



FIRE PROTECTION TRAINING

Procedures Handbook 4300

INTRODUCTION TO WILDLAND
URBAN INTERFACE

TOPIC: INTRODUCTION TO WILDLAND URBAN INTERFACE

TIME FRAME: :30

LEVEL OF INSTRUCTION: Level I

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: The student will describe and identify how to effectively and safely operate in the wildland/urban interface

Standard: With a minimum of 80% accuracy according to the information contained in the lesson plan.

MATERIALS NEEDED:

- Writing board with markers/erasers
- Student information sheets
- NWCG, NFES 1077, Incident Response Pocket Guide

REFERENCES:

- Firefighter's Handbook on Wildland Firefighting, 3rd Edition, Teie, Chapter 8, 2005
- IFSTA, Wildland Fire Fighting for Structural Firefighters, 4th Edition, Chapter 7
- CFFJAC, Introduction to the I-Zone
- SFM-SFT Fire Command I-C.



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PREPARATION:

Awareness of the Wildland/Urban Interface (WUI) problem is the first step to operating effectively and safely in the WUI environment. Major wildland fires have traditionally been associated with WUI occurrences. However, with the explosion of urban/residential development into previously wildland areas, an WUI incident presents itself in most CAL FIRE wildland initial attack responses..

This lesson plan will introduce you to the WUI problem and provide you an awareness of the various aspects and issues surrounding fire ground operations in the WUI, This information will provide you the foundation to perform effectively and safely in the WUI environment.



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PRESENTATION	APPLICATION
<p>I. THE WILDLAND/URBAN INTERFACE ENVIRONMENT</p> <p>A. The Wildland/Urban Interface or (WUI) is an environment where structures have encroached into the surrounding wildland environment.</p> <ol style="list-style-type: none">1. Residential, commercial, agricultural or industrial structures <p>B. The WUI environment becomes an increased operational priority when fires burn in these settings</p> <ol style="list-style-type: none">1. What were once strictly wildland fires consuming wildland fuels<ol style="list-style-type: none">a) Watershed valuesb) Commercial timber and range lands2. Structures in these wildland settings are now additional concerns, exposures, and fuels<ol style="list-style-type: none">a) These new fuels have a high life safety and property dollar value <p>II. THE WILDLAND/URBAN INTERFACE PROBLEM</p> <p>A. Due to the life safety and property value issues of structures in the wildland, our operational priorities are forced to change</p> <p>B. Structure protection becomes a major priority</p> <p>C. How can CAL FIRE perform structure protection becomes a major operational decision making process and necessity.</p> <ol style="list-style-type: none">1. Do we protect the structures by committing fire suppression resources to perimeter control or by putting out the wildland fire ?	



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<ul style="list-style-type: none">2. Do we protect the structures by committing fire suppression resources to the structures and protecting them from the wildland fire?3. Do we do a combination of both?D. The bottom line is that the WUI environment and subsequent challenges has forced us to consider additional operation concerns to our planE. The WUI problem used to be thought of as an issue CAL FIRE only encounters during major wildland fire incidents<ul style="list-style-type: none">1. Realistically, the WUI is a problem we increasingly must deal with during initial attack wildland fire incidents	
<p>III. ISSUES RESULTING FROM THE WILDLAND/URBAN INTERFACE PROBLEM</p> <ul style="list-style-type: none">A. Some of the issues we need to be aware of when performing operations in the WUI environment are varied, but are for the most part operational and/or safety oriented<ul style="list-style-type: none">1. Engine and crew capabilities<ul style="list-style-type: none">a) We must realize that additional training and experience is needed for effective (WUI) operations.b) We must realize engines, equipment and personal protective equipment must be adequate and adaptable for both structure and wildland firefightingc) We must realize the complexities of water supply challenges (static sources in a dynamic fire environment)<ul style="list-style-type: none">1) Often limited, use water wisely	



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<p>2) Remain mobile when ever possible</p> <p>2. Communications</p> <p>a) Often overwhelmed early during WUI operations</p> <p>b) Aspects and limitations of radio use</p> <p>1) Mobile</p> <p>2) Portable</p> <p>3) Tactical frequencies</p> <p>4) Command frequencies</p> <p>5) Common communications</p> <p>6) Scan and not to scan</p> <p>c) Aspects of other communication forms</p> <p>1) Face to face-best</p> <p>2) Written</p> <ul style="list-style-type: none">• Notepads• Incident Action Plans (IAPs) <p>3) Hand signals</p> <p>4) Horn signals</p> <ul style="list-style-type: none">• Air• Electric siren <p>5) Other warning signals</p> <p>3. Safety considerations specific to the WUI environment</p>	



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<p>a) Remember, Firefighter and public safety will always be CAL FIRE's number one WUI incident priority.</p> <p>b) Understanding that most basic and traditional wildland safety rules still apply</p> <ol style="list-style-type: none">1) Realizing that new rules will apply2) WUI Safety Hazards <p>c) Understanding that evacuation issues, WUI strategic and tactical alternatives, and the dangers these present to emergency response personnel, operations, and the public we serve.</p> <p>d) Understanding basic wildland fire behavior and applying it to the WUI's dynamic environment</p> <ol style="list-style-type: none">1) Fire history<ul style="list-style-type: none">• Historic fire patterns and conditions often repeat themselves2) Fire weather conditions3) Wildland fuel conditions	<p>Review a few rules like LCES, life safety hazards, 10 and 18, etc.</p> <p>Information Sheet #1</p> <p>Give local examples: ie RRU's 2006 Esperanza Fire, MMU 2008 Telegraph Fire</p>

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<ul style="list-style-type: none">• Dead fuel moistures• Live fuel moistures4) Topography5) Fire Behavior<ul style="list-style-type: none">• Observed and predicted• Spotting from firebrand sources• How long for fuels to burn out4. Structure Triage<ul style="list-style-type: none">a) A decision making processb) What can easily be saved with the least amount of resourcesc) There are no simple rules regarding structure triaged) When in doubt error on the side of safety5. Tactical operations<ul style="list-style-type: none">a) Wildland versus structural firefighting techniques, or a combination of both<ul style="list-style-type: none">1) Offensive-attack the main fire2) Defensive-concentrate on saving as many structures as you can3) Combination-perimeter control and structure protection concurrent	<p>Information Sheet #2</p>

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<p>6. Other tactical operational considerations</p> <ul style="list-style-type: none">a) Foams and Gelsb) Firing techniquesc) Interior/Exterior structure firefighting considerationsd) Perimeter fire control considerationse) Aircraft use<ul style="list-style-type: none">1) Tactical considerations<ul style="list-style-type: none">• Where, when, how• With what type and size of aircraft2) Post tactical considerations<ul style="list-style-type: none">• Suppression repair, i.e. washing off retardant, gel, etc.• Repopulation needs• Infrastructure damage	<p>Do not spend a lot of time on details; this is only an awareness level lesson</p>



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SUMMARY:

This unit represents an overview and introduction to the Wildland/Urban Interface fire environment problem.

The issues are presented so one will realize that further learning and research is necessary before operating safely and effectively in the WUI environment.

EVALUATION:

The student will complete a written quiz at a time determined by the instructor.

ASSIGNMENT:

Review your notes and read the Student Information sheets in order to prepare yourself for the upcoming quiz. Study for the next section