



El Dorado County Storm Presentation

Board of Supervisors Meeting
2/27/17



Presentation Overview

- Sheriff's Office of Emergency Services - storms, disaster declarations, and possible reimbursement
- CDA Transportation Division - road damage & repair costs
- Parks and Trails - park and trail damage & repair costs
- CDA Environmental Management Division - Union Mine Landfill damage & repair costs
- Provide timeframe to return to the Board when there is more information



Storms

■ Four major storm systems in 2017

- **Storm #1** – January 3rd-12th
- **Storm #2** – January 18th – 23rd
- **Storm # 3** – February 1st – 7th
- **Storm # 4** – February 16th - ?



Emergency Declarations

- 1st Proclamation of Local Emergency & Request for Governor State of Emergency – January 10th (Storm #1)
- 1st Proclamation of State Emergency & Request for Federal Assistance— January 23rd (Storm #1)



Emergency Declarations

- 2nd Proclamation of Local Emergency & Request for Governor to Proclaim State of Emergency – February 14th (Storm #2, #3, and #4)
- FEMA – Approves Federal Assistance for January Storm #1 – February 23rd
- 2nd Proclamation awaiting State and Federal Proclamations



Storms and Emergency Declarations

- **Things to remember:**

- **Reimbursement due to damage to County infrastructure is not guaranteed yet for any of the storms**
- Currently working with the State and Federal governments to obtain reimbursement
- Match amounts for the County have not been determined yet



Storms and Emergency Declarations

- The storm events and damage continue to occur so damage assessment numbers are increasing
- On pace for significant rain and snow year – spring could bring large run off (current snow pack nearly 200%)



Sheriff's Office of Emergency Services

- 17,000 sand bags before the storms
- 65,000 sand bags were purchased during the storms
- 25,000 sand bags are left and can be found at the published sand bag locations
- Transportation Division - 1,200 tons of sand



Transportation Road Damage

- Hundreds of trees down





Storms and Emergency Declarations

- 50 to 100 slides





Transportation Road Damage

- Flooded roads
- Debris removal
- Keeping drainage flowing



Transportation Road Damage

- Hackomiller Road – Complete Fix \$30,000





Transportation Road Damage

- General Storm Cleanup - \$250,000
- Rock Creek Road – Slides - \$27,000



Transportation Road Damage

- Cosumnes Mine Road Bridge - \$1.1 million





Transportation Road Damage

- Cosumnes Mine Road Slips (2) - \$2.9 million





Transportation Road Damage

- Grizzly Flat Road - \$507,000





Transportation Road Damage

- Grizzly Flat Road Temporary Fix





Transportation Road Damage

- Mt. Aukum Road – \$1.3 million





Transportation Road Damage

- Bucks Bar Road - \$400,000





Transportation Road Damage

- Bucks Bar Road – Quick Fix





Transportation Road Damage

- Starkes Grade Road - \$500,000





Transportation Road Damage

- Newtown Road - \$500,000





Transportation Road Damage

- Newtown Road – Reason for partial closure





Transportation Road Damage

- Fort Jim Road - \$920,000





Transportation Road Damage

- Fort Jim Road – 120" culvert





Transportation Road Damage

- Airport Road - \$255,000





Transportation Road Damage

- Mosquito Road - \$1 million





Transportation Road Damage

- Mosquito Road





Transportation Road Damage

- Peavine Ridge Road - \$740,000





Transportation Road Damage

- Kyburz - \$200,000





Transportation Road Damage

- Arapahoe Road - \$50,000





Transportation Road Damage - Snow

- Lake Tahoe area had major snow storms
 - Two back to back
 - Snow was stacked everywhere
 - Issues plowing due to down trees and down power lines





Transportation Road Damage - Snow

- Then it began to rain
 - Drainage channels were choked with snow
 - Flooding occurred





Transportation Road Damage

- Cable Road – Culvert damage - \$300,000
- Green Valley Road – Slip - \$1.2 million
- Happy Valley Road – Slip - \$110,000
- Sciaroni Road – Slip - \$850,000
- String Canyon Road – Slip - \$533,000
- White Meadows Road – Slip/slump - \$655,000
- Elks Club Road – Failed culvert - \$210,000



Transportation Road Damage – Priorities

■ Priority 1

- Road closures full or partial with High ADT
- Possibility of a road closure with no other way out
- Slips on roads with High ADT

■ Priority 2

- Slips with lower levels of traffic
- Road closures with easy way out on either side and medium ADT
- Road closures with lower ADT and long way around

■ Priority 3

- Roads with very low ADT
- Roads closures with low ADT and an easy way out



Transportation Road Damage – Time Frames

- Maintenance – As soon as possible and weather allows
- Simple fix and design done in house – Spring
- Slips with Geotech needed and/or outside design consultant – Summer/Fall
- Culverts with Geotech needed and/or outside design consultant – Summer

*** Reimbursement has not been guaranteed for any event – these are only possible projections ***



Twenty Two Emergency Projects - 14.3 Million

	Project	Comments	Priority	Geotech Required	Design Consultant Required	To BOS to Advertise	Construction Starts	Damage Description	FEMA/OES or FHWA Eligible
1	Airport Road		2	Yes	Yes	Summer	Summer/Fall	Slip below road	\$255,000
2	Arapahoe Street (SLT)	Road Closed	2			Maintenance	May/June	Sink hole	\$50,000
3	Bucks Bar Rd	Detour for Mt Aukum - Temporary Repair Completed	1	Yes		March	May - After Mt Aukum is Complete	Sink hole	\$400,000
4	Cable Road		2			March	April Weather Permitting	Culvert damage	\$305,000
5	Cosumnes Mine Rd 1	Road Closed	2	Yes	Yes	Summer	Summer/Fall	Slip below road	\$1,796,750
6	Cosumnes Mine Rd 2	Road Closed	2	Yes	Yes	Summer	Summer/Fall	Slip below road	\$1,096,750
7	Cosumnes Mine Rd Bridge	Road Closed	2	Yes	Yes	Summer	Summer/Fall	Bridge approach wash out	\$1,109,250
8	Elks Club Road	Road Closed	1			Summer	Summer	Culvert Failure	\$210,000
9	Fort Jim Rd (1/5/17)	Road Closed	1	Yes	Yes	May	Summer	Culvert damage	\$920,000
10	Green Valley Rd		1	Yes	Yes	Summer	Summer/Fall	Slip below road	\$1,205,000
11	Grizzly Flat Rd		1			March	Summer	Culvert damage+slip below road	\$506,750
12	Hackomiller Rd	Work Completed	2			Maintenance Complete		Culvert+ road damage	\$30,000
13	Happy Valley Rd	Temporary Repair Completed	3	Yes	Yes	Summer	Summer/Fall	Slip below road	\$110,000
14	Kyburz Dr		3			Coordinate with Caltrans	Coordinate with Caltrans	Slide dumped on road	\$200,000
15	Mosquito Rd	Road Closed	1	Yes	Yes	Summer	Summer/Fall	Culvert damage	\$1,005,000
16	Mt Aukum Rd	Road Closed	1	Yes		March	April	Sink hole	\$1,310,000
17	Newtown Rd	Partial Closure	1	Yes	Yes	Summer	Summer/Fall	Slip below road	\$505,000
18	Sciaroni Rd		3			Maintenance	Spring/Summer	Slip below road	\$849,750
19	String Canyon Rd		2			March	Summer	Slip below road	\$532,500
20	Starkes Grade Rd	Road Closed	1	Yes	Yes	Summer	Summer/Fall	Slip below road	\$500,000
21	White Meadows Rd		3			Maintenance	Spring/Summer	Slide dumped on and shifted road	\$655,000
22	Peavine Ridge Rd	Road Closed	3	Yes	Yes	Summer/Fall	2018	Slip below road+culvert damage	\$740,000
								Totals	\$14,291,750
								FEMA/OES Total	\$10,616,750
								FHWA Total	\$3,675,000
								FEMA Potential Funding	\$ 7,962,563
								FHWA Potential Funding	\$ 2,425,948
								OES Potential Funding	\$ 2,306,783
								*County Potential Funding	\$768,928

Two Funding/Reimbursement Opportunities

CalOES/FEMA

■ Available for 'off-system' roads

- Mosquito
- Starkes Grade
- Grizzly Flat
- Cosumnes Mine
- String Canyon
- White Meadows
- Peavine Ridge
- Pony Express
- Arapahoe
- Sciaroni
- Kyburz Drive
- Elks Club

Caltrans/Federal Highway Administration (FHWA)

■ Available for 'on-system' roads

- Mt. Aukum
- Bucks Bar
- Newtown
- Airport
- Green Valley
- Lake Tahoe Boulevard

Project Delivery: CalOES/FEMA Projects

- Work can begin immediately – no prior authorization required.
- Work closely through Sheriff's OES that is working with CalOES and FEMA to keep them apprised of locations and costs of projects (field visits).
- Compliance with Caltrans project delivery procedures not required.
- Competition between consultants, contractors, other vendors increases likelihood of maximum reimbursement.
- Storm damage linked to inadequate maintenance can reduce reimbursement.

Project Delivery: Caltrans/FHWA (on-system)

- FHWA Emergency Relief Manual, updated May 31, 2013.
- Two phases: ER (emergency repairs) and PR (permanent repairs).
- ER work can begin immediately to implement the following:
 - Restore essential traffic (definition...?)
 - Minimize the extent of damage
 - Protect remaining facilities
- PR work restores the highway to its pre-disaster condition.

Permanent Repair Process – Caltrans/FHWA

- “Permanent repairs must receive FHWA authorization prior to the start of the work unless FHWA determines that it is more economical or practical to perform such work with the emergency repairs.” FHWA ER Manual, page 22.
 - Request sent to Caltrans for FHWA approval for Mt. Aukum
- Caltrans Local Programs Procedures Update 11-04, Chapter 11, Local Assistance Programs Guidelines, June 17, 2011
 - “Permanent restoration work must conform to the same basic procedures used for any other federal-aid highway construction.” (page 11-13).

Permanent Repair – continued

- Caltrans Local Programs Procedures Update 11-04, Chapter 11, Local Assistance Programs Guidelines, June 17, 2011
 - Typical procedure includes requesting authorization and receiving approval for various phases of work from FHWA through Caltrans
 - This includes r/w, environmental, and construction (pages 11-14 through 11-15).
 - This takes several months.
 - Failure to follow these procedures risks reimbursement for the whole project (page 11-7).
 - Staff will work with Caltrans to expedite the process.



Parks Damage – Henningsen Lotus Park





Parks Damage – Henningsen Lotus Park



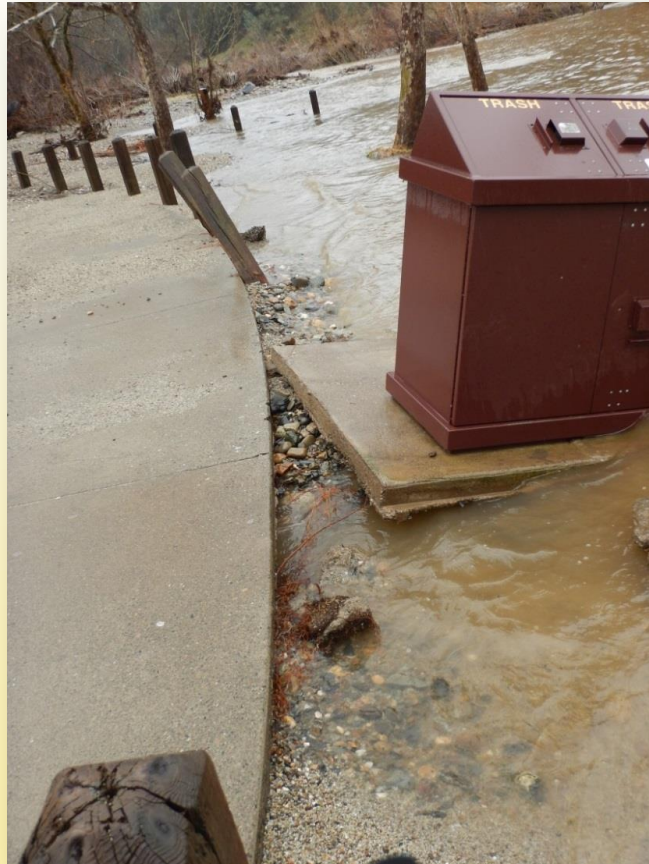


Parks Damage – Henningsen Lotus Park





Parks Damage – Henningsen Lotus Park





Trail Damage – El Dorado Trail





Trail Damage – Further Damage

- SPTC Creek Bridge and SPTC Shingle Springs washout





Trail Damage – Further Damage





Parks and Trail – Damage Estimates

- January damage estimates - \$128,700
- February damage estimates - \$40,400
- Department will return to the Board on 3/7 with a request to use HLP Fund Balance to begin repairs at park
- Pursuing insurance claim and State and Federal reimbursement



Union Mine Landfill – Storm Damage





Union Mine Landfill – Storm Damage





Union Mine Landfill – Storm Damage





Storm Damage 2017

Storm damage to date at the Union Mine Disposal Facility.

Legend

Damage Locations



Minor Road Damage

Sloughing Area #1 - Class III Landfill Section

Erosion Area - Class III Landfill Section

Sloughing Area #2 - Class III Landfill Section

Drain Damage

Erosion Class II Section Along Exposed Liner

South Sed Basin Dam

South Sed Basin Overflow

Google earth

© 2016 Google

800 ft



Union Mine Landfill – Damage Estimates

- \$40,000 – Damage to access road
- \$170,000 – Replace the south storm water sedimentation basin dam and repair the overflow
- \$215,000 – General damage to the landfill
- Will wait until late spring or summer for major repairs so the site can dry out



What's Next

- Departments work with Sheriff's Office of Emergency Services and CAO
- Complete new Individual Damage Assessments as discovered and submit to Sheriff's OES
- Update previous Individual Damage Assessments with new damage and submit to Sheriff's OES
- Comeback to the Board with possible steps that could expedite the recovery process – in weeks – Transportation researching
- Comeback to the Board when reimbursement has been guaranteed along with rates – waiting for State and Feds
 - Remember that reimbursement acceptance is different for the different declared events