Incident: Spillway - DWR Assist

1. Incident Name: Spi	llway - DV	VR Assi	ist		2. Inci	dent N	lumber: <b>CA-CD</b> I	F-00011	4
3. Report Version (check one box): Initial X Update Final	ll .	nization <b>Pat \</b>	: Whitlock -	er(s) & Agenc DWR - Day DWR - Night	y or	II .	dent Manageme ization: <b>Type 1 Team</b>	nt	6. Incident Start Date/Time: Date: <b>02/07/2017</b> Time: <b>1400 PST</b>
	8a. Perce Containe Complet <b>0 %</b> b. Total Percenta of Perim that will Containe Complet <b>0 %</b>	ed or ed: ege (%) eter be	Oroville spillway C. Cause Unknow D. Fire Si Monitor Confine	ent Description  Dam comproduction  in  uppression S  trategy	trategy	: ent (%)	10. Incident Complexity Level: X Single Complex  CALFIRE Incident Management Team 3 assigned to assist Department of Water Resources.	From D 0600 P To Date 1800 P	e/Time: <b>02/11/2017</b>
12. Prepared By: Print Name: <b>Kevin Robin</b> : Date/Time Prepared: <b>02/</b>		1530 P		13. Approved Print Name: J Signature:		itlock			
14. Date/Time Submitted 02/11/2017 1808 PST	l:	- 11	-	y Location, O <b>nt of Water F</b>	_		r Agency Sent To	D:	
16. State: CA	17. Coun Butte	ty / Par	ish / Boro	ugh:					18. City: Oroville
19. Unit or Other: Oroville Field Division	20. Incide	ent Juri	sdiction:	21. Incider	nt Locat	tion Ov	wnership (if diffe	rent tha	n jurisdiction):
22. Latitude/Longitude: Latitude: 39° 32' 22" Longitude: 121° 29' 49'	,	Grid 2 x-Cod		Grid Referen	ce:		24. Legal Descrip Principal Merid Township: <b>19N</b> 1/4 Sec: of 1/4	ian: <b>Mt.</b> Rar	nge: <b>4E</b> Section: <b>2</b>
25. Short Location or Are Oroville Dam Spillway, Fe	eather Riv	er, and	l Thermali	to diversion	pool			Zone: ' Northi	1 Coordinates: 10 Easting: 629160 ng: 4377732
27. Note any geospatial o	iata avalla	abie (in	uicate dat	.a format, co	ntent, a	ırıa col	<u>lection time</u> info	rmation	and tabets):

28. Observed Fire Behavior or Significant Events for the Time Period Reported (describe fire behavior using accepted terminology. For non-fire incidents, describe significant events related to the materials or other causal agents):

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### Narrative:

At 0738 A.M (02/11/17) water crested over the auxiliary spillway and began to flow effectively causing minimal erosion to the hillside as expected.

29. Primary Fuel Model, Materials, or Hazards Involved (hazardous chemicals, fuel types, infectious agents, radiation, etc):

#### Narrative:

### Water, concrete, soil/dirt, trees, debris

30. Damage Assessment Information (summarize damage and/or restriction of use or availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc):

A spillway located at the Oroville Dam was compromised during heavy rains. Flowing water was diverted toward the adjoining hillsides, effectively eroding and undermining the spillway causing a section to collapse. At 0738(02/11/17) water crested over the auxiliary spillway and began to flow causing minimal erosion to the hillside as expected. The Feather River Fish Hatchery is moving most aquatic assets to safe areas and California State Parks is closing trails and portions of the lake where necessary.

B. # Threatened (up to 72 hrs)	C. # Damaged	D. # Destroyed
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
	to 72 hrs)  0  0	to 72 hrs) Damaged  0 0  0 0  0 0  0 0

31. Public Status Summary:				32. Responder Status Summary:			
C. Indicate the Number of Civilia	ns (Public	c) Below:		C. Indicate the Number of Respo	nders Be	low:	
	Previous Report Total	A. # this Reporting Period	B. Total # to- date		Previous Report Total	A. # this Reporting Period	B. Total # to- date
D. Fatalities	0		0	D. Fatalities	0		0
E. With Injuries/Illness	0		0	E. With Injuries/Illness	0	1	1
F. Trapped/In Need of Rescue	0		0	F. Trapped/In Need of Rescue	0		0
G. Missing	0		0	G. Missing	0		0
H. Evacuated	0		0	H. Evacuated	0		0
I. Sheltering in Place	0		0	I. Sheltering in Place	0		0
J. In Temporary Shelters	0		0	J. In Temporary Shelters	0		0
K. Have Received Mass Immunizations	0		0	K. Have Received Mass Immunizations	0		0
L. Require Immunizations	0		0	L. Require Immunizations	0		0
M. In Quarantine	0		0	M. In Quarantine	0		0
N. Total # Civilians (Public) Affected:	0		0	N. Total # Responders Affected:	0	1	1

33. Life, Safety, and Health Status/Threat Remarks:	34. Life, Safety, and Health Threat
All work on the auxiliary spillway ceased due to Oroville lake reaching	Management:
35. Weather Concerns (synopsis of current and predicted weather; discuss	

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related factors that may cause concern):		Active?
Forecast for February 11th 2017:	A. No Likely Threat	
Sunny Dry weather and warming temperatures expected through Tuesday as	B. Potential Future Threat	
high pressure builds in. Breezy northerly winds through tonight.	C. Mass Notifications in Progress	
No chance of precipitation.	D. Mass Notifications Completed	
TODAY	E. No Evacuation(s) Imminent	
Max temperature62-67.	F. Planning for Evacuation	
Surface windsNorthwest winds 5 to 10 mph.	G. Planning for Shelter-in-Place	
Wind (20 ft) Slope/valleyNorthwest winds 5 to 10 mph.	H. Evacuation(s) in Progress	
TONIGHT	I. Shelter-in-Place in Progress	
Sky/weatherClear.	J. Repopulation in Progress	
Min temperature43-48.	K. Mass Immunization in Progress	
Surface windsNortheast winds 8 to 15 mph.	L. Mass Immunization Complete	
Wind (20 ft)	M. Quarantine in Progress	
Slope/valleyNortheast winds 8 to 15 mph.	N. Area Restriction in Effect	
	O. Road Closure	X
	P. Trail Closure	X
	Q. Area Closure	X

- 36. Projected Incident Activity, Potential, Movement, Escalation, or Spread and influencing factors during the next operational period and in 12-, 24-, 48-, and 72-hour time frames:
- 12 hours: Spillway operations to continue at 55,000 cfs depending on amount of erosion.
- 24 hours: Spillway operations to continue at 55,000 cfs depending on amount of erosion.
- 48 hours: Spillway operations to continue at 55,000 cfs depending on amount of erosion.
- 72 hours: Spillway operations to continue at 55,000 cfs depending on amount of erosion.

Anticipated after 72 hours: **TBD** 

37. Strategic Objectives (define planned end-state for incident):

Establish roadway on left side of diversion pool to provide access for debris removal in tailrace. Use barges and boat to survey and remove debris blockages. Build rock protection for right side of spillway. Remove debris and logs out of diversion pool and chip. Continue contingency planning for Butte, Yuba, Sutter and Sacramento counties.

38. Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond. Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts:

Lake levels rose to 90% elevation creating the use of the auxiliary spillway. Due to the rise of the lake waters, the boat launch and parking lot are completely inundated with 1' of flowing water and 2 downhill roads from the auxiliary spillway have been significantly eroded with one appearing to be washed out. Uprooted trees were found lodged in the Thermalito Diversion Dam, located 4 miles downstream. Contractors are assessing how to

12 hours: found lodged in the Thermalito Diversion Dam, located 4 miles downstream. Contractors are assessing how to remove blockage. Due to continued threat of erosion to both spillways, monitoring continues by DWR geology/engineering departments. Continued erosion threatens DWR power lines with a risk of flooding to Hyatt Power Plant if tailrace elevation exceeds 252'. Tailrace water currently resides at 244'. Barges and cranes are

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being mobilized to remove debris in the tailrace. Potential plant flooding is being mitigated by sandbagging and pumps placed around stoplog slots. The Feather River Hatchery reports show that turbidity levels are down and fish are healthy and feeding. Steelhead egg hatchery pools are being supplemented with de-chlorinated hydrant water since they cant be moved safely. All Baby Chinook along with 3 million fall run Fry have been moved to an Annex facility located away from the river. 3 million out of 6 million fall run Fry remain at the main facility due to the Annex being at capacity. If conditions worsen or turbidity levels rise the 3 million remaining fry will be released into the river to increase chances for survival. California State Parks made positive contact to all local cultural groups that potentially may be effected by use of the auxiliary spillway and are updated on the current situation. Additionally, representatives from the cultural groups were escorted into the auxiliary spillway area and given the opportunity to observe the damage in the area from a distance. The trail system directly affected by the damaged spillway include the Brad Freeman and Dan Beebe Trails and have been closed, along with a portion of Oroville Lake directly above the spillways. Impacts to the park include Soil erosion, water turbidity downstream, and tree and vegetation removal.

24 hours: Same as above.

48 hours: Same as above.

72 hours: Same as above.

Anticipated after 72 hours: Predicted rainfall for the end of next week, Thursday 2/16/17.

39. Critical Resource Needs in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order:

12 hours: **N/A** 

24 hours: **N/A** 

48 hours: **N/A** 

72 hours: **N/A** 

Anticipated after 72 hours: N/A

- 40. Strategic Discussion: Explain the relation of overall strategy, constraints, and current available information to:
- 1) critical resource needs identified above,
- 2) the Incident Action Plan and management objectives and targets,
- 3) anticipated results.

Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.

Resources at scene have been relocated due to lake elevation reaching thresholds. Efforts will continue to ensure that outflow of stored water matches inflows into Oroville Reservoir.

41. Planned Actions for Next Operational Period:

Spillway operations to continue at 55,000 cfs depending on amount of erosion observed.

- 42. Projected Final Incident Size/Area (use unit label e.g., "Acres", "Square Miles"):
- 43. Anticipated Incident Containment or Completion Date: 02/28/2017
- 44. Projected Significant Resource Demobilization Start Date:
- 45. Estimated Incident Costs to Date: \$595,000.00
- 46. Projected Final Incident Cost Estimate:
- 47. Remarks (or continuation of any blocks above list block number in notation):
  - 49. Resources (summarize resources by category, kind, and/or type; show # of resources on top ½ of box, show # of personnel associated with resource on bottom ½ of box):

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48. Agency or Org		50. Ovhd	51. Tot Pers
CSI	Rsrc		
C&L	Pers	20	20
CA	Rsrc		
LA .	Pers	139	139
CA CDE	Rsrc		
CA-CDF	Pers	33	33
52. Total Resources			192

53. Additional Cooperating and Assisting Organizations Not Listed Above:

Butte County OES, Caltrans, Yuba Fire Department, Marysville Police Department, Calfire, PG&E, CHP, Cal State Parks, Butte County Sheriff, Oroville Police Department, Oroville Fire Dept, Butte County Public Works, Marysville Hospital