POST-LILAC FIRE: assessment implementation assistance

Presented by:
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when it all starts

- Alerts
- Mobilization
- Evacuation
Flames broke out on Dec. 7, 2017 just after 11 a.m. near I-15 and SR-76 in Bonsall

1,300 residents were forced to evacuate to nearby shelters

4,100 acres were scorched by the fire’s end on Dec. 13

114 homes destroyed

55 other homes damaged

45 horses were killed

Cause of the fire remains under investigation
in numbers

• Fire and emergency response cost about $5M
• Offset by state and federal reimbursement
• County’s first use of the federal Wireless Emergency Alert system
damage report

-plan view
-specific parcels

Affected Parcels:

Dwelling Units
Destroyed

Other
Damaged/Destroyed
damage report
- plan view
- specific structures
damage report

Eastern Portion of the Lilac Fire

Rancho Monserate Mobile Home Park
damage report

Central Portion of the Lilac Fire
damage report

Western portion of the Lilac Fire
Lilac Fire: After Action Report

Released March 2, 2018
Available at:
assessments

High Priority Roads vs. High Priority Sites
right of entry agreements

- Private Property as part of High Priority Roads (HPR)
- High Priority Sites (HPS)
contracts

- Assessments
- Qualified SWPPP Developer (QSD) Inspectors
- RFQ & RFB for Erosion Control
- RFQ & RFB for Hydro Mulch
- Traffic Control
BMPs considered

- Culvert Cleanout
- Inlet Protection
- Check Dams
- Berms
- Chevrons
- K-Rails
- Fiber Rolls
- Energy Dissipater
- Hydro Mulch
Culvert Cleanout

**Function:**
- Allows for free passage of water in culverts and channels
- Creates additional capacity for runoff volume in sediment retention structures

**Equipment:**
- Earth moving equipment (i.e. excavators, back hoes, etc.)
- Hand tools (i.e. shovels, picks, clippers, saws)

Inlet Protection

**Function:**
- Slows and temporarily ponds run-off before it enters the storm drain to allow sediment to settle
- Traps mobilized sediment, ash and debris making it easier for maintenance to remove after rainfall

**Materials:**
- Gravel-filled burlap bags (GBB)
- Gravel-filled plastic bags (GBP)
- Geotextile sock or rolls (GSR)
Check Dams

**Function:**
- For drainage and sediment control in large rills, gullies and in drainage swales to reduce water velocity and retain debris and sediment
- Bandaid bags: where large rills/small gullies exist which are too small for conventional check cams, gravel burlap bags can be dropped into the gully to retain sediment and repair the channel

**Materials:**
- Gravel-filled burlap bags (GBB)
- Sand-filled plastic bags (only as noted on HPS plans to restore prior post-fire BMPs)

Berms

**Function:**
- Slows and temporarily ponds run-off before it enters the storm drain to allow sediment to settle
- Traps mobilized sediment, ash and debris making it easier for maintenance to remove after rainfall

**Materials:**
- Gravel-filled burlap bags (GBB)
- Sand-filled plastic bags (only as noted on HPS plans to restore prior post-fire BMPs)
**Chevrons**

**Function:**
- Drainage and sediment control on longitudinal slopes and roadways to reduce water velocity and retain debris and sediment
- Gravel-filled burlap bags (GBB) or sand-filled plastic bags (only as noted on HPS plans to restore prior post-fire BMPs)

**Materials:**
- Gravel-filled burlap bags (GBB)
- Sand-filled plastic bags (only as noted on HPS plans to restore prior post-fire BMPs)

**K-Rails**

**Function:**
- To divert, deflect or retain concentrated flows of debris and sediment to prevent damage to roads, infrastructure or private property

**Materials:**
- Concrete K-Rails require specialized equipment such as an excavator with hoist attachment or forklift
Fiber Rolls wrapped with Burlap

Function:
- Provide perimeter control around burned areas
- Reduce velocity and flow length in small drainage channels

Materials:
- Contents shall be Certified Weed Free Rice Straw wrapped in burlap or biodegradable fabric (not plastic netting) and shall not be moldly, decayed or injected or contain additives

Energy Dissipater (Rip Rap)

Function:
- Reduce flow velocity
- Protect underlying materials
- Reduce scour and erosion at discharge points

Materials:
- Geotextile/Filter fabric to separate energy dissipater from underlying soil
- Rip-Rap (angular stone, size dependent on velocity placed on top of the filter fabric)
- Reno Mattress and stone-filled gabions placed on top of the filter fabric
- Concrete energy dissipater
Hydro Mulch

Function:
- Immediate control of fugitive ash and dust
- Temporary soil erosion control from rain
- Promotion of vegetation establishment for long-term, sustainable erosion control

Applied to burned slopes using a two step application:

Step 1:
Slurry of water, mulch and tackifier mixed and applied at the following rates per acre:
- 1,500 gallons of water
- 500 pounds cellulose fiber trace mulch
- 200 pounds of guar based tackifier and dust palliative

Step 2:
Standard hydraulic mulch applications with the following rates per acre:
- Gallons of water will be variable per machine
- 2,000 pounds per acres of mulch with tackifier
Olive Hill Road Assessments
High Priority Roads (HPR)
Olive Hill Road Assessments

High Priority Roads (HPR)
Olive Hill Road Assessments
High Priority Roads (HPR)
W Lilac Road Assessments
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W Lilac Road Assessments

High Priority Roads (HPR)
Old Highway 395 Assessments

High Priority Roads (HPR)
Old Highway 395 Assessments

High Priority Roads (HPR)
Rancho Monserate Mobile Home Park

High Priority Sites (HPS-1)
Orchid Farm

High Priority Sites (HPS-2)
Olive Hill Estates

High Priority Sites (HPS-3)
more right of entry agreements

Private Property within High Priority Roads (HPR)
High Priority Sites (HPS)

photo locations?
Implementation of Post-Fire Best Management Practices (BMPs)

- Culvert and Drainage (swale, inlet, etc.) Cleanout
- Inlet Protection
- Check Dams
- Berms
- Chevrons
- K-Rails
- Fiber Rolls
- Energy Dissipater
- Hydraulic Mulch
Olive Hill Road Implementation: HPR 1
Olive Hill Road Implementation: HPR-1
Olive Hill Road Implementation: HPR-2
Hydraulic mulch shall be applied to burned slopes using a two-step application as described below:

Step 1. HM-1 consists of a slurry of water, mulch and tackifier shall be mixed and applied at the following rates per acre:
- 1,500 gallons of water
- 500 pounds cellulose fiber trace mulch
- 200 pounds of guar based tackifier and dust palliative

Step 2. HM-2 consists of a standard hydraulic mulch applications with the following rates per acre:
- Gallons of water will be variable per machine
- 2,000 pounds of mulch with 4% tackifier per acre
Olive Hill Road Implementation: HPR-3
Olive Hill Road Implementation: HPR-3a
W Lilac Road Implementation: HPR-5
W Lilac Road Implementation: HPR-6
W Lilac Road Implementation: HPR-7
W Lilac Road Implementation: HPR-8
W Lilac Road Implementation: HPR-9
W Lilac Road Implementation: HPR-10
W Lilac Road Implementation: HPR-11
W Lilac Road Implementation: HPR-12
W Lilac Road Implementation: HPR-12
W Lilac Road Implementation: HPR-13
W Lilac Road Implementation: HPR-14
Rancho Montserate Mobile Home Park:
HPR-15
Old Highway 395 Implementation: HPR-16
Old Highway 395 Implementation: HPR-17
Rancho Monserate Mobile Home Park: HPS-1
Erosion Control Homeowners Assistance Center (ECHAC)

66 days
25 rotating staff
FC, WPP, PDCI, Roads, Wastewater, CIP
7 days a week
150 property owners
Property owners
BMPs
BMPs

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festuca rubra molate
Erosion Control Homeowners Assistance Center

Location: County of San Diego Benwell Road Station at 2310 Pala Road
Hours: Mondays through Saturdays: 8am to 5pm
       Sundays: 9am to 2pm
       (Hours subject to change)

For people living in and around the areas burned by the Lilac fire, sandbags, gravel bags, fiber rolls, and native seed mix are available for free to help stabilize burned properties before winter rains arrive.

Brochures are available showing potential damages to property from wildfires. Visit http://www.sandiegocounty.gov/homeowners-assistance-center/ County Department of Public Works about how to protect their home properties to visually inspect and structures. To schedule a project. For additional information, call (888) 846-6800 or visit: http://www.sandiegocounty.gov/homeowners-assistance-center/

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FEMA Fact Sheet

Flood After Fire: The Increased Risk

October 2017

Introduction

Floods are the most common and costly natural hazard in the nation. After a wildfire, the flood risk increases significantly. The time to buy flood insurance is now. Residents and business owners need to protect their homes and assets from the devastating financial losses from a flood, especially after a wildfire, before the heavy winter season arrives.

WILDFIRES

Large-scale wildfires dramatically alter the terrain and ground conditions. Normally, vegetation exists, reducing the risk of wildfires. However, wildfires leave the ground cleared, burned, and exposed to erosion. Heavy rains on the cleared land can cause flooding, mudslides, and debris flows. Flood risk can last for years, especially in areas where the ground is still bare.

Homeowners and business owners are urged to purchase flood insurance now to assure financial protection from flooding. By law, there is a 30-day waiting period from the date of purchase until the flood insurance coverage takes effect with very few exceptions:

- the purchase of insurance is in connection with a revision or update to a Flood Insurance Rate Map (FIRM) and passed 15 months of the revision or update; and
- FEMA determines that the property covered by the policy is affected by flooding on Federal Land that is a result of, or exacerbated by, post-wildfire conditions.

*Risk your insurance agent about these exceptions.

REDUCE YOUR RISK

A Flood does not have to be a catastrophic event to bring high out-of-pocket costs, and you do not have to live in a high-risk flood area to suffer flood damage. Around 20 percent of flood insurance claims occur in moderate-to-low-risk areas. Property owners should remember to:

- Buy Flood Insurance. Most standard homeowner’s policies do not cover flood damage. Flood insurance is affordable, and important to protecting your investment. An average flood policy costs around $500 a year, and takes just a little less than $10 a year for homes in moderate-to-low-risk areas.

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Homeowner’s Guide for Flood, Debris, and Erosion Control

The County of San Diego

Erosion control is speeding recovery from burned landslipped areas. Remember to allow a fire depending on the severity of the burn. It is important that the plants do not threaten personal safety or property. Felling should be identified first. Avoid disturbing soil and run water or if required, the roots of vegetation hold the soil together and work with the elements.

There are fire plan tasks to build out or where the soil loss or erosion may be delayed by seeding certain areas. The area is important to Southern California. Seed mix includes, California Pogge seeds, Coastal Stipa (Spartina costata), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina foliosa), Coastal Silt (Spartina folios
Flyers
ECHAC open for storms

Erosion Control Homeowners Assistance Center in Bonsall, CA

NOW OPEN: 8 A.M. to 5 P.M.
Wednesday (3/21/18)
Thursday (3/22/18)
Friday (3/23/18)
Saturday (2/24/18)

For people living in and around the areas burned by the Lilac fire, sandbags and fiber rolls are available for free to help stabilize burned properties before winter rains arrive. Brochures are also available showing how to properly install the items to reduce potential damages to property from soil erosion caused by winter rains.

Erosion Control Homeowners Assistance Center Location:
Bonsall County Road Station
2370 Pala Rd, Fallbrook, CA, 92028
(Map search hint: Across the street from 4960 Sweetgrass Lane)
The Erosion Control Center will open before and during major rain storms. When open the dates and hours of operations will be posted at the top of this page.

For information or to schedule a property assessment, please call (888) 846-0800.

Resource Links
Flood After Fire Infographic
Seeding for Erosion Guide
Erosion Control Brochure - Sandbags
Erosion Control Brochure - Fiber Rolls
questions

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