Incident: **Spillway - DWR Assist**

1. Incident Name:				Tracide	t Ni ah aw		
Spillway - DWR Assist				2. Incident Number: CA-CDF-000114			
3. Report Version (check one box): Initial X Update Final	Organization: Pat Wh Gina H				5. Incident Management Organization: Type 1 Team		6. Incident Start Date/Time: Date: 02/07/2017 Time: 1400 PST
unit label – e.g., "Acres", "Square Miles"): 3905 Acres	(%) Contained	9. Incident Type: Other B. Incident Description Oroville Dam composition Spillway C. Cause: Unknown D. Fire Suppression Strategy Monitor Confine Point Zone Protection Full Suppression	promi s Strateg	sed	10. Incident Complexity Level: X Single Complex CALFIRE Incident Management Team 3 assigned to assist Department of Water Resources.	From D 02/12 To Dat 02/13	port Time Period: Date/Time: 2/2017 0600 PST e/Time: 2/2017 1800 PST
12. Prepared By: Print Name: Kevin Robinson Date/Time Prepared: 02/12/2017 1800 PST 13. Approved By: Print Name: Pat Whitlock Signature:							
14. Date/Time Submitted: 15. Primary Location, Organization, or Agency Sent To: Department of Water Resources							
	17. County / Pa Butte	rish / Borough:					18. City: Oroville
19. Unit or Other: 20. Incident Jurisdiction: 21. Incident Location Ownership (if different than jurisdiction): Oroville Field Division							
22. Latitude/Longitude: Latitude: 39º 32' 22' Longitude: 121º 29'	Grid x-Co	S National Grid Refere Zone: oordinate: oordinate:	ence:		4. Legal Descri Principal Merid Township: 19N 1/4 Sec: of 1/4	ian: Mt. N Rar	nge: 4E Section: 2
25. Short Location or Area Description (list all affected areas or a reference point): Oroville Dam Spillway, Feather River, and Thermalito diversion pool. Zone: 10 Easting: 629160 Northing: 4377732			Easting: 629160				
27. Note any geospatial	data available (i	ndicate data format,	conten	nt, and	collection time	informat	tion and labels):
28. Observed Fire Behav terminology. For non-fire	_				•		
Narrative:							

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Water continues to crest over the auxiliary spillway and is causing erosion to the hillside as expected. Lake elevation levels trending downward from maximum recorded height, however auxiliary spillway has experienced signification degradation and a breach is possible.

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

Narrative:

Water, concrete, soil/dirt, trees, debris are the main hazards to the spillways and downstream infrastructure.

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. Water continues to crest over the auxiliary spillway, causing significant degradation and possibility of breach. The Feather River Fish Hatchery moved most aquatic assets to safe areas. California State Parks has closed trails around the spillway and portions of the lake where necessary.

A. Structural Summary	B. # Threatened (up to 72 hrs)	C. # Damaged	D. # Destroyed	
E. Single Residences	0	0	0	
F. Multiple Residences	0	0	0	
G. Mixed Commercial / Residential	0 0		0	
H. Nonresidential Commercial Property	0	0	0	
I. Other Minor Structures 0 0		0		

31. Public Status Summary: C. Indicate the Number of Civil	ians (Public)	Below:	32. Responder Status Summary: C. Indicate the Number of Responders Below:		Below:	
	Previous Report Total	A. # this Reporting Period		Previous Report Total	A. # this Reporting Period	B. Total # to- date
D. Fatalities	0		D. Fatalities	0		uate
E. With Injuries/Illness	0			0	<u> </u>	
F. Trapped/In Need of Rescue	0		E. With Injuries/Illness	0		0
G. Missing	0		F. Trapped/In Need of Rescue	0		0
H. Evacuated	0	35,000	G. Missing	0		0
I. Sheltering in Place	0		H. Evacuated	0		0
J. In Temporary Shelters	0		I. Sheltering in Place			0
K. Have Received Mass			J. In Temporary Shelters	0		0
Immunizations	U		K. Have Received Mass	0		0
L. Require Immunizations	0		Immunizations		 	
M. In Quarantine	0		L. Require Immunizations 0		_	0
N. Total # Civilians (Public)	0	35,000	M. In Quarantine	0		0
Affected:	0	33,000	N. Total # Responders Affected:	0		0

33. Life, Safety, and Health Status/Threat Remarks:	34. Life, Safety, and Health Threat
(*CORRECTION-Injury reported during last 12hr operation was	Management:
deemed minor and non-reportable.) All work on the auxiliary	

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effectively eroding and undermining the spillway causing a section to collapse. Water continues to

significant degradation and possibility of breach.
The Feather River Fish Hatchery moved most
aquatic assets to safe areas. California State
Parks has closed trails around the spillway and

33. Life, Safety, and Health Status/Threat Remarks:

(*CORRECTION-Injury reported during last 12hr operation was

deemed minor and non-reportable.) All work on the auxiliary

crest over the auxiliary spillway, causing

portions of the lake where necessary.

Water continues to crest over the auxiliary spillway and is causing erosion to the hillside as expected.
Lake elevation levels trending downward from maximum recorded height, however auxiliary spillway has experienced signification degradation and a breach is possible.

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

Narrative:
Water, concrete, soil/dirt, trees, debris are the main hazards to the spillways and downstream infrastructure.

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,

31. Public Status Summary:	32. Responder Status Summary:
C. Indicate the Number of <u>Civilians</u> (Public) Below:	C. Indicate the Number of <u>Responders</u> Below:
B. Total # to-date	
0	
0	
0	
0	
35,000	
0	
0	
0	
0	
0	
35,000	

34. Life, Safety, and Health Threat

Management:

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spillway ceased due to Oroville lake reaching spillover height. Water		Active?
continues to crest over the auxiliary spillway and is causing erosion to the hillside as expected. Lake elevation levels trending downward	A. No Likely Threat	
from maximum recorded height, however auxiliary spillway has	B. Potential Future Threat	
experienced signification degradation with a possibility of breach.	C. Mass Notifications in Progress	
Evacuation orders have been issued for numerous. ICP has	D. Mass Notifications Completed	х
temporarily moved to the Kelly Ridge Community Center.	E. No Evacuation(s) Imminent	
35. Weather Concerns (synopsis of current and predicted weather; discuss related factors that may cause concern):	F. Planning for Evacuation	
Dry weather and warming temperatures expected through	G. Planning for Shelter-in-Place H. Evacuation(s) in Progress X	
Wednesday		
as high pressure builds in. Wet pattern returns late Wednesday	I. Shelter-in-Place in Progress	
at least Tuesday Feb 21st. Althoughcurrent models do not show any	J. Repopulation in Progress	
storms as strong as last week, the pattern is a wet one and	K. Mass Immunization in Progress	
forecast could change heading forward.	L. Mass Immunization Complete	
	M. Quarantine in Progress	
TODAY 0600 to 1800	N. Area Restriction in Effect	
Sunny, 66 to 71 degrees with no chance of rain. Humidity is at 40% with a light west wind up to 6 mph.	O. Road Closure	х
man a light west time up to 6 linplin	P. Trail Closure	х
TONIGHT 1800 to 0600	Q. Area Closure	х
Mostly clear, 42 to 47 degrees with no chance of rain. Humidity will be at 85 to 90% with a Northeast wind up to 4 mph.		

- 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: Aggregate flow from spillway and auxiliary spillway to be at 100,000 cfs depending on amount of erosion. Crews will continue to evaluate auxiliary spillway.
- 24 hours: Aggregate flow from spillway and auxiliary spillway to be at 100,000 cfs depending on amount of erosion. Crews will continue to evaluate auxiliary spillway.
- 48 hours: Aggregate flow from spillway and auxiliary spillway to be at 100,000 cfs depending on amount of erosion. Crews will continue to evaluate auxiliary spillway.
- 72 hours: Aggregate flow from spillway and auxiliary spillway to be at 100,000 cfs depending on amount of erosion. Crews will continue to evaluate auxiliary spillway.

Anticipated after 72 hours: TBD

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

Continue work on the 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. Evacuations ordered for numerous communities. Crews continuing ongoing assessment of water levels and Oroville Dam conditions.

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:

Water continues to crest over the auxiliary spillway and is causing erosion to the hillside as 12 hours: expected. Auxiliary spillway has experienced signification degradation with a possibility of breaching. ICP has temporarily moved to the Kelly Ridge Community Center. Due to auxiliary

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spillway damage and danger of breach, numerous communities have been evacuated. Main spillway flows were escalated to relieve pressure. Auxiliary spillway downstream flowing continues to be a threat over the next 12 hours to the city of Oroville and adjoining downstream communities.

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, Wednesday 2/15/17.

- 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.

Due to significant flow through the auxiliary drainage, Numerous communities have been evacuated. Based on initial threat of spillway breach, the ICP was also evacuated as a precaution.

41. Planned Actions for Next Operational Period:

Spillway operations to continue at 100,000 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: \$3,850,000.00
- 46. Projected Final Incident Cost Estimate:
- 47. Remarks (or continuation of any blocks above list block number in notation):

Readjusted estimated cost rose due to DWR contractor data inputs.

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):

48. Agency or Org		50. Ovhd	51. Tot Pers
C&L	Rsrc		
CAL	Pers	20	20
CA	Rsrc		
CA	Pers	139	139
CA-CDF	Rsrc		
CA-CDF	Pers	39	39

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52. Total Resources 198

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