



Fire without borders: Observations, experiences, and lessons learned from the 36-Pit Fire¹

Northwest Fire Science Consortium Project Report, June 2015



The 36-Pit fire near Estacada, OR broke out on September 13, 2014 and spread quickly, burning a total of 5,524 acres. The fire started by a target shooting accident in the 36 Pit quarry. Conditions were very hot and dry when the fire broke out, with temperatures ranging from the upper 80s to the mid-90s, and the relative humidity around 34%. In addition, there were 30 mph winds blowing from the east through the Clackamas River canyon. A total of

967 firefighters were deployed to fight the fire, which moved across ownerships: from federal to state and onto private lands. Of the areas burned 70% was managed by the US Forest Service, 24% managed by the BLM, and 6% in private ownership

On May 29, 2015 the Northwest Fire Science Consortium, in collaboration with Oregon State University Forestry & Natural Resources Extension and the Oregon Forest Resources Institute held a technical field tour of the 36-Pit fire site. There were 45 attendees. Presenters on the tour included employees from the USFS MHN, ODF, BLM, and the Hillockburn Springs and Port Blakely Tree Farms.

Field tour focus:

- Weather, fuels, topography conditions. Highlights of suppression effort, what was done and why.
- Landowner goals, objectives, and policies affecting both forest management and fire management.
- Fire history. When did it last burn before 36-Pit?
- Plans for the future. Fire recovery, rehabilitation, regeneration.

¹ Prepared by Janean Creighton, June 18, 2015

Stop 1: Basic story of the 36-pit fire. Brief version of what happened, start to finish: ignition at 36-Pit to 100% containment; weather, fuels, topography conditions; suppression effort; map of burn area and fire severity; burn area land ownership.



Mike Moore, fire management officer, Mt. Hood National Forest provides background on the 36-Pit fire.

Stop 2: Focused on each of the timber types and topographic situations: Thinned stand, regeneration unit, dense timber on slope below topographic break (directly above 36-Pit) and highlights of what happened here. Discussion of fire behavior/fire severity in different stand types as well as weather, fuels, and topographic conditions. Suppression effort –what was done and why.



Jackie Groce, Clackamas River District Ranger, Mt. Hood National Forest discusses the burn area and fire severity.

Stop 3: Port Blakely Tree Farm: goals, objectives, and policies affecting both forest management and fire management here. How do you manage forests for fire resistance and resilience along with other management objectives such as timber, fish, wildlife, and recreation? Discussion centered on the fire aftermath and fire recovery plan, as well as fuel hazard reduction practices and the use of strategically located fuel breaks both natural and manmade.



Lance Christensen, Forester for Port Blakely Tree Farm discusses the fire's impact in a 2-year old regeneration stand.

Important lessons learned:

1. Fire slowed and dropped to the ground in commercially thinned stands
2. A single point of contact for public information during fire event is critical
3. At the start of the fire, the timely release of information to the public was hindered due to the differing media policies of all agencies involved
4. Social media is useful but must be monitored for accuracy
5. Town Hall meetings with the community helped coordinate communication efforts



Fire Without Borders: Observations, Experiences, and Lessons Learned from the 36-Pit Fire.

Field tour. Friday, May 29, 2015

8:30 am – 4:00 pm Tour convenes at Timber Park, 30878 NW Evergreen Way, Estacada, OR

Itinerary

Overall - Glenn Ahrens will serve as M.C. to ensure coverage of topics and and keep on schedule. For each speaker at each stop, keep in mind key points you want people to know. Your main observations and lessons you learned. Common themes to be repeated at each stop in site-specific context include:

- Weather, fuels, topography conditions. Highlights of suppression effort, what was done and why.
- Landowner goals, objectives, and policies affecting both forest management and fire management.
- Fire history. When did it last burn before 36-Pit?
- Plans for the future. Fire recovery, rehabilitation, regeneration.

8:00am Timber Park site open for gathering participants

8:30am Timber Park, introduction and orientation to the tour, load vans

Glenn Ahrens, Janean Creighton, Jim Johnson – OSU & Fire Science Consortium

8:45am depart for Weigh Station, Hwy 224

9:10 Weigh Station, Hwy 224 (9.5 miles from Estacada).

Introduce key collaborators on the tour. *Mike Moore, Jackie Groce, Todd Reinwald, USFS MHNF. Mike Haasken, Thomas Whittington, ODF, Gilbert Shibley, OSU & Fire science Consortium people, Others?.*

Basic story of the 36-pit fire. Brief version of what happened, start to finish: ignition at 36-Pit to 100% containment. Weather, fuels, topography conditions. Suppression effort. *Mike Moore, Mike Haasken, others join in discussion.*

Map of burn area and fire severity. Burn area land ownership. *Todd Reinwald*

Overview of different landowner goals, objectives, and policies affecting both forest management and fire management. More to be emphasized at later stops. *Glenn Ahrens, Jackie Groce, Mike Moore, ODF, BLM*

Safety and public access messages.

Emergency stabilization that was prescribed for the 36 Pit. *Todd Reinwald*

9:50 depart for LaDee Flats area. USFS vehicle head, ODF tail.

10:20 La Dee Flats area (small cedar regen unit, pullout, 5.9 miles up 4610 Rd from Hwy 224).

Direct attention to each of the timber types and topographic situations: Thinned stand, regen unit, dense timber on slope below topographic break (directly above 36-Pit).

Highlights of what happened here. Fire behavior/fire severity in different stand types. Weather, fuels, topographic conditions. Suppression effort, what was done and why. (During the stop, move between types to keep from standing in one place too long.) *Mike Moore, others join discussion.*

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USFS goals, objectives, and policies affecting both forest management and fire management here. How do you manage forests for fire resistance and resilience along with other management objectives such as timber, fish, wildlife, recreation, etc. *Jackie Groce, Mike Moore*

Fire and fuel hazards at stages of stand development – regeneration, young stands, mature stands, old growth. Role of vegetation type, density, understory, hardwood component, and riparian conditions and their influence on fire behavior.

Silvicultural techniques for fuels reduction. Thinning, understory brush management, pruning.

Strategically located fuel breaks both natural and manmade.

Importance of road and trail access.

Fire aftermath. Fire recovery plan. USFS's fire rehab processes (3-types). *Todd Reinwald*

Message on public access and safety on Clackamas River R.D.

11:30 depart for Timber Park

12:00 pm Timber Park, Lunch, Presentation/discussion (led by Glenn Ahrens).

Clackamas River Forests in context of Oregon's major forest types, climate zones, fire return intervals, and fire severity regimes.

West-side Douglas-fir/western hemlock zone, productive, high fuel accumulation, infrequent stand-replacement fire regime. Social context, land ownership, fire suppression policy at interface with private property.

1:10 pm depart for Hillockburn Springs

1:50 Hillockburn Springs, Port Blakely Tree Farms. Hilltop viewpoint in 2-year old regen that burned.

Highlights of what happened here. Weather, fuels, topographic conditions. Suppression effort, what was done and why. (*Lance Christensen + Mike Haasken + Chris Papen*)

Port Blakely Tree Farm goals, objectives, and policies affecting both forest management and fire management here. How do you manage forests for fire resistance and resilience along with other management objectives such as timber, fish, wildlife, recreation, etc. ? Fire aftermath. Fire recovery plan. Fuel hazards reduction practices. Strategically located fuel breaks both natural and manmade. (*Lance Christensen*)

ODF, Fire protection program for private landowners and BLM. ODF comments and messages regarding fire protection and forest stewardship program. Fuels reduction practices and incentives for landowners. (*Mike Haasken + Thomas Whittington, other ODF*)

Fire history of Hillockburn, stand replacement fire regime of west Cascades. *Gilbert Shibley*

Non-industrial private woodland owners perspective. *Glenn Ahrens + Gilbert Shibley.*

3:20 depart, return to Timber Park

4:00 adjourn at Timber Park

36 Pit Fire - Land Allocations

- ★ Milipost 36
- 🔴 Fire Perimeter
- 🌿 Wilderness
- 🌊 Wild and Scenic River

Northwest Forest Plan

Land Use Allocation

- Late Successional Reserves
- Congressionally Reserved
- Administratively Withdrawn
- Other

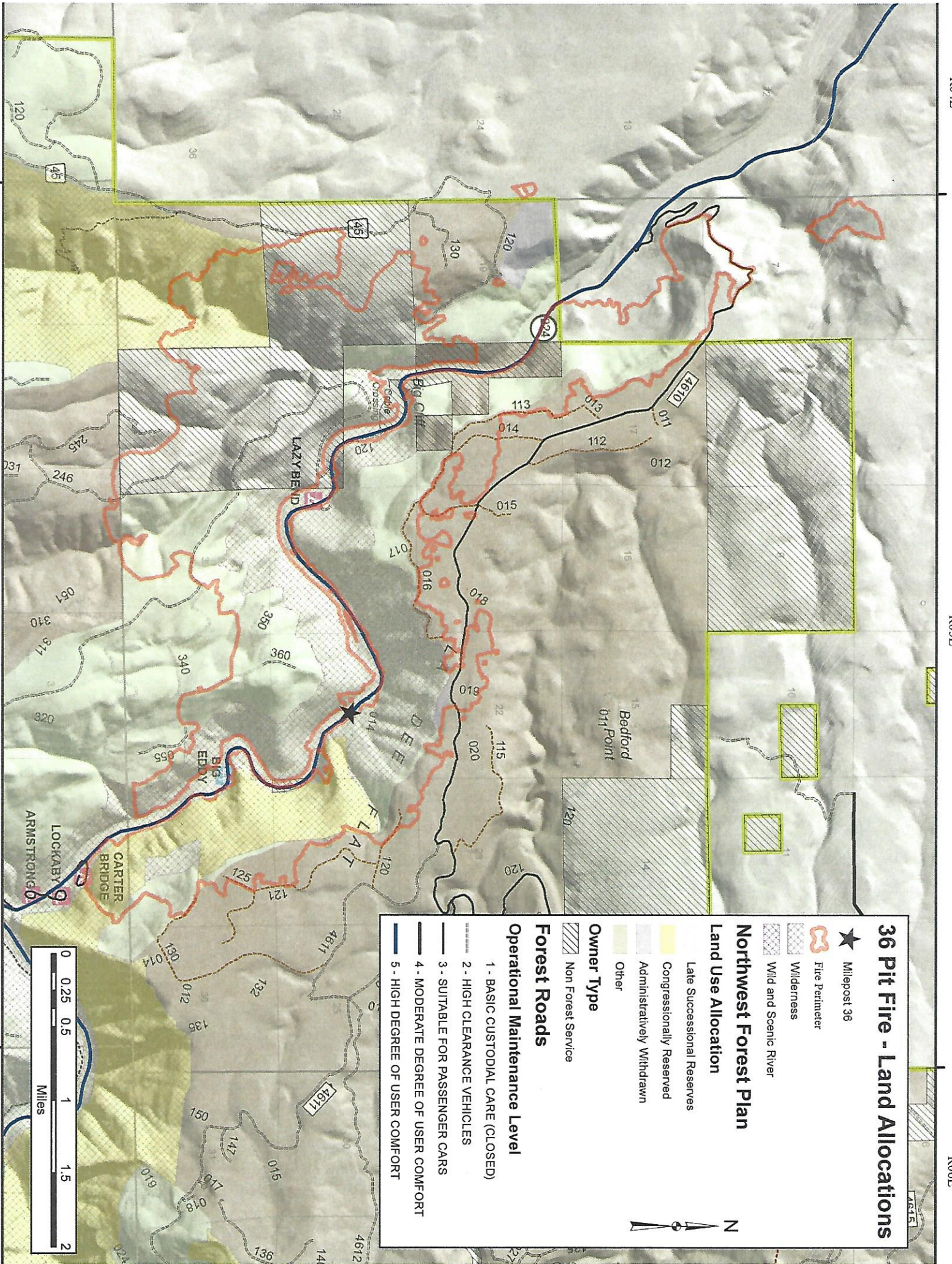
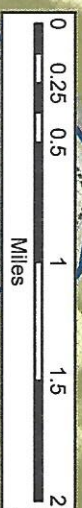
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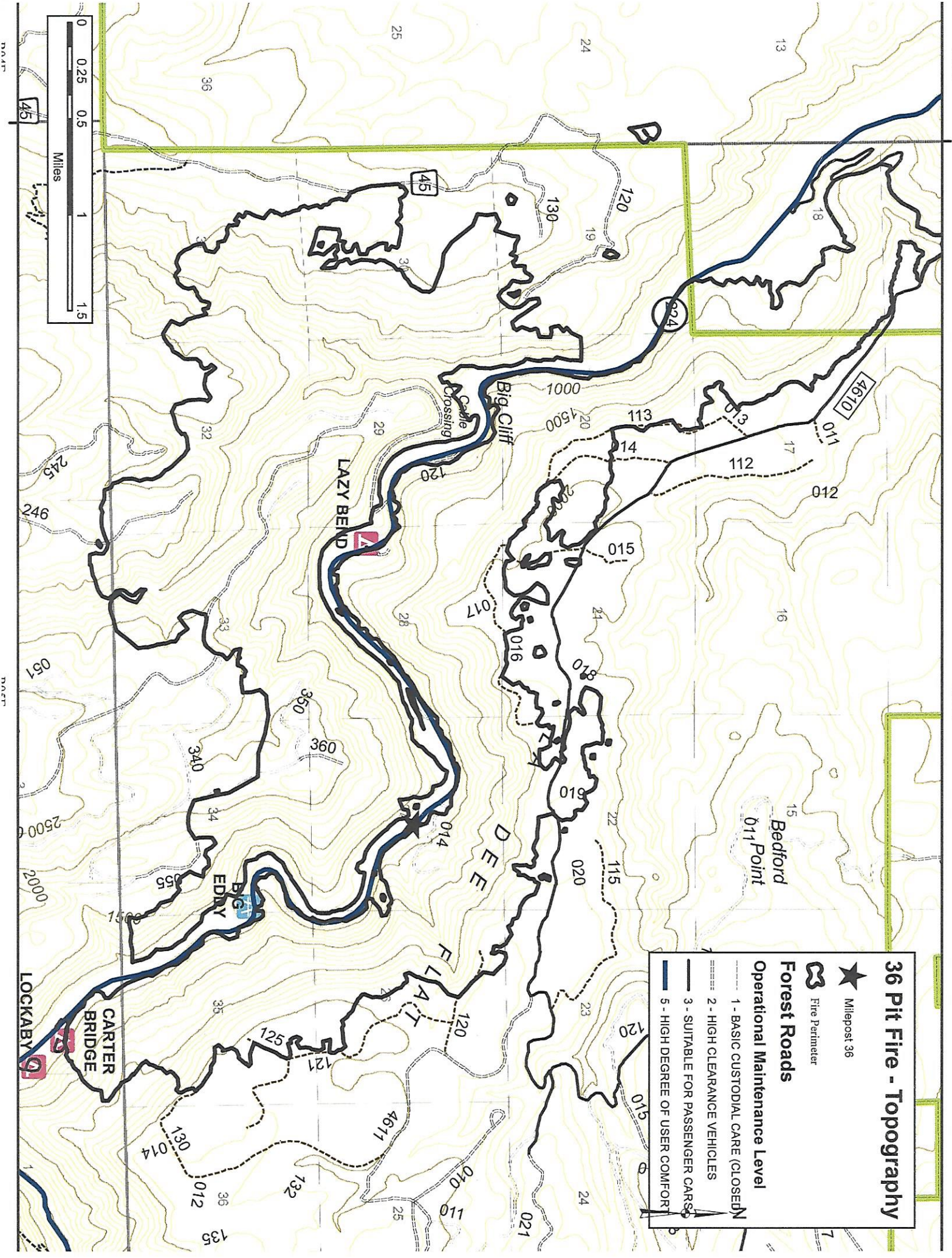
- Non Forest Service

Forest Roads

Operational Maintenance Level

- 1 - BASIC CUSTODIAL CARE (CLOSED)
- 2 - HIGH CLEARANCE VEHICLES
- 3 - SUITABLE FOR PASSENGER CARS
- 4 - MODERATE DEGREE OF USER COMFORT
- 5 - HIGH DEGREE OF USER COMFORT





36 Pit Fire - Topography

- ★ Milepost 36
- Fire Perimeter
- Forest Roads
- Operational Maintenance Level
 - 1 - BASIC CUSTODIAL CARE (CLOSED)
 - 2 - HIGH CLEARANCE VEHICLES
 - 3 - SUITABLE FOR PASSENGER CARS
 - 5 - HIGH DEGREE OF USER COMFORT

Fire Without Borders: Evaluations

May 29, 2015

Registered Participants = 45

Prepared by Carrie Berger, June 3, 2015

<i>n=23</i>	YES	NO	NOT SURE	NA	% Y
Regarding the information presented in today's tour					
Will you use the information in your work?	20	2	1		87.0
Would you recommend this tour to others?	21	0	1	1	91.3
Would you attend another field tour on this subject?	16	0	6	1	69.6

1=not useful

5=very useful

<i>n=23</i>	1	2	3	4	5
Feedback about the material					
Overall the material presented & discussed was...	0	1	1	11	10
The level of specificity for the discussion was...	0	0	2	8	13
The overall delivery of material was...	0	0	1	11	11

<i>n=23</i>	1	2	3	4	5
Feedback about the material (%)					
Overall the material presented & discussed was...	0	4%	4%	48%	43%
The level of specificity for the discussion was...	0	0	9%	35%	57%
The overall delivery of material was...	0	0	4%	48%	48%

1=poor

5=great

<i>n=23</i>	1	2	3	4	5
Networking opportunities					
The opportunities to engage others on the tour were...	0	0	3	9	10
The mix of people on this tour was...	0	0	2	8	12

<i>n=23</i>	1	2	3	4	5
Networking opportunities (%)					
The opportunities to engage others on the tour were...	0	0	13%	39%	43%
The mix of people on this tour was...	0	0	9%	35%	52%

<i>n=23</i>	1	2	3	4	5
Overall satisfaction with the tour					
Overall satisfaction...	0	0	1	9	13

<i>n=23</i>	1	2	3	4	5
Overall satisfaction with the tour (%)					
Overall satisfaction...	0	0	4%	39%	57%

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May 29, 2015
Registered Participants = 45
<i>Prepared by Carrie Berger, June 3, 2015</i>
Comments about the material:
I appreciate the material being available to a wide demographic but it would have been nice to have a fire ecologist talk about the benefits of fire.
Good job.
Clear, specific.
Pertinent, well-conceived, well executed.
The maps were illuminating. Very helpful on understanding these fires and agency cooperation.
Nice job!
Good
Good enough and informative.
In addition to the list of agencies, names and contacts for local people would be helpful.
Maps were useful. Having people from all agencies was also great.
Thank you!
Thank you! Very good maps.
What did you find most useful on this tour?
Getting to network with other professionals.
The past fire restoration and the cooperation between public and private.
The experience of the people.
Discussion on: 1) coordination with media, 2) efforts to keep media timely and accurate, 3) info sources for people & media official
Field interaction.
Emergency Fire Management System
Reference to maps while various agency representatives presented viewpoints. Discussions of reasoning behind the steps taken during the Pit fire.
Discussion on fire management & fuels, plus history of area fires.
Everything
Communication key to partnership!!
Info from a variety of sources/perspectives.
Excellent stops and logistics.
The open, helpful environment. Thank you very much for the time and effort - it was very impressive.
The opportunity to actually see the sites.
The site visits.

What would have made this tour more valuable to you and your work?
Less on the 'wow look at all the fire' and more on the science/ecology of the fire regime.
Nothing
For me 100% valuable.
More handouts, discussion, forecasts for summer 2015
How to manage property for fuels reduction & in a firewise way.
Some of the other 'agency' reps not present. Would be nice to have had Estacada Fire discuss their role, and, a short presentation from Clackamas County Emergency Management officials.
Contact names and emails for agency participants. At least their names and job titles.
You are on the right path.
More specifics on fire effects on wildfire, soils, water quality, etc.
Translation page of acronyms!
Additional comments:
Send information additional by mail.
Media should be encouraged to participate.
Glenn and Janean should get a medal for envisioning and planning this tour. Very educational!
More on spot fires and how they get beyond 'head' of fire. More on reimbursement of money to private landowners when they are not the cause or at fault.
During breaks/gathering people at the vans, it would be good to have agency people spread out more so that people can ask questions that might not be pertinent to the entire group.