a story and it is up to you to steer the presentation back to answering questions.</p> <p>3. Presentation techniques</p> <p>There are special techniques that can be used with preschool children. The instructor can become a part of the class and let the children feel at ease.</p> <p>a. Sit on the floor or chair with them or be at the same eye level.</p> <p>b. During the presentation, pass around items being talked about. This helps the children become actively involved, gives them something for a reference and enhances their understanding of the message.</p> <p>c. Use visual aids wherever possible (use large, simple images).</p> <p>d. Move slowly, do not use rapid movements.</p> <p>e. Speak slowly in a quiet and calm voice.</p>	<p>2E-15-P101-EP</p> <p>2E-16-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>f. Introduce a few ideas at a time; be sure the children understand them.</li> <li>g. Remember that a workable-size group of pre-schoolers is between five and twenty students—the fewer the better.  Verify the number of students before hand in order to better plan the program.</li> <li>h. Relate the information in the message to something within the children’s experience (barbecue, fireplace, gas or wood stove, birthday candles, etc.).</li> </ul>	
<p>B. Primary Grades (Kindergarten Through Third Grade)</p>	2E-17-P101-EP
<ul style="list-style-type: none"> <li>1. What you should know <ul style="list-style-type: none"> <li>a. Children in the primary grades (kindergarten through second grade) are usually active 5- to 7-year-olds.  They are alert, keen observers with vivid imaginations.  They learn best by participating and being involved in activities with their hands, feet, and body.</li> </ul> </li> </ul>	2E-18-P101-EP



OUTLINE	AIDS & CUES
<p>b. The primary grade child is a pretender and imitator who is easily influenced by the behavior of adults.</p>	
<p>c. Attention spans among age groups vary considerably.</p> <p>Plan the program length, class size, and course content accordingly.</p> <p>Do not try to present too many ideas at one time. Use one or two simple themes.</p>	2E-19-P101-EP
<p>d. Kindergarten and first grade children require short, easy lessons no longer than 10 to 15 minutes in length.</p> <p>Second graders may accept an interesting, well-illustrated program of no longer than 25 minutes.</p> <p>Indoor programs should never go beyond one school period for any primary class.</p>	2E-20-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>e. The ideal group size is 20 to 30 children. This should be the rule for kindergarten and first grade. Avoid mixing classes.</li> <li>f. The language used must be appropriate to the age level being taught.  A 7-year-old second grader can grasp the meaning of some words that are foreign to the 5-year-old kindergarten student.  Observe the children when speaking. If they do not understand a concept, try using different words or relate an example in another way.</li> </ul>	2E-21-P101-EP
<ul style="list-style-type: none"> <li>2. Presentation techniques <ul style="list-style-type: none"> <li>a. The techniques to use in reaching primary grade students differ from those used with younger children.  The following are some suggested techniques to use when presenting a program to students at this educational level:</li> </ul> </li> </ul>	2E-22-P101-EP

OUTLINE	AIDS & CUES
<p>(1) Identify with the group. For instance, put yourself in the place of the child.</p> <p>Get down to their level by sitting on the floor or a small chair. Meet them eye-to-eye.</p>	2E-23-P101-EP
<p>(2) These are impressionable children who may hold onto every word and action, so be careful what is said or done.</p>	2E-24-P101-EP
<p>(3) Use slow, deliberate movements.</p>	
<p>(4) Speak clearly and distinctly.</p>	
<p>(5) Repeat often, emphasizing and explaining important words.</p>	2E-25-P101-EP
<p>(6) Look them in the eyes as you glance around the group.</p>	
<p>(7) Answer each question completely and be sure the children understand the answer. Have the class help in answering.</p>	2E-26-P101-EP

OUTLINE	AIDS & CUES
<p>b. After the presentation</p> <p>After concluding the presentation to the class, provide materials to the teacher(s) to continue teaching the subject matter during the school year.</p> <p>Write a thank-you letter to the teacher as soon as possible, using the following suggestions:</p> <ol style="list-style-type: none"> <li>(1) Word it so the teacher can read it to the class.</li> <li>(2) Design it so that it serves as a review of the presentation.</li> </ol>	<p>2E-27-P101-EP</p> <p>2E-28-P101-EP</p>
<p>C. Handling Problems And Problem Students</p> <p>Preschool through second grade</p> <ol style="list-style-type: none"> <li>1. Sometimes there may be little problems that plague you, but if you are well-prepared and make the presentation interesting, you can overcome the small difficulties and avoid major ones.</li> </ol>	<p>2E-29-P101-EP</p>

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>2. Sometimes, no matter how much is done, a disruptive child may interrupt the presentation.</li> <li>3. Do not lose your composure or let things get out of hand.</li> <li>4. Make the problem child your helper. Let the child hand out materials, sit next to you, hold up displays, or draw on the blackboards.</li> </ol> <p>If necessary, seek the teacher's assistance in dealing with or removing a problem student.</p>	
<p>D. Developing Presentation Skills: Guidelines And Techniques</p> <ol style="list-style-type: none"> <li>1. This lesson provides information to improve presentation skills.</li> <li>2. Thoroughly developed, effective presentations can increase student participation, understanding, and support.</li> </ol>	2E-30-P101-EP

OUTLINE	AIDS & CUES
<p>3. As a minimum, the following should be considered:</p> <ul style="list-style-type: none"> <li>a. Become familiar with the material, program and props well in advance of the presentation.</li> <li>b. Wear an agency uniform, when appropriate.</li> <li>c. Adjust the presentation to meet the educational and skill level of the audience.</li> <li>d. Practice presenting a professional agency image.</li> </ul> <p>4. Preparation</p> <p>Determine in advance what the talk is about and the type of presentation that is planned.</p> <p>After selecting the subject and the type of presentation, outline the points to cover.</p> <ul style="list-style-type: none"> <li>a. Find an interesting starting point or attention-grabber.</li> </ul> <p>In the opening, try to establish rapport with the audience. The more that is known about the audience beforehand, the easier this will be.</p>	<p>2E-31-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>b. Fill in the body of the talk with the points to cover, keeping in mind the background, interests, and concerns of the audience.</li> <li>c. Select a good concluding point. Without a definite conclusion, the instructor might flounder helplessly and cause embarrassment.  It is helpful to partially memorize the beginning and ending of your talk. Never memorize the body of your talk.</li> <li>d. Prepare psychologically. Much of the success of the talk depends on the instructor's frame of mind.  Look forward to the opportunity to present issues of prime concern to the audience.</li> </ul>	
<ul style="list-style-type: none"> <li>5. Practice <ul style="list-style-type: none"> <li>a. Rehearse the talk. Carefully work out the elements of sequence, timing, and continuity. Remember that more practice time is needed to develop a formal talk that sounds natural and is interesting and personal.</li> </ul> </li> </ul>	2E-32-P101-EP

OUTLINE	AIDS & CUES
<p>b. Have someone else listen to the practice talk to help smooth out rough areas.</p> <p>If visual aids are used, determine where to stand so the audience can see without obstructions.</p> <p>Slides, movies, and other visuals need to be run through for timing, sequence, and appropriateness.</p> <p>c. Experiencing nervousness and stage fright is normal for most people.</p> <p>Apprehension about the audience reaction is often a positive element because the very nature of this feeling can make the instructor more alert.</p> <p>(1) While there is no single method to remove the nervousness and fears, preparation and practice are likely the most effective tools to help deal with these feelings.</p> <p>(2) The more prepared the instructors are, the more comfortable they will be before, during, and after the presentation.</p>	



OUTLINE	AIDS & CUES
<p>6. Presentation</p> <p>a. When the time comes to perform, try to relax. If you are nervous, experts on public speaking suggest that you take a deep breath and exhale slowly.</p> <p>(1) Before being introduced, be sure the uniform is in order and then leave the attire alone.</p> <p>(2) When you are introduced, rise, face the person who introduced you, pause a few seconds to let things settle down, and then make your opening statement.</p> <p>b. Personality is one of the most important ingredients of your talk.</p> <p>You have the ability and prestige, or the group (or your supervisor) would not have asked you to speak.</p> <p>You arrived at your present position because of your talents and effort, coupled with knowledge and years of personal experience.</p>	<p>2E-33-P101-EP</p>

OUTLINE	AIDS & CUES
<p>c. All of these together help make up your personality, which is the most effective tool you possess.</p> <p>A little humility and a smile will put the audience at ease and gain their support.</p> <p>7. Presentation</p> <p>a. Stand upright. Let your hands rest naturally at your sides or rest them on the lectern.</p> <p>Do not hold eyeglasses, pens or pencils, books, magazines, other objects, or jingle change in your pocket.</p> <p>Handling these objects is a nervous habit that tends to distract the audience from what is being said.</p> <p>b. Maintain good eye contact with the audience.</p> <p>Visually scan the audience. Do not settle on one individual, the wall, ceiling, floor, or podium.</p> <p>If reading something, look up frequently to let the audience know they have not been forgotten.</p>	<p>2E-34-P101-EP</p>

OUTLINE	AIDS & CUES
<p>c. Use Gestures</p> <p>They add interest. Do not flail your arms, but use gestures pertinent to your remarks. Let your gestures be natural, not artificial.</p> <p>d. Involve the audience with props whenever possible</p> <p>For example, simple, colorful and creative items that encompass the use of many senses are suggested, especially for young audiences.</p> <p>8. If you sit down after speaking and realize that you left out parts of your talk that were very important, don't dwell on it or worry about it. Use it as a learning experience and decide that you will do better next time.</p>	
<p>V. CLASSROOM EXERCISE</p> <p><b>INSTRUCTOR NOTE: DEVELOP CLASSROOM TEAMS.</b></p> <p><b>INSTRUCTOR NOTE: EACH TEAM WILL SPEND 30 MINUTES DEVELOPING A CLASSROOM PRESENTATION FOR THE PRESCHOOL - SECOND GRADE LEVEL.</b></p>	<p>2E-35-P101-EP</p>

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: EACH TEAM WILL PRESENT TO THE CLASS THEIR DEVELOPED CLASSROOM PRESENTATION.</b></p>	2E-36-P101-EP
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 1254 “WILDFIRE PREVENTION - CONDUCTING SCHOOL PROGRAMS GUIDE” OR DUPLICATE 2E-01P101-HO.</b></p>	2E-01-P101-HO
<p>VI. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. List Three Elements That Need To Be Considered When Establishing A School Program.</li> <li>B. Identify Three Concerns And Issues Needed To Discuss With The Teacher When Planning School Presentations.</li> </ul>	2E-37-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 2 — Wildland Fire Prevention Education

LESSON: 2F — Fire Prevention Materials

SUGGESTED TIME: 2 Hours

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Utilize and acquire fire prevention educational materials.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	2F-01-P101-EP
Utilize and acquire fire prevention educational materials.	2F-02-P101-EP
II. INTRODUCTION	2F-03-P101-EP
Fire Prevention Specialists need to know how to obtain appropriate materials to be effective. This lesson will provide information on what's available, how to obtain materials, or how to develop custom elements.	
This lesson will cover:	2F-04-P101-EP
A. Sources Of Fire Prevention Educational Supplies	

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>B. Problems Associated With Obtaining Fire Prevention Educational Material</li> <li>C. Funding Considerations</li> <li>D. Sources Of Borrowing And Sharing</li> <li>E. Ordering Procedures</li> <li>F. Federal Government Printing Office Procedures (GPO)</li> </ul>	
<p>III. SOURCES OF FIRE PREVENTION AND EDUCATION MATERIAL</p>	2F-05-P101-EP
<p>List of sources to acquire various materials and supplies:</p>	
<ul style="list-style-type: none"> <li>A. National Symbols Cache <ul style="list-style-type: none"> <li>1. NWCG website</li> <li>2. Download catalog</li> </ul> </li> <li>B. National Fire Equipment And Supplies Or System (NFES)</li> <li>C. Licensee Catalogs</li> </ul>	2F-06-P101-EP
<p><a href="http://www.smokeybear licensing.com">www.smokeybear licensing.com</a></p>	

OUTLINE	AIDS & CUES
D. Unicor	
E. Government Printing Office (GPO)	
F. Private Print Shops	
G. State, County And City Print Shops	
H. Donations	
I. National Fire Safety Council	
J. National Fire Protection Association (NFPA) Some Free Materials Available	
K. County extension services	
L. National Association Of State Foresters Catalog	
M. National Wildfire Coordination Group (NWCG) Publications Catalog Part 2, NFES 3362	
N. Local Fire Agencies	2F-07-P101-EP
O. Government Sign Catalog	
P. Ad Council - Annual Theme	
Q. Local Businesses	
R. Internet	
1. <a href="http://www.smokeybear.com">www.smokeybear.com</a>	
2. Agency websites	

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: CONDUCT AN INTERACTIVE CLASS EXERCISE TO DETERMINE OTHER SOURCES OF FIRE PREVENTION MATERIALS.</b></p>	
<p>IV. PROBLEMS ASSOCIATED WITH OBTAINING FIRE PREVENTION EDUCATIONAL MATERIALS</p>	2F-08-P101-EP
<p>Following are some things to consider when purchasing materials:</p>	
<p>A. Use Of Smokey</p>	2F-09-P101-EP
<p>Use of official approved artwork</p>	
<p>B. Outdated Smokey Materials And Costumes, Use Current Materials</p>	
<p>C. Timeframes</p>	
<p>Plan in advance, what materials are needed to meet the objectives?</p>	
<p>D. GPO Regulations</p>	
<p>Know the local print coordinator</p>	



OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>E. How To Deal With Non-English Speaking Publications</li> <li>F. Developing Or Producing Materials/Products  Lack of geographic area materials, plan ahead, modify, create</li> <li>G. Outdated Materials Other Than Smokey</li> <li>H. Lack Of Planning</li> <li>I. PSA - Translation Into Other Languages</li> <li>J. Lack Of Geographic Area Specific Material</li> </ul>	
<p><b>INSTRUCTOR NOTE: CONDUCT AN INTERACTIVE CLASS EXERCISE TO DETERMINE OTHER PROBLEMS THEY EXPERIENCED OBTAINING FIRE PREVENTION MATERIALS.</b></p>	

OUTLINE	AIDS & CUES
<p>V. FUNDING CONSIDERATIONS</p> <p>Some things you should know when considering funding for materials include:</p> <ul style="list-style-type: none"> <li>A. Whose Money Is It?</li> <li>B. Where Is It Coming From And Is It Available Now?</li> <li>C. How Much?</li> <li>D. Limitations</li> <li>E. “Bang For The Buck”</li> <li>F. Is Cooperative Money Available?</li> <li>G. Sharing Existing Inventory</li> </ul>	<p>2F-10-P101-EP</p> <p>2F-11-P101-EP</p>
<p>VI. SOURCES OF BORROWING AND SHARING</p> <p>Research other opportunities to obtain materials.</p> <ul style="list-style-type: none"> <li>A. Local Fire And Non-fire Agencies</li> <li>B. Regional Prevention Inventories</li> <li>C. Internet</li> </ul> <p><b>INSTRUCTOR NOTE: CONDUCT AN INTERACTIVE CLASS EXERCISE TO DETERMINE OTHER SOURCES OF BORROWING AND SHARING OF FIRE PREVENTION MATERIALS.</b></p>	<p>2F-12-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VII. ORDERING PROCEDURES</p> <p>Know the ordering system and seek help from specialists, make them a partner.</p> <p>A. Identify Needs, Tied To An Outcome</p> <p>B. Prepare Requisition</p> <p>C. Get Approval Of Finance Or Local Purchasing Agent</p> <p>D. Get Supervisor Approval</p> <p>E. Identify Funding Through Finance Or Local Purchasing Agent</p> <p>F. Network With Agencies To Identify Optimum Purchasing Procedures</p>	<p>2F-13-P101-EP</p> <p>2F-14-P101-EP</p>
<p>VIII. FEDERAL GOVERNMENT PRINTING OFFICE PROCEDURES</p> <p>Federal agencies must follow GPO procedures when purchasing printing or duplication services.</p> <p>A. Printing And Duplicating Must Go Through GPO.</p> <p>B. Waivers Can Be Granted Verbally For One Time Non-Repeating Orders, Based On Needs And Circumstances.</p> <p>C. If on weekends or holidays, do what is needed, document actions, make contact with printing specialist as soon as available.</p>	<p>2F-15-P101-EP</p>

OUTLINE	AIDS & CUES
IX. SAMPLES OF MATERIALS USE	2F-16-P101-EP
A. Movie Theatre Slides	
B. Billboards	
C. Electronic Media Boards	
D. Flyers	
E. Sports	
F. Bumper Stickers	
G. Grocery Bags	
H. Utility Bills	
I. Placemats	
J. United Parcel Service	
K. Posters	
L. Trading Cards	
M. Door Hangers	2F-17-P101-EP
N. Photos	
O. Web Sites	
P. Highway Electronic Signs	
Q. Satellite Television	

OUTLINE	AIDS & CUES
R. Magnets	
S. Roadside Stops	
T. Fairs	
U. Exhibits	
V. Community Meetings	
<b>INSTRUCTOR NOTE: CONDUCT CLASS DISCUSSION ON OTHER MATERIAL USE.</b>	
X. EXAMPLES WHERE MATERIALS MAY BE EFFECTIVE	2F-18-P101-EP
A. Talk shows	2F-19-P101-EP
B. Interviews	2F-20-P101-EP
C. Sports Events	2F-21-P101-EP
D. Homeowner Contacts	2F-22-P101-EP
E. Exhibits	2F-23-P101-EP
F. Displays	2F-24-P101-EP
G. Trade Shows	2F-25-P101-EP
H. Interagency Activities	2F-26-P101-EP
I. Cooperators	2F-27-P101-EP
J. Cable Television	2F-28-P101-EP
K. Partnerships	2F-29-P101-EP

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: CONDUCT CLASS DISCUSSION ON OTHER EFFECTIVE USES.</b></p> <p>XI. ORDERING FIRE PREVENTION MATERIALS EXERCISE</p> <p>A. Classroom Exercise Utilizing The <a href="http://www.symbols.gov">www.symbols.gov</a> Web Site.</p> <p>B. Interactive Demonstration On How To Order Materials.</p> <p><b>INSTRUCTOR NOTE: COMPUTER WITH INTERNET ACCESS WILL BE REQUIRED. AGENCY PASSWORD WILL ALSO BE NEEDED. IF NO INTERNET IS AVAILABLE, PRODUCE THE MATERIALS AND DO A SIMULATED EXERCISE, MANUALLY.</b></p>	<p>2F-30-P101-EP</p>
<p>XII. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <p>Utilize and acquire fire prevention educational materials.</p>	<p>2F-31-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3A — Fire Prevention and Fuels Management

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. List two reasons to do fuels projects.
2. Name three methods of doing fuel treatment.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	3A-01-P101-EP
A. List Two Reasons To Do Fuels Projects.	3A-02-P101-EP
B. Name Three Methods Of Doing Fuel Treatment.	
II. INTRODUCTION TO FUELS MANAGEMENT	3A-03-P101-EP
A. Fuels are classified as live and dead materials and are categorized by size classes and Vegetation type.	
Hazardous fuel situations are found where there is thick growth or accumulation of dead vegetation.	

OUTLINE	AIDS & CUES
<p>These hazardous fuel situations can be found in remote areas as well as in areas where wildland vegetation is intermixed with structures.</p>	3A-04-P101-EP
<p>B. Hazardous Fuels Situations Can Occur Naturally Or As A Result Of Human Activities.</p> <p>Areas of heavy fuels can contribute to severe fire behavior or disastrous wildfires that are resistant to fire suppression.</p>	
<p>C. Fuels management is the manipulation and reduction of hazardous fuels to meet fire management objectives.</p>	3A-05-P101-EP
<p>Fuels management is accomplished through a variety of fuel treatment strategies such as piling and burning timber slash; manipulating vegetation (pruning, piling, lop, and scatter); fuel reduction or removal along roadways as well as fuelbreaks near structures and developments; prescribed fire projects, etc.</p>	3A-06-P101-EP 3A-07-P101-EP 3A-08-P101-EP 3A-09-P101-EP 3A-10-P101-EP 3A-11-P101-EP 3A-12-P101-EP
<p>D. Fuel treatment projects used properly in specific areas can effectively reduce the fire hazard and be a benefit to firefighter safety, the number one priority for all agencies.</p> <p>Hazard reduction plans and projects should be outlined in the local Community Wildfire Prevention/Mitigation Plan to meet fire management and land management plan objectives.</p>	



OUTLINE	AIDS & CUES
E. Fuels treatments primarily reduce fire intensity and reduce the potential for fire spread.	3A-13-P101-EP
<p>F. The benefits of reducing the fuel in a wildland area include a less intense wildland fire.</p> <p>The competition for light, moisture, and nutrients are reduced, and there may be a decrease in stress to the remaining larger older vegetation.</p>	3A-14-P101-EP
G. When the surface and ladder fuels are reduced, firefighter safety and effectiveness will increase, and structures become more survivable.	
H. Not reducing fuels can have serious consequences on adjoining property, public or private.	
<p>I. In areas where smoke is an issue and where topographic features allow, mechanical equipment can be used for biomass removal. Chipping, shredding and grazing animals can also be used to reduce the ground and surface fuel.</p>	<p>3A-15-P101-EP</p> <p>3A-16-P101-EP</p> <p>3A-17-P101-EP</p>
J. Fuels management can improve the chances that suppression will be successful around homes and other protection targets and will improve the health and viability of ecosystems.	3A-18-P101-EP

OUTLINE	AIDS & CUES
<p>III. WHY DO FUELS MANAGEMENT?</p> <p>A. Protection</p> <p>1. Protecting Property</p> <p>The more fuel present, the more difficult it is for fire suppression crews to extinguish advancing wildfires and protect adjacent property.</p> <p>2. Protecting Resources</p> <p>Wildfires can rage over extensive areas, burning entire watersheds and creating temperatures that cause long-lasting damage.</p> <p>Soils can be exposed and eroded into streams, removing riparian vegetation, and causing sedimentation and wildlife damage.</p>	3A-19-P101-EP
<p>B. Restoration And Maintenance Of Fire Adapted Ecosystems</p> <p>1. Creates and maintains habitat diversity for wildlife.</p> <p>2. Prepares the land for new growth.</p> <p>3. Helps certain plants and tree species to regenerate.</p> <p>4. Creates good forest health.</p>	3A-20-P101-EP

OUTLINE	AIDS & CUES
IV. FUELS MANAGEMENT METHODS - PRESCRIBED FIRE	3A-21-P101-EP
<p>A. What is Prescribed Fire?</p> <p>Any fire ignited by management actions to meet specific objectives.</p> <p>A written, approved prescribed fire plan must exist and NEPA requirements (where applicable) must be met, prior to ignition.</p> <p>B. Prescribed fire can be used to manage natural and activity fuels, maintain areas that have already been treated, serve as a tool to achieve resource management objectives, and sustain ecosystem values.</p> <p>C. Prescribed fire is the preferred method in areas sensitive to impacts from mechanical treatments and on slopes greater than 35 percent. It can also have cost advantages.</p> <p>D. Prescribed fire is used only when temperature, humidity, wind speed, and fuel moisture are within scientifically determined limits as described in the burn plan.</p> <p>E. Specific management objectives may be to reduce the fuels and/or create a mosaic pattern in the vegetation to create cover, forage, and browse for wildlife.</p>	3A-22-P101-EP

OUTLINE	AIDS & CUES
<p>F. Prescribed fire can also mimic naturally occurring fire, enhance native plant species, and create diversity in vegetation structure and distribution.</p> <p>1. Benefits of prescribed fire</p> <ul style="list-style-type: none"> <li>a. Reduce the accumulation of dead and down material: Needles, brush, and trees.</li> <li>b. Recycle forests nutrients.</li> <li>c. Minimize insect epidemics and the spread of disease in crowded stands.</li> <li>d. Firefighter safety: Fires are smaller, less intense after prescribed burning.</li> <li>e. Wildland Urban Interface: To reduce the threat to lives and property.</li> <li>f. Reintroduce fire into the environment.</li> </ul> <p>2. Disadvantages of prescribed fire</p> <ul style="list-style-type: none"> <li>a. Risk of escape</li> <li>b. Smoke reducing the visibility on the roadways and scenic views</li> <li>c. Smoke affecting individuals with allergies and respiratory problems</li> </ul>	<p>3A-23-P101-EP</p> <p>3A-24-P101-EP</p> <p>3A-25-P101-EP</p>

OUTLINE	AIDS & CUES
<p>G. Who Does The Burning?</p> <p>Trained fire management professionals who have studied fire behavior and control techniques conduct prescribed burns to meet resource management objectives.</p>	3A-26-P101-EP
<p>H. What Is A Burn Prescription?</p> <p>1. A burn plan outlines the fire information requirements and objectives for a burn. Land managers determine if the resource would benefit from a slow, cooler fire versus a hotter fire.</p> <p>2. The plan includes how the fire will be ignited and contained and what resources, such as fire trucks and personnel, must be on site before burning may begin.</p>	3A-27-P101-EP
<p>3. The burn plan describes what weather and environmental conditions are necessary for meeting resource objectives in a safe and effective manner.</p>	3A-28-P101-EP

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>4. A prescription specifies a range of humidity conditions, wind speeds and fuel moisture levels in which management is likely to implement the burn.</li> <li>5. The burn plan will identify who is/will be involved in the planning; such as neighbors, outside groups etc.</li> </ol>	
<p><b>INSTRUCTOR NOTE: DEMONSTRATE A PRESCRIBED FIRE PLAN.</b></p>	
<ol style="list-style-type: none"> <li>I. What About The Smoke? <ol style="list-style-type: none"> <li>1. Before each burn, land managers work with forecasters from the National Weather Service to predict the amount, duration and probable area of smoke impact to adjacent communities and travel corridors.</li> <li>2. The burn prescription is then written to mitigate negative impacts of smoke.</li> <li>3. Smoke, however, is a natural by-product of fire and some amounts are unavoidable.</li> <li>4. Fire is an important and inevitable part of the natural ecosystem. By planning and working together, the benefits of fire can be maximized and the damage minimized.</li> </ol> </li> </ol>	<p>3A-29-P101-EP</p>

OUTLINE	AIDS & CUES
<p>J. What Can A Homeowner Expect?</p> <p>Prescribed fire can provide many years of wildfire protection, but some short-term undesirable aspects may also exist:</p> <ol style="list-style-type: none"> <li>1. Smoke: Fire management professionals make great efforts to reduce smoke impacts; however, some smoke is unavoidable.</li> <li>2. Smell: A fire smell may be present for several days after the burn.</li> <li>3. Scorching: Some scorching of lower tree branches, bole (or even the entire tree) is to be expected. After the fire, some needles will turn orange and eventually drop from the tree.</li> <li>4. Weeds: Efforts are made to manage the spread of weeds. In some cases, an increase in weeds may follow a burn.</li> <li>5. Aesthetics: Immediately after a burn, the treated site may appear charred and lifeless. This temporary condition will be replaced by the re-sprouting of grasses, forbs, shrubs, and trees, beginning shortly after the winter rainy season.</li> </ol>	<p>3A-30-P101-EP</p>





OUTLINE	AIDS & CUES
<p>B. Other Types Of Mechanical Or Hand Treatments</p> <ol style="list-style-type: none"> <li>1. Piling - Hand or mechanical</li> <li>2. Lop and scatter</li> <li>3. Yarding unmerchantable material (YUM)</li> <li>4. Chip, remove, or scatter</li> <li>5. Thin and remove</li> </ol> <p>C. Emphasize Use Of Biomass</p>	
<p>VI. FUELS MANAGEMENT METHODS - CREATION OF FUELBREAKS AND DEFENSIBLE FUEL ZONES</p> <p>A. A defensible fuel zone or shaded fuelbreak is a strip, generally 100-300 feet wide, ( up to 1/4 mile wide), in which shrubs and branches have been removed or vegetation thinned to create an area with a reduced amount of dead and flammable materials.</p> <p>B. They are designed so that fuel is almost completely removed on one side of the area, with progressively more shrubs towards the outside boundaries. The fuelbreak now blends in with the surrounding landscape in a naturally appearing way. These areas are generally placed along ridge lines and roads for maximum firefighting effectiveness, and to simplify construction and maintenance.</p>	<p>3A-33-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Fuelbreaks Are Expected To:</p> <ol style="list-style-type: none"> <li>1. Reduce wildfire size in treated areas by helping managers to limit the amount of area affected by wildfire.</li> <li>2. Create zones where fire suppression efforts can be conducted more safely and effectively.</li> <li>3. Break up the continuity of fuels over a landscape.</li> <li>4. Become anchor lines for further area-wide fuel treatments, such as prescribed burning.</li> </ol>	3A-34-P101-EP
<p>VII. FUELS MANAGEMENT METHODS - OTHER TYPES OF TREATMENTS</p> <p>A. Hazardous fuels reduction treatments may also involve biological and/or chemical methods to meet objectives. Some areas use chemical treatments to alter existing fuels.</p>	3A-35-P101-EP

OUTLINE	AIDS & CUES
<p>B. A chemical fuels treatment is the application of chemical agents which kill or restrict the growth of existing vegetation.</p> <ol style="list-style-type: none"> <li>1. This treatment is used to reduce the distribution of nonnative, invasive, and/or exotic species by applying herbicides to a treatment area.</li> <li>2. Chemical treatments are almost always followed by another treatment such as prescribed burning and/or planting of desired species.</li> </ol> <p>C. Another Method For Treating Hazardous Fuels Is Through The Use Of Biological Means.</p> <ol style="list-style-type: none"> <li>1. A biological fuels treatment involves the use of living organisms to selectively suppress, inhibit, or remove herbaceous and woody vegetation.</li> <li>2. Biological treatments rely on the consumption of plants by animals. Plant eating organisms include insects as well as grazing animals such as cows, goats, and sheep.</li> </ol>	<p>3A-36-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VIII. FUELS TREATMENT METHODS</p> <p>A. Both hazardous fuels reduction and vegetation treatment efforts are essential within the Wildland Urban Interface (WUI) as well as in the surrounding wildland environment.</p> <p>B. The methods and means of reducing fuels within a community may be similar or completely different to those treatments occurring outside of communities.</p> <p>Each area or unit has specific and unique methods and techniques for accomplishing community, environment, and resource protection objectives.</p> <p>Some treatments require multiple management techniques such as thinning overcrowded tree stands and then utilizing prescribed fire to remove the hazardous downed trees.</p>	<p>3A-37-P101-EP</p> <p>3A-38-P101-EP</p>
<p>IX. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <p>A. List Two Reasons To Do Fuels Projects.</p> <p>B. Name Three Methods Of Doing Fuel Treatment.</p>	<p>3A-39-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3B—FIREWISE/Fire Safe Programs

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Demonstration, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Utilize the National Program and related elements and materials.
2. Describe FIREWISE Communities USA.
3. Describe Fire Safe Councils.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	3B-01-P101-EP
A. Utilize The National Program And Related Elements And Materials	3B-02-P101-EP
B. Describe FIREWISE Communities USA	
C. Describe Fire Safe Councils	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>“FIREWISE” - Making sensible choices in the Wildland Urban Interface. The role of a Fire Prevention Specialist in educating firewise practices:</p> <ul style="list-style-type: none"> <li>A. Can Become A Hero In The Fire Business.</li> <li>B. Can Provide Proof Of Success.</li> <li>C. The Concept Is Not New, Its Been Around A Long Time.</li> </ul> <p><b>INSTRUCTOR NOTE: THIS LESSON WILL BE AN IN-DEPTH DEMONSTRATION OF THE FIREWISE.ORG WEB SITE. INTERNET ACCESS WILL BE REQUIRED.</b></p>	<p>3B-03-P101-EP</p>
<p>III. REVIEW OF THE FIREWISE.ORG WEB SITE</p> <p><b>INSTRUCTOR NOTE: DEMONSTRATE THE FOLLOWING WEB SITE ELEMENTS WITH A BRIEF DISCUSSION ABOUT EACH AREA.</b></p>	<p>3B-04-P101-EP</p>
<p>Demonstration Elements</p> <ul style="list-style-type: none"> <li>A. Resources</li> <li>B. FIREWISE You Can Use</li> <li>C. FIREWISE Forum</li> <li>D. Events</li> </ul>	<p>3B-05-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>E. Library</li> <li>F. Catalog</li> <li>G. Educators</li> <li>H. Newsroom</li> <li>I. Communities USA</li> <li>J. Contacts</li> </ul>	
<p><b>INSTRUCTOR NOTE: OPTION 1 - DEMONSTRATE THE DVD # 1, MOVIE 4 “HOME IMPROVEMENT - A FIREWISE APPROACH.”</b></p>	<p>3B-06-P101-EP 3B-01-P101-DVD</p>
<p><b>INSTRUCTION NOTE: OPTION 2 - DEMONSTRATE THE DVD # 2, MOVIE 3 “UTAH LIVING WITH FIRE.”</b> <b>INSTRUCTOR NOTE: UTILIZE THE EXISTING DVD OR USE MORE RECENT PRODUCTIONS.</b></p>	<p>3B-02-P101-DVD</p>
<p>IV. FIREWISE ELECTRONIC CATALOG</p>	
<p><b>INSTRUCTOR NOTE: DEMONSTRATE THIS SITE ELEMENT AND REVIEW MATERIALS AVAILABLE AND HOW TO ORDER.</b></p>	<p>3B-07-P101-EP</p>
<ul style="list-style-type: none"> <li>A. The Fire Fighter</li> <li>B. Reference Books</li> <li>C. The Homeowner</li> </ul>	

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>D. Builders, Landscapers And Planners</li> <li>E. Workshop Materials</li> <li>F. The Science Teacher</li> <li>G. FIREWISE Outfitters</li> </ul>	
<p><b>INSTRUCTOR NOTE: DEMONSTRATE ACTUAL MATERIAL SAMPLES.</b></p>	3B-08-P101-EP
<p>V. EXAMPLES OF FIREWISE/FIRE SAFE PROGRAMS</p>	3B-09-P101-EP
<ul style="list-style-type: none"> <li>A. FIREWISE Communities USA is a project of the National Wildfire Coordinating Group’s Wildland Urban Interface Working Team and is an element of the FIREWISE program.</li> </ul> <p>It provides citizens with the knowledge necessary to maintain an acceptable level of fire readiness, while ensuring firefighters that they can use equipment more efficiently during a wildland fire emergency.</p> <p>The program draws on a community’s spirit, its resolve, and its willingness to take responsibility for its ignition potential.</p>	
<ul style="list-style-type: none"> <li>1. The FIREWISE Communities USA standards are designed and maintained to give maximum flexibility in creating the best plan for the community.</li> </ul>	3B-10-P101-EP



OUTLINE	AIDS & CUES
<p>2. Enlist a Wildland Urban Interface Specialist to complete a community assessment and create a plan that identifies agreed upon achievable solutions to be implemented by the community.</p>	
<p>3. Sponsor a local FIREWISE Task Force Committee, Commission or Department which maintains the FIREWISE Community USA program and tracks its progress or status.</p>	
<p>4. Observe a FIREWISE Communities/USA day each spring that is dedicated to a local FIREWISE project.</p>	3B-11-P101-EP
<p>5. Invest a minimum of \$2.00 per capita annually in local FIREWISE projects. Work by municipal employees or volunteers using municipal and other equipment can be included, as can state/federal grants dedicated to that purpose.</p>	
<p>6. Submit an annual report to FIREWISE Communities USA that documents continuing compliance with the program.</p>	

OUTLINE	AIDS & CUES
<p>B. Fire Safe Councils can be developed in local communities. The first step is to recruit members and identify the potential public and private partners in your community who are at risk of loss from wildfire. Here are some examples of potential members:</p> <ol style="list-style-type: none"> <li>1. The fire department can provide advice and expertise on fire safety.</li> <li>2. Utilities, such as the water district or the electric company, have a vested interest in fire safety because their services may be disrupted when a fire occurs. The electric company is especially concerned about trees growing into powerlines and starting fires.</li> <li>3. Environmental groups are especially concerned about habitat loss for endangered species when fires occur, as well as a number of other fire-related issues.</li> <li>4. Insurance industry representatives are interested in insuring and continuing to insure communities that have taken fire safety measures.</li> <li>5. Landscapers can provide information on fire safe landscaping and help educate homeowners about choosing more fire-resistant plants.</li> </ol>	<p>3B-12-P101-EP</p> <p>3B-13-P101-EP</p> <p>3B-14-P101-EP</p>

OUTLINE	AIDS & CUES
<p>6. Real estate agents are the first people homeowners meet when they are moving into the neighborhood.</p> <p>Real estate agents may educate homeowners about potential fire danger and provide information on how homeowners can protect themselves.</p> <p>7. The Parks and Recreation Department seeks to protect natural areas from damaging wildfire and may educate the community about fire's role in the ecosystem.</p> <p>8. Local political leaders can mobilize the community to become fire safe and represent community fire safe concerns/initiatives in government.</p> <p>9. Homeowner associations have a vested interest in protecting their individual homes, as well as their neighborhoods, from wildfires.</p> <p>10. Other local groups have a vested interest in fire safety; this could and should be just about anyone who lives or works in the area.</p>	<p>3B-15-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VI. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"><li>A. Utilize The National Program And Related Elements And Materials.</li><li>B. Describe FIREWISE Communities USA.</li><li>C. Describe Fire Safe Councils.</li></ul>	<p>3B-16-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3C — Fire Prevention Home Evaluations

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Explain the fundamentals of evaluating structures in the wildland environment.
2. Explain the concepts of defensible space.

OUTLINE		AIDS & CUES
I.	LESSON OBJECTIVES	3C-01-P101-EP
	A. Explain The Fundamentals Of Evaluating Structures In The Wildland Environment.	3C-02-P101-EP
	B. Explain The Concepts Of Defensible Space.	
II.	INTRODUCTION	3C-03-P101-EP
	A. Over the past century, America’s population has nearly tripled, with much of the growth flowing into traditionally natural areas.	
	Encroaching development into forests, grasslands, and rural areas has resulted in numerous infrastructure problems, including catastrophic wildfires, which increasingly threaten lives, homes, and businesses.	

OUTLINE	AIDS & CUES
<p>B. The United States will likely continue to experience damaging wildfires in the Wildland Urban Interface.</p> <p>This lesson will reflect what the Fire Prevention Specialist can do to educate those people who choose to live in these areas.</p>	3C-04-P101-EP
<p>III. PREVENTING HOME IGNITIONS</p>	3C-05-P101-EP
<p><b>INSTRUCTOR NOTE; DEMONSTRATE THE “WILDFIRE, PREVENTING HOME IGNITIONS,” DVD # 2, MOVIE 1.</b></p>	3C-01-P101-DVD
<p>IV. FIREWISE/FIRE SAFE EVALUATIONS</p>	3C-06-P101-EP
<p>A. A major objective of a fire prevention program is to significantly reduce the incidence of destructive fires in timber, brush, and grasslands and the resulting loss of life, property and resources.</p> <p>One of the necessary tools in a fire prevention tool box is the fire prevention inspection or home evaluation program.</p>	3C-07-P101-EP
<p>B. A fire prevention home evaluation program is designed to gain compliance with fire laws and educate and inform users about FIREWISE practices.</p>	3C-08-P101-EP

OUTLINE	AIDS & CUES
<p>This program must be long-range and flexible as needs require.</p> <p>As risk and hazard problems change, the emphasis of any fire prevention program must also change to meet the problem.</p> <p>C. An essential element of a successful fire prevention program involves the use of approved agency forms to document formal fire prevention evaluations.</p>	
<p><b>INSTRUCTOR NOTE: DEMONSTRATE VARIOUS TYPES OF STRUCTURE INSPECTION EVALUATION DOCUMENTS, MATERIALS AND PROCEDURE GUIDELINES.</b></p>	3C-09-P101-EP
<p>V. FIREWISE/FIRE SAFE EVALUATIONS - STRUCTURES AND IMPROVEMENTS</p> <p>A structure is any construction, production, or piece of work artificially built or composed of parts joined together in some definite manner. This includes dwellings, office buildings, equipment sheds, chemical toilets, trailer houses, or any building underconstruction. Two types of structures or improvements are residential and commercial.</p>	3C-10-P101-EP
<p>A. Residential Structures</p> <p>Fire prevention efforts around residential areas are aimed at educating and encouraging homeowners to take steps that will make their homes more defensible against wildfire and less susceptible to ignition from firebrands.</p>	3C-11-P101-EP

OUTLINE	AIDS & CUES
<p>B. Commercial Structures</p> <p>Fire prevention efforts in or around commercial structures will be dictated by the close proximity to wildland fuels.</p> <ol style="list-style-type: none"> <li>1. These evaluations should focus on the same areas as residential structures.</li> <li>2. Commercial structures may pose a different problem as far as risk assessment is concerned.</li> <li>3. There may be additional risks to be considered.</li> </ol>	<p>3C-12-P101-EP</p>
<p><b>INSTRUCTOR NOTE: DEMONSTRATE “MAKING YOUR HOME FIREWISE” ON COURSE DVD # 2, MOVIE 2.</b></p>	<p>3C-13-P101-EP 3C-02-P101-DVD</p>
<p>VI. EXAMPLES OF FIREWISE/FIRE SAFE EVALUATION ACTIVITIES:</p> <ol style="list-style-type: none"> <li>A. Conduct Homeowner Inspections.</li> <li>B. Issue Necessary Permits.</li> <li>C. Provide Fire Safe Material.</li> </ol>	<p>3C-14-P101-EP</p>



OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>D. One On One Contacts.</li> <li>E. Post Fire Safe Signs In Neighborhoods.</li> <li>F. Conduct Door-to-door Fire Safe Educational Visits.</li> <li>G. Conduct Fire Safe Meetings With Homeowner Associations.</li> <li>H. Develop And Implement Area Specific Educational Campaigns.</li> </ul>	3C-15-P101-EP
<p>VII. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. Explain The Fundamentals Of Evaluating Structures In The Wildland Environment.</li> <li>B. Explain The Concepts Of Defensible Space.</li> </ul>	3C-16-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3D — Spark Arresters

SUGGESTED TIME: 2 Hours

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

- 1 Name three types of spark arresters.
- 2 State the maximum size of carbon particles that can safely enter the air.
- 3 Name the facility where spark arrester programs and Spark Arrester Guide are managed.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	3D-01-P101-EP
A. Name Three Types Of Spark Arresters.	3D-02-P101-EP
B. State The Maximum Size Of Carbon Particles That Can Safely Enter The Air.	
C. Name The Facility Where Spark Arrester Programs And Spark Arrester Guide Are Managed.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>Fire Prevention Specialists may be required to assist or participate in the inspection and or evaluation of equipment and spark arresters. This lesson will provide information about the spark arrester inspection program.</p> <p>The inspection of spark arresters is a complicated process, but there are a tools available to assist in conducting this activity. During the next two hours students will become familiar with type of spark arresters and procedures to deal with this fire prevention program element.</p>	3D-03-P101-EP
<p>III. SPARK ARRESTER QUALIFICATION PROGRAM</p> <p>A. Cone Of Learning</p> <p>B. How It All Began</p> <p>C. The Basics</p> <ol style="list-style-type: none"> <li>1. Wildland fuels may ignite at 400 - 500 degrees.</li> <li>2. Exhaust streams and surfaces reach 1,000 degrees during operation.</li> </ol>	<p>3D-04-P101-EP</p> <p>3D-05-P101-EP</p> <p>3D-06-P101-EP</p> <p>3D-07-P101-EP</p> <p>3D-08-P101-EP</p>

OUTLINE	AIDS & CUES
<p>3. Ways to prevent fire starts from internal combustion engines.</p> <ul style="list-style-type: none"> <li>a. Reduce exhaust gas temperature</li> <li>b. Reduce surface temperature or prevent from contact with fuels</li> <li>c. Limit carbon particle size to under 0.023 inches</li> </ul>	<p>3D-09-P101-EP</p> <p>3D-10-P101-EP 3D-11-P101-EP 3D-12-P101-EP 3D-13-P101-EP</p>
<p>D. What Is A Spark Arrester?</p> <p>A spark arrester is a device which pulverizes or traps exhaust particles.</p>	
<p>E. Types Of Spark Arresters</p> <ul style="list-style-type: none"> <li>1. General purpose - trap type</li> <li>2. Screen type spark arrester</li> <li>3. Disc type spark arrester</li> </ul>	<p>3D-14-P101-EP</p> <p>3D-15-P101-EP 3D-16-P101-EP 3D-17-P101-EP</p> <p>3D-18-P101-EP</p>

OUTLINE	AIDS & CUES
<p>IV. REQUIRED FEATURES ON GENERAL PURPOSE SPARK ARRESTERS.</p> <p>A. Markings</p> <ol style="list-style-type: none"> <li>1. Manufacturer name or trademark</li> <li>2. Spark arrester model number</li> <li>3. “Screen type” for screen type spark arresters</li> </ol> <p>B. Cleanout Device</p> <ol style="list-style-type: none"> <li>1. Cleanout plug</li> <li>2. Removable end cap</li> <li>3. Cleanout band</li> </ol>	<p>3D-19-P101-EP</p>
<p>V. WHAT KINDS OF EQUIPMENT NEED A SPARK ARRESTER?</p>	<p>3D-20-P101-EP</p>
<p>A. Federal Code For Public Lands - 36 Code Of Federal Regulations, Section 261.52</p>	<p>3D-21-P101-EP</p>
<ol style="list-style-type: none"> <li>1. All internal and external combustion engines operated in federally managed lands must be equipped with a qualified spark arrester.</li> <li>2. Most states have adopted similar/ corresponding spark arrester laws.</li> </ol>	<p>3C-22-P101-EP 3D-23-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Exemptions</p> <p>Power unit equipped with a turbocharger</p> <ol style="list-style-type: none"> <li>1. 100 percent of exhaust gasses must pass through the turbine wheel</li> <li>2. No waste gate or any other bypass</li> </ol>	3D-24-P101-EP
<p>C. What Makes A Spark Arrester Qualified?</p> <ol style="list-style-type: none"> <li>1. USDA 5100-1c</li> <li>2. SAE J335</li> <li>3. SAE J350</li> <li>4. SAE J342</li> <li>5. SAE = Society of American Engineers</li> </ol>	3D-25-P101-EP
<p>D. How Can It Be Determined That It Meets Those Standards?</p> <p>The easiest way (the only way) is that it is listed in one of the spark arrester guides.</p>	3D-26-P101-EP
<p>E. Spark Arrester Guides - Web Site Available</p> <p>The Spark Arrester Guide is a set of books listing all spark arresters evaluated at San Dimas Technology Development Center ( SDTDC) that must meet the requirements of FS 5100-1c.</p>	3D-27-P101-EP

OUTLINE	AIDS & CUES
VI. TYPES OF POWER UNITS (COMBUSTION ENGINES)	3D-28-P101-EP
A. General Purpose	3D-29-P101-EP
1. Heavy equipment	
2. Portable power equipment	
3. OHV vehicles	
4. Small engines	
B. Multi-position Small Engines	
1. Chainsaw	
2. Other than chainsaw (string trimmers, brush cutters)	
C. Locomotives	
1. Diesel	
2. Coal - fired, oil - fired	

OUTLINE	AIDS & CUES
VII. GENERAL PURPOSE SPARK ARRESTERS	3D-30-P101-EP
A. Requirements	3D-31-P101-EP
1. Trap or pulverizing	
a. Must have 80 percent effectiveness (90 percent hot test)	
b. Must have 80 percent cleanout effectiveness	
2. Screen type	
a. No opening greater than .023 inch diameter	
b. Effective screen open area is 200 percent greater than smallest restriction on the exhaust port.	
B. General Purpose Test - How It Is Done	3D-32-P101-EP
1. Trap/pulverizing type testing	3D-33-P101-EP
a. Arrester is mounted in the test chamber	
b. The blower provides air into the arrester	
c. The carbon is collected and weighed	
d. A minimum of ten runs is required	



OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>e. Five test points (100 percent of rated flow, 10 percent of rated flow, and three evenly spaced in between).</li> <li>f. Two runs per test point.</li> <li>g. Two runs at two psi back pressure.</li> </ul> <p>2. General purpose - marking requirement</p> <ul style="list-style-type: none"> <li>a. Manufacturer name of trademark.</li> <li>b. Spark arrester model name or number.</li> <li>c. "Screen type" if a screen type spark arrester.</li> </ul>	<p>3D-34-P101-EP</p>
<p>VIII. MULTIPOSITION SMALL ENGINE</p> <p>A. Tested In Accordance With:</p> <ul style="list-style-type: none"> <li>1. SAE J335 multiposition engine exhaust system fire ignition suppression.</li> <li>2. Types of MSE <ul style="list-style-type: none"> <li>a. Chainsaws</li> <li>b. Other than chainsaws (trimmers, blowers, high pressure washers, etc.)</li> </ul> </li> </ul>	<p>3D-35-P101-EP</p> <p>3D-36-P101-EP</p> <p>3D-37-P101-EP</p>



OUTLINE	AIDS & CUES
<p>D. General Purpose And Multiposition Small Engine Spark Arresters</p> <p>1. General purpose</p> <p>a. Particle size no greater than .023 in diameter</p> <p>b. Waivers are allowed</p> <p>c. Must be positively identifiable</p> <p>d. Fixed position (45 degree deviation)</p> <p>e. Assigned a rated flow</p> <p>f. No temperature requirements</p> <p>2. Multiposition small engine</p> <p>a. Particle size no greater than .023 in diameter</p> <p>b. Waivers are allowed</p> <p>c. Must be positively identifiable</p> <p>d. Multi-position</p> <p>e. Qualified with a specific power head</p> <p>f. Surface and exhaust gas temps</p>	<p>3D-42-P101-EP</p>

OUTLINE	AIDS & CUES
IX. QUIZ # 1	3D-43-P101-EP
Quiz # 1	3D-44-P101-EP
<ul style="list-style-type: none"> <li>• What Is A Spark Arrester?</li> <li>• Which Pieces Of Equipment Are Required To Have A Spark Arrester?</li> <li>• What Is A General Purpose Engine?</li> <li>• What Is A multiposition Small Engine?</li> <li>• What Are The Three Types Of Spark Arresters?</li> <li>• What Are The Marking Requirements For A Trap Type And For A Screen Type?</li> </ul>	
<ul style="list-style-type: none"> <li>• Name One Thing That A Trap Type Arrester Must Have.</li> </ul>	3D-45-P101-EP
<ul style="list-style-type: none"> <li>• How Do You Know If A Spark Arrester Is Qualified?</li> </ul>	
<ul style="list-style-type: none"> <li>• What Is The Largest Screen Opening That A Screen Type Spark Arrester May Have?</li> </ul>	

OUTLINE	AIDS & CUES
<p>X. SPARK ARRESTER IDENTIFICATION</p> <p>A. Identifying Spark Arresters</p> <ol style="list-style-type: none"> <li>1. General purpose <ol style="list-style-type: none"> <li>a. Displays MFG trademark or name</li> <li>b. Stamped with the model number</li> <li>c. “Screen type”</li> <li>d. Has cleanout device</li> <li>e. Must be in the guide</li> </ol> </li> <li>2. Multiposition small engine <ol style="list-style-type: none"> <li>a. It must be in the guide</li> <li>b. Displays the model number of power unit</li> </ol> </li> </ol>	3D-46-P101-EP
<p>B. Identifying Spark Arresters</p> <ol style="list-style-type: none"> <li>1. U.S. Forest Service approved</li> <li>2. State Forestry approved</li> <li>3. Department of Forestry approved</li> </ol>	3D-47-P101-EP
<ol style="list-style-type: none"> <li>4. Does not mean its qualified</li> </ol>	3D-48-P101-EP

OUTLINE	AIDS & CUES
C. Clean Out Devices	3D-49-P101-EP 3D-50-P101-EP 3D-51-P101-EP
D. Spark Arrester Maintenance	3D-52-P101-EP
1. Spark arrester must be properly maintained to be effective	3D-53-P101-EP
2. Cleanout must be emptied periodically	3D-54-P101-EP
3. Condition of the engine affects spark arrester effectiveness	3D-55-P101-EP
E. Modified Spark Arresters	3D-56-P101-EP 3D-57-P101-EP 3D-58-P101-EP 3D-59-P101-EP 3D-60-P101-EP 3D-61-P101-EP
F. Turbo versus Superchargers	3D-62-P101-EP
1. Turbocharger	3D-63-P101-EP 3D-64-P101-EP
a. Exhaust is directed thru a turbine to run a compressor	
b. 100 percent of exhaust must pass thru turbine wheel	
c. No waste gate is allowed	
d. Position of application	3D-65-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>2. Supercharger <ul style="list-style-type: none"> <li>a. Direct link to engine</li> <li>b. Does not function as an arrester</li> </ul> </li> <li>G. Mufflers <ul style="list-style-type: none"> <li>1. Mufflers <ul style="list-style-type: none"> <li>a. Mandatory for street legal vehicles</li> <li>b. Designed for sound, they do not arrest carbon particles</li> </ul> </li> <li>2. Catalytic converter <ul style="list-style-type: none"> <li>a. Also required for post 1975 gas powered vehicles</li> <li>b. For emissions, they do not arrest sparks</li> <li>c. Subject to high temperatures (2,000 degrees)</li> <li>d. Some qualified spark arresters have catalytic converters</li> </ul> </li> </ul> </li> </ul>	<p>3D-66-P101-EP</p>

OUTLINE	AIDS & CUES
XI. SPARK ARRESTER GUIDES	3D-67-P101-EP
A. Spark Arrester Guide (SAG) Volumes 1 And 2 <ol style="list-style-type: none"> <li>1. SAG is no longer published on paper, available on web site only.</li> <li>2. Updates must include all qualified spark arresters since the publication of the latest SAG</li> <li>3. San Dimas Technology Development Center is available for reference</li> </ol>	3D-68-P101-EP
B. On-line Spark Arrester Guide	3D-69-P101-EP
<a href="http://fsweb.sdt dc.wo.fs.fed.us">http://fsweb.sdt dc.wo.fs.fed.us</a>	3D-70-P101-EP
1. Searchable database	3D-71-P101-EP
a. By manufacturer name	3D-72-P101-EP
b. Model number	3D-73-P101-EP
c. Power unit	3D-74-P101-EP
d. Position	3D-75-P101-EP
2. More frequent updates	
Quarterly	
3. Downloadable	
PDF	



OUTLINE	AIDS & CUES
XII. FIRE INVESTIGATIONS	3D-76-P101-EP
<p>What can San Dimas Technology Development Center do for the agencies? (SDTDC)</p>	
<p>A. Fire Investigation</p>	3D-77-P101-EP
<p>1. The test records for everything tested at the facility</p>	3D-78-P101-EP
	3D-79-P101-EP
<p>2. They can run efficiency tests on exhaust hardware for evidentiary purposes</p>	3D-80-P101-EP
<p>3. Can provide expert testimony</p>	
<p>B. What SDTDC Cannot Do:</p>	3D-81-P101-EP
<p>SDTDC cannot do analysis on collected debris. They are not an approved crime lab for evidence processing.</p>	

OUTLINE	AIDS & CUES
<p>XIII. LOCOMOTIVE SPARK ARRESTERS</p> <p>A. Tested In Accordance With:</p> <ol style="list-style-type: none"> <li>1. Association of American Railroads recommended practice</li> <li>2. SAE recommended practice J342</li> </ol> <p>B. Tested On-site With A Portable Unit</p>	<p>3D-82-P101-EP</p> <p>3D-83-P101-EP</p> <p>3D-84-P101-EP</p> <p>3D-85-P101-EP</p> <p>3D-86-P101-EP</p> <p>3D-87-P101-EP</p> <p>3D-88-P101-EP</p>
<p>XIV. WHERE TO GET MORE INFORMATION</p> <p>Spark arrester qualification and testing</p> <p>A. USDA Forest Service</p> <p>Technology and Development Center</p> <p>444 East Bonita Avenue</p> <p>San Dimas, CA, 91773</p> <p>(909) 599-1267, Fax (909) 592-2309</p> <p>B. <a href="http://fsweb.sdtc.wo.fs.fed.us">http://fsweb.sdtc.wo.fs.fed.us</a> or <a href="http://www.nwccg.gov">www.nwccg.gov</a></p>	<p>3D-89-P101-EP</p>

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: PROVIDE EXAMPLES OF DIFFERENT TYPES OF SPARK ARRESTERS (MODELS) AND VARIOUS TYPES OF EQUIPMENT WITH SPARK ARRESTERS.</b></p> <p><b>INSTRUCTOR NOTE: CONTACT SAN DIMAS FOR EXAMPLES OF DIFFERENT TYPES OF SPARK ARRESTERS.</b></p> <p><b>INSTRUCTOR NOTE: THERE IS PRESENTLY A VIDEO AVAILABLE FROM SAN DIMAS, CONSIDER ACQUIRING FOR LESSON PRESENTATION.</b></p> <p><b>INSTRUCTOR NOTE: CONSIDER A CLASS EXERCISE ON HOW TO ACCESS THE WEB SITE TO DEMONSTRATE HOW TO DOWNLOAD THE SPARK ARRESTER GUIDES.</b></p>	
<p>XV. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. Name Three Types Of Spark Arresters.</li> <li>B. State The Maximum Size Of Carbon Particles That Can Safely Enter The Air.</li> <li>C. Name The Facility Where Spark Arrester Programs And Spark Arrester Guide Are Managed.</li> </ul>	<p>3D-90-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3E — Industrial Operations Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

1. List three types of industrial operations that contain the risk of starting a wildland fire.
2. List two safety considerations while inspecting an industrial operation.
3. List two fire precautions an industrial operation may be required to meet before they can operate.

OUTLINE		AIDS & CUES
I.	LESSON OBJECTIVE	3E-01-P101-EP
	A. List Three Types Of Industrial Operations That Contain The Risk Of Starting A Wildland Fire.	3E-02-P101-EP
	B. List Two Safety Considerations While Inspecting An Industrial Operation.	
	C. List Two Fire Precautions An Industrial Operation May Be Required To Meet Before They Can Operate.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>Industrial operations of various kinds in the forests, rangelands, and watersheds have been an integral and important part of the economy of this country since colonial times.</p> <p>Logging and mining have been with us for many years. In the past 100 years, drilling and operating wells for petroleum and natural gas have assumed major importance.</p>	<p>3E-03-P101-EP</p> <p>3E-04-P101-EP</p> <p>3E-05-P101-EP</p>
<p>III. INDUSTRIAL OPERATIONS FIRE PREVENTION - HISTORY</p> <p>A. In the past 50 years, the development of powerful, high-capacity, earth-moving equipment has accelerated dam and mountain freeway construction and large-scale, open-pit mining.</p> <p>B. During the past 25 years, building homes in the wildlands, mechanical fuel reduction, increased recreation operations and new natural resource harvesting have broadened the occurrence of fires. These fires have required a response from the fire prevention community to reduce the risk from these activities.</p>	<p>3E-06-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Historically, These Activities Have Not Resulted In A Large Percentage Of Wildfires Compared To Other Causes.</p> <ol style="list-style-type: none"> <li>1. However, the large fires have been caused by operation of machinery. This has led to aggressive fire prevention programs by fire protection agencies and industry in order to reduce fire losses and save money.</li> <li>2. The beneficial results from this effort can be easily and quickly negated by a careless act or negligence.</li> </ol> <p style="padding-left: 40px;">Knowledge and constant practice of fire safe activities are necessary to avoid unacceptable fire loss.</p>	<p>3E-07-P101-EP</p>
<p>D. Many Aspects Of Machine Use May Start Vegetation Fires. These Include:</p> <ol style="list-style-type: none"> <li>1. Exhaust sparks</li> <li>2. Hot exhaust manifolds and pipes</li> <li>3. Fuel leaks</li> <li>4. Overheating, track and blade sparks</li> <li>5. Short circuits</li> <li>6. Brakes</li> </ol>	<p>3E-08-P101-EP</p>

OUTLINE	AIDS & CUES
7. Belts and pulleys	
8. Accumulated debris	
9. Broken hydraulic line spilling on hot engine parts	
IV. INDUSTRIAL OPERATION ACTIVITY	3E-09-P101-EP
A. The Many Industrial Uses Of Public Lands	3E-10-P101-EP
1. Harvesting and thinning	3E-11-P101-EP
2. Railroad industry	3E-12-P101-EP
3. Road construction	3E-13-P101-EP
4. Special use permits	3E-14-P101-EP
5. Mining	3E-15-P101-EP
6. Powerline activities	3E-16-P101-EP
7. Blasting	3E-17-P101-EP
B. Laws And Regulations, That Relate To Industrial Fire Prevention.	3E-18-P101-EP
1. State law - some states regulate industrial operations	3E-19-P101-EP
a. Health and Safety Code	
b. Title 14 Code of Federal Regulations	

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>2. Federal <ul style="list-style-type: none"> <li>a. Forest Service</li> <li>b. Bureau of Land Management</li> <li>c. OSHA</li> </ul> </li> </ul>	3E-20-P101-EP
<p>V. INDUSTRIAL OPERATIONS SAFETY</p> <p>Safety considerations</p> <ul style="list-style-type: none"> <li>A. When Traveling To And From The Inspection Site, You Must Always Think Safety.</li> <li>B. When Inspecting For The First Time, Go With The Agency Representative For The Operation.</li> <li>C. Set An Appropriate Time For The Inspection.</li> <li>D. Ensure That The Contractor Or Their Representative Is Present.</li> </ul>	3E-21-P101-EP
<p>VI. TYPES OF INDUSTRIAL OPERATIONS ACTIVITY</p> <ul style="list-style-type: none"> <li>A. Harvesting Equipment</li> <li>B. Others</li> </ul>	3E-22-P101-EP 3E-23-P101-EP 3E-24-P101-EP 3E-25-P101-EP 3E-26-P101-EP



OUTLINE	AIDS & CUES
VII. INSPECTION PROCEDURES	3E-27-P101-EP
A. Prepare In Advance!	
Timber operations	3E-28-P101-EP
1. Contact contract administrator	
2. Review contract fire provisions	
3. Review the project fire plan	
4. Bring Spark Arrester guide	
B. Review Contract Equipment Standards	3E-29-P101-EP
1. Backpack pump	3E-30-P101-EP
2. Equipment fire extinguishers	3E-31-P101-EP
3. Self extinguishing on board fire extinguisher for engine compartment	3E-32-P101-EP
4. Operating equipment	3E-33-P101-EP
	3E-34-P101-EP
	3E-35-P101-EP
	3E-36-P101-EP
5. Spark arresting devices	3E-37-P101-EP
	3E-38-P101-EP
	3E-39-P101-EP
	3E-40-P101-EP

OUTLINE	AIDS & CUES
C. Contract Operations	3E-41-P101-EP
1. Cable yarding clearances	3E-42-P101-EP
2. Aerial	3E-43-P101-EP
D. Company Owned Equipment And Patrol Persons, Are They Trained And Is Equipment Serviceable?	3E-44-P101-EP
1. Qualifications and training	
2. Water trucks	3E-45-P101-EP
3. Tool requirements	3E-46-P101-EP
4. Fire trailers/pumpers	3E-47-P101-EP
5. Hot saw refueling	3E-48-P101-EP
E. Necessary Permits	3E-49-P101-EP
Inspections	3E-50-P101-EP
F. Fire Use Activities	3E-51-P101-EP
1. Warming fires	3E-52-P101-EP
2. Smoking	3E-53-P101-EP
VIII. COMMUNICATIONS	3E-54-P101-EP
A. Documentation	3E-55-P101-EP
B. Joint Inspections	3E-56-P101-EP

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 2598 “INDUSTRIAL OPERATIONS FIRE PREVENTION” OR DUPLICATE 3E-01-P101-HO.</b></p>	3E-01-P101-HO
<p>IX. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. List Three Types Of Industrial Operations That Contain The Risk Of Starting A Wildland Fire.</li> <li>B. List Two Safety Considerations While Inspecting An Industrial Operation.</li> <li>C. List Two Fire Precautions An Industrial Operation May Be Required To Meet Before They Can Operate.</li> </ul>	3E-57-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3F — Powerline Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Identify the basic components of the utility distribution system.
2. Identify how powerlines can cause wildfires.
3. List mitigation measures to prevent powerline related fires.

OUTLINE	AIDS & CUES
<p>I. LESSON OBJECTIVES</p> <p>A. Identify The Basic Components Of The Utility Distribution System.</p> <p>B. Identify How Powerlines Can Cause Wildfires.</p> <p>C. List Mitigation Measures To Prevent Powerline Related Fires.</p>	<p>3F-01-P101-EP</p> <p>3F-02-P101-EP</p>

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>Powerlines pose a threat to ignition of wildfire in various fuel conditions. This hazard has brought about a mutual concern to fire protection agencies and electric utilities to ensure transmission and distribution of power is as fire safe as possible.</p> <p>Statistically, the number of wildfires caused from powerlines are low. However, fires of this cause are generally large and damaging.</p> <p>A. These Fires Generally Start During Dry Windy Periods Enabling The Fire To Rapidly Spread.</p> <p>The wind can cause vegetation to sway into the line or tree tops to break. It can also cause loose connections by vibrations and can also cause arching of the line.</p> <p>B. High winds can blow trees across a powerline and start fires. These fires can burn several thousand acres quickly and result in high suppression costs.</p> <p>C. Some States Have Passed Laws Requiring Certain Fire Safe Precautions For Powerlines.</p>	<p>3F-03-P101-EP</p> <p>3F-04-P101-EP</p> <p>3F-05-P101-EP</p>

OUTLINE	AIDS & CUES
<p>D. Fire protection agencies can work closely with utility companies to minimize Interruption to their customers and ensure public safety.</p> <p>Additional fire suppression costs, liabilities and resource damage may be spared if a fire prevention program is initiated.</p>	
<p>III. BASIC UTILITY SYSTEM</p> <p>Power plants generate power from hydroelectric, geothermal, natural gas, or nuclear power and boosted up to transformers to transport electricity over long distances. The power then goes in to industry where they utilize high voltage in their operations.</p> <p>Distribution substations reduce the voltage down so they can be utilized by residential and commercial customers. Usually, this is 120 KV or 480 KV.</p>	3F-06-P101-EP
<p>IV. POWER POLE LEVELS</p> <p>When you look at a power pole, you may see varying levels of lines on the pole. The top line is generally the transmission line carrying a higher KV. This line is utilized to carry electricity further distances.</p> <p>The lower lines are primary and secondary lines that will be lower voltage carrying electricity to individual homes or subdivisions.</p> <p>The lowest lines are often black coated and are telephone or cable.</p>	3F-07-P101-EP

OUTLINE	AIDS & CUES
<p>V. POWERLINE EQUIPMENT RELATED FIRE CAUSES</p> <p>A. Resistance</p> <p>Something is on the line or within the line, hardware problems, or a line down is stopping the flow of electricity. Remember electricity flows like water.</p> <p>B. Fault</p> <p>This can be caused by equipment malfunction and trigger a stop in the flow of electricity.</p> <p>C. Arcing</p> <p>Can result from equipment failure. Electricity goes to ground or vegetation when it is too close.</p> <p>D. Overload</p> <p>Too much demand on the line and trips a fuse that can cause a fire.</p> <p>E. Flashover</p>	<p>3F-08-P101-EP</p> <p>3F-09-P101-EP</p>

OUTLINE	AIDS & CUES
VI. TYPES OF POWERLINE FIRES <ul style="list-style-type: none"> <li>A. Hardware Function Or Malfunction</li> <li>B. Vegetation In Contact With Conductor</li> <li>C. Downed Trees</li> <li>D. Animals</li> <li>E. Flashover</li> </ul>	3F-10-P101-EP
VII. POWERLINE HARDWARE WITH IGNITION POTENTIAL	3F-11-P101-EP
Powerline Fire Prevention Guide	3F-12-P101-EP
<ul style="list-style-type: none"> <li>A. Available On The Web.</li> <li>B. Contains Photos Of Hardware That Causes Fires.</li> <li>C.. Provides Laws And Regulations Used In California.</li> <li>D. Contains Fire Prevention Measures That Could Be Applied To Other States Experiencing Fires From This Cause.</li> </ul>	



OUTLINE	AIDS & CUES
VIII. FUSES	3F-13-P101-EP
<p>A. This Is A Universal Fuse.</p> <p>It has the capability of starting a fire.</p> <p>Note that hot material can be expelled if it is tripped. This is why clearance around poles should be done if this fuse is used in wildland areas.</p>	3F-14-P101-EP
<p>Here's an example of the fuse blowing</p>	3F-15-P101-EP
<p>B. This is another type of fuse called an open link fuse. It can drop molten material if tripped. It is a cheap fuse that a lot of companies choose to use.</p>	
<p>C. Solid Blade Disconnect</p> <p>This has been tested and proven not to have the potential to start fires.</p>	3F-16-P101-EP
<p>D. Lightning Arrester</p> <p>These have potential to cause fires. Clearance around poles should be done in wildland areas. In some states any pole with this on it is required to have a ten foot clearance.</p>	3F-17-P101-EP
<p>1. Note the lightning strike</p>	3F-18-P101-EP
<p>2. And a fuse can blow</p>	3F-19-P101-EP

OUTLINE	AIDS & CUES
<p>E. Hot Tap Clamp</p> <p>These clamps have the potential to start a fire.</p> <p>There are two types. The bad design can unscrew under vibration and have the potential to arc. The spring is loaded and stays in place on the line.</p> <p>Some smaller utility companies may be using the bad design clamp because they don't want to spend the money to swap out to the newer design.</p>	3F-20-P101-EP
<p>F. Split Bolt Connectors</p> <p>These connectors can come loose and have potential to arc. Clearance around poles is required in California that have this type of hardware.</p>	3F-21-P101-EP
<p>IX. INDICATORS ASSOCIATED WITH POWERLINE FIRES</p>	3F-22-P101-EP
<p>A. Line Conductors</p> <ol style="list-style-type: none"> <li>1. Lines that are overloaded by too many people tapping the system (may see this during hot periods, folks cranking up their electricity).</li> <li>2. Line tension problems, lines with long spans.</li> </ol>	3F-23-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>3. Heating can cause lines to sag or swag. This can cause vibrations at the pole and hardware can get loosened up.</li> <li>4. Changes in elevation can cause tension on the line and stress at the pole with connectors and bolts.</li> </ul>	
<p>B. Conductor Failure</p>	3F-24-P101-EP
<ul style="list-style-type: none"> <li>1. Failures can occur if there are splices in the line, heat arcing, or contact with trees.</li> </ul>	
<ul style="list-style-type: none"> <li>2. Here is a “burner” a tree on the line. The sap conducts heat and will start to ignite.</li> </ul>	3F-25-P101-EP
<p>C. Insulators</p>	3F-26-P101-EP
<p>Insulators can arc or flashover. Build up of salt, dust, and dew can all contribute to arcing that can result in a fire, causing a hot piece of metal or meltage that drops to the ground under the line.</p>	
<p>Here’s an example of arcing. Note the black section of line. A hot piece of metal can drop off the line. Fire investigators will look for the soot on the line.</p>	<p>3F-27-P101-EP 3F-28-P101-EP</p>

OUTLINE	AIDS & CUES
<p>D. Birds, Small Animals and Snakes</p> <p>They can become a conductor of electricity causing a fault. They can catch fire and drop to the ground.</p>	3F-29-P101-EP
<p>E. Transformers</p> <p>Transformers transform line voltage into usable electricity. This is not a fire starter, however, often lightning arresters are placed on transformers.</p>	3F-30-P101-EP
<p>F. Service Interruption</p> <p>Service interruption can be a cause of fires. Investigators will take the type of interruption into account for investigation.</p>	3F-31-P101-EP
<p>X. FIRE PREVENTION MITIGATION MEASURES</p>	3F-32-P101-EP
<p>A. Clearance Requirements</p> <p>Some states have codes relating to clearances.</p> <p>Example of a pole clearance</p>	3F-33-P101-EP

OUTLINE	AIDS & CUES
<p>B. Annual Meetings</p> <ol style="list-style-type: none"> <li>1. Get to know them</li> <li>2. Exchange numbers</li> <li>3. Find out what they are working on</li> </ol>	<p>3F-34-P101-EP</p>
<p>C. Discussion Items With Utility Companies</p> <p>Wildfires, which may not be a powerline fire, but can severely impact utilities by the fire and loss of revenue.</p> <p>By working as partners with utilities and having a proactive program, it can make a difference in the reduction of powerline related fires.</p>	<p>3F-35-P101-EP</p> <p>3F-36-P101-EP</p>
<p>XI. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ol style="list-style-type: none"> <li>A. Identify The Basic Components Of The Utility Distribution System.</li> <li>B. Identify How Powerlines Can Cause Wildfires.</li> <li>C. List Mitigation Measures To Prevent Powerline Related Fires.</li> </ol>	

COURSE: Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3G — Railroad Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. Describe elements of the railroad transportation system.
2. List two ways railroad operations can cause fires.
3. List two fire prevention inspection and prevention methods to reduce fire starts.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	3G-01-P101-EP
A. Describe Elements Of The Railroad Transportation System.	3G-02-P101-EP
B. List Two Ways Railroad Operations Can Cause Fires.	
C. List Two Fire Prevention Inspection And Prevention Methods To Reduce Fire Starts.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>Fire Prevention Specialists may be required to become familiar with the railroad activities and wildland fire prevention problems related to this activity, fire causes, and the functions and aspects of railroad fire safe practices.</p> <p>A fire prevention program can prevent losses of life and property and natural resources. Fires can cause train operations to be disrupted and cause loss of revenue.</p> <p>Trains are delayed and a domino effect that can span across multiple states can occur.</p> <p>The railroad companies have responsibilities for inspection of railroad rights-of-way (R/W) and mechanical equipment. Fire protection agencies have responsibilities for assuring that the railroad companies are in compliance with area laws.</p> <p>A. Fires can easily start along the track especially during extreme burning conditions. This photo in Texas, north of Dallas, shows no clearance along the track. The cause could have been exhaust or a piece of equipment.</p> <p>B. This fire could have been started by brake shoes, however, a common item that may not be addressed is a fire caused from carbon.</p> <p>C. The railroad has a lot to lose by not looking at fire prevention measures. Here they lost their trestle and most likely will lose money not having that line open. Fire prevention can benefit them.</p>	<p>3G-03-P101-EP</p> <p>3G-04-P101-EP</p> <p>3G-05-P101-EP</p> <p>3G-06-P101-EP</p> <p>3G-07-P101-EP</p> <p>3G-08-P101-EP</p>

OUTLINE	AIDS & CUES
<p>III. RAILROAD TRANSPORTATION SYSTEM - PURPOSE</p>	<p>3G-09-P101-EP</p>
<p>A. The primary purpose of railroad transportation systems is to move heavy or bulky freight from one place to another over land.</p>	
<p>B. Certain specialized operations such as amtrack and some excursion trains haul passengers.</p>	
<p>C. A very few, especially historic or scenic rail roads, provide settings for movies and TV programs.</p>	<p>3G-10-P101-EP</p>
<p>D. Railroad Travel System Map.</p>	<p>3G-11-P101-EP 3G-12-P101-EP</p>
<p>E. The Majority Of Railroads Are Owned By Large Companies.</p> <ol style="list-style-type: none"> <li>1. Railroads are tightly regulated with hundreds of federal and state laws regulating the activity.</li> <li>2. The railroad departments with which fire protection agencies have most frequent contact are maintenance of right of way, mechanical, and train operations.</li> </ol>	<p>3G-13-P101-EP</p>



OUTLINE	AIDS & CUES
<p>F. Railroad evolution, in the days of wood-fired steam locomotives with no screen on the stack, fire concerns were obvious.</p> <ol style="list-style-type: none"> <li>1. Each step in the evolution of locomotives (coal-fired steam to oil-fired steam to diesel-electric) brought promise to end the fire problems caused by railroads.</li> <li>2. Unfortunately, fires still occur for two reasons: <ol style="list-style-type: none"> <li>a. First, any combustion process produces carbon in some form.</li> <li>b. Second, large numbers of fires were originated by other factors inherent in railroad operations, especially cast iron brake shoes.</li> </ol> </li> </ol>	<p>3G-14-P101-EP</p>
<p>IV. RAILROAD FIRE CAUSES</p>	<p>3G-15-P101-EP</p>
<p>A. Exhaust</p>	<p>3G-16-P101-EP</p>
<p>Carbon that can come out of an exhaust stack forms big chunks, can get superheated, and fly out of the stack into the adjoining fuel and start a fire.</p>	<p>3G-17-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Rolling Stock</p> <p>Journal bearing, it overheats and literally burns off and can be found next to the track.</p>	3G-18-P101-EP
<p>C. Track Maintenance Operations.</p>	3G-19-P101-EP
<p>D. Cars Filled With Chips Can Spontaneously Combust And Start A Fire.</p>	3G-20-P101-EP
<p>V. THE RAILROAD FIRE PROBLEM IS BASICALLY COMPOSED OF TWO PARTS, RISKS AND HAZARDS</p>	
<p>A. Risks are the sources of ignition. The most common of these are exhaust carbon particles, dragging equipment, and brake failure.</p>	3G-21-P101-EP
<p>Others include:</p> <ol style="list-style-type: none"> <li>1. Hazard reduction fires that escape</li> <li>2. Grinding</li> <li>3. Cutting and welding</li> <li>4. Smoking</li> <li>5. Discarded fusees, etc.</li> <li>6. Abandoned warming fires started by railroad crews</li> </ol>	3G-22-P101-EP

OUTLINE	AIDS & CUES
<p>B. Hazards are the flammable materials which may be ignited by the various risks. The areas of primary concern consist mainly as grass, leaves, pine needles, tumbleweeds, punky logs, dead brush, etc.</p>	<p>3G-23-P101-EP</p>
<p>Others include:</p> <ol style="list-style-type: none"> <li>1. Wooden bridges</li> <li>2. Snow sheds and trestles</li> <li>3. Buildings</li> <li>4. Accumulations of paper and rags</li> <li>5. Rolling stock, etc.</li> </ol>	<p>3G-24-P101-EP</p>
<p>C. The primary method of reducing hazards is to remove or reduce the hazard for a sufficient distance from the risks. This may be done by mechanical or physical removal, by burning, or by chemical treatment.</p>	<p>3G-25-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VI. INSPECTION RESPONSIBILITIES</p> <p>Railroad fire prevention inspections are made both by the railroad company and by the fire protection agencies. The reasons for and the timing of these inspections may differ, but advantages to both parties would be joint inspections.</p> <p>A. Company Inspections</p> <p>The responsibility for inspecting their rights-of-way and rolling stock for compliance with laws and regulations, maintenance of uninterrupted traffic, and avoidance of civil liability rests exclusively with the railroad companies.</p> <p>B. Protection Agency Inspections</p> <p>1. The fire protection agencies are charged with the responsibility of protecting the public from loss of life, property, and resources from fire. They are also charged with enforcing applicable forest and fire laws.</p>	<p>3G-26-P101-EP</p> <p>3G-27-P101-EP</p> <p>3G-28-P101-EP</p>

OUTLINE	AIDS & CUES
<p>2. To accomplish these missions, they inspect railroad property and equipment in order to prevent wildland fires.</p> <p>3. Protection agency inspections do not, however, relieve railroad companies of the responsibility of inspecting their own facilities.</p> <p>4. Public fire protection agencies do have the responsibility to make known to railroad companies those violations and defects noted during their inspections.</p> <p>5. Routine inspections are generally surveys (by air or rail vehicle) of R/W, or roll-by of air brakes or exhaust systems either at division points or in service areas.</p> <p>6. The inspector will make every effort to interfere as little as possible with train operations.</p> <p>C. Fire emergency inspections include point of origin and ignition source determination as well as identification of the specific locomotive or car that provided the ignition source.</p>	<p>3G-29-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VII. INSPECTION SAFETY</p> <p>A. Railroad safety rules must be adhered to. The railroad has what is called the “red zone.” This is the area within an arms length of a track. Any physical position that places you in a life threatening situation is considered a red zone.</p> <p>B. Inspections should always be done with a Representative of the railroad. Remember all rails are live and must be treated that way.</p> <p>C. Inspectors should always wear hard hats, eye and ear protection, coveralls, appropriate foot wear, and gloves while around railroad equipment.</p> <p>The safety rules of the railroad must be adhered to as the activity is probably on railroad-owned property or equipment.</p>	<p>3G-30-P101-EP</p>
<p>D. Inspection Safety Is The Number One Priority.</p>	<p>3G-31-P101-EP</p>

OUTLINE	AIDS & CUES
VIII. LOCOMOTIVE EXHAUST SYSTEMS	3G-32-P101-EP
Exhaust sparks, usually carbon chunks or flakes, have long been a great source of railroad related fires.	3G-33-P101-EP
A. It's Not Brake Shoes Like Every One Thinks!	
B. Carbon from the exhaust system of Locomotives is one source of fire. Hot carbon can travel up to 40 feet out from the locomotive.	
C. Carbon forms and big chunks get super heated and fly out of the exhaust stack into the adjoining fuel and start a fire.	3G-34-P101-EP
1. The exhaust system can be accessed by opening the side doors of the locomotive.	3G-35-P101-EP
This is one example of a trap type spark arrester. The plate is removed to clean out carbon that builds up.	3G-36-P101-EP
2. Most locomotives used on long haul operations are turbocharged. Those are inspected from on top of the locomotive. Safety is Number One.	3G-37-P101-EP

OUTLINE	AIDS & CUES
<p>3. This is another style still used today. This is a spark arrester that traps the carbon and can be cleaned out.</p> <p>Carbon accumulates in the area above the cup and needs to be cleaned out every 30 days, if used daily. Locomotive maintenance personnel unscrew the cap and remove the carbon.</p> <p>It can get clogged up and then blow out all at once causing several fires as it moves down the line.</p> <p>Remember the carbon is superheated.</p> <p>4. As you go up to check the eductor tube, you actually climb up the front of the locomotive, often while it is running. The fans will be blowing hot air, so safety is a must. The exhaust port is right in front of those fans.</p> <p>5. As you look down, we often have to use a signal mirror. It's too hot to look into as you are inspecting that eductor tube. Note the close up of the tube.</p> <p>This close up shows an accumulation of carbon that could easily break off and get flown off into the surrounding fuels. Depending on the manufacturer, they need to be cleaned between 23-45 days.</p>	<p>3G-38-P101-EP</p>



OUTLINE	AIDS & CUES
<p>IX. BRAKE SYSTEMS</p> <p>A. With the advent of composition brake shoes, brake shoe sparks and fragments are much less common as the cause of right-of-way fires, unless the shoe is worn out.</p> <p>B. In the past, it has often been assumed that brake shoe caused fires were confined to down grades and areas where trains were stopping. This is not necessarily so. Various types of malfunctions can cause hot brake shoe backing pieces to fly off on upgrades or level high speed tracks.</p> <p>C. Brake shoes have been re-engineered. Old days cast iron ones were used. You may still see these on smaller railroad lines, but have been phased out on the bigger lines.</p> <p>D. Comp shoes have eliminated fires but as this slide shows, this has the potential to start a fire. The brake pad wears resulting in metal- on-metal where pieces of hot metal can fly off.</p>	<p>3G-39-P101-EP</p> <p>3G-40-P101-EP</p>

OUTLINE	AIDS & CUES
<p>X. RAILROAD RIGHT OF WAY CLEARANCES</p> <p>A. Vegetation Clearance</p> <p>10 feet from the outside the rail</p> <p>B. The most dangerous right-of-way fire hazards are: Partially decomposed wood, slash, duff, and dry grass, found within the right-of-way.</p> <p>C. The fire suppression agency has required them to go further in clearances along the track. Here fire protection agencies have requested a “fire guard” to be installed as a fire prevention measure.</p> <p>People often think these are service roads, some may be used as that, but these are old established fuel breaks that could hold a fire that may be started along the right-of-way. This is in an area associated with fast moving fires along highway 395, north of Reno, NV.</p>	<p>3G-41-P101-EP</p> <p>3G-42-P101-EP</p> <p>3G-43-P101-EP</p>

OUTLINE	AIDS & CUES
<p>XI. RAILROAD FIRE DETECTION AND PATROL</p> <p>A. When all prevention efforts and activities fail, fires occur. quick detection and reporting can lead to effective suppression activity.</p> <p>B. Fire Protection Agencies Have Detection Systems Including Fixed Lookouts And Aerial Patrols.</p> <p>C. Some Companies Will Put A Patrol Car Behind The Train On High Fire Danger Days.</p>	<p>3G-44-P101-EP</p> <p>3G-45-P101-EP</p>
<p>XII. FIRE PREVENTION PROGRAM</p> <p>A. Establish Working Relationships Before The Fire.</p> <p>B. Hold Annual Meetings.</p> <p>C. Know Your Local Contacts.</p> <p>D. Get The Right Phone Numbers.</p>	<p>3G-46-P101-EP</p>
<p>XIII. RAILROAD FIRE PREVENTION GUIDE</p> <p>A railroad fire prevention guide is available on the web. This guide is from California, but the concepts of fire prevention measures can be applied anywhere.  <a href="http://osfm.fire.ca.gov/railroad.html">http://osfm.fire.ca.gov/railroad.html</a></p>	<p>3G-47-P101-EP</p> <p>3G-48-P101-EP</p>

OUTLINE	AIDS & CUES
<p>XIV. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. Describe Elements Of The Railroad Transportation System.</li> <li>B. List Two Ways Railroad Operations Can Cause Fires.</li> <li>C. List Two Fire Prevention Inspection And Prevention Methods To Reduce Fire Starts.</li> </ul>	<p>3G-49-P101-EP</p>

COURSE: Wildland Fire Prevention Education 1, P-101

UNIT: 3 — Wildland Fire Prevention Engineering

LESSON: 3H — Recreation Area Fire Prevention

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Demonstrate fire prevention actions at recreation sites and recreation areas through public contact to reduce ignitions in these areas.

OUTLINE	AIDS & CUES
<p>I. LESSON OBJECTIVE</p> <p>Demonstrate fire prevention actions at recreation sites and recreation areas through public contact to reduce ignitions in these areas.</p> <p>II. INTRODUCTION</p> <p>Recreation can be defined as the “use of leisure time to freely engage in activities in a variety of settings which provide personal satisfaction and enjoyment and contribute to the ‘renewal’ and ‘refreshment’ of one’s body, mind and spirit.”</p> <p>Areas of high human use will increase the potential for increased fire occurrence. Planning for public and agency fire safety in recreation areas should begin at the earliest possible date.</p>	<p>3H-01-P101-EP</p> <p>3H-02-P101-EP</p> <p>3H-03-P101-EP</p> <p>3H-04-P101-EP</p>

OUTLINE	AIDS & CUES
<p>III. DEVELOPED RECREATION SITES</p> <p>A. A recreation site is developed primarily to accommodate specific use activities of groupings of activities such as:</p> <ol style="list-style-type: none"> <li>1. Camping</li> <li>2. Picnicing</li> <li>3. Boating</li> <li>4. Day use, etc.</li> <li>5. Off highway vehicles</li> <li>6. Permanent facilities</li> </ol> <p>B. These sites include permanent facilities such as roads, toilets, and other facilities needed to accommodate recreation use over the long term and require continuing commitment and regular maintenance.</p>	<p>3H-05-P101-EP</p>
<p>IV. WILDERNESS/BACK COUNTRY</p> <p>A. Wilderness or back country, in contrast with those areas where human activity dominates the landscape, is recognized as areas where the earth and its community of life are largely untouched by humans. Humans are visitors who do not remain for extended periods of time.</p>	<p>3H-06-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. An area of wilderness is further defined to mean in this sense, without permanent improvements, which is protected and managed so as to preserve its natural conditions and which:</p> <ol style="list-style-type: none"> <li>1. Appears largely to have been affected primarily by the forces of nature with the imprint of human work substantially unnoticeable.</li> <li>2. Has outstanding opportunities for solitude or a primitive and unconfined type of recreation.</li> <li>3. Is of sufficient size as to make predictable its preservation and use in an unimproved condition.</li> <li>4. May contain ecological, geological, or other features of scientific, educational, or historical value.</li> </ol>	
<p>V. OTHER RECREATIONAL AREAS</p> <p>A. Scenic Roadways</p> <p>Designated to have scenic conditions along major, secondary and primary roads. Scenic roadways have roadside corridors of special aesthetic, cultural or historical value. The corridor may contain outstanding scenic vistas, unusual geologic or other elements, all providing enjoyment for the traveler.</p>	<p>3H-07-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Back Country Access</p> <p>These include corridors along back country roads which have scenic, historical, archaeological, or other public interest values.</p> <p>This access may vary from a single track bike trail to a low speed paved road that traverses back country areas.</p> <p>C. Wild Rivers</p> <p>Wild river areas are those rivers or sections of rivers that are free of improvements and generally inaccessible except by trail, with watersheds or shorelines essentially primitive.</p> <p>These represent vestiges of primitive America. Wild means undeveloped; roads, dams, or diversion works are generally absent from a quarter mile corridor on both sides of the river.</p> <p>D. Scenic Rivers</p> <p>Scenic river areas are those rivers or sections of rivers that are generally free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.</p>	



OUTLINE	AIDS & CUES
<p>Scenic does not necessarily mean the river corridor has to have scenery as an outstandingly remarkable value; however, it means the river segment may contain more development (except for major dams or diversion works) than a wild segment and less development than a recreational segment.</p> <p>E. Recreational River Areas</p> <p>Recreational river areas are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines and that may have undergone some impoundment or diversion in the past.</p>	
<p>VI. RECREATION AREA PREVENTION ACTIVITIES</p> <p>A. Recreation areas have the potential for increased ignition due to concentrated public use.</p> <p>B. The fire prevention planning process should assess these different types of activities and design strategies to reduce ignitions and loss and damage from wildfires. Areas to consider include:</p>	<p>3H-08-P101-EP</p>

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>1. Recreation area site evaluations</li> <li>2. Signing: Bulletin boards, information boards, and kiosks</li> <li>3. Public contacts</li> <li>4. Patrol</li> <li>5. Law enforcement</li> <li>6. Enforcement—Permits</li> <li>7. Area or site evaluations—spark arresters, exhaust systems.</li> </ol>	
<p>VII. PUBLIC CONTACTS</p> <ol style="list-style-type: none"> <li>A. Agency Personnel Should Communicate With As Many Recreation Area Users As Possible.</li> <li>B. One-on-one Contact Is One Of The Most Effective Means Of Wildfire Prevention. Contacts could include: <ol style="list-style-type: none"> <li>1. Individuals, campers, hikers, anglers, hunters, etc.</li> <li>2. Groups - Boy/Girl Scouts, church camp, etc.</li> <li>3. Resorts, Camps</li> <li>4. Permittees</li> </ol> </li> </ol>	<p>3H-09-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. Individuals</p> <ol style="list-style-type: none"> <li>1. Individual public contacts by agency personnel are an important part of any fire program. To be effective, you must carefully prepare for each contact made and deliver message with enthusiasm.</li> <li>2. Examples of individual contacts may include: <ol style="list-style-type: none"> <li>a. Campers at dispersed recreation areas</li> <li>b. Campers at developed recreation sites</li> <li>c. Water based recreation users (streams, lakes)</li> <li>d. Off-highway vehicle users</li> <li>e. Hunters, anglers</li> </ol> </li> </ol> <p><b>INSTRUCTOR NOTE: DISCUSS METHODS OF COMMUNICATIONS WITH THE GROUP.</b></p>	<p>3H-10-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>f. Hikers</li> <li>g. Transient users traveling throughout an area</li> <li>h. Local permittees</li> <li>i. Woodcutters</li> </ul>	3H-11-P101-EP
<p>D. Groups</p> <ul style="list-style-type: none"> <li>1. While in recreation areas, opportunities may arise to provide wildland fire information to different groups.</li> <li>2. Group contacts can be an effective way to increase awareness of fire prevention.</li> </ul> <p>The best results from group contacts are obtained when the program is tailored to meet the groups' interests or needs.</p> <p>Group contacts might include:</p> <ul style="list-style-type: none"> <li>a. Homeowner associations</li> <li>b. Camping groups (trailer, motorhome)</li> <li>c. Equestrian associations</li> <li>d. Outdoor/recreation associations</li> </ul>	3H-12-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>e. Boy/Girl Scout groups</li> <li>f. Off Highway Vehicle groups</li> <li>g. Ethnic groups</li> <li>h. Outfitters/guides</li> <li>i. Hiking groups</li> </ul>	3H-13-P101-EP
<p>VIII. RECREATION AREA PRACTICES FOR SAFE USE OF FIRE</p> <p>A. The mitigation of potential ignitions in recreation areas can be effective by conducting and implementing the following fire safe practices:</p> <ul style="list-style-type: none"> <li>1. Evaluating fires and fire devices</li> <li>2. Evaluating site condition</li> <li>3. Treating special problem areas</li> <li>4. Reducing the recreation area fuels hazard</li> </ul>	3H-14-P101-EP

OUTLINE	AIDS & CUES
<p>B. Open Fires</p> <ol style="list-style-type: none"> <li>1. This type of campfire is the most hazardous and should receive high priority.</li> <li>2. Confined to specific locations or designed fire pits.</li> <li>3. Proper clearance of flammable materials. The exact clearance will depend on circumstances at the scene.  In no case should this clearance be less than 10 feet from the edge of the fire.</li> <li>4. Overhead clearance is important because of rising heat and sparks.  There should be overhead clearance from combustibles of at least 20 feet.</li> </ol>	<p>3H-15-P101-EP</p>
<ol style="list-style-type: none"> <li>5. Steel or concrete campfire pits should be built and maintained by the owner/operator to encourage campers to build their fires in safe locations.</li> </ol>	<p>3H-16-P101-EP</p>

OUTLINE	AIDS & CUES
<p>6. The size of the fire pit should be regulated to allow only a small fire.</p> <p>7. If this type of campfire is left unattended, it can be extremely dangerous.</p> <p>The owner/operator should be encouraged to check camp site for unattended fires on a regular schedule.</p> <p>C. Stoves</p> <p>All camp stoves used in recreation areas should be checked to determine that they are maintained or used in a safe condition.</p> <p>Consider:</p> <ol style="list-style-type: none"> <li>1. Proper clearance of flammable materials. The exact distance will depend on the conditions at the scene; however, in no case should clearance of flammable material be less than five feet from the stove. The same goes for overhead clearance.</li> <li>2. The stove should be in good condition. It should not have holes in the fire box where coals or sparks could escape.</li> <li>3. If the stove has a chimney, there should be a screen with holes no larger than 1/4 inch over the outlet.</li> </ol>	<p>3H-17-P101-EP</p>

OUTLINE	AIDS & CUES
<p>4. It is a common practice for campers to leave hot coals in a stove when departing from an area. Therefore, camp stoves should be inspected with this thought in mind and recommendations for proper doors, etc., should be made.</p> <p>5. Cleaning the camp stove.</p> <p>a. Make sure ashes are cool before handling.</p> <p>b. Shovel excess ashes from the pit into a noncombustible container that does not contain burnable garbage.</p> <p>Make sure all charred logs are inside the fire use area or stacked neatly beside it for use.</p>	<p>3H-18-P101-EP</p>
<p>D. Barbecue Devices - Barbecue Devices Should Be Considered The Same As Campfires.</p> <p>1. Proper clearance of flammable materials. The necessary clearance will depend on the circumstances at the scene. In no case should the clearance be less than 10 feet from the barbecue device.</p> <p>2. Overhead clearance is not as critical when charcoal is being used in the barbecue device. However, if wood is being used to form coals for the barbecue, then clearance should be at least 20 feet overhead.</p>	<p>3H-19-P101-EP</p>



OUTLINE	AIDS & CUES
<p>3. The disposal of coals before they are completely extinguished is a serious problem.</p> <p>Persons using barbecue devices should be warned to be absolutely sure the coals are extinguished before they are dumped out of the barbecue device.</p> <p>E. Large Bonfire - Special Precautions Are Necessary Because Of The Fire Size:</p> <p>1. Flammable materials should be removed for a sufficient distance to make the fire safe.</p> <p>In no case should the clearing be less than 30 feet from the fire.</p> <p>2. It is necessary that this type fire be located in an open area with no overhanging material.</p> <p>3. The ground around the fire area should be free of all obstructions to eliminate the possibility of a person tripping and falling into the fire.</p> <p>4. Recommend construction and maintenance of a circle of rocks around the fire area to confine the fire to a definite location.</p>	<p>3H-20-P101-EP</p>

OUTLINE	AIDS & CUES
<p>IX. SITE CONDITIONS</p> <p>A. Camp Sites</p> <p>The use of a camp site can create fire problems. The inspection should consider general measures for the camp and the safe use of fire.</p> <ol style="list-style-type: none"> <li>1. The camp site should be cleared of flammable material.  The amount of clearing will depend on the size of the camp. It will normally be the area receiving the most use.</li> <li>2. Dead and dying limbs should be removed from trees and brush for a height of 10 feet from the ground.</li> <li>3. Areas used for camping overflow during periods of maximum use should meet all of the above requirements or be posted prohibiting campfires of any type.</li> <li>4. Encourage locations of new camp sites in areas that are protected or partially protected from the wind.</li> </ol>	<p>3H-21-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Camp Parking Areas</p> <p>Definite parking areas for each camp site should be developed. Campers should be required to park in these areas.</p> <ol style="list-style-type: none"> <li>1. Dry grass or other flammable vegetation should be removed or cut to such a level that it cannot come into contact with the exhaust of vehicles parked in the area.</li> <li>2. The entrance and exit should be so located that vehicles will not have to maneuver in such a manner that exhaust systems will come into contact with flammable material.</li> </ol> <p>C. Perimeter Firebreaks</p> <p>The location of the firebreaks will depend on the size of the facility and the location of the individual camp sites. It might be practical to construct a firebreak around groups of camp sites, or it might be better to construct a firebreak around the entire facility. Terrain, fuels and effectiveness should dictate proper procedures.</p>	

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>1. The firebreak should be clear of all flammable material. The width will depend on the terrain and fuels in the area; however, the minimum width should be 10 feet.</li> <li>2. The firebreak, to be effective, must be continuous.</li> </ol> <p>D. Access Roads</p> <ol style="list-style-type: none"> <li>1. Access roads and all roads within the recreation area should be made safe for travel in most fire conditions.</li> <li>2. Encourage maintenance of two access roads for the recreation area.</li> </ol> <p>This will greatly reduce the possibility of campers being “trapped” in case of fires and will also allow campers to leave while fire equipment is responding to the area.</p> <ol style="list-style-type: none"> <li>3. A road around the perimeter of the recreation areas also serves very well as fuel and firebreak.</li> </ol>	

OUTLINE	AIDS & CUES
<p>E. Refuse Disposal</p> <p>The disposal of refuse from campgrounds can be a major problem. The Inspecting Officer should advise of the legal requirements and other fire prevention measures pertaining to dumps and the potential fire problem related to this activity.</p> <p>F. Equipment</p> <p>Most recreational areas will have some type of mechanical equipment on the premises. This will include such items as light plants, pump motors, bulldozers or chain saws.</p> <p>Fire prevention inspections should include the safe operation of all equipment on site.</p> <p>G. Safety Islands</p> <p>If the campground is located in an area of hazardous fuels and access roads are limited, encourage establishment of “fire safety” zones.</p> <p>Publish and post evacuation routes to these areas in the event of a fire.</p>	
<p>X. SPECIAL PROBLEM AREAS</p> <p>In addition to the fire risks and hazards mentioned, inspections will find problems that are unique to the specific recreation facility.</p>	<p>3H-22-P101-EP</p>

OUTLINE	AIDS & CUES
<p>A. Undeveloped Camp Areas</p> <ol style="list-style-type: none"> <li>1. These are undeveloped camping areas without facilities or improvements. <ol style="list-style-type: none"> <li>a. These unimproved campground areas are usually found along rivers, streams or small lakes and canyon bottoms.</li> <li>b. Inspections will be guided in these areas by local policy and the fire and recreation program manager.</li> <li>c. If they are unauthorized, then the inspector should follow agency procedures regarding illegal camp areas.</li> </ol> </li> <li>2. If these types of campgrounds are allowed, inspections should consider the following items: <ol style="list-style-type: none"> <li>a. Proper permits (camping, campfires, etc.) should be checked for possession and compliance.</li> <li>b. Campfires should only be allowed in safe locations. If the location of the fire is not safe, then the inspector should request that the fire be put out and reestablished in a safe location.</li> </ol> </li> </ol>	

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>c. Ten feet of clearance around the campfire should be the minimum. In most cases, the inspector should require more clearance because of the lack of any type of supervision of the area.</li> <li>d. Clearance around the camp site area will usually be handled by requiring all fires to be built in safe locations.</li> <li>e. When inspecting this type of camp site, the inspector should always obtain the name and address of a person at the location.  License numbers of cars parked at the location should also be recorded.</li> <li>f. Plans should be made for intensive fire prevention patrol during times of high recreation use or high fire danger.</li> </ul>	
<p>B. Water Recreation Areas</p> <p>There are several special problems connected with this type of recreation area.</p> <ul style="list-style-type: none"> <li>1. Prime importance is the establishment of sufficient parking areas to handle all vehicles and boat trailers.  Parking areas should be clearly established and free of all flammable fuel.</li> </ul>	

OUTLINE	AIDS & CUES
<p>2. All fuel storage buildings should have 30 feet clearance from flammable materials.</p> <p>a. “No Smoking” signs should be posted around fuel storage and dispensing areas.</p> <p>b. Advise users about the policy concerning dispensing gasoline in glass or plastic containers. It is a very unsafe practice and regulations or local ordinances may make it illegal.</p> <p>3. A critical fire hazard associated with these operations is the establishment of picnic and camp areas along the lake shore where the only access is by water.</p> <p>a. Patrol becomes exceedingly difficult and fire prevention measures should be far more strict than for a normal camp or picnic site.</p> <p>b. Regulations of the agency controlling the use of water recreation areas should be carefully checked, as well as local governing agency ordinances or regulations, prior to taking the actions recommended below.</p>	



OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>c. The docking facility should be posted with a signed notice advising recreationists that picnicking and camping is allowed only at designated sites.</li> <li>d. No open campfires should be allowed at the camp sites. Camp stoves or barbecue pits should be furnished instead.</li> <li>e. There should be a minimum of 10 feet clearance around all camp stoves and barbecue pits.</li> <li>f. All flammable material should be removed from the camp sites.</li> <li>g. Groups of campsites should be enclosed within a firebreak.</li> <li>h. Camping areas should be posted with signs requiring all campfires to be confined to camp stoves, barbecue, or fire pits.</li> <li>i. The owner/operator should be encouraged to conduct periodic daily patrols of the area for safe fire conditions.</li> </ul>	

OUTLINE	AIDS & CUES
<p>XI. REDUCING THE RECREATION AREA HAZARD</p> <p>A. Fuels Hazard</p> <ol style="list-style-type: none"> <li>1. Fuels are classified as live and dead combustible materials. Hazardous wildland fuel situations are where there is a combination of flammable fuel and moderate to steep topography.</li> </ol> <p>These hazardous situations can be found in remote areas as well as in areas where wildland vegetation is intermixed with structures.</p> <ol style="list-style-type: none"> <li>2. Hazardous situations occur naturally or as a result of human activities. Areas of hazardous fuels produce severe fire behavior, contribute to disastrous wildfires, and are resistant to fire suppression efforts.</li> <li>3. Fuels management is the manipulation and reduction of hazardous fuels to meet fire management objectives.</li> </ol> <p>Fuels management is accomplished through a variety of fuel treatment strategies such as piling and burning timber slash; manipulating vegetation; fuel modification or removal along roadways and near structures and developments; prescribed fire projects, etc.</p>	<p>3H-23-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Fuel treatment projects properly implemented and maintained in specific areas can effectively reduce fire hazards and protect natural resources and property.</p> <p>Hazard reduction plans and projects should be outlined in the local fire management, fuels, and fire prevention plan.</p> <p>C. Examples Of Hazard Reduction Activities:</p> <ol style="list-style-type: none"> <li>1. Proper hazard reduction around dispersed recreation area campfire sites</li> <li>2. Hazard reduction maintained in areas of concentrated public use: Roadside turnouts, scenic areas, parking areas, etc.</li> <li>3. Developed recreation areas: Fuel clearance around stoves, tables, toilets, etc.</li> <li>4. Completed fuel and firebreaks in hazardous fuel areas</li> <li>5. Hazard reduction completed around all agency and private structures and improvements</li> </ol>	

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: DEMONSTRATE EXAMPLES OF RECREATION AREA FIRE PREVENTION ACTIVITIES AT THE LOCAL LEVEL</b></p>	
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 2601 “RECREATION AREA FIRE PREVENTION” OR DUPLICATE 3H-01-P101-HO.</b></p>	3H-01-P101-HO
<p>XII. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <p>Demonstrate fire prevention actions at recreation sites and recreation areas through public contact to reduce ignitions in these areas.</p>	3H-24-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 4 — Wildland Fire Prevention Enforcement

LESSON: 4A — Fire Use Restrictions

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of the lesson, the student will be able to:

1. Coordinate and advise when public/fire use restrictions are needed.
2. Implement the basics of fire/public use restrictions.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	4A-01-P101-EP
A. Coordinate And Advise When Public/Fire Use Restrictions Are Needed.	4A-02-P101-EP
B. Implement The Basics Of Fire/Public Use Restrictions.	
II. INTRODUCTION	4A-03-P101EP
A. Fire prevention/mitigation specialists are faced with the possibility of having to develop, advise, implement, or coordinate fire and public use restrictions.	

OUTLINE	AIDS & CUES
<p>1. Fire Prevention/Mitigation Specialists should understand the concepts, legal parameters, implementation criteria, and potential consequences.</p>	4A-04-P101-EP
<p>2. The Specialist will be in the position to advise local units in fire use restriction fundamentals.</p>	
<p>3. The Specialist may be asked to implement procedures, communication applications, training, and coordination at different organizational levels.</p>	4A-05-P101-EP
<p>B. The use of fire restrictions or closures are an effective method of dealing with periods of extreme fire risks and hazards.</p>	4A-06-P101-EP
<p>By definition, restrictions and closures call for altering, curtailment or ceasing of normal activities on public lands. They should be initiated only when conditions warrant and be removed as soon as conditions allow.</p>	4A-07-P101-EP

OUTLINE	AIDS & CUES
<p>C. Restrictions and closures should be activated only after all other prevention efforts have failed, large fires are burning, or extreme fire danger is predicted to continue.</p>	4A-08-P101-EP
<p>When restrictions and closures are enacted, only authorized personnel and members of the public with written exemptions may continue restricted activities.</p>	4A-09-P101-EP
<p>III. IMPLEMENTING FIRE USE RESTRICTIONS</p>	
<p>A. Why Implement Fire Use Restrictions?</p> <ol style="list-style-type: none"> <li>1. Red Flag wind warnings</li> <li>2. Critical Burning conditions are experienced or predicted</li> <li>3. Extended drought</li> <li>4. Multiple fires have depleted protection capability</li> </ol>	4A-10-P101-EP
<p>B. Implementation Criteria</p> <ol style="list-style-type: none"> <li>1. NFDRS burning index</li> <li>2. Live fuel moisture</li> <li>3. Elevation</li> <li>4. Area receiving high occurrence of human-caused fires</li> </ol>	4A-11-P101-EP

OUTLINE	AIDS & CUES
<p>C. What's Restricted Depends On Where You Live.</p> <ol style="list-style-type: none"> <li>1. Could be sheep-herder stoves</li> <li>2. Smoking, 3-foot diameter clearance</li> <li>3. Internal combustion engines</li> <li>4. Blasting and welding operations</li> <li>5. Off-road vehicle use</li> </ol>	<p>4A-12-P101-EP</p> <p>4A-13-P101-EP</p> <p>4A-14-P101-EP</p> <p>4A-15-P101-EP</p> <p>4A-16-P101-EP</p> <p>4A-17-P101-EP</p>
<p>D. Communication That Fire Use Restrictions Are In Effect. Consider The Time Delay For Activation.</p> <ol style="list-style-type: none"> <li>1. Consider joint implementation with other agencies.</li> <li>2. Fire Restriction Order <ol style="list-style-type: none"> <li>a. Identifies restrictions</li> <li>b. Exemptions</li> </ol> </li> <li>3. Work closely with cooperators</li> <li>4. Fire use restriction signs <p>Consistent for all agencies</p> </li> </ol>	<p>4A-18-P101-EP</p> <p>4A-19-P101-EP</p> <p>4A-20-P101-EP</p> <p>4A-21-P101-EP</p> <p>4A-22-P101-EP</p> <p>4A-23-P101-EP</p>
<p>E. Fire Use Restriction Examples:</p> <ol style="list-style-type: none"> <li>1. Montana</li> <li>2. Wyoming</li> </ol>	<p>4A-24-P101-EP</p> <p>4A-25-P101-EP</p> <p>4A-26-P101-EP</p> <p>4A-27-P101-EP</p>



OUTLINE	AIDS & CUES
F. Getting The Message Across To The Public	4A-28-P101-EP
1. Press releases	4A-29-P101-EP
2. Public contact	4A-30-P101-EP
3. 24-hour recorded messages	4A-31-P101-EP
Keep current	
4. Signs - trail heads	4A-32-P101-EP
a. Keep simple	
b. Large and current	
5. Kiosks	4A-33-P101-EP
6. Business information displays	4A-34-P101-EP
a. Car agency	
b. Country stores	
c. Airports	
7. Dispersed campsite signing	4A-35-P101-EP
a. No campfires	
b. Signs on actual fire sites	
c. Keep current	

OUTLINE	AIDS & CUES
<p>IV. THE FIRE DANGER LEVELS AND ACTIVATION CRITERIA (WILL DEPEND ON GEOGRAPHICAL LOCATION)</p> <p>Fire Danger Ratings are generally displayed as follows:</p> <ul style="list-style-type: none"> <li>A. Low</li> <li>B. Moderate</li> <li>C. High, Consider Fire Prevention Education Teams.</li> <li>D. Very High, Request Severity Funding</li> <li>E. Extreme</li> <li>F. Critical - Used Only In Some Areas</li> </ul> <p><b>INSTRUCTOR NOTE: CONDUCT A CLASS DISCUSSION AND HAVE STUDENTS INDICATE WHAT ELEMENTS ARE RESTRICTED IN THEIR AREA BY FIRE DANGER LEVEL.</b></p>	<p>4A-36-P101-EP</p>
<p>V. INTERNAL AND EXTERNAL COMMUNICATIONS</p> <ul style="list-style-type: none"> <li>A. Fire prevention Education/Mitigation Specialists that have the responsibility to implement fire use restrictions should consider as part of the implementation plan a communication element.</li> <li>B. This should provide awareness and understanding for internal and external audiences.</li> <li>C. Accurately communicate restrictions to all employees and cooperators.</li> </ul>	<p>4A-37-P101-EP</p>

OUTLINE	AIDS & CUES
<p>VI. THE RESTRICTED FIRE USE IMPLEMENTATION PLAN</p> <ul style="list-style-type: none"> <li>A. Most Fire Agencies Require An Implementation Plan For Their Restricted Fire Use Program.</li> <li>B. Fire Prevention Mitigation Specialists must have a working knowledge of this document to be successful in program implementation.</li> <li>C. Establish Protocol For Implementing The Plan.</li> </ul> <p><b>INSTRUCTOR NOTE: PROVIDE AN EXAMPLE, BASED ON YOUR EXPERIENCE OF A RESTRICTED FIRE USE IMPLEMENTATION PLAN.</b></p>	<p>4A-38-P101-EP</p>
<p>VII. SUMMARY AND REVIEW LESSON OBJECTIVES.</p> <ul style="list-style-type: none"> <li>A. Coordinate And Advise When Public/Fire Use Restrictions Are Needed.</li> <li>B. Implement The Basics Of Fire/Public Use Restrictions.</li> </ul>	<p>4A-39-P101-EP</p>

COURSE: Fire Prevention Education 1, P-101

UNIT: 4 — Wildland Fire Prevention Enforcement

LESSON: 4B — Fire Prevention Patrol

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVES: Upon completion of this lesson, the student will be able to:

1. List three components of patrol planning.
2. List six tools or materials needed to conduct a patrol.
3. List three safety actions while on patrol.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVES	4B-01-P101-EP
A. List Three Components Of Patrol Planning.	4B-02-P101-EP
B. List Six Tools Or Materials Needed To Conduct A Patrol.	
C. List Three Safety Actions While On Patrol.	

OUTLINE	AIDS & CUES
<p>II. INTRODUCTION</p> <p>The use of our wildlands is increasing rapidly in today's world. Many areas that received light visitor use a few years ago, now experience large numbers of people over an extended recreational season.</p> <p>The increased use of our wildlands escalates the risk of fire ignitions which pose a threat to human life, homes, property, and natural resources.</p>	4B-03-P101-EP
<p>III. INTRODUCTION TO FIRE PREVENTION PATROL</p> <p>A. Wildfire prevention strategies indicate that fire prevention patrol is effective in dealing with human ignitions.</p> <p>B. Human use of our wildland areas has increased, agency patrols and presence in these use areas has often decreased.</p> <p>C. The challenge is to proactively prevent unwanted loss of life, property, and natural resources. This can be done by implementing effective prevention patrols in high risk, hazard, and value areas during periods of increased fire danger with limited resources.</p>	4B-04-P101-EP
<p>D. Patrol Definition</p> <p>Route of travel over a given area to prevent, detect and suppress fires. The primary purpose for the patrol unit is to be seen in areas of human-caused occurrence or in areas of high probability of fire ignitions.</p>	4B-05-P101-EP

OUTLINE	AIDS & CUES
<p>E. Patrol Objective</p> <p>The objective of a wildfire prevention patrol program is to effectively reduce the incidence of unwanted wildland fires and the resulting damages and exposure to life, property, natural, and cultural resources.</p>	4B-06-P101-EP
<p>IV. DEVELOPING A WILDFIRE PREVENTION PATROL PROGRAM</p> <p>A. An efficient prevention patrol program is well planned to target historical and potential fire causes in priority locations during the most effective time periods. It must remain flexible with a shifting emphasis that responds to changes in risk, hazards, values, historical, and potential ignitions.</p> <p>B. Wildfire prevention patrol can provide the foundation for a strong fire management program by:</p> <ol style="list-style-type: none"> <li>1. Strengthening communications with an agency and its land users and neighbors.</li> <li>2. Involving other resources, engines, crews, etc.</li> </ol>	4B-07-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>3. Increasing suppression effectiveness through early detection.</li> <li>4. Preventing fires before they start and cause damage.</li> </ul>	
<p>C. Assessment</p> <ul style="list-style-type: none"> <li>1. Like every other aspect of a prevention program, perform an assessment of: <ul style="list-style-type: none"> <li>a. Risks (potential to ignite)</li> <li>b. Hazards (potential to burn)</li> <li>c. Values (potential for loss)</li> <li>d. Historical fire occurrence will help determine the why, when, where, and how of the most effective prevention patrol program</li> </ul> </li> <li>2. What are the patterns of human use that result in ignitions?</li> <li>3. When do these ignitions occur?</li> </ul>	4B-08-P101-EP
<p>D. Assessing The Wildfire Situation</p> <p>The wildfire prevention patrol program must take into account the wildfire occurrence situation (potential and historic). It is important to fully understand:</p>	4B-09-P101-EP

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>1. What is the current wildfire problem?               <ol style="list-style-type: none"> <li>a. Specific fire cause</li> <li>b. Size of fires</li> <li>c. Location                   <ol style="list-style-type: none"> <li>(1) Where “potential” wildfire ignitions are likely to occur</li> <li>(2) Who is responsible for the ignition.</li> </ol> </li> </ol> </li> <li>2. Look at when incidents occur and how to tie that into use patterns</li> </ol>	
<p>V. FIRE PREVENTION PATROL PLANNING</p> <p>Use prevention strategies selected and applied as a result of an assessment to build the patrol plan. It becomes an operating plan that documents specific patrol objectives, routes, timeframes, and desired accomplishments. It also meets administrative needs such as personnel training and the budget for supplies, materials, etc.</p>	<p>4B-10-P101-EP</p>



OUTLINE	AIDS & CUES
<p>The Wildfire Prevention Patrol Plan must contain:</p> <p>A. Priority Patrol Areas</p> <p>Patrol resources may be limited, but it is important to put priority on the areas that have:</p> <ol style="list-style-type: none"> <li>1. The greatest risk for potential ignitions</li> <li>2. The most hazardous fuels and terrain</li> <li>3. The greatest potential for damage by wildfire and the most recent history of fire occurrence.</li> </ol> <p>The assessment of risk, hazard, value, and fire history will determine these priority areas.</p> <p>A map delineating these areas and identifying targeted audiences (example: back country hikers, campers, absentee property owners, etc.) is a valuable tool for patrol specialists.</p>	<p>4B-11-P101-EP</p>

OUTLINE	AIDS & CUES
<p>B. Patrol Scheduling</p> <p>Identify the timing of patrols in the plan. The patrol schedule is usually determined by potential ignitions (risk) and fire season severity (hazard).</p> <p>Patrolling is most effective immediately prior to and throughout periods of high fire danger, active human use, and natural events such as lightning storms or high winds.</p>	4B-12-P101-EP
<p>C. Patrol activities should not be routine. The desired patrol schedule should be established and documented but also be adaptable and able to respond readily to changing situations. Consider the following when developing a patrol schedule:</p> <ol style="list-style-type: none"> <li>1. Holidays, including Memorial Day, Fourth of July, Labor Day and other holidays during fire season</li> <li>2. Hunting and fishing seasons</li> <li>3. Periods of high human use (weekends, holidays, reunions, etc.)</li> <li>4. Patterns of natural ignition activity (example: lightning, etc.)</li> </ol>	4B-13-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>5. Implementation of fire restrictions or closures</li> <li>6. High fire danger or increased burning conditions</li> <li>7. Significant weather events during fire season (example: frontal passages with high winds)</li> <li>8. Reduced initial attack forces</li> <li>9. On-going fires in the unit or area</li> </ul> <p>D. When Determining The Appropriate Patrolling Timeframes, Consider:</p> <ul style="list-style-type: none"> <li>1. Month of year</li> <li>2. Day of week</li> <li>3. Time of day (by nearest one-quarter hour)</li> <li>4. Use patterns that require observation</li> </ul>	<p>4B-14-P101-EP</p>
<p>E. Patrol Staffing</p> <p>During those periods when patrol is most effective, it is also the same time when personnel for patrols are least available.</p>	<p>4B-15-P101-EP</p>

OUTLINE	AIDS & CUES
<p>In order to maintain the effectiveness of wildfire prevention patrols during these busy periods, it is important to have trained numerous fire crew, prevention specialists, etc. (non-fire resource specialists, backcountry rangers, law enforcement, recreation specialists, etc.) and volunteer personnel to conduct routine patrols.</p> <p>F. Reporting</p> <p>The reporting system used should be compatible with agency fire reporting procedures and should accurately capture only the specific data determined to be useful.</p> <p>G. Evaluation</p> <ol style="list-style-type: none"> <li>1. The patrol plan should identify realistic and measurable objectives (example: “Reduce the number of unattended campfires by 80 percent in all undeveloped camping areas within two years.”)</li> <li>2. Regular (at least annual) evaluation of the patrol plan and necessary changes must be made to keep it an effective prevention tool.</li> </ol>	

OUTLINE	AIDS & CUES
VI. FIRE PREVENTION PATROL TOOLS	4B-16-P101-EP
<p><b>INSTRUCTOR NOTE: SURVEY CLASS AND LIST WHAT THEY THINK AND COMPARE WITH THIS LIST.</b></p>	
<p>Tools and materials needed to conduct a routine prevention patrol:</p> <ul style="list-style-type: none"> <li>• Proper agency uniform, badge, shoulder patch, and nameplate should be worn, if required</li> <li>• Maps of the areas to be patrolled</li> <li>• Current list of landowners with names, addresses, and phone numbers</li> <li>• Necessary forms and notebook. Notes should be taken of observed hazards and risks. Sketches, photos, or maps also may be an aid in future patrols or for firefighting operations.</li> <li>• Necessary fire tools</li> <li>• Pencils</li> <li>• Flashlight (may assist in checking for certain hazards)</li> <li>• Spark Arrester Guide and operational guides, as needed</li> <li>• Copy of applicable laws and ordinances</li> </ul>	4B-17-P101-EP

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>• Necessary handbooks, guides, and plans (examples: agency prevention handbook and guides, safety plan, etc.)</li> <li>• Fire prevention materials (available for handout)</li> <li>• Binoculars</li> <li>• Camera, photographs can be documentation used for possible legal action, information, and education purposes</li> <li>• Prior records where previous evaluations have been made, should be studied before additional contacts are made</li> <li>• String or wire</li> <li>• Portable tape recorder to record observations, transcribe to records later</li> <li>• Measuring tape to determine adequate clearances, etc.</li> <li>• A reliable, well-maintained vehicle</li> <li>• Hand tool kit to include screwdrivers, wrenches, wire brushes, etc.</li> <li>• Signs and posters</li> <li>• Staple gun</li> <li>• Necessary permits such as campfire, authorized use, etc.</li> </ul>	<p>4B-18-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>• Dispatch plan</li> <li>• Personal protective equipment</li> <li>• Adequate communication equipment (mobile and or portable)</li> <li>• Fire Investigation Kit</li> <li>• GPS Unit</li> <li>• Food and water</li> </ul>	
<p>VII. QUALIFICATIONS OF THE FIRE PREVENTION PATROL SPECIALIST</p> <p><b>INSTRUCTOR NOTE: SURVEY CLASS AND LIST WHAT THEY THINK AND COMPARE WITH THIS LIST.</b></p>	4B-19-P101-EP
<p>A. Patrol Personnel Must Have The Skills To Effectively:</p> <ol style="list-style-type: none"> <li>1. Identify the risk and hazard conditions which create the potential for wildland fire ignitions.</li> <li>2. Understand and apply the necessary actions that reduce fire loss by the agency, landowner, occupant, or wildland user.</li> <li>3. Communicate with landowners, cooperators, contractors, concessionaires, visitors, etc.</li> </ol>	4B-20-P101-EP





OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>13. Have the fortitude and perseverance to see the job through.</li> <li>14. Know the applicable laws and ordinances thoroughly.</li> <li>15. Know the area.</li> <li>16. Know basic agency philosophies, policies, and regulations.</li> <li>17. Follow up on public concerns, questions, and comments in a timely manner.</li> </ul>	
<p>VIII. TYPES OF PATROL</p> <p>A. There are many types of patrol activities appropriate to wildland fire prevention. This lesson describes the most common types.</p> <p>However, there are others (canine, bicycle, etc.) that may also be effective. The Patrol Plan should identify which type of patrol is most efficient for an area.</p> <ul style="list-style-type: none"> <li>1. Motorized Patrol is the most common type of patrol and is highly effective in Wildland Urban Interface areas and areas of concentrated public use.</li> </ul>	4B-23-P101-EP

OUTLINE	AIDS & CUES
<ol style="list-style-type: none"> <li>2. Foot patrol is an effective method for inaccessible areas and/or making one-on-one contacts.</li> <li>3. Aerial patrol is an effective method of patrolling large areas in a short period of time.</li> <li>4. Mounted horse patrol is an effective method of trail, back country, or off-road patrol.</li> <li>5. Motorcycle and all terrain vehicle patrol is an effective method of trail or off-road patrol, especially in areas of off-road vehicle use.</li> </ol>	
<p>B. Ground Patrol (Motorized)</p> <ol style="list-style-type: none"> <li>1. The effectiveness of a ground patrol cannot be denied. The patrols can accomplish these basic missions: <ol style="list-style-type: none"> <li>a. Reduce the violation of agency fire laws</li> <li>b. Actively enforce fire and agency laws and regulations</li> <li>c. Provide information and assistance to area users and residents</li> <li>d. Provide quick initial attack on fires</li> </ol> </li> </ol>	4B-24-P101-EP

OUTLINE	AIDS & CUES
<p>2. Ground patrols provide mobility and flexibility of operations. Wider coverage is, therefore, possible and considerably more tasks can be accomplished.</p> <p>3. Ground patrols can be accomplished by a variety of personnel, patrol officers, volunteers, engine crews, other agency personnel, etc. Areas where motorized patrols can be effective include:</p> <ul style="list-style-type: none"> <li>a. Wildland-urban interface areas</li> <li>b. Recreation areas</li> <li>c. Areas of historical fire occurrence</li> <li>d. Areas where use patterns and types of users indicate a high risk of ignition</li> </ul>	
<p>C. Foot Patrol</p> <p>Foot patrols can be a highly effective patrol method, especially in remote areas where other access is limited or not practical. This type of patrol places the agency personnel in direct contact with the public and provides a source of communication not otherwise readily available. Areas where foot patrol can be effective are:</p> <ul style="list-style-type: none"> <li>• Wilderness or back country areas</li> </ul>	<p>4B-25-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>• High-use recreation areas</li> <li>• Along rivers, streams, canyons, etc.</li> <li>• Trail systems</li> <li>• Dispersed campsites</li> <li>• Wildland Urban Interface areas</li> <li>• Parks</li> <li>• Special events</li> </ul> <p>D. Aerial Patrol</p> <p>Helicopters and fixed-wing aircraft can be used effectively for patrol. Aerial observation can provide:</p> <ul style="list-style-type: none"> <li>• Locations of use (risk)</li> <li>• Directions for maneuvering ground units to specific locations</li> <li>• Detection of fires</li> <li>• Patrol of large areas in a short period of time</li> <li>• Assistance in search and rescue</li> <li>• Quick response</li> <li>• Perspectives unavailable to ground units</li> </ul>	<p>4B-26-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>• Dual purpose use can be utilized with other resources and fire activities</li> </ul> <p>E. Mounted Horse Patrol</p> <p>Mounted horse patrols once were the backbone of administration in the wildlands. It is one of the oldest types of patrol. Today, mounted horse patrols are in limited use throughout the country. Areas with difficult access are conducive to mounted horse patrol.</p> <p>Patrol in large parks or areas on foot is obviously impractical, and in vehicles it is difficult to travel on surfaces other than paved. The horse can move effectively from one point to another, thereby reducing travel time and increasing efficiency. Mounted horse patrol can be highly effective in the following areas:</p> <ul style="list-style-type: none"> <li>• Trails</li> <li>• Wilderness and back country areas</li> <li>• Parks</li> <li>• Sparsely populated areas</li> <li>• Recreation areas</li> <li>• Search and rescue</li> <li>• High visibility events, planned and unplanned (parades, demonstrations, etc.)</li> </ul>	<p>4B-27-P101-EP</p>

OUTLINE	AIDS & CUES
<p>F. Motorcycle And All Terrain Vehicle Patrol</p> <p>Motorcycle and all terrain vehicle patrol is probably the least-used patrol method in wildland areas. However, it is an option that should not be eliminated from consideration. This method has proved effective in areas such as:</p> <ul style="list-style-type: none"> <li>• Off highway vehicle areas (roads/trails)</li> <li>• Recreation areas (large)</li> <li>• Back country road systems</li> </ul>	<p>4B-28-P101-EP</p>
<p>IX. PATROL SAFETY</p>	
<p><b>INSTRUCTOR NOTE: SURVEY CLASS AND LIST WHAT THEY THINK AND COMPARE WITH THIS LIST.</b></p>	
<p>The safety of personnel conducting patrol activities has always been a priority and continues to remain an essential element of the job.</p>	<p>4B-29-P101-EP</p>
<p>Agency safety policies should be maintained. You are responsible for your safety, learn techniques and practices that will bring you home at the end of the day.</p>	<p>4B-30-P101-EP</p>
<ul style="list-style-type: none"> <li>• Learn about situational awareness</li> <li>• Always properly maintain and use the appropriate personal protective equipment</li> </ul>	<p>4B-31-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>• Maintain necessary tools</li> <li>• Portable and mobile radio communication devices</li> <li>• Training in all assigned activities, areas of responsibility, and equipment use</li> <li>• Two-person patrols in necessary situations</li> <li>• Defensive driving and all terrain special driving techniques</li> <li>• Check-in with dispatch center or other employees at predetermined intervals</li> <li>• Adequate and appropriate equipment (vehicle or other selected mode of transportation)</li> <li>• First aid training and equipment</li> <li>• Hazardous materials training</li> <li>• Training in effective communications and conflict resolution</li> </ul>	<p>4B-32-P101-EP</p>
<ul style="list-style-type: none"> <li>• Environmental awareness (snakes, poison oak/ivy, Hanta virus, etc.)</li> <li>• Fire training (initial attack, red card qualified)</li> <li>• Changing and significant weather patterns or events</li> <li>• All weather safety</li> </ul>	<p>4B-33-P101-EP</p>

OUTLINE	AIDS & CUES
X. THE PATROL ROUTE	4B-34-P101-EP
<p><b>INSTRUCTOR NOTE: SURVEY CLASS AND LIST WHAT THEY THINK AND COMPARE WITH THIS LIST.</b></p>	
<p>The patrol plan should outline various patrol routes and alternative routes. Considerations could be:</p> <ul style="list-style-type: none"> <li>• Area to be patrolled</li> <li>• Performance expectations (work to be accomplished)</li> <li>• Priority contacts</li> <li>• Time of day patrol is required</li> <li>• Type of patrol to be accomplished, i.e., ground, foot, aerial, mounted, motorcycle, or other</li> <li>• Patrol staffing</li> </ul>	4B-35-P101-EP
<ul style="list-style-type: none"> <li>• Equipment required</li> <li>• Necessary maps and records</li> <li>• Alternate routes and times — should vary schedules and location</li> <li>• Briefing and relief consideration</li> <li>• Where to report findings</li> </ul>	4B-36-P101-EP



OUTLINE	AIDS & CUES
<p>XI. PATROL ACTIVITIES</p> <p><b>INSTRUCTOR NOTE: SURVEY CLASS AND LIST WHAT THEY THINK AND COMPARE WITH THIS LIST.</b></p> <p>Numerous activities can be accomplished while patrolling. These activities may include, but are not limited to:</p> <p>A. Informational Contacts</p> <ol style="list-style-type: none"> <li>1. Individuals</li> <li>2. Groups</li> <li>3. Priority contacts</li> </ol> <p>B. Signing — Installation And Maintenance</p> <p>C. Enforcement</p> <ol style="list-style-type: none"> <li>1. Observe inappropriate conduct or behavior</li> <li>2. Complete fire investigations</li> <li>3. Issue permits and contracts</li> <li>4. Contract fire plans</li> <li>5. Enforce restrictions and closures</li> </ol> <p>D. Fire Safe Evaluations</p>	<p>4B-37-P101-EP</p> <p>4B-38-P101-EP</p> <p>4B-39-P101-EP</p> <p>4B-40-P101-EP</p>



OUTLINE	AIDS & CUES
3. Water based recreation users (streams, lakes)	
4. Off-highway vehicle users	
5. Hunters, anglers	
6. Hikers	
7. Loggers on a timber sale	4B-43-P101-EP
8. Construction workers at construction/ maintenance sites	
9. Employees at mining sites	
10. Homeowners	
11. Transient users traveling throughout an area	
12. Local ranchers	
13. Woodcutters	
C. Group Contacts	4B-44-P101-EP
<p>While in a patrol status, opportunities may arise to provide information on the safe use of fire to different groups.</p>	

OUTLINE	AIDS & CUES
<p>Group contacts can be an effective way to increase awareness of fire prevention. The best results from group fire prevention contacts are obtained when you tailor your program to meet the groups' interests or needs. Group contacts might include:</p> <ol style="list-style-type: none"> <li>1. Homeowner associations</li> <li>2. Camping groups (trailer, motor-home)</li> <li>3. Equestrian associations</li> <li>4. Outdoor/recreation associations</li> <li>5. Boy/Girl Scout groups</li> <li>6. Off highway vehicle groups</li> <li>7. Ethnic groups</li> <li>8. Outfitters/guides</li> <li>9. Hiking groups</li> </ol>	<p>4B-45-P101-EP</p>

OUTLINE	AIDS & CUES
<p>D. Priority Contacts</p> <p>Wildfire prevention patrol provides the opportunity to meet with key people in the area. Key people could include:</p> <ol style="list-style-type: none"> <li>1. Elected officials</li> <li>2. Local business leaders</li> <li>3. School officials</li> <li>4. Public utility representatives</li> <li>5. Outfitters and guides (fishing, back country, white-water, etc.)</li> <li>6. Ranchers</li> <li>7. Officials of organized groups (off highway, equestrian, etc.)</li> <li>8. Local fire officials</li> <li>9. Local law enforcement</li> <li>10. Property owners</li> <li>11. Permittees</li> </ol>	<p>4B-46-P101-EP</p>

OUTLINE	AIDS & CUES
<p>XIII. PATROL DOCUMENTATION</p> <p>It is essential to document patrol activities to ensure information necessary for further needs (investigations), legal action, work accomplishments, workload factors, and a historical overview.</p> <p>A. A Daily Patrol Log Should Be Kept That Includes, As A Minimum:</p> <ol style="list-style-type: none"> <li>1. Log number</li> <li>2. Date</li> <li>3. Time</li> <li>4. Type of contact: identification, license number</li> <li>5. Location</li> <li>6. Remarks</li> </ol> <p>B. Other Information:</p> <ol style="list-style-type: none"> <li>1. Fire information/report, if necessary</li> <li>2. Weather information</li> <li>3. Report of violations/citations</li> <li>4. Photographs, if necessary</li> <li>5. Other activities accomplished</li> <li>6. Daily work accomplishment record</li> </ol>	<p>4B-47-P101-EP</p> <p>4B-48-P101-EP</p>

OUTLINE	AIDS & CUES
<p><b>INSTRUCTOR NOTE: PROVIDE THE STUDENTS WITH THE PUBLICATION NFES 2570 “WILDFIRE PREVENTION PATROL GUIDE” OR DUPLICATE 4B-01-P101-HO.</b></p>	4B-01-P101-HO
<p>XIV. SUMMARY AND REVIEW LESSON OBJECTIVES</p> <ul style="list-style-type: none"> <li>A. List Three Components Of Patrol Planning.</li> <li>B. List Six Tools Or Materials Needed To Conduct A Patrol.</li> <li>C. List Three Safety Actions While On Patrol.</li> </ul>	4B-49-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 4 — Wildland Fire Prevention Enforcement

LESSON: 4C — Fire Prevention Permits

SUGGESTED TIME: 1 Hour

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Explain the types and use of fire prevention permits.

OUTLINE	AIDS & CUES
I. LESSON OBJECTIVE	4C-01-P101-EP
Explain the types and use of fire prevention permits.	4C-02-P101-EP
II. INTRODUCTION	4C-03-P101-EP
Requiring permits to regulate fire use activities varies greatly across the United States. The requirements may be stringent in some areas and extremely loose in others.	
In general, some activities managed by agencies require some type of permit system. This may be for special use, rights-of-ways, campfires, burning, or welding.	
This lesson will deliver an overview of some of the permit requirements used by some agencies.	



OUTLINE	AIDS & CUES
<p>III. TYPES OF PERMITS</p>	<p>4C-04-P101-EP</p>
<p>A. Burning Permits</p> <p>1. Burning permits are usually issued by a state authority through the use of state documents and procedures. Requirements vary by state, and you should become familiar with the permit system for your area.</p>	<p>4C-05-P101-EP</p>
<p>2. Burning permits offer the following advantages:</p> <p>a. They provide documentation of when, where, who, and why of permits.</p> <p>b. Prevention personnel have the option of issuing or not issuing permits according to weather, fire conditions, timing, risks, etc.</p> <p>c. Mitigation measures can be made part of the permit to reduce the potential for a burn to escape and become an uncontrolled wildfire.</p> <p>d. Information about where and when burning will be done reduces costly false alarms.</p>	<p>4C-06-P101-EP</p>

OUTLINE	AIDS & CUES
<ul style="list-style-type: none"> <li>e. Establish criteria that identify those conditions in which permits will not be used.</li> <li>f. In many areas, burn permits are used as an air quality tool.</li> </ul>	
<p>B. Cutting And Welding</p> <p>This type of permit may be required by a specific agency. These permits are usually required because of the open flame device and hot slag material. Clearance of flammable vegetation may also be required.</p>	4C-07-P101-EP
<p>C. Campfire Permits</p> <p>Certain areas and agencies require obtaining a permit prior to building any kind of campfire, cooking, or warming fire.</p>	4C-08-P101-EP
<p>D. Use Of Incendiary/Pyrotechnic Devices</p> <p>In areas where these types of uses may be allowed, permits may be required. These could be for special occasions, movie sets, etc. Usually a State Fire Marshal or other appropriate authority will be involved.</p>	4C-09-P101-EP
<p>E. Special Uses</p> <p>Some agencies require a permit with appropriate fire prevention clauses for any use of public land. This could be summer homes, special activities, or use sites.</p>	4C-10-P101-EP

OUTLINE	AIDS & CUES
<p>IV. PERMITS AND CONTRACTS</p> <p>A. Permits and contracts are examples of documents used to allow people to work on or otherwise utilize the public lands. These documents require the contractor or permit holder to comply with certain stipulations, including those dealing with fire hazards.</p> <p>B. Contract Or Permit Stipulations May Require The Applicant To Have The Following:</p> <ol style="list-style-type: none"> <li>1. Proper clearance around equipment, machinery, service areas, or other sources of possible fire ignition.</li> <li>2. Fire protection equipment available or on site.</li> <li>3. Spark arresters on all pertinent equipment and machinery.</li> <li>4. Hand tools such as shovels or Pulaskis to suppress a fire ignition.</li> <li>5. Any other measures necessary to minimize or eliminate the fire hazard or risk.</li> </ol>	<p>4C-11-P101-EP</p> <p>4C-12-P101-EP</p>

OUTLINE	AIDS & CUES
<p>V. CONTRACT FIRE PLANS</p> <p>A. A fire plan should be required for any permitted or contracted use that creates a fire hazard or risk on public lands.</p> <p>1. The plan should cover all necessary fire precautionary measures to protect the public's interest.</p> <p>2. The plan is the responsibility of the local manager and should be discussed with the contractor or permittee.</p> <p>B. A Fire Plan May Be Required For The Following Activities:</p> <p>1. Right-of-way operations</p> <p>2. Timber sale projects</p> <p>3. Construction projects</p> <p>4. Service contracts through which the government agency contracts for a specific job and a contractor does the work</p> <p>5. Government prescribed burning projects</p> <p>6. Any other use or activity that creates a hazard or risk on public lands</p>	<p>4C-13-P101-EP</p> <p>4C-14-P101-EP</p> <p>4C-15-P101-EP</p>

OUTLINE	AIDS & CUES
<p>C. The fire plan is made a part of the permitted use, license or contract. The permittee is aware of the plan and conditions before purchase, lease, or bid.</p> <p>Once in force, the plan is binding until its expiration or until a mutual written agreement alters it.</p> <p>Failure on the part of the permittee or contractor to comply with the terms can be grounds for revocations of the permitted or contracted use.</p> <p>D. The Fire Plan Should Establish Roles And Duties Of Involved Parties If A Fire Should Occur.</p>	4C-16-P101-EP
<p>VI. LOCAL FIRE PREVENTION PERMIT USE</p> <p><b>INSTRUCTOR NOTE; USE EXAMPLES OF PERMIT SYSTEMS USED IN THE LOCAL AREA.</b></p>	4C-17-P101-EP
<p>VII. SUMMARY AND REVIEW LESSON OBJECTIVE</p> <p>Explain the types and use of fire prevention permits.</p>	4C-18-P101-EP

COURSE: Fire Prevention Education 1, P-101

UNIT: 5 — Course Summary and Testing

SUGGESTED TIME: 2 Hours

TESTING METHOD: Interactive Participation, Final Test

PRESENTATION: Lecture, Audio Visual

TRAINING AIDS: Student Workbook, computer, LCD projector, screen, handouts, presentation software, flip chart/paper, markers

OBJECTIVE: Upon completion of this lesson, the student will be able to:

Demonstrate the skills required at the Fire Prevention Education 1 level.

OUTLINE		AIDS & CUES
I.	LESSON OBJECTIVE	5A-01-P101-EP
	Demonstrate the skills required at the Fire Prevention Education 1 level.	5A-02-P101-EP
II.	CLOSEOUT/COURSE REVIEW	5A-03-P101-EP
	P-101, Fire Prevention Education 1, training has been completed. The following is a review of all unit and lesson objectives:	
	A. Unit 0 Introduction	5A-04-P101-EP
	1. Introduce students, instructors, and course expectations.	5A-05-P101-EP
	2. Identify unit/lesson topics, required performance levels, and logistical concerns.	

OUTLINE	AIDS & CUES
<p>B. Unit 1: Wildland Fire Prevention Administration</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform and describe the tasks of wildland fire prevention history, fundamentals, interagency cooperation, national emphasis programs, planning, fire prevention education teams, and national fire danger rating systems.</p> <p>1. Lesson 1A - History of Fire Prevention</p> <p>a. List two major fire events that shaped the direction of fire prevention.</p> <p>b. List two programs created in the 1990s.</p> <p>c. State when the Smokey Bear program was created.</p> <p>2. Lesson 1B - Fundamentals of Fire Prevention</p> <p>a. Explain the fire prevention triangle.</p> <p>b. List examples of risk, hazard, and values as related to fire prevention.</p>	<p>5A-06-P101-EP</p> <p>5A-07-P101-EP</p> <p>5A-08-P101-EP</p> <p>5A-09-P101-EP</p> <p>5A-10-P101-EP</p>

OUTLINE	AIDS & CUES
3. Lesson 1C Interagency Cooperation	5A-11-P101-EP
Participate in interagency fire prevention activities, partnerships, cooperatives, and committees.	5A-12-P101-EP
4. Lesson 1D National Emphasis Programs	5A-13-P101-EP
a. Identify which year the fire season helped change the “fire world.”	5A-14-P101-EP
b. List two keys to the success of the National Fire Plan.	
5. Lesson 1E Fire Prevention/Mitigation Planning	5A-15-P101-EP
Describe basic fire prevention/mitigation planning, elements, and standards.	5A-16-P101-EP
6. Lesson 1F Fire Prevention Education Teams	5A-17-P101-EP
Explain the roles, mobilization, and utilization of Fire Prevention Education Teams.	5A-18-P101-EP
7. Lesson 1G Fire Danger Rating and Fire Prevention	5A-19-P101-EP
a. List three elements used to determine fire danger rating.	5A-20-P101-EP
b. List the five “standard” fire danger rating levels.	



OUTLINE	AIDS & CUES
<p>C. Unit 2 Objectives: Wildland Fire Prevention Education</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform and understand the tasks of wildland fire prevention communications, Smokey Bear, media, signing, children’s programs, and materials.</p>	5A-21-P101-EP
<p>1. Lesson 2A Communication/Education</p>	5A-22-P101-EP
<p>a. Describe where to find the fire messages on the internet.</p>	5A-23-P101-EP
<p>b. Utilize the Communicator’s Guide - Wildland Fire.</p>	
<p>2. Lesson 2B Cooperative Forest Fire Prevention - Smokey Bear</p>	5A-24-P101-EP
<p>a. Utilize the Cooperative Forest Fire Prevention Program and name its various components.</p>	5A-25-P101-EP
<p>b. Explain the history of Smokey Bear and policies for the program.</p>	
<p>c. Implement a Smokey Bear program.</p>	
<p>3. Lesson 2C Fire Prevention and the Media</p>	5A-26-P101-EP
<p>Explain the types of media, its use as a fire prevention tool, and messages to be delivered.</p>	5A-27-P101-EP

OUTLINE	AIDS & CUES
4. Lesson 2D Fire Prevention Signing	5A-28-P101-EP
a. Describe the principles and guidelines of a wildfire prevention sign program.	5A-29-P101-EP
b. List the components of a sign plan.	
c. Describe sign procurement procedures.	
5. Lesson 2E Children’s Fire Prevention Programs	5A-30-P101-EP
a. List three elements that need to be considered when establishing a school program.	5A-31-P101-EP
b. Identify three concerns and issues needed to discuss with the teacher when planning school presentations.	
6. Lesson 2F Fire Prevention Materials	5A-32-P101-EP
Utilize and acquire fire prevention educational materials.	5A-33-P101-EP

OUTLINE	AIDS & CUES
<p>D. Unit 3: Wildland Fire Prevention Engineering</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform and understand the tasks of fire prevention and fuels management, FIREWISE/fire safe programs, fire prevention home evaluations, fundamentals of spark arresters, industrial operations fire prevention, powerline fire prevention, railroad fire prevention, and recreation area fire prevention.</p>	5A-34-P101-EP
<p>1. Lesson 3A Fire Prevention and Fuels Management</p>	5A-35-P101-EP
<p>a. List two reasons to do fuels projects.</p>	5A-36-P101-EP
<p>b. Name three methods of doing fuels treatment.</p>	
<p>2. Lesson 3B FIREWISE/Fire Safe Programs</p>	5A-37-P101-EP
<p>a. Utilize the National Program and related elements and materials.</p>	5A-38-P101-EP
<p>b. Describe FIREWISE Communities USA.</p>	
<p>c. Describe Fire Safe Councils.</p>	

OUTLINE	AIDS & CUES
3. Lesson 3C Fire Prevention Home Evaluations	5A-39-P101-EP
a. Explain the fundamentals of evaluating structures in the wildland environment.	5A-40-P101-EP
b. Explain the concepts of defensible space.	
4. Lesson 3D Spark Arresters	5A-41-P101-EP
a. Name three types of spark arresters.	5A-42-P101-EP
b. State the maximum size of carbon particles that can safely enter the air.	
c. Name the facility where spark arrester programs and the Spark Arrester Guide are managed.	
5. Lesson 3E Industrial Operations Fire Prevention	5A-43-P101-EP
a. List three types of industrial operations that contain the risk of starting a wildland fire.	5A-44-P101-EP
b. List two safety considerations while inspecting an industrial operation.	
c. List two fire precautions an industrial operation may be required to meet before they can operate.	

OUTLINE	AIDS & CUES
<p>6. Lesson 3F Powerline Fire Prevention</p> <p>a. Identify the basic components of the utility distribution system.</p> <p>b. Identify how powerlines can cause wildfires.</p> <p>c. List mitigation measures to prevent powerline related fires.</p>	<p>5A-45-P101-EP</p> <p>5A-46-P101-EP</p>
<p>7. Lesson 3G Railroad Fire Prevention</p> <p>a. Describe elements of the railroad transportation system.</p> <p>b. List two ways railroad operations can cause fires.</p> <p>c. List two fire prevention inspection and prevention methods to reduce fire starts.</p>	<p>5A-47-P101-EP</p> <p>5A-48-P101-EP</p>
<p>8. Lesson 3H Recreation Area Fire Prevention</p> <p>Demonstrate fire prevention actions at recreation sites and recreation areas through public contact to reduce ignitions in these areas.</p>	<p>5A-49-P101-EP</p> <p>5A-50-P101-EP</p>

OUTLINE	AIDS & CUES
<p>E. Unit 4 Objectives: Wildland Fire Prevention Enforcement</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform the tasks of fire use restrictions, fire prevention patrol, and fire prevention permits.</p>	5A-51-P101-EP
<p>1. Lesson 4A Fire Use Restrictions</p>	5A-52-P101-EP
<p>a. Coordinate, and advise when public/ fire use restrictions are needed.</p>	5A-53-P101-EP
<p>b. Implement the basics of fire/public use restrictions.</p>	
<p>2. Lesson 4B Fire Prevention Patrol</p>	5A-54-P101-EP
<p>a. List three components of patrol planning.</p>	5A-55-P101-EP
<p>b. List six tools or materials needed to conduct a patrol.</p>	
<p>c. List three safety actions while on patrol.</p>	
<p>3. Lesson 4C Fire Prevention Permits</p>	5A-56-P101-EP
<p>Explain the types and use of fire prevention permits.</p>	5A-57-P101-EP

OUTLINE	AIDS & CUES
<p>F. Unit 5 Objective: Summary and Testing</p> <p>Upon successful completion of this unit, the student will demonstrate the skills and abilities to effectively perform the Fire Prevention Education 1 fundamentals.</p> <p>Complete the final test.</p>	5A-58-P101-EP
<p>III. SUMMARY</p> <p>A. Student Comments</p> <p>B. Student Course Critique</p>	5A-59-P101-EP
<p>IV. CLOSEOUT</p> <p>A. Closing Comments</p> <p>B. Travel Safe !</p>	5A-60-P101-EP

# **APPENDIX A**

## **COURSE ORDERING AND SUPPORT INFORMATION**



## COURSE ORDERING AND SUPPORT INFORMATION

### Fire Prevention Education 1, P-101

The following items may be ordered from the National Interagency Fire Center, Great Basin Supply Office Cache, Boise, Idaho 83705-5354. Consult the current NWCG National Fire Equipment System Catalog, Part 2: Publications for prices and ordering procedures ([www.nwcg.gov/pms/pubs](http://www.nwcg.gov/pms/pubs)).

#### Each instructor will need:

- |           |  |
|-----------|--|
| NFES 2880 | P-101 Instructor Guide   |
| NFES 2883 | P-101 Course Materials CD-ROM  |
| NFES 2882 | P-101 DVD Part 1: <ul style="list-style-type: none"><li>• “Wildfire Prevention: A History”</li><li>• “An Ounce of Prevention”</li><li>• “History of Smokey Bear”</li><li>• “Home Improvement: A FIREWISE Approach”</li></ul> |
| NFES 2884 | P-101 DVD Part 2: <ul style="list-style-type: none"><li>• “Wildfire, Preventing Home Ignitions”</li><li>• “Making Your Home FIREWISE”</li><li>• “Utah Living With Fire”</li></ul>  |

Instructors will also need spark arrester examples and a spark arrester video. These can be obtained by contacting:

San Dimas Technology Development Center  
444 East Bonita Avenue  
San Dimas, CA 91773  
Phone (909) 599-1267  
Fax (909) 592-2309  
Website: <http://fsweb.sdt dc.wo.fs.fed.us>

Instructors and students will need a copy of:

NFES 2881	P-101 Student Workbook
NFES 2597	Establishing Fire Prevention Education Cooperative Programs and Partnerships, PMS 463
NFES 2570	Wildfire Prevention Patrol Guide, PMS 456
NFES 2602	Fire Communication and Education, PMS 458
NFES 2601	Recreation Area Fire Prevention, PMS 457
NFES 2753	Wildfire Prevention Sign and Poster Guide, PMS 469
NFES 1877	Wildfire Prevention and the Media, PMS 454
NFES 2598	Industrial Operations Fire Prevention Guide, PMS 462
NFES 1254	Wildfire Prevention Conducting School Programs, PMS 453
NFES 2750	Participating on Wildland Fire Prevention Education Teams Guide, PMS 464

A training course completion certificate should be provided to each student who successfully completes P-101. These certificates may be available at the training site or can be ordered:

NFES 1272	Training Course Completion Certificates (100/pg)
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The Course Coordinator should be familiar with:

Course Coordinator's Guide, PMS 907, available at <http://www.nwccg.gov/pms/training/training.htm>

Instructors/Course Coordinator will need to obtain the following items at the training site:

- Computer w/MS PowerPoint program for presentation
- Computer projector and screen
- Computer projection remote control
- Projection back-up or extra bulbs
- Computer with internet access
- Colored markers
- Pencils, pens, paper, post-it notes
- Pencil sharpener
- Stapler and staples
- Paper clip and binder clips
- 2" binder (loose leaf) for student handouts
- 3 hole punch
- Tape dispenser with extra tape, masking tape
- Flip chart and holder/stand with extra tablets
- Wall clock
- Extension cords
- Copy capability
- Cadre breakout room
- Writing pads for each student
- Name tags and table tents
- List of places to go/eat
- Internet access in the training room
- Blank copy paper
- Blank CD's
- Scissors
- Duct tape