



National Advanced Fire & Resource Institute
Managed By The U.S. Forest Service

3265 East Universal Way, Tucson, Arizona 85756
Phone 520-799-8787 • Fax 520-799-8785 • www.nafri.gov

File Code: 5100

Date: January 12, 2009

Subject: Rx510 Applied Fire Effects
March 9 – 13, 2009

To: Rx-510 Course Participant

Congratulations on your selection to attend the Rx510 Applied Fire Effects course to be held at the National Advanced Fire & Resource Institute (NAFRI). Enclosed is your Participant Information Packet. The course dates are March 9 – 13, 2009. Please note the course starts Monday morning at 0800. This gives you information concerning the course, the faculty, a list of fellow participants, and details on logistics of the course. If you find you cannot attend the course, let us know as soon as possible.

Pre-Course Work:

On December 5, 2008 you were sent the Rx510 pre-course work CD which consists of two sections. The pre-course work is also available on the NAFRI web site (www.nafri.gov).

Pre-Course Reading

All students selected are to complete the required reading prior to the beginning of the Rx510 course. Estimated time to complete the 60 pages of reading is 4 to 6 hours and needs to be completed by March 8, 2009.

Peer Learning Group

Read the Peer Learning Group Description (Handout 2) and complete the assignment as outlined under the section titled "How are we using Peer Learning Groups in Rx510?" Estimated time to complete is 8 to 12 hours. Your completed Form needs to be posted to your Peer Learning Group Neighborhood on myfirecommunity by February 20, 2009.

Course Information:

Rx510 begins Monday, March 9 at 0800 in the Sonoran Auditorium. Check the last three pages of this packet for detailed maps of the facilities. The course ends at 1100 on Friday, March 13.

Rx510 is a national level training course. As such, you can expect long days. You will be expected to attend the entire course.

This course generates a 2½" notebook along with various handouts.

Cancellation Policy:

If for any reason you are unable to attend the course, please let us know.

Logistics:

Course Facility

Our facility is next to the Tucson International Airport. You can find a map of the area at www.nafri.gov or the last pages of this packet.

Place: National Advanced Fire & Resource Institute (NAFRI) **Main Phone:** (520) 799-8787
Address: 3265 E. Universal Way, Tucson, AZ 85756 **Fax:** (520) 799-8785

Travel Arrangements

The course begins on Monday morning, March 9 at 0800. Travel should be scheduled for Sunday, March 8, 2009. The course ends Friday, March 13 at 1100. When making your return flight arrangements, allow at least 15 minutes from NAFRI to the Tucson International Airport by car.

Lodging

For a listing of hotels near NAFRI, go to the main NAFRI website (<http://www.nafri.gov>). Please mention you are with NAFRI.

The hotels and inns located in the area of NAFRI and the airport provide a wide variety of amenities suitable for all visitors. The hotels and NAFRI are within one mile of the Tucson airport. If you mention NAFRI, the hotels also provide free continental breakfast. Other amenities may be provided based on the individual hotel properties. Be sure to confirm with the hotel when setting up your reservation.

Transportation

If you are not renting a car, NAFRI will be providing a van shuttle service to and from the hotels as needed for the course, once in the morning and again after class in the evening. Please call the NAFRI main number (520-799-8787) to make arrangements.

Restaurants

There are plenty of lunch options within walking distance of NAFRI. All of the hotels offer some version of continental breakfast if you mention you are with NAFRI.

We are looking forward to presenting Rx510 here at NAFRI. Please contact Celeste Gordon, Rx510 Course Coordinator, at 520-799-8777 or by email cgordon@fs.fed.us with any questions or concerns about the Rx510 Course.


MERRIE M. JOHNSON
Director

Monday March 9, 2009	NATIONAL ADVANCED FIRE & RESOURCE INSTITUTE	
	UNIT I – INTRODUCTION	Unit Leader: Sue Stewart
0800-0815	NAFRI Details	Course Coordinator
0815-0920	I-A Introduction and Expectation for Rx510	Berni Bahro Paula Seamon
0930-1020	I-B National Perspective	Sue Stewart
1030-1130	I-C Ecological Assessments, Adaptive Management, and Collaboration	Merrill Kaufmann
1130-1230	LUNCH	
1230-1320	I-D Should Climate Change Affect our Fire and Vegetation Management Practices?	Alan Taylor
1330-1335	UNIT II – ECOLOGICAL AND CULTURAL CONTEXT	Unit Leader: Melanie Miller/Louisa Evers
1335-1425	II-A Landscape Ecology and Fire	Don Falk
1435-1525	II-B Bark Beetles and Fire-injured Trees: Considerations for Prescribed Fire Burn Plans	Barbara Bentz
1535-1625	II-C Process Influencing Pattern: Examples from Fire and Avian Ecology	Vicki Saab
1635-1730	VI Peer Learning Group	Matt Dickinson Helen Smith
1745	Faculty Meeting	Faculty
1800	Social Hour	Faculty & Student

Tuesday March 10, 2009	NATIONAL ADVANCED FIRE & RESOURCE INSTITUTE	
0745-0800	Daily Objectives	Berni Bahro Paula Seamon
0800-0830	Quiz #1	Helen Smith
0830-0920	II-D Fire-induced Landscape Dynamics	Rich Minnich
0930-1020	II-E Traditional Knowledge – Forgotten Fires	Frank Lake
1030-1130	II-F Reading The Landscape (Historical Context and Reference Conditions)	Alan Taylor
1130-1230	Lunch	
1230-1320	II-G Social: Public Acceptance of Prescribed Fire: What Matters and Why?	Sarah McCaffrey
1330-1420	VI Peer Learning Group	Matt Dickinson Helen Smith
1430-1435	UNIT III – MONITORING, EVALUATION, AND ADAPTIVE MANAGEMENT Unit Leader: Tim Menard	
1435-1530	III-A Developing a Monitoring Program – “A Minimalist Approach”	Mary Taber
1530-1620	III-B Fire Monitoring Program: Marais des Cygnes NWR	Tim Menard
1630-1700	Questions and Answers	Steering Committee
1715	Faculty Meeting	Faculty
1800	WFDSS / Decision Support	Berni Bahro

Wednesday March 11, 2009	NATIONAL ADVANCED FIRE & RESOURCE INSTITUTE	
0745-0800	Daily Objectives	Berni Bahro Paula Seamon
0800-0830	Quiz #2	Helen Smith
0830-0920	III-C Everglades National Park	Rick Anderson
0930-1020	III-D Alaska Fire Management & Monitoring: Vast Areas, Large Fires, and Limited Staff	Jennifer Allen
1030-1130	III-E Using Remote Sensing to Understand Landscape Fire Effects	Berni Bahro
1130-1230	Lunch	
1230-1320	VI Peer Learning Group	Matt Dickinson Helen Smith
1330-1335	Unit IV – TREATMENT DESIGN AND APPLICATION Unit Leader: Riva Duncan	
1335-1425	IV-A Treatment Planning and Scheduling	Berni Bahro
1435-1525	IV-B Developing a Treatment Strategy for Restoring Forests and Protecting Communities in the Colorado Front Range	Merrill Kaufmann
1535-1630	IV-C Implementing Fire Regimes in Wildland Remnants: Problems and Pitfalls	Joel Carlson
1630-1700	Questions and Answers	Steering Committee
1715	Faculty Meeting	Faculty
1800	So. California Drought Catastrophe	Rich Minnich

Thursday March 12, 2009	NATIONAL ADVANCED FIRE & RESOURCE INSTITUTE	
0745-0800	Daily Objectives	Berni Bahro Paula Seamon
0800-0830	Quiz #3	Helen Smith
0830-0920	IV-D Fire Regimes and Fire Management in the Great Basin - Past, Present, and Future	Jeff Rose
0930-1020	IV-E Rehabilitation of Aspen Forests: Treatment Options Involving Fire	Wayne Shepperd
1030-1120	IV-F The Maturing of a Wildland Fire Use Program	Stu Hoyt
1130-1230	Lunch	
1230-1320	VI Peer Learning Group	Matt Dickinson Helen Smith
1330-1335	UNIT V – IMPLEMENTING IGNITION STRATEGIES Unit Leader: Hal Luedtke	
1335-1425	V-A Applying Prescribed Fire in the Canadian Rockies	Ian Pengelly
1435-1525	V-B A Story about Fire and the Menominee Forest - Ecological Forestry and Landscape Scale Pine Barrens Restoration	Jeremy Bennet
1535-1625	V-C Sevier Plateau Ecosystem Restoration Project: Using Fire to Re-establish Ecosystem Function	Kim Soper Mike Crawley
1635-1735	Final Exam	Helen Smith
1745	Faculty Meeting	Faculty
1815	Grade Final Exam	Faculty
1915	Faculty Meeting	Faculty

Friday March 13, 2009	NATIONAL ADVANCED FIRE & RESOURCE INSTITUTE	
0800-0850	V-D Ocala Sand Pine, Stand Replacement Burning	Dwight Snow
0900-0950	V-E Wildland Fire Use – Okanogan Wenatchee N.F.	Bobbie Scopa
1000-1020	Final Exam Review	Helen Smith
1030-1100	Close Out	Berni Bahro Paula Seamon
1130-1230	Steering Committee Meeting	Steering Committee

Rx510 APPLIED FIRE EFFECTS
March 9 - 13, 2009
Tucson, Arizona

To demonstrate the application of science-based fire effects knowledge in the planning, implementation, and evaluation in the use of wildland fire.

COURSE OBJECTIVES

Upon completion of this course, the participant will be able to:

Translate broad ecological information into goals and objectives for the use of wildland fire.

Incorporate short-term and long-term fire effects information into planning and implementation for the use of wildland fire.

Provide examples and discuss methods for monitoring and evaluating fire effects.

Apply the adaptive management process to refine a program for the use of wildland fire.

UNIT OBJECTIVES

UNIT I – INTRODUCTION

1. Understand the context for the course.
2. Introduce faculty, steering committee and participants.
3. Understand the national perspective on fire effects and fuels treatments.
4. Recognize how changing environmental science and management practices may impact vegetation management.

UNIT II – ECOLOGICAL AND CULTURAL CONTEXT

1. Know the value of integrating information about past and present vegetation and landscape characteristics into the treatment planning process.
2. Describe how landscape patterns, dynamics and disturbances relate to fires and their effects.
3. Recognize how historical, cultural, and social perceptions and practices provide a context for fire use.

UNIT III – MONITORING, EVALUATION, AND ADAPTIVE MANAGEMENT

1. Describe monitoring and evaluation and their relationship to adaptive management.
2. Identify steps for developing a monitoring program on your home unit.
3. Use case studies to demonstrate the use of monitoring and evaluation to assess and improve the effectiveness of fire management programs.

UNIT IV – TREATMENT DESIGN AND APPLICATION

1. Discuss how the use of wildland fire and other treatments are being designed and used to meet management objectives.

UNIT V – IMPLEMENTING IGNITION STRATEGIES

1. Use Case Studies to:
 - a. Discuss appropriate considerations when designing and implementing complex ignition strategies.
 - b. Share lessons learned from on going complex landscape scale ignition projects.
 - c. Demonstrate the value of on going monitoring, interdisciplinary cooperation, and community involvement in successful project implementation.

UNIT VI – PEER LEARNING GROUPS

1. With active participation, students will use their Peer Learning Group to:
 - a. Reinforce the main concepts of Rx510.
 - b. Learn by giving and receiving peer input on real-life projects.

UNIT VII – PRE-COURSE WORK

1. Become familiar with concepts presented at the Applied Fire Effects course.
2. Become familiar with the Peer Learning concept and will have completed the Pre-Course Assignment.

RX510 Applied Fire Effects
March 9 – 13, 2009
Tucson, Arizona

FACULTY ASSIGNMENTS

I. INTRODUCTION

SUE STEWART, Unit Leader

- | | |
|--|------------------------------|
| A. Introduction and Expectation for Rx510 | Berni Bahro/
Paula Seamon |
| B. National Perspective | Sue Stewart |
| C. Ecological Assessments, Adaptive Management,
and Collaboration | Merrill Kaufmann |
| D. Should Climate Change Affect our Fire and Vegetation
Management Practices? | Alan Taylor |

II. ECOLOGICAL AND CULTURAL CONTEXT

MELANIE MILLER/LOUISA EVERS, Unit Leader

- | | |
|--|-----------------|
| A. Landscape Ecology and Fire | Don Falk |
| B. Bark Beetles and Fire-injured Trees:
Considerations for Prescribed Fire Burn Plans | Barbara Bentz |
| C. Process Influencing Pattern: Examples from Fire
and Avian Ecology | Vicki Saab |
| D. Fire-induced Landscape Dynamics | Rich Minnich |
| E. Traditional Knowledge – Forgotten Fires | Frank Lake |
| F. Reading the Landscape
<i>(Historical Context and Reference Conditions)</i> | Alan Taylor |
| G. Social: Public Acceptance of Prescribed Fire:
What Matters and Why? | Sarah McCaffrey |

III. MONITORING, EVALUATION, AND ADAPTIVE MANAGEMENT

TIM MENARD, UNIT LEADER

- | | |
|--|------------|
| A. Developing a Monitoring Program – “A Minimalist Approach” | Mary Taber |
| B. Fire Monitoring Program: Marais des Cygnes NWR | Tim Menard |

- C. Everglades National Park Rick Anderson
- D. Alaska Fire Management & Monitoring: Vast Areas,
Large Fires, and Limited Staff Jennifer Allen
- E. Using Remote Sensing to Understand Landscape Fire Effects Berni Bahro
- WFDSS / Decision Support Berni Bahro

IV. TREATMENT DESIGN AND APPLICATION

RIVA DUNCAN, Unit Leader

- A. Treatment Planning and Scheduling Berni Bahro
- B. Developing a Treatment Strategy for Restoring Forests and
Protecting Communities in the Colorado Front Range Merrill Kaufmann
- C. Implementing Fire Regimes in Wildland Remnants:
Problems and Pitfalls Joel Carlson
- D. Fire Regimes and Fire Management in the Great Basin -
Past, Present, and Future Jeff Rose
- E. Rehabilitation of Aspen Forests: Treatment
Options Involving Fire Wayne Shepperd
- F. The Maturing of a Wildland Fire Use Program Stu Hoyt

V. IMPLEMENTING IGNITION STRATEGIES

HAL LUEDTKE, Unit Leader

- A. Applying Prescribed Fire in the Canadian Rockies Ian Pengelly
- B. A Story about Fire and the Menominee Forest - Ecological
Forestry and Landscape Scale Pine Barrens Restoration Jeremy Bennett
- C. Sevier Plateau Ecosystem Restoration Project
Using Fire to Re-establish Ecosystem Function Kim Soper/
Mike Crawley
- D. Ocala Sand Pine, Stand Replacement Burning Dwight Snow
- E. Wildland Fire Use – Okanogan Wenatchee N. F. Bobbie Scopa

VI. PEER LEARNING GROUP

MATT DICKINSON, Unit Leader
HELEN SMITH, Co-Unit Leader

VII. PRE-COURSE WORK

MATT DICKINSON, Unit Leader
HELEN SMITH, Co-Unit Leader

- A. Pre-course Reading
- B. Peer Learning Group Project

COURSE QUIZZES AND FINAL EXAM

HELEN SMITH, Unit Leader

Rx510 Applied Fire Effects 2009 Selections

The Rx510 Course Information will be available on the NAFRI web site and a hard copy will be mailed on January 16, 2009. Hotel and area logistics are available on this website.

This list was updated: **Monday, February 02, 2009 14:57**

LAST NAME	FIRST NAME	UNIT	GEO AREA	AGENCY
Abendroth	Diane	Grand Teton National Park	RM	NPS
Albritton	Michael	Missoula Field Office	NR	BLM
Borgen	Darren	Flathead National Forest	NR	FS
Buser	Chad	Pike and San Isabel National Forest	RM	FS
Carl	Angie	Southeast Coastal Plain Office	SA	Other
Carothers	John	Sequoia National Forest	CA	FS
Chappell	Randy	Rio Grande National Forest	RM	FS
Christiansen	Erik C.	National Interagency Fire Center	GB	FWS
Contreras III	Ruben	Klamath National Forest	CA	FS
Crary Jr.	David	Cape Code National Seashore	EA	NPS
Curtis	Ben	Colville National Forest	NW	FS
Davis	Daryl	Deschutes National Forest	NW	FS
Demasters	Todd	Boise National Forest	GB	FS
Dollard	Jason W.	Alaska Fire Service	AK	BLM
Echeverria	Annamaria	Humboldt-Toiyabe National Forest	GB	FS
Errecart	John	Lolo National Forest	NR	FS
Filbert	Matt	Sawtooth National Forest	GB	FS
Fonger	Lyndsay	Humboldt-Toiyabe National Forest	GB	FS
Gee	Chris	Rawlins Field Office	RM	BLM
Gonzales	Frank R.	Bandelier National Monument	SW	NPS
Grasham	James	Idaho Panhandle National Forest	NR	FS
Herkshan III	Enos I.	Southern Pueblos Agency	SW	BIA
Hetts	Katharine	Uinta-Wasatch-Cache National Forest	GB	FS
Hirschfield	Isaiah A.	Yosemite National Park	CA	NPS
Jacobson	Greg	Clearwater National Forest	NR	FS
Karchut	Bryan J.	Bridger-Teton National Forest	GB	FS
Kuhar	Kim	Lincoln National Forest	SW	FS

LAST NAME	FIRST NAME	UNIT	GEO AREA	AGENCY
Lipp	Travis	South Dakota Field Office	NR	BLM
Lundgren	Chris	Nez Perce National Forest	NR	FS
Maple	Lynn	Battle Mountain Field Office	GB	BLM
McCoy	Jim	Land Between The Lakes NRA	SA	FS
Mitchell	Jennifer S.	Fairbanks Administrative Office	AK	NPS
Monroe	Tyler	Richfield & Fillmore Field Office	GB	BLM
Musitano	Mark	Yukon-Charley National Park	AK	NPS
Nabors	Beth	Humboldt-Toiyabe National Forest	GB	FS
Newburn	Benjamin T.	Shasta-Trinity National Forest	CA	FS
O'Donnell	Taig D.	Beaverhead-Deerlodge National Forest	NR	FS
Pappani	Justin	Nez Perce National Forest	NR	FS
Parrish	Kevin D.	Saguaro National Park	SW	NPS
Patterson	Charles	Black Hills National Forest	EA	FS
Robertson	Dave	Deschutes National Forest	NW	FS
Sage	Gregory Maxwell	Bitterroot National Forest	NR	FS
Sartor	Melissa	Salmon-Challis National Forest	GB	FS
Shaw	Steve	Northern California Support Team	CA	BLM
Tibbetts	Joshua	Battle Mountain Field Office	GB	BLM
Tipton	Chris D.	Santa Fe National Forest	SW	FS
Williamson	Nathan M.	Rocky Mountain National Park	RM	NPS
Zoppetti	Julia K.	Klamath National Forest	CA	FS