Northern Nevada Winter Storm Event 2017

Nevada Department of Public Safety’s Division of Emergency Management
Incident Location: Northern Nevada and Tribal Nations
Incident Mission #:01042017-151
Incident Overview
The National Weather Service advised local, state and federal partners of a series of atmospheric river storms coming to the northern Nevada area January 4 through January 10. In preparation of the anticipated storms several counties and Tribal nations declared a state of emergency.

A joint State of Emergency was declared including: Washoe, Reno, Sparks, University of Nevada Reno, Carson City, Storey, Douglas, Lyon, Churchill, Reno Sparks Indian Colony, Pyramid Lake Paiute Tribe, Washoe Tribe of California and Nevada and the Fallon Paiute Shoshone Tribe.
**Incident Overview**

- Preparation measures were taken to include: sandbagging locations, debris removal, critical alert and public messaging, shelters identified, livestock and pet safety precautions and staffing and resource needs.

- Anticipated storms brought disaster levels of mountain snow and heavy rain to the northern Nevada area causing major flooding to area streams and rivers throughout northern Nevada.

- Local, state, federal and tribal nations activated their emergency operation centers to manage response efforts in their area. State liaison officers were deployed to local EOCs to assist with requests and communication efforts.
The Nevada Division of Forestry (NDF), in conjunction with the Nevada Department of Corrections, operates nine conservation camps throughout the state. The Conservation Camp Program provides training programs to inmates, wildland fire suppression crews, a skilled labor force for conservation projects, community assistance and emergency situations.

On Friday, January 6, 2017 the NDF put together an all hazard incident command structured team to support the anticipated flooding event in the western region of Nevada. The impending flood was predicted to affect multiple counties in Western Nevada. The main objective was to support the Division of Emergency Management by providing assistance to local jurisdictions and Tribal Nations with life safety, critical infrastructure preservation and protection of home and property. In addition the crews helped with evacuation efforts and cleanup of impacted areas.

The NDF team has been working closely with DEM and federal personnel to meet the needs and requests for resources from the affected counties in a timely, safe and effective manner. There are currently a total of 18 supervised NDF hand crews each comprised of 24 inmates. Total personnel assigned - 555
Road Closures Throughout Event

- SR 207 (Kingsbury) from Tramway to Foothill due to sinkhole. Four rock slides over the near the area of the sink hole.
- SR446 (Sutcliffe Highway) closed indefinitely due to road washed out.
- SR447 Shoulder drop off, building up shoulder, 10% debris removal.
- SR342 at Silver City is closed indefinitely. One lane available to Emergency vehicles and local residents only.
- I-80 in Nevada. Stateline to Keystone, Major issues with asphalt pavement blowouts (potholes). There is also a bridge deck damage.
- US050A Hazen to Fernley, shoulder damage isolated locations entire routes.
- SR659 (Manzanita and Greensboro WB single lane for traffic. Debris, pavement and shoulder repair
<table>
<thead>
<tr>
<th>Routes</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>I580</td>
<td>Exit 61 NB/SB Off; Flooding</td>
</tr>
<tr>
<td>I80</td>
<td>PE County, MP 31.1; Shoulder saturation and slope repair</td>
</tr>
<tr>
<td>SR206 (Genoa Ln)</td>
<td>MP 12.7-13.8, mainly SB; Shoulders washed out</td>
</tr>
<tr>
<td>SR206 (Genoa Ln)</td>
<td>MP 10.0-10.3; cutbacks washed down and around Walleys Hot Springs</td>
</tr>
<tr>
<td>SR207 (Kingsbury)</td>
<td>MP 11.0-11.6, mainly SB; Shoulder washed out</td>
</tr>
<tr>
<td>SR207 (Kingsbury)</td>
<td>Tramway to Foothill; Roadway failure</td>
</tr>
<tr>
<td>SR2671 (Holcomb)</td>
<td>Whole route; Flooding, possible washout</td>
</tr>
<tr>
<td>SR341 (Geiger)</td>
<td>ST County MP 0-1.57 NB; Shoulder washed out</td>
</tr>
<tr>
<td>SR341 (Geiger)</td>
<td>ST County MP 7.53-10.76; Shoulder washed out</td>
</tr>
<tr>
<td>SR341 (Geiger)</td>
<td>MP 16-16.5; Shoulder damage</td>
</tr>
<tr>
<td>SR342</td>
<td>LY County MP 0-0.3 NB; Shoulder washed out and guardrails exposed</td>
</tr>
<tr>
<td>SR439 (USA Pkwy)</td>
<td>Denmark to Electric; Flooding</td>
</tr>
<tr>
<td>SR445 (Pyramid Way)</td>
<td>MP 10-44; Extensive damage in various locations, erosion, washouts, pavement damage</td>
</tr>
<tr>
<td>SR446 (Sutcliffe Hwy)</td>
<td>MP 3.0; Culvert completely washed out with complete road and culvert rebuild</td>
</tr>
<tr>
<td>SR446 (Sutcliffe Hwy)</td>
<td>MP 7.2; Extensive shoulder and culvert damage with serious erosion</td>
</tr>
<tr>
<td>SR446 (Sutcliffe Hwy)</td>
<td>MP 9.0; Extensive culvert damage and washout culvert damage, shoulder damage</td>
</tr>
<tr>
<td>SR447</td>
<td>WA County MP 13; Extensive shoulder damage with some erosion under pavement shoulder</td>
</tr>
<tr>
<td>SR887 (Franktown Rd)</td>
<td>Ditch, shoulders, damage from flooding</td>
</tr>
<tr>
<td>SR447</td>
<td>WA County MP 33; Extensive shoulder damage with some erosion under pavement shoulder</td>
</tr>
<tr>
<td>SR647 (W. 4th St)</td>
<td>9400 Block; Rock &amp; mudslide</td>
</tr>
<tr>
<td>SR659 (McCarran)</td>
<td>MP 10.6-22.9 various locations; Erosion damage</td>
</tr>
<tr>
<td>SR667 SB (Kietzke)</td>
<td>Kuenzli to Galletti; Potential scour</td>
</tr>
<tr>
<td>SR757 (Muller)</td>
<td>MP 1.2-2.0 WB; Shoulders washed out</td>
</tr>
<tr>
<td>US395</td>
<td>MP 26.3-31.1; Pothole damage</td>
</tr>
<tr>
<td>US395A</td>
<td>S. Meadows to Patriot; Flooding</td>
</tr>
<tr>
<td>US395A</td>
<td>Eastlake to Mt. Rose; Flooding</td>
</tr>
<tr>
<td>US50</td>
<td>Multiple washouts</td>
</tr>
<tr>
<td>US50A</td>
<td>LY County MP 12.5-13; Extensive shoulder damage</td>
</tr>
</tbody>
</table>
**State of Nevada Significant Events**

**Wednesday, January 4**
- Division of Emergency Management (DEM) staff meet with the National Weather Service concerning upcoming weather pattern scheduled to hit northwestern Nevada on Saturday, January 7, 2017.
- Email notification to the Governor's Finance Office and the Legislative Counsel Bureau regarding the use of the Emergency Assistance Account.
- DEM coordinates efforts with Division of Forestry to prepare hand crews to monitor the Little Valley Burn Area due to the forecasted weather event.
- DEM requested additional NDF hand crews to assist local jurisdictions with sandbag filling operations to protect potentially affected homes and critical infrastructure in the threatened areas.
- Local and state agencies coordinate Sandbag locations and potential drainage issues reported to DEM for assistance and monitoring.
- DEM contacted FEMA Region 9 to update leadership on the weather events in northern Nevada.
- FEMA deploys two liaison officers to Nevada for assistance and situational awareness efforts.

**Thursday, January 5**
- DEM compiles situation update report and disseminated to local, state and federal partners.
- Began hosting the daily Jurisdictional Coordination Calls at 11:00 each day which continue to this day. All potentially affected jurisdictions were invited to the call; cities, tribal nations, counties, state agencies and special districts.

**Friday, January 6**
- DEM coordinates preparation efforts for local jurisdictions individual emergency declarations.
## Historic Snowfall Data

<table>
<thead>
<tr>
<th>County / Tribal Nation</th>
<th>NWS Snowfall (inches)</th>
<th>NCDC Record Snowfall Data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Amount</td>
</tr>
<tr>
<td>Storey County (Virginia City)</td>
<td>62.7”</td>
<td>72.5”</td>
</tr>
<tr>
<td>Washoe County (Reno Airport)</td>
<td>18.8”</td>
<td>22.9”</td>
</tr>
<tr>
<td>Washoe County (Incline Village)</td>
<td>42.2”</td>
<td>N/A</td>
</tr>
<tr>
<td>Douglas County (Glenbrook)</td>
<td>59.0”</td>
<td>185”</td>
</tr>
</tbody>
</table>
Northern Nevada Winter Storm Event 2017

Friday, January 6
- US Army Corps of Engineers contacts are obtained for potential future assistance
- American Red Cross region-wide assistance on stand-by
- Washoe County Mass Care on stand-by to coordinate evacuation shelters
- Monitoring 800Mhz Edac, Ares HF, VHF local area 911 dispatch

Saturday, January 7
- State Emergency Operations Center is activated

- Governor Sandoval has declared a state of emergency due to the severe weather system developing in northern Nevada and the consequent danger to life and damage to property. The Governor directed all state agencies to supplement the efforts of Washoe, Douglas, Lyon, and Storey counties, the City of Carson City, the Reno-Sparks Indian Colony, and the Pyramid Lake Paiute Tribes.
- Governor ordered all non-essential state workers in northern Nevada to stay home on Monday
- DEM staff assisted with ordering and deploying resources to local jurisdictions and tribal nations. To date 125 resources were requested for this incident.
State of Nevada Significant Events

Sunday, January 8
- State Emergency Operations Center increases to full activation
- EOC increased to 12 hour operational periods
- Emergency Support comprised of state agencies activated

Monday, January 9
- FEMA IMAT team deploys to Nevada
- Preliminary Assessment teams prepare for deployment
- Daily conference calls scheduled for weather briefings, jurisdictional and Tribal Nations updates
- Morning and evening situation reports are prepared and disseminated
- Morning and evening incident action plans are prepared and disseminated
- Daily meetings conducted for Command and general staff
- Estimated cost of incident compiled daily
- NVNG deployed high water vehicles to assist with potential evacuations and flood support to Washoe and Storey County

Tuesday, January 10
- Assisting local jurisdictions with public outreach, messaging, social media updates and awareness
- Preparing and disseminating press releases
- Monitoring rumors and correcting the information
- Reposting and disseminating all content to the state’s website, social media platforms, local JIC, PIOs and statewide partners.

<table>
<thead>
<tr>
<th>Daily Meeting Schedule</th>
<th>1. Incident Name</th>
<th>2. Date Prepared</th>
<th>3. Time Prepared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Meeting Name</td>
<td>Purpose / Attendees</td>
<td>Meeting Location</td>
</tr>
<tr>
<td>0730</td>
<td>Operations Brief</td>
<td>Brief the Plan for the Operational Period: Operations, Command and General Staff</td>
<td>SEOC</td>
</tr>
<tr>
<td>0900</td>
<td>Washoe County Call</td>
<td>Jurisdictional Update</td>
<td>SEOC</td>
</tr>
<tr>
<td>0930</td>
<td>Objectives Meeting</td>
<td>Determine if Objectives are still valid</td>
<td>Ex Conf RM</td>
</tr>
<tr>
<td>0930</td>
<td>Storey County Call</td>
<td>Jurisdictional Update</td>
<td>SEOC</td>
</tr>
<tr>
<td>1000</td>
<td>Weather Briefing NWS</td>
<td>Brief incoming Weather Condition</td>
<td>SEOC</td>
</tr>
<tr>
<td>1100</td>
<td>Local Jurisdictions Call</td>
<td>Coordination with Counties; Command and General Staff</td>
<td>SEOC</td>
</tr>
<tr>
<td>1230</td>
<td>Command and General Staff Meeting</td>
<td>Brief current operations and present objectives</td>
<td>Ex Conf RM</td>
</tr>
<tr>
<td>1300</td>
<td>RRCC IMAT Coordination Call</td>
<td>Coordination Call</td>
<td>SEOC</td>
</tr>
<tr>
<td>1350</td>
<td>Tactics Meeting</td>
<td>Operations Section presents tactics for the next day</td>
<td>SEOC</td>
</tr>
<tr>
<td>1700</td>
<td>Planning Meeting</td>
<td>Make Minor Adjustments to existing IAP</td>
<td>SEOC</td>
</tr>
<tr>
<td>1830</td>
<td>Operations Brief</td>
<td>Brief the Plan for the Operational Period: Operations, Unified Command and General Staff (UCG)</td>
<td>SEOC</td>
</tr>
</tbody>
</table>

ICS 230-FEMA
5. Prepared By: (Planning Section Chief)
Karen Hall
State of Nevada Significant Events

Wednesday, January 11

- Emphasis was placed on providing resources and assistance to vulnerable populations in the Sutcliffe area at Pyramid Lake

- SR-446 washed out in both directions between Sutcliffe and Nixon due to flooding

- Approximately 650 residents in Sutcliffe without potable water. Water system was damaged and lost pressure due to a break in the main line. As a precaution residents are urged not to drink the water. Short term assistance is being provided with long-term measures being explored by Conservation and Natural Resources, Rural Water Association, and NDEP.

- Pyramid Lake Paiute Tribe (PLPT) at Sutcliffe has restricted access due to Hwy 446 becoming washed out. DEM Liaison was sent to assist PLPT

- The Pyramid Lake Paiute Tribe has closed all recreational activities at Pyramid Lake until further notice due to hazardous conditions and utility outages in the area

- 24 pallets of water were ordered to support local residents and delivered in phases to accommodate storage.

- DEM ordered 1500’ of water pipe to repair the existing waterline damage. A “Water Buffalo” (a trailered water tank) was delivered by the national guard for the community until the line is repaired. Once repaired, it took an additional two days for the community water tank to fill.

- The Nevada Department of Conservation and Natural resources (DCNR) Water System Specialists assisted the tribe in evaluating the repairs of the System.
State of Nevada Significant Events

- Repeaters on Virginia Peak station went down making radio communications with dispatch unavailable. PLPT unable to tone out volunteer firefighters if needed and Truckee Meadows may also have affected communications.

- A satellite health clinic opened to provide assistance to patients needing medical care and medications. Transportation was provided to medical facilities in Reno.

- Lyon County supplied a water tender to aid in supplying water to the community – offered two additional to expedite the process. Additionally, two H2O trailers with 5000 gallon capacity each were supplied. NDOT engineers evaluated existing roadways to ensure the loads would be supported on the saturated roadbed. The 2 5k water tanks were tested for use. Washoe County Health District offered two additional trucks to assist Lyon County’s water trucks to allow rapid refill of the water tank for the community.

- Washoe County Health District will also be providing 1,000 1oz bottles of bleach for sanitation purposes

- NDOT sent a road engineer to assess safety of roads leading to pump and storage tank. Some roads in the area have been repaired for better access.

- Washoe County RAVEN flew over the affected area to survey the damage on 1/13/17

- Chief Caleb Cage visited PLPT to see damages, speak with tribal officials, and take part in a community meeting at 6pm 1/14/17.

- State PDA teams completed their assessment and advised that with Sutcliffe they are over the necessary threshold for federal assistance. They will report back to FEMA and make a request for a joint PDA team.
Carson City Significant Events

Saturday, January 7
- Activated Emergency Operations Center
- Emergency Declaration was prepared
- Sandbagging locations opened in multiple areas of the region
- Shelters identified and prepping to open upon request

Sunday, January 8
- The Stewart Indian Colony sandbagged problem areas
- Established non-emergency flood hotline
- Multiple road closures throughout Carson City area

Monday, January 9
- Additional road closures
- Carson River rose to major flood status and continues to be monitored

Tuesday, January 10
- Reactivated their EOC due to flash flooding at 10:30 pm

Wednesday, January 11
- Estimated cost reported $214,023

Friday, January 13
- Damage assessments teams deployed
- Efforts shifted to recovery phase
Saturday, January 7
- Activated Emergency Operations Center
- Emergency Declaration was prepared
- Sandbagging locations opened in multiple areas of the region
- Shelters identified and prepping to open upon request
- Washoe Tribe Dresslerville and Woodfords communities sandbagged problem areas

Sunday, January 8
- Small sinkholes developed at the end of street in Indian Hills
- Road closed on Nye Drive
- Opened evacuation shelters

Monday, January 9
- Additional road closures due to flooding

Tuesday, January 10
- Shelters closed and remain on stand-by
- Beaver dam practically breaks flooding Highway 395
- North and southbound lanes closed

Wednesday, January 11
- Approximately 200 customers without power since 8:40 AM

Thursday, January 12
- State Route 207 closed due to sinkhole
- Multiple roads remain closed

Friday, January 13
- Estimated cost reported $2,592
- Numerous potholes reported
- Efforts shifted to recovery phase
- Damage assessments teams ordered
Lyon County Significant Events

Saturday, January 7
- Activated Emergency Operations Center
- Emergency Declaration was prepared
- Sandbagging locations opened in multiple areas of the region
- Shelters identified and prepping to open upon request
- Contingency plan developed executed if Dayton Valley Bridge is impacted.
- Excavator contracted and staged to remove debris around bridge

Sunday, January 8
- Roads closed due to flooding

Tuesday, January 10
- Shelters assists 110 residents
- Carson River rose to major flood status and closely monitored
- Additional roads closed due to flooding
- Flooding in the area due to clogged drains
- Reverse 911 used to notify the public

Wednesday, January 11
- Approximately 20 customers without power since 8:40 AM

Thursday, January 12
- Estimated cost reported $69,805

Friday, January 13
- Efforts shifted to recovery phase
- Damage assessments teams ordered
Washoe County Significant Events

Saturday, January 7
- Activated Regional Emergency Operations Center
- Cities of Reno, Sparks and Washoe County declared State of Emergency Declaration
- Reverse 911 used to inform residents and businesses along the river in the Sparks industrial areas
- Monitored rising snow pack for major avalanche risk
- Sandbagging locations opened in multiple areas of the region
- Shelters identified and prepping to open upon request
- McCarran Bridge over the Truckee River closed
- McCarran Blvd between I80 and Mill St. closed
- Southbound I80 off ramp at Sparks and Vista Blvd closed
- Schools and Court houses closed on 1-8-17
- Reno/Sparks Indian Colony Health Center sand bagged facility
- Livestock at UNR in all agricultural areas were relocated
- Wooster High School opened as shelter
- Sparks High School opened as shelter

Sunday, January 8
- Sierra Avalanche Center has issued extreme danger warning
- Mudslide 22 miles north of 395 at Red Rock
- Rancho Haven Community is blocked with no power
- AM radio stations off the air due to flooding
- Avalanche on Mt. Rose Summit with two feet on roadway
- Alert disseminated to avoid travel near Back County and Greater Lake Tahoe Region

Monday, January 9
- Schools and Court houses in Incline Village closed
- Evacuations in Reno and the surrounding areas
**Washoe County Significant Events**

**Tuesday, January 10**
- Shelters close and remain on standby
- REOC closed to reopen with regular hours
- Multiple roads remain closed due to flood and winter weather events
- Sierra Avalanche Center issued high avalanche warning in all elevations

**Wednesday, January 11**
- REOC reopens at 3:00 AM
- Approximately 650 customers without water and power in the Sutcliffe area
- All schools in Incline Village cancelled through 1-13-17
- Residents in the River Belle Mobile Park in Verdi on boil water order
- Residents in the Crystal Bay and Incline Village areas advised to shelter in place
- Approximately 7,500 residents without power in the Incline Village area.
- No cell service in the Crystal Bay area with a weak signal in the Incline Village area.
- Pyramid Lake Paiute Tribe at Sutcliffe isolated due to major damage on Highway 446
- Pyramid Lake Paiute Tribes closed all fishing and boating activities due to hazardous conditions

**Thursday, January 12**
- Approximately 200 Incline Village residents remain without power

**Friday, January 13**
- Efforts shifted to recovery phase
- Mt. Rose State Route 431 opens with chain controls
- Washoe County RAVEN completes a fly over Sutcliffe area to access damage
- Repeaters on Virginia Peak station are down due to water and ice damage
- 800 MHZ communications down, dispatch unavailable
- Satellite health clinic opened with provide assistance to residents with medical needs
- Damage assessments teams deployed
Storey County Significant Events

Saturday, January 7
- Activated Emergency Operations Center
- Emergency Declaration was prepared
- Sandbagging locations opened in multiple areas of the region
- Shelters identified and prepping to open upon request

Sunday, January 8
- Multiple roads closed due to flooding

Tuesday, January 10
- 20 homes in Lockwood without power

Wednesday, January 11
- Storey County School District cancelled
- Boulder and mudslide on State Route 341

Thursday, January 12
- Estimated cost reported $57,316
- Residents asked to shelter in place due to snow accumulations

Friday, January 13
- Efforts shifted to recovery phase
- Damage assessments teams deployed
- National Guard delivers four dump trucks for snow removals
- Residents in the Highlands area trapped due to snow levels
- Life safety and rescue issue with family of five no water, power or food, severe illness