

Day 1 – 1:15p

## **PHASE II PROJECT**

- Technical Refinements
  - Large Fires
  - Complex Identification
  - Duplicates
- WF and Rx Fire QC Packets
  - States, Tribes, and FLMs

# Duplicate Fire Checking: Methods

- Complex fire checking for fire events:
  - >50,000 acres
  - >6,000 acres with “complex” in fire name
- Fires within 10K of each other *PLUS* manual check of fire name for suspected duplicates
- Fires with similar name *PLUS* calculation of distance between fires for suspected duplicates

# Duplicate Fire Checking: Results

method	# fire Events dropped	Acres Dropped	Consumption dropped (millions of tons)
Fire complexes	27	456,187	16.63
10K/Name Check	27	24,848	0.3
Name/Distance Check	45	3,254	0.039
TOTAL	99	484,289	17

# Perimeter Adjustments: Methods

- Adjusted final fire perimeters for unburned acres within the perimeter
- Based on:
  - Available GIS-based fire severity mapping
  - Reported unburned acreage (hardcopy)
- Applied to fire events >50,000 acres only

# Perimeter Adjustments: Results

# fire events  
adjusted

Acres dropped

Consumption dropped  
(millions of tons)

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13

373,615

8.56

# Other Adjustments: Methods

- Spatial
  - Checked Phase I EI fire locations against fire perimeter where GIS layer available: No location adjustments deemed necessary
- Temporal
  - No improvements made due to lack of better temporal data than already in Phase I EI
- Fuel Loading
  - Overlay of fire perimeters with NFDRS fuel model layer. Developed new weighted average fuel loading.

Note: FEJF could decide to base fuel loading adjustments on FCC layer

# Fuel Loading Adjustments: Results

*Based on NFDRS fuel model layer*

# fire events  
adjusted

Acres dropped

Consumption dropped  
(millions of tons)

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81

40.35

*(70 events in AK,  
11 in lower 48 States)*

*not applicable*

# Miscellaneous

- Adjusted 14 Phase I wildfire events for formatting errors in latitude and longitude
  - Created \*valid\* records and kept records in Phase II EI
  - Resulted in 414 additional acres only (<0.01% of total wildfire acres)

# Overall Summary

	# fire events	Wildfire Acres	Fuel consumption (millions of tons)
Phase I wildfire EI	1899	6,391,430	178.39
<b>Phase II wildfire EI</b>	<b>1800</b> <b>Minus 5%</b>	<b>5,533,526</b> <b>Minus 13%</b>	<b>112.51</b> <b>Minus 37%</b>
<i>Per Adjustment</i>			
<i>Duplicate fire checking</i>	- 99 <i>Minus 5%</i>	- 484,289 <i>Minus 8%</i>	- 16.97 <i>Minus 10%</i>
<i>Fire Perimeter adjustments</i>	<i>No change</i>	- 373,615 <i>Minus 6%</i>	- 8.56 <i>Minus 5%</i>
<i>NFDRS Fuel load adjustments</i>	<i>No change</i>	<i>No change</i>	- 40.35 <i>Minus 23%</i>

Note: does not include the fixed latitude/longitude pairs; influence negligible.

# Wildland (WF and Rx) QC Packets

- Objectives
  - Inform States & Tribes and FLMs of wildland fire data being used in WRAP's modeling efforts.
  - Obtain Quality Control (QC) review from appropriate wildland burning / air quality personnel.
    - Data in packets is post Air Sciences' initial QC tasks.

# Wildland (WF and Rx) QC Packets

- Prepared QC Notebooks
  - Selected larger burning Tribes to receive notebooks
    - Performed GIS-based “join” of wildland burning data and Tribal Land boundaries (source – DOI-BLM).
    - Prepared candidate list of Tribes
    - Included larger burning Tribes (captures 90+% of wildland acres in Indian Country)

# Wildland (WF and Rx) QC Packets

- Prepared QC Notebooks - FLMs
  - Series of email/conference calls to generate candidate list of FLMs to receive packets
    - Acquiring GIS layers for FLM jurisdictions
    - WF data going to USDA – FS Geographic Area Command Centers (GACC)
    - Federal Agencies on distribution list
      - USDOJ – NPS, BLM, BIA, USFW
      - USDA - FS

# Wildland (WF and Rx) QC Packets

- Prepared QC Notebooks
  - Engineered EI spreadsheet to accommodate jurisdiction-specific data summaries.
  - Developed activity & emissions tables and charts.
  - Drafted summary / introduction letter.
  - Prepared QC input sheets.
  - Compiled essential reference documentation.

# Wildland (WF and Rx) QC Packets

- Prepared Outreach / QC Notebooks
  - Developed and released BETA version of FLM Notebook
    - NPS Intermountain Region
    - Northwest GACC
  - Will use format/structure of Ag QC packets for State & Tribe wildland packets
  - Release of Notebooks to States, Tribes, and FLMs by December 24, 2005
    - Deadline for QC review about Jan 20, 2005

# Wildland (WF and Rx) QC Packets

- Notebook Contents
  - Introduction Letter.
  - Map of jurisdiction showing wildland burning activity level.
  - Tables (modified “Bakergrams”) and charts to present / summarize activity and emissions data.
  - QC reporting forms.
  - Essential reference documentation.
  - CD ROM including EXCEL file of data

# Wildland (WF and Rx) QC Packets

- Data Presentation.
  - Contents designed to allow reviewer to:
    - Get general idea of wildland burning activity in EI.
      - Spatial distribution
      - Temporal distribution
      - Crop-types burned
    - Focus on CRITICAL record information
      - Acres burned
      - Residue burned
      - PM2.5 emissions

# Wildland (WF and Rx) QC Packets

- Data Presentation.
  - Contents designed to allow reviewer to:
    - Spot obvious errors / omissions easily.
    - “Drill down” into the Ag burning data (...data presentations get more detailed as you move through the notebook).
    - Efficiently locate data in the EXCEL file.
    - Provide appropriate type / level of QC feedback

Table 1: Number of Fires, Acres Burned, Tons of Fuel Consumed and Tons of PM2.5 Emissions from Wildfire and WFU Fires by Fire Type and Burn Type in  
**GACC - NORTHWEST**

**Keywords: Wildfire and WFU, Broadcast/Piled, Phase II**

Fire Type	Burn Type	Number of Fires	Acres Burned	Fuel Consumed (tons)	PM2.5 Emissions (tons)
Wildfire	Broadcast	237	1,022,885	21,183,766	255,264
WFU	Broadcast	0	0	0	0
	Piled	0	0	0	0
<b>Grand Total</b>		<b>237</b>	<b>1,022,885</b>	<b>21,183,766</b>	<b>255,264</b>

Notes: Precision of reported values are potentially affected by rounding.

Table 1a: Phase I data - Number of Fires, Acres Burned, Tons of Fuel Consumed and Tons of PM2.5 Emissions from Wildfire and WFU Fires by Fire Type and Burn Type in  
**GACC - NORTHWEST**

**Keywords: Wildfire and WFU, Broadcast/Piled, Phase I**

Fire Type	Burn Type	Number of Fires	Acres Burned	Fuel Consumed (tons)	PM2.5 Emissions (tons)
Wildfire	Broadcast	249	1,375,455	43,532,120	524,562
WFU	Broadcast	0	0	0	0
	Piled	0	0	0	0
<b>Grand Total</b>		<b>249</b>	<b>1,375,455</b>	<b>43,532,120</b>	<b>524,562</b>

Notes: Precision of reported values are potentially affected by rounding.



Table 10a: Phase I data - Acres Burned and Tons of Fuel Consumed in the 10 Largest Wildfire in

GACC - NORTHWEST

Keywords: Wildfire, Acres, Fuel Consumption (tons), Top 10, Data Source, Month, Sorted by Acres, Phase I

Fire Name	Data Source	State	Data	Month												Grand Total	
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Biscuit (formerly Florence)	209 Report	OR	Acres Burned								150,000	349,570				499,570	
			Fuel Consumed (tons)							7,572,502	#####						25,425,615
Tool Box	209 Report	OR	Acres Burned								86,794	33,291				120,085	
			Fuel Consumed (tons)							390,573	149,810						540,383
TILLER COMPLEX	209 Report	OR	Acres Burned								27,121	41,654				68,775	
			Fuel Consumed (tons)							127,469	195,774						323,243
BOULDER	NIFMID/USFS	OR	Acres Burned								48,080					48,080	
			Fuel Consumed (tons)							2,447,011							2,447,011
Monument-Malheur Complex	209 Report	OR	Acres Burned								19,367	24,695				44,062	
			Fuel Consumed (tons)							14,525	18,521						33,047
DEER POINT	209 Report	WA	Acres Burned								37,588	5,082	4	326		375	43,375
			Fuel Consumed (tons)							169,146	22,869	18	1,467			1,688	195,188
Sour Biscuit	209 Report	OR	Acres Burned								18,337	23,560					41,897
			Fuel Consumed (tons)							933,262	1,199,086						
Mahogany Complex	209 Report	OR	Acres Burned								41,328						41,328
			Fuel Consumed (tons)									20,664					
Trimby Creek	209 Report	OR	Acres Burned								40,450						40,450
			Fuel Consumed (tons)									20,225					
WINTER FIRE	209 Report	OR	Acres Burned								35,779						35,779
			Fuel Consumed (tons)									168,161					
Total Acres Burned											504,844	477,852	4	326		375	983,401
Total Fuel Consumed (tons)											#####	#####	18	1,467		1,688	31,305,884

Notes: Precision of reported values are potentially affected by rounding.