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16
17 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
18 **IN AND FOR THE COUNTY OF BUTTE**

19 **CITY OF OROVILLE,**

20 Plaintiff,

21 v.

22 **CALIFORNIA DEPARTMENT OF**
23 **WATER RESOURCES, and DOES 1**
24 **through 100,**

25 Defendants.

CASE NO.

COMPLAINT FOR

- 26 1) **DANGEROUS CONDITION OF**
27 **PUBLIC PROPERTY**
(GOV. CODE, § 835)
- 28 2) **PRIVATE NUISANCE**
- 3) **PUBLIC NUISANCE**
- 4) **PREMISES LIABILITY**

DEMAND FOR JURY TRIAL

COMPLAINT

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1 Plaintiff the City of Oroville brings this action against the California Department of
2 Water Resources (“DWR”).

3 **I. INTRODUCTION**

4 1. At 770 feet, Oroville Dam is the nation’s tallest dam, but unfortunately, it is
5 far from the nation’s safest. The dam and reservoir are the primary water storage for the
6 State Water Project and provide water for over 25 million Californians. In early February
7 2017, the dam’s main spillway crumbled. When the dam’s emergency spillway was
8 engaged, it failed as well. The dam’s failure triggered an evacuation of 188,000 people in
9 the Feather River Basin — one of the largest evacuations in California history. The
10 catastrophe of the “**Oroville Dam crisis**” was a major socioeconomic blow to the dam’s
11 downstream communities’ residents and farmers

12 2. The Oroville Dam crisis was not an act of God. As confirmed by
13 independent, expert reports and accounts of DWR insiders, the crisis was caused by
14 decades of mismanagement and intentional lack of maintenance by the California
15 Department of Water Resources (“DWR”). DWR management was such that it was a den
16 of improper conduct and management went so far as to fabricate required reports. As one
17 expert opined, the Oroville Dam was “**managed to failure**” by DWR. For decades, DWR
18 had notice of the vulnerabilities of the main spillway and the emergency spillway, as made
19 clear during the relicensing proceedings for the hydroelectric facilities. Instead of taking
20 action, DWR buried its head in the sand.

21 3. DWR’s maintenance of the main spillway over the decades was far from
22 adequate, and has been characterized as little more than “**patch and pray.**” Cracks in the
23 concrete spillway were discovered “almost immediately after construction.” Although
24 these cracks were originally thought of as unusual, they were quickly deemed normal, and
25 as simply requiring ongoing repairs. According to a team of independent experts retained
26 to review the dam’s failure, “**repeated repairs were ineffective and possibly**
27 **detrimental.**”

1 4. DWR’s management of the dam was further hampered by a culture of
2 corruption and harassment. For years, DWR supervisors were more interested in lining
3 their own pockets than ensuring the safety of the facility and its workers. Important
4 maintenance projects were delayed or never completed, and substandard supplies were
5 used to address vulnerabilities in the dam’s armored spillway. Workers who voiced
6 concerns were silenced by DWR management in various deliberate ways that made its way
7 all the way to the top administrators. Most importantly, State Water Contractors, who were
8 in many cases responsible for the costs of the maintenance of the dam, were permitted to
9 veto or defer important maintenance projects. Ultimately, the profits of the State Water
10 Contractors were placed above safety because of favors to administrators of DWR.

11 5. The reckless conduct of DWR not only harmed the City of Oroville but also
12 continues to pose a risk to the entire region and the State of California.



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27 Water rushes down Oroville Dam’s spillways on February 12, 2017
28 Source: Chico Enterprise Record

1 **II. JURISDICTION AND VENUE**

2 6. This Court has jurisdiction over this matter pursuant to California Code of
3 Civil Procedure section 410.10. Plaintiff's damages exceed the jurisdictional minimum of
4 this Court. Further, venue and jurisdiction is proper in this Court pursuant to Code of Civil
5 Procedure section 404.3 and California Rule of Court 3.540.

6 7. Venue is proper in Butte County because the City is situated in Butte County,
7 and a substantial part of the acts and/or omissions herein alleged occurred in Butte County.
8 Venue is proper in Butte County, pursuant to Government Code, section 955.3, because
9 this is an action by a city against a department of the State of California and the City of
10 Oroville is situated in Butte County. Venue is also proper in the Butte County, pursuant to
11 Government Code, section 955.2, because a department of the State of California is named
12 as a defendant, this case involves injury to personal property, and Butte County is the
13 county in which that injury occurred.

14 **III. PARTIES**

15 8. Plaintiff the **City of Oroville** (the "City" or "Plaintiff") is a municipal
16 corporation, duly organized and existing under the laws of the State of California.

17 9. Defendant **California Department of Water Resources ("DWR")** is part of
18 the California Natural Resources Agency and is responsible for the State of California's
19 management and regulation of water usage, including maintenance and regulation of the
20 Oroville Dam. DWR has been tasked with protecting, conserving, developing, and
21 managing much of California's water supply including the State Water Project which
22 provides water for 25 million residents, farms, and businesses.

23 **IV. FACTUAL ALLEGATIONS**

24 **A. BACKGROUND**

25 **1. Department of Water Resources**

26 10. DWR was established by the State Legislature in 1956. It presently
27 employees about 2,800 state civil service employees, including engineers, construction
28 personnel, and environmental specialists. DWR is headed by a Director appointed by the

1 governor. There has been considerable turnover in the director position in recent years,
2 due to alleged incompetence and lack of control. Recent directors of DWR include:

- 3 • Lester A. Snow (February 2004 to January 2010)
- 4 • Mark W. Cowin (February 2010 to December 2016)
- 5 • Bill Croyle (December 2016 to July 2017)
- 6 • Grant Davis (July 2017 to January 2018)
- 7 • Karla Nemeth (January 2018 to present)

8 11. DWR's mission is to manage the water resources of California in cooperation
9 with other agencies, to benefit the State's people and to protect, restore, and enhance
10 natural and human environments.

11 12. DWR also acts as a public utility which buys and sells electricity from its
12 water generating capability. DWR is primarily funded by State Water Project ("SWP")
13 funds, general funds, and fees.

14 13. The Division of Safety of Dams ("DSOD") is a division of DWR. DSOD
15 engineers review and approve plans and specifications for the design of dams and oversee
16 their construction to ensure compliance with the approved plans and specifications.
17 Additionally, DSOD engineers inspect over 1,200 dams on a yearly schedule to ensure they
18 are performing and being maintained in a safe manor.

19 **2. Oroville Dam**

20 14. Oroville Dam is an earthfill embankment dam on the Feather River, east of
21 the City of Oroville, California that was built and is maintained by DWR. It was first
22 conceived in 1951 and took almost seven years to build from 1961 and 1968. The dam is
23 770 feet high and almost 7,000 feet long. The dam impounds more than 3.5 million acre
24 feet of water in Lake Oroville, the second largest man-made lake in California.

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20 Lake Oroville and the Oroville Dam

21 15. Reports indicate that Oroville Dam was designed by an inexperienced
22 engineer who was hired directly from a university post-graduate program. According to
23 research, the engineer’s prior experience was limited to one or two summers for a
24 consulting firm, and he had no prior professional experience designing spillways, as then
25 known by DWR personnel. DWR has recently maintained that the dam was designed by
26 the “best of the best,” contrary to all the public information now out in the public domain.

27 16. The Oroville Dam is touted as the beginning of the California State Water
28 Project. From Oroville, a regulated water flow travels down the Feather and Sacramento

1 Rivers and into the Governor Edmund G. Brown California Aqueduct, which conveys
2 water throughout the state to millions of Californians. The construction of the State Water
3 Project was authorized in 1959, when Governor Edmund G. Brown signed the California
4 Water Resources Development Bond Act.

5 17. Construction of the Edward Hyatt Pump-Generating Plant (“Hyatt plant”)
6 was finished at the Oroville Dam shortly after the dam was completed. At the time, it was
7 the largest underground power station in the United States. Since 1969, the Hyatt plant has
8 worked in tandem with an extensive pumped-storage operation comprising two offstream
9 reservoirs west of Oroville. These two facilities are collectively known as the Oroville-
10 Thermalito complex.

11 18. Water is diverted into the upper Thermalito reservoir (“Thermalito Forebay”)
12 via the Thermalito Diversion Dam on the Feather River. During periods of off-peak power
13 use, surplus energy generated at the Hyatt plant is used to lift water from Thermalito’s
14 lower reservoir (the Thermalito Afterbay) to the Thermalito Forebay, which releases water
15 back into the afterbay to generate up to 114 MW of power at times of high demand. The
16 Hyatt and Thermalito plants produce an average of 2.2 billion kilowatt hours (kWh) of
17 electricity each year, which serves millions of Californians.

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Thermalito Diversion Dam
Source: Department of Water Resources

19. Water may also pass downstream of Oroville Dam through three other channels, which are critical to the movement of water.

20. **First**, there is a river outlet, or bypass valve, which when operational, has a water-flow capacity of 5,400 cubic feet per second (cfs). The river outlet has been non-operational since July 2009, when a steel panel in the bypass valve collapsed, injuring four DWR employees, and was intentionally not maintained.

21. **Second**, a main spillway is used to quickly release large amounts of excess water downstream through a concrete channel, and to control the height of the reservoir. The main spillway is controlled by gates and has a designated flow capacity of 150,000 cfs. This main spillway failed in February 2017, precipitating the Oroville Dam crisis.

22. **Third**, water may flow over the top of an un-gated “emergency spillway,” where a concrete 1,730-foot long weir is built 21 feet below the height of the main dam. This emergency spillway was employed after the main spillway **failed** during the Oroville Dam crisis. The emergency spillway also failed, prompting the evacuation of over 180,000

1 people in the area, creating a major crisis across hundreds of square miles, all of which
2 could have been avoided but for the intentional misconduct of DWR.



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18 Water released down Oroville Dam spillway into the Feather River, February 13, 2017
Source: San Francisco Chronicle

19 **3. Prior Levee System Failures in 1986 And 1997**

20 23. The Feather River levee systems previously failed before 2017, causing
21 floods in 1986 and 1997, which were a direct cause of poor maintenance and reckless
22 disregard for safety.

23 24. In 1986, peak inflow to the Oroville Reservoir reached 275,000 cfs, and peak
24 flow releases reached 150,000 cfs. The outflow from Oroville Reservoir combined with
25 flows in the Yuba River to trigger a levee break along the Yuba River, quickly inundating
26 the towns of Linda and Olivehurst. This flooding occurred even though flows into the
27 Yuba River at the time were only 60 percent of the design capacity of the floodway formed
28 by levees along the Yuba River.

1 25. The 1986 floods destroyed 896 homes and damaged more than 3,000 homes.
2 Losses were estimated at \$22 million, putting DWR on full notice of the risks to Oroville
3 and the surrounding communities.



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18 Water flowing down Oroville Dam's main spillway during 1986 storms.
19 Source: California Department of Water Resources

20 26. The “New Year’s flood” of January 1997 was considered one of the largest
21 floods in the Northern California record and killed at least three people. A heavy rain fell
22 for 9 days in the Feather River Basin. In response to forecasts, DWR made early flood
23 releases from Oroville Dam. Outflows reached 150,000 cfs and 160,000 cfs. As reservoir
24 inflows spiked, the City of Oroville was advised to prepare to evacuate.

25 27. Ultimately, there was no evacuation from Oroville. The reservoir peaked at
26 13.8 feet below full, with more than two hundred thousand acre-feet of unfilled flood-
27 control space. However, based on their own criteria, the cities of Marysville and Yuba
28 City ordered evacuations as a precaution in case the high waters caused levee failures there.

1 28. To the south, the precautions proved to be justified when the Feather River’s
2 left bank levee failed downstream of its confluence with the Yuba River, carrying an at-
3 capacity flood flow. Along the Feather River, the 1997 flood caused flood depths up to 30
4 feet in some areas. At least three people died. Flooding destroyed 322 homes and
5 seriously damaged 407 more. Local damage from the 1997 floods was estimated to be
6 more than \$300 million to the local economy.

7 **B. DWR WAS ON NOTICE AND KNEW OF THE DAM’S**
8 **VULNERABILITIES YEARS AGO**

9 **1. Spillway Vulnerabilities Were Well Known and Raised in FERC**
10 **Proceedings in 2005**

11 29. In accordance with the Federal Power Act, hydropower projects such as the
12 one at Oroville Dam must undergo relicensing of their facilities every 30 to 50 years. The
13 Federal Energy Regulatory Commission (“FERC”) relicensing process for the Oroville
14 Dam commenced in December 2000.

15 30. It was well known that there were serious problems with the dam back in
16 2000. A number of parties to the relicensing proceedings sharply disputed the suitability of
17 the emergency spillway on Oroville Dam — the spillway that was compromised in
18 February 2017 and forced the evacuation of 180,000 people in the Feather River Basin.

19 31. Friends of the River, The Sierra Club, and South Yuba River Citizens League
20 (collectively, “FOR”) moved to intervene in the FERC proceedings in 2005. A copy of
21 FOR’s motion to intervene is attached hereto as **Exhibit A**. Among other things, FOR
22 sought a licensing order reclassifying the Oroville Dam emergency spillway as an auxiliary
23 spillway and requiring DWR to armor the emergency spillway with concrete.

24 32. FOR argued that the unarmored and ungated emergency spillway did not
25 have an actual concrete spillway and was thus in no condition to operate as envisioned in
26 the operative flood-control manual. In fact, in 1997 DWR chose not to use this emergency
27 spillway, presumably because of the danger of hillside erosion and the potential loss of the
28 spillway’s foundation that such use could cause. Given its assigned mission and the

1 damages that might be associated with its use, FOR told FERC that the emergency spillway
2 did not meet FERC’s engineering guidelines and other requirements.

3 33. Other intervenors in the FERC proceedings, California Sportfishing
4 Protection Alliance and American Whitewater supported FOR’s arguments relating to the
5 need for flood facility modifications for safety reasons.

6 34. The joint intervention of Sutter County, the City of Yuba, and Levee District
7 1 raised similar issues and concerns, when they argued that if Oroville Dam could not
8 provide surcharge storage, then the flood-control manual should increase flood space from
9 750,000 to 900,000 acre-feet to protect the local communities and avoid an overflow crisis.

10 35. Butte County raised public safety and other issues during the relicensing
11 proceeding, contending that DWR had not adequately addressed significant public-safety
12 risks associated with the Oroville Dam. Butte County expressed concerns about heavy
13 rainfall events bringing Oroville Reservoir to possible overflow conditions well known to
14 DWR. The County criticized DWR for failing to address emergency operations, including
15 the need to relocate the County’s Emergency Operation Center out of the path of a flood in
16 the event of dam failure or a large outflow from the reservoir.

17 36. Over the course of the FERC proceeding, DWR took the position that it was
18 neither necessary nor appropriate to address specific issues related to dam safety in
19 relicensing. Neither DWR nor other entities responsible for the dam indicated how the
20 public could engage on dam-safety issues if not in relicensing.

21 37. DWR also asserted that the geologic conditions at the emergency spillway
22 had recently been reviewed, and that the review had determined that the emergency
23 spillway was a safe and stable structure founded on solid bedrock that would not erode.

24 38. Contrary to DWR’s false representations to FERC, the emergency spillway
25 was not founded on good quality rock. Indeed, pre-design and design geological
26 explorations in 1948 and 1961 recognized the poor quality of the foundation as reported
27 internally to DWR. And a 1962 geology report fully described the typical deep weathering
28 pattern in bedrock, and clearly recognized its very irregular pattern, noting that “weathered

1 rock will of course be subject to relatively accelerated erosion; where this is critical, the
2 rock should be protected.” Subsequent reviews falsely characterized the foundation as
3 good quality rock.

4 39. FERC ultimately punted on the issue of the emergency spillway’s
5 inadequacy. FERC licensing staff thus proposed to relicense the Oroville Dam without any
6 spillway modifications and acceded to the false presentations of DWR.

7 **2. Decades of Inspection Reports Revealed Dam Vulnerabilities and**
8 **Failed Maintenance Covered Up By DWR**

9 40. DWR inspection reports spanning nearly two decades, from 1998 to 2016,
10 indicate DWR delayed or intentionally ignored a wide variety of maintenance and
11 management issues. These inspection reports are attached hereto as **Exhibit B**.

12 41. The inspection reports repeatedly identify the need for a long-term phreatic
13 surface¹ monitoring plan, aging radial gate anchor tendons which had reached or exceeded
14 their useful life, a large and growing crack in gate 8 of the Oroville Dam’s headworks,
15 various occurrences of spalling concrete, and vegetation and debris clogging drains and
16 impacting water flow.

17 42. Another issue raised by a number of the inspection reports is that of extensive
18 corrosion and calcification of internal structures. A 1996 inspection report shows that:

19 **“[maintenance work] has been requested of Civil Maintenance, but they**
20 **never get to it. They are presently busy constructing a float for the**
21 **Fourth of July Fireworks show . . . Other work has also been requested**
22 **for several years and has not been completed.”**

23 43. Inspection records confirm that, in 2008, a chain was used to sound the floor
24 of the main spillway chute wherein “suspect areas and visible defects were marked for
25 future repairs.” This “chain-drag test” was conducted by DWR maintenance workers
26 without any additional training or documentation of pending repairs. The purpose of the

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28 ¹ The phreatic surface is the water that naturally flows through an earthen dam.

1 test was to identify voids underneath the concrete spillway. Such voids eventually
2 contributed to the spillway's failure in February 2017.

3 **C. PRIOR INCIDENTS OF FAILURE OF MAINTENANCE**

4 **1. July 2009 Injuries at the Oroville Dam**

5 44. In 2009, five DWR employees were injured in an accident involving the river
6 valves at the Hyatt plant due to poor supervision and review

7 45. The employees had been testing 72-inch river valves, which are used to
8 control temperature and water flow from the dam to the Feather River. Shortly after the
9 valves were opened, a 6-foot-tall, 10-foot-wide steel panel near the employees collapsed,
10 sending flying debris toward the workers and creating a vacuum-like force that pulled them
11 toward a tunnel carrying water out of the dam.

12 46. The order to open the valve was issued by Oroville Field Division Chief Pat
13 Whitlock, who was the DWR field division chief at the time.

14 47. The accident was due to a lack of an energy dispersion ring in the river valve,
15 which was the result of poor maintenance and supervision. The original ring had been
16 damaged in 1968, and remained defective ever since. Rather than replacing the ring, DWR
17 decided to merely remove it earlier in 2009. Whitlock and DWR management knew that
18 there was a risk of undue pressure on the valve after the energy dispersion ring was
19 removed and created a potential disaster.

20 48. Five employees suffered injuries, including head trauma and a broken arm
21 and leg, as a result of the incident. Given the nature of the incident, there was a significant
22 risk that these employees could have perished due to the culture and lack of concern for
23 safety.

24 49. An investigation by the California Division of Occupational Safety and
25 Health found that DWR **knowingly** put its employees in harm's way by instructing them to
26 perform a task under dangerous conditions.

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2. Fire at the Thermalito Power Plant

50. On Thanksgiving, November 22, 2012, there was a major fire at the Thermalito Pumping Generating Plant, which is operated by DWR at the Oroville Dam. The fire forced an immediate shutdown of the plant.

51. The fire began three floors below ground level, and spread upward into the control room on the next floor.

52. Firefighters were forced out of the burning building by life-threatening dangers from collapsing equipment, zero visibility and other harmful conditions. Prior to evacuating the plant, Cal Fire personnel installed an unmanned nozzle that continued fighting the fire, ultimately bringing it under control late Saturday morning, November 24, 2012.

53. A forensic expert brought in by the State identified contributing factors to the fire, including: aged cables, mixed voltages and over-stacked cables in the cable trays, a lack of fire stops between elevations, an inoperable dry chemical fire extinguisher cart, and combustible materials such as plant schematics and additional historical items printed on large paper sheets stored within the plant.

54. Although there were no injuries to plant personnel, annual revenue loss from hydroelectric generation was estimated to be in the millions and no one was terminated for the failure.

D. CULTURE OF INADEQUATE SUPERVISION AND CONTROL BY DWR DIRECTORS AND SUPERVISORS

1. DWR’s Inadequate Maintenance Program

55. DWR’s maintenance of the Oroville Dam in the years preceding its failure in 2017 was well known to be inadequate.

56. For example, in 2013, Michael Hopkins, who worked for DWR as a utility craft worker for many years, observed that several areas of the dam’s spillway exhibited cracking and/or spalling, and some cracks in the corners of the spillway slabs were as wide

1 as 8 feet. The spillway slabs were designed to be several feet thick, but in some areas they
2 were reduced to just 3 to 6 inches in thickness.

3 57. Hopkins was part of a spillway repair crew in 2013. The crew was instructed
4 to drag a 20-foot chain across the entire length of the concrete spillway, and listen for
5 “hollow sounds.” One member of the crew who was assigned to listen for hollow sounds
6 was legally deaf, and it became the subject of jokes. She informed the supervisor in charge
7 of the repair, Gregg Ahlers, **“this isn’t going to work,”** to which Ahlers responded that
8 she should get back to work.

9 58. During the 2013 “chain-drag test,” hollow-sounding areas were marked with
10 spray paint. Hopkins observed that some of the 20 foot by 20 foot concrete slabs in the
11 spillway sounded **entirely hollow**. The crew chipped out rough areas with air hammers
12 and then inserted steel rods into the concrete and filled the holes with “Quikrete.”
13 Supervisor Ahlers instructed the crew to **“make it look pretty.”**



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27 Photo of Cracks on Main Spillway
28 Source: UC Berkeley Center for Catastrophic Risk Management

1 59. Another DWR employee who worked on the spillway crew in 2012 and 2013
2 stated that the repairs also involved drilling holes in the spillway concrete and inserting
3 rebar and a Sika concrete repair epoxy. The employee noticed that the Sika epoxy used for
4 the job was expired and alerted his supervisor. The supervisor instructed him to use it
5 anyway. A supervisor had purchased the epoxy from a friend, and knew the expiration
6 date was long past. This was but one example of the daily coverups.

7 60. Filling voids underneath the concrete main spillway, also known as low
8 pressure grouting, was a common practice at the Oroville Dam. Low pressure grouting
9 should only be done by experienced personnel, as pumping too much concrete into a void
10 can cause further damage and compromise the spillway's integrity. Moreover, low
11 pressure grouting had the potential to clog the drainage system underneath the spillway,
12 further compromising the structure. DWR regularly tasked inexperienced personnel to
13 perform low pressure grouting, and the grouting that was done was performed incorrectly.

14 61. DWR employees also observed other problems with the Oroville Dam,
15 including a large crack in the main spillway gate, poorly patched portions of the main
16 spillway's concrete, and spillway drains clogged with vegetation and debris. All of these
17 problems were brought to the attention of supervisors'.

18 62. DWR management was ill-equipped to address any of these issues. DWR's
19 Planning/Scheduling branch is charged with keeping track of various projects at the
20 Oroville Dam, but made few attempts to do so. On many occasions, this branch would
21 mark projects or tasks as complete when they had not even been started, and reports were
22 filed indicating that they were done.

23 63. As a result of these reckless practices, necessary maintenance was never
24 performed. For example, incomplete projects to clean the spillway drains and seal the
25 spillway gates were intentionally marked "done" when they were not. Supervisors knew of
26 this.

27 64. Former senior executives at DWR have opined that the required DSOD
28 periodic review of the Oroville Dam spillway should have brought to light the lack of

1 maintenance and improper repairs to the spillway chute underslab drainage system and
2 maintenance of the vegetation near the spillway. Based on their review of the evidence,
3 they have also concluded that the repairs were likely performed by unqualified workers and
4 without consultation with the DSOD, all of which should have been done.

5 2. **Influence of State Water Contractors**

6 65. In 2004, there was a shift in the culture at DWR, when Lester Snow was
7 appointed Director of the agency. Snow served as Director of DWR until 2011. Snow and
8 his successors have allowed California's State Water Contractors to exert undue influence
9 over the management of the agency.

10 66. During the 1960s, as the State Water Project ("SWP") was being constructed,
11 long-term contracts were signed with public water agencies, known as the State Water
12 Contractors. They receive annual allocations, specified annual amounts of water, as agreed
13 to in some of their contracts, which will expire in 2035. In return, the contractors repay
14 principal and interest on both the general obligation bonds that initially funded the
15 Project's construction and the revenue bonds that paid for additional facilities. The State
16 Water Contractors are also required to pay all costs, including labor and power, to maintain
17 and operate the SWP's facilities, including the Oroville Dam.

18 67. Excerpts from the Water Supply Contract between DWR and one of the State
19 Water Contractors, the **Metropolitan Water District of Southern California**, are attached
20 hereto as **Exhibit C**. In relevant part, the contract provides that the Metropolitan Water
21 District was to make payments to the State for capital costs; operation, maintenance,
22 power, and replacement costs for State Water Project facilities.

23 68. It is well known that the State Water Contractors have lobbied DWR to defer
24 maintenance at SWP facilities, in order to reduce their own costs. Former high level
25 executives at DWR have stated that while past directors, such as David Kennedy who was
26 known for his ethics and integrity, kept the State Water Contractors at bay, Snow allowed
27 them to dictate DWR maintenance policy.

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1 69. As a result of the undue influence exerted by the State Water Contractors,
2 necessary maintenance at the Oroville Dam has been deferred and/or put off altogether. As
3 one example, State Water Contractors **vetoed** a project to conduct a seismic evaluation of
4 the Oroville Dam, as suggested by a DWR structural engineer who was concerned about
5 the stability of the dam.

6 70. Snow also appointed unqualified and inexperienced persons to high-level
7 positions within DWR, based solely on their personal or political connections.

8 **3. Toxic Culture of Discrimination and Harassment of Employees**

9 71. Over the decades, DWR has perpetuated a toxic culture and hostile work
10 environment at the Oroville Dam. DWR management at the Oroville Dam was openly
11 hostile to women and minorities. This toxic culture has not only impacted its workers but
12 also undermined the maintenance and safety of the dam.

13 72. For example, in 2010 or 2011, supervisors at DWR condoned and allowed a
14 noose to be hung at a meeting room used daily by DWR staff. It was directed at an African
15 American employee. The noose remained there for two to three months in plain view of
16 supervisors until the African-American employee took it down himself.



27 Noose found in DWR Meeting Room
28 Source: Anonymous DWR Employee

1 73. As but another example of the atmosphere of workplace harassment, the
2 same African American DWR employee at the dam found a doll hanging in his locker. It
3 is believed that DWR has hired no more than one or two African Americans at the Oroville
4 Dam over the past 20 years.

5 74. In or around 2010, a white DWR employee told an African American
6 employee that “This job is not like picking cotton.” A DWR supervisor, Maury Miller was
7 present and heard the racist comment, but took no action when confronted, stating “**I heard**
8 **nothing.**”

9 75. This African-American employee was also called “nigger,” but no action was
10 taken by DWR management to address the racist behavior.

11 76. DWR has also allowed sexual harassment against female employees to
12 proceed with impunity.

13 77. For example, one of the few female employees at Oroville Dam was
14 constantly harassed by her male supervisors and counterparts. One supervisor repeatedly
15 asked her out on lunch dates. She was exposed to graphic images, including a CPR
16 mannequin posed in a sexual position at one of her worksites. DWR employees described
17 a woman’s conference attended by a female employee as a “Dyke conference,” and
18 regularly referred to female employees as dykes.

19 78. When employees spoke up on behalf of the victims of harassment, they were
20 at times physically threatened by other DWR employees outside of the work site.

21 **4. DWR’s Culture of Corruption — The Water Mafia**

22 79. DWR’s management at the Oroville Dam was at times corrupt, with
23 supervisors and other employees stealing state equipment and supplies for their own
24 personal use.

25 80. It is reported that at least one supervisor frequently stole gasoline from the
26 Oroville field division for his own personal use.

27 81. It is reported that another DWR maintenance supervisor, Chuck Saiz, was
28 denied a promotion after it was discovered that he had stolen state property, including

1 asphalt and tools, from Oroville Dam worksites. Saiz has also encouraged a crony system
2 at Oroville Dam, offering overtime work to the employees whom he considers to be close
3 friends. This was in direct violation of DWR’s official overtime policy. The word and the
4 joke among staff was that DWR supervisors were the “**water mafia.**”

5 82. Gregg Ahlers, another DWR supervisor at Oroville, purchased Sika concrete
6 products from his hometown hardware store, many miles from Oroville, for DWR’s use,
7 even though DWR policy was that such products were to be purchased locally. Many of
8 these products were expired, which Ahlers knew when he purchased them.

9 83. The Sika products were also applied incorrectly. Labels on the containers
10 warned that the epoxy should not be applied when ambient temperatures exceeded 100
11 degrees Fahrenheit. But DWR applied the epoxy on days when the temperature spiked
12 above 107 degrees Fahrenheit.

13 84. DWR employees alerted Ahlers to the temperature warning. Ahlers
14 responded — incorrectly — that the temperature warning was in **Celsius**, rather than
15 **Fahrenheit**, and instructed the employees to use it anyway!

16 85. DWR managers would on occasion purchase overpriced tools and supplies
17 from friends with state money for use at the Oroville Dam.

18 86. This culture of corruption extended all the way to DWR senior management.
19 It is reported that DWR maintains **two sets of accounting books**. DWR’s “official”
20 accounting system is maintained on an SAP server. However, DWR also maintains a
21 second set of books at a data center located at 1416 9th Street in Sacramento. This second
22 set of books reflects DWR’s actual finances. It is alleged that the books show that DWR
23 often expended funds that had been earmarked for one project on various other projects.
24 This was reported to DWR senior management.

25 **E. 2017 DAM FAILURE**

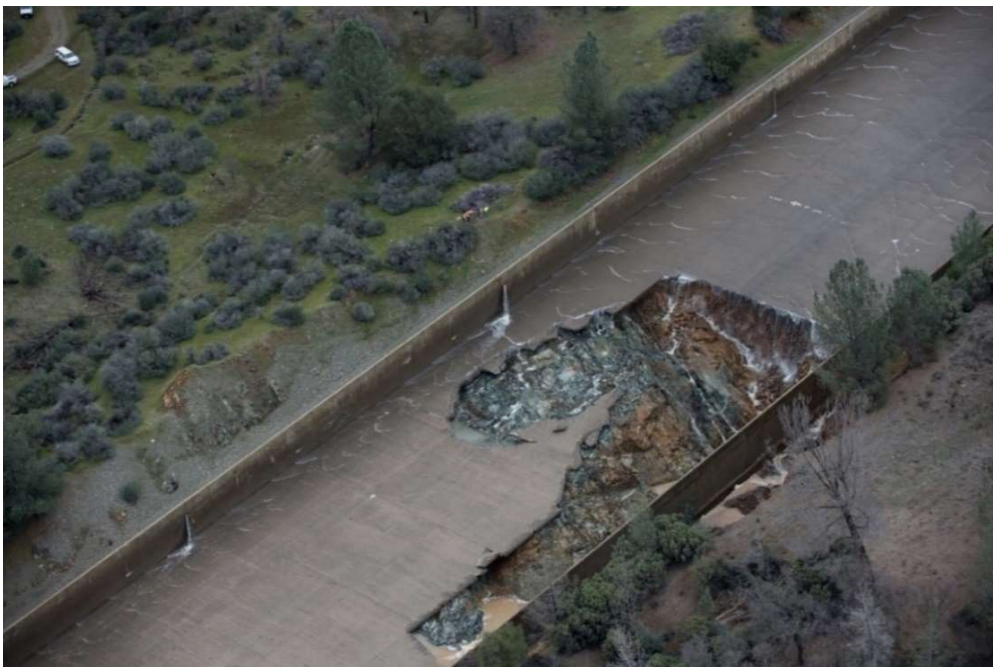
26 **1. February 2017 Dam Failure**

27 87. In February 2017, the Oroville Dam’s main spillway failed, causing millions
28 of dollars of damage and the evacuation of 180,000 people.

1 88. The 2017 water year was a record year for many of the state’s important
2 watersheds. As a result, by mid-winter 2017, DWR was making flood control releases to
3 maintain required space in the Oroville reservoir. Between February 6 and 10, 2017,
4 almost 13 inches of rain fell in the Feather River Basin, increasing inflow into Oroville
5 reservoir from 30,000 cfs to over 130,000 cfs on February 7. Many of the DWR personnel
6 became concerned about the problems with the dam.

7 89. While releasing 54,000 cfs down the Oroville Dam’s main spillway on
8 February 7, 2017, DWR identified an unusual flow pattern and stopped releases to discover
9 a large crater spanning almost the entire width of the dam’s concrete-lined main spillway.
10 The main spillway’s concrete lining was completely destroyed in one section, and water
11 was escaping the concrete chute to the side into a new and soon-to-be massive eroding
12 gully, setting the stage for a crisis.

13 90. The huge volume of water flowing through the main spillway had eroded
14 chunks of concrete and dug a 30 foot hole in the spillway’s base. The power of the water
15 had destroyed nearly half of the main spillway and carried it downstream to the Feather
16 River and beyond.



27 Concrete section eroded in the middle section of the main spillway
28 Source: Kelly M. Grow/Department of Water Resources



Oroville Dam spillway damage, February 27, 2017

Source: Department of Water Resources

91. In the days preceding the Oroville Dam crisis, Mathews Readymix, a concrete company based in Yuba City, supplied DWR with hundreds of cubic yards of concrete in the middle of night. Local residents speculated DWR scheduled an unusual delivery time so as to avoid detection of emergency repairs.

92. On February 9, 2017, DWR increased water releases down the main spillway, in an attempt to strike a balance between the rapidly increasing erosion of a gully to the south side of the spillway and the risk of losing more concrete spillway, versus rising reservoir levels and the prospect of using the dam's emergency spillway for the first time.

93. Because DWR was not making releases that it would ordinarily implement, the reservoir began filling up. According to reports, reservoir inflows peaked at more than 190,000 cfs from February 8 to 10, 2017, and DWR began preparing for possible use of the emergency spillway.

94. On the evening of Saturday, February 11, 2017, the water level in the Oroville Reservoir reached 901 feet, causing the water to spill over the emergency spillway

1 for the first time in its history. The water flowing over the emergency spillway caused
2 erosion of the hilltop immediately below the spillway's lip, threatening to undermine and
3 collapse the concrete lip that formed the emergency spillway. Failure of this lip could have
4 resulted in the sudden loss of the top thirty feet of water in the reservoir, with catastrophic
5 flooding to communities downstream of the dam. DWR personnel became extremely
6 concerned and local law enforcement personnel were notified of the pending crisis.



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21 Main and auxiliary spillway at Oroville Dam on February 11, 2017 at 3 p.m.
Source: William Croyle/California Department of Water Resources

22 95. On February 12, in response to the erosion caused by use of the emergency
23 spillway, DWR further opened the gates to the main spillway allowing 100,000 cfs to pass.
24 The increased release from the main spillway pulled the reservoir down, reducing flows
25 over the emergency spillway.

26 96. DWR continued releases down the main spillway to relieve pressure on the
27 emergency spillway foundations and to recover the required reservoir flood reservations
28

1 (required empty space in the reservoir to absorb inflows), into which high inflows had
2 encroached during the previous days.

3 97. Following the incident, all of the Oroville Dam complex's outlets were
4 compromised. The emergency spillway was unsafe to use. The main spillway was broken
5 and contributing to massive amounts of sediment and debris to the Feather River/Oroville
6 Dam power afterbay. The powerhouse at the base of Oroville Dam was unusable because
7 of high water in its afterbay caused by debris and because PG&E had de-energized
8 transmission lines to the powerhouse, whose towers were vulnerable to erosion from the
9 use of either spillway. The river valve outlets at the base of the dam were also non-
10 operational because of afterbay backwater conditions.

11 2. Evacuation of Oroville and DWR's Failure to Handle the Crisis

12 98. An evacuation order was issued on February 12, 2017, soon after the
13 emergency spillway was employed. The decision making process surrounding the
14 evacuation order was chaotic. Due to indecision by DWR officials, the Butte County
15 Sherriff, Kory Honea, had to step in and order the evacuation. This chaotic decision
16 making was documented in DWR notes, known as Incident Command Notes, which are
17 attached hereto as **Exhibit D**.

18 99. State water officials struggled to monitor the unfolding crisis as the Oroville
19 Dam spillways crumbled. Since at least 2011, federal regulators had requested that state
20 officials in charge of the dam consider installing cameras, lights, and more sensors and
21 monitors to help alert managers to potential structural problems. But on February 12,
22 2017, while the dam's spillway's failed, DWR officials could not see what was happening.

23 100. During the Oroville Dam Crisis, state water officials used drones and
24 scrambled to borrow cameras and helicopters from other agencies, including the California
25 Transportation Department, to inspect their own dam and its spillways.

26 101. Due to the lack of information, there was indecision as to whether an
27 evacuation order was necessary. At one point on the night of February 12, a state geologist
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1 showed officials overseeing the crisis a current drone photograph which provided a clearer
2 picture of the state of the spillway.

3 102. At the time, Butte County Sheriff Kory Honea saw dam officials were
4 concerned by the picture, and he had them explain to him what it meant. Dam officials
5 conferred among themselves for about 10 to 15 minutes. When they came back to Honea,
6 he could tell they were highly concerned about a potential crisis.

7 103. Realizing time was of the essence, Honea began to interrogate the group.
8 Honea told the officials that it sounded like they needed to order an evacuation. Various
9 people in the conference room began to talk among themselves. Honea took over and said
10 in a loud voice “Everybody listen to me,” and recounted the facts that had been presented
11 to him. He then said they needed to evacuate, and if anyone disagreed he needed to know
12 now. The room fell silent, and Honea issued the evacuation order when the DWR
13 supervisors failed to respond.

14 104. Downstream, officials extended the evacuation order or advisories to parts of
15 Sutter and Yuba counties, including the cities of Yuba City and Marysville. The
16 evacuation orders covered 180,000 people.



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28 Oroville Dam Evacuees at Chico State Fairgrounds
Source: San Francisco Chronicle

1 105. The orders sent tens of thousands of cars simultaneously onto undersized
2 roads, creating hours-long backups. Some drivers ran out of gas, creating major problems
3 because it was a last minute order. Others used the shoulder to get past traffic and created
4 a major traffic problem because of the delay of DWR to give advance warning. It took one
5 Yuba City resident six hours to get to Davis. Highways 70 and 99 southbound were still at
6 a crawl near midnight at their merge north of Sacramento, all because of prior inaction by
7 DWR officials.

8 **F. THE OROVILLE DAM CRISIS COULD AND SHOULD HAVE BEEN**
9 **PREVENTED**

10 **1. Center for Catastrophic Risk Management Independent Report**

11 106. A team from the University of California (“UC”), led by Professor Robert G.
12 Bea, conducted an independent review of Oroville Dam’s failure. Bea is a founder of the
13 UC Berkeley Center for Catastrophic Risk Management (“CCRM”) and has reviewed other
14 high-profile disasters, such as Hurricane Katrina and the BP oil spills. CCRM’s first
15 report, titled *Root Causes Analyses of the Oroville Dam Gate Spillway Failures and Other*
16 *Developments* (“CCRM Root Causes Report”), found that there were pervasive design
17 defects in the gated spillway, and that these flaws were propagated by construction defects
18 and inadequacies in maintenance. All of this was known to DWR. A copy of the CCRM
19 Root Causes Report is attached hereto as **Exhibit E**.

20 107. The CCRM Root Causes Report concludes that Oroville Dam’s failure was
21 “preventable,” and that over decades there were many opportunities for DWR and DSOD
22 to recognize and investigate serious issues that could have led to effective remedial
23 measures. The report states:

24 *“These egregious long-term repeated failures violated the First*
25 *Principle of Civil Law: ‘imposing Risks on people if and only if it is*
26 *reasonable to assume they have consented to accept those Risks.’ ”*

27 108. The gravamen of the CCRM Root Causes Report is that original design
28 defects and flaws were ingrained into the main spillway from its construction, and that,

1 over time, these defects were compounded by **ineffective inspections and maintenance**.
2 Ultimately, the flawed maintenance repairs propagated and increased the spillway
3 degradation.

4 109. Due to design flaws, each flood control operation of the Oroville Dam’s main
5 spillway degraded the concrete spillway in its foundational and anchorage structural
6 integrity. Penetrating water flows into and under the spillway’s slabs created scouring
7 erosion conditions. As a result, the compacted clay “fines” layer was carried off through
8 the course drain rock and out through the drains to the spillway. This same process eroded
9 and transported fines deeper within the slab foundation to where voids formed.

10 110. For decades, DWR intentionally failed to adequately address these defects.
11 For example, a 2007 photograph reveals that one section of the spillway drains servicing
12 18,250 square feet of spillway drainage area were non-functional. Nevertheless, this non-
13 functional drain state was not repaired for nearly 10 years, and persisted until the time the
14 spillway crumbled in 2017. Had DWR properly addressed this issue, an investigation
15 would have revealed the source of widespread clogging of the spillway drains, and
16 remedial action could have been initiated.



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27 Non-functioning Sidewall drain revealed in a Nov. 9, 2007 spillway photograph
28 Source: CCRM Root Causes Report

1 111. **The CCRM Root Causes Report found that inappropriate standards,**
2 **guidelines, procedures, and processes were used by the DWR to evaluate and manage**
3 **the risk of failure of the Oroville Dam’s gated spillway.** Specifically, these standards,
4 guidelines, procedures, and processes failed to adequately and properly address
5 technological obsolescence, and increased risk of failure characteristics of the spillway.

6 112. According to the CCRM Root Causes Report, the gated spillway was
7 **“managed to failure”** by DWR. According to the report, the root causes of the dam’s
8 failures were founded primarily on organization malfunctions due to human and
9 organizational decision making, task performance, knowledge development and utilization
10 as developed and propagated by DWR during the spillway’s design, construction, and
11 operations and maintenance activities. Identified deficiencies in the dam were either
12 intentionally ignored, treated as low priority, not acted upon, or a combination thereof, all
13 to the detriment of the safety of the dam.

14 113. In terms of operations and maintenance, the CCRM Root Causes Report
15 identified two major defects: (1) “Repeated ineffective repairs made to cracks and joint
16 displacements to prevent water stagnation and cavitation pressure induced water intrusion
17 under the base slabs with subsequent erosion of the spillway subgrade, and in some cases,
18 to effectively ‘plug’ and severely decrease water flow through the spillway drains”; and (2)
19 “Allowing trees and other vigorous vegetation to grow adjacent to the spillway walls
20 whose roots could intrude below the base slabs and into the subgrade drainage pipes
21 resulting in reduced flow and plugging of the drainage pipes.”

22 114. Over the decades, there were many opportunities for DWR to recognize and
23 investigate serious issues that could have led to effective remedial measures. The CCRM
24 Root Causes Report found DWR’s lack of recognition of the significance of these severe
25 issues revealed significant failure by DWR to identify and rectify critical components of
26 the Oroville Dam’s main spillway. The main spillway was destroying itself from within,
27 and the problem grew worse with each flood control spill, all known to DWR.

28

1 115. One of the greatest failures identified by the CCRM Root Causes Report was
2 the deficiency of insuring the operational structural integrity based on inspections and
3 analyses of inspection results performed by DWR and DSOD.

4 **2. NBC Bay Area Investigation and Report**

5 116. NBC Bay Area conducted a six month investigation that reviewed two
6 decades worth of safety documents and inspection reports concerning the Oroville Dam,
7 which raised questions about safety of the Oroville Dam beyond the spillway. A copy of
8 the NBC Bay Area Report is attached hereto as **Exhibit F**.

9 117. NBC had seven engineers review 20 years of FERC and DSOD inspection
10 reports, engineering studies, and other documents. All of the engineers told NBC that the
11 documents raised serious safety concerns **“that must be addressed sooner rather than
12 later or risk failure of Oroville Dam itself.”**

13 118. According to the NBC Report, FERC and DSOD inspection reports and
14 engineering studies repeatedly identified problems with the stability, safety and monitoring
15 of the dam. Issues raised by engineers contacted by NBC included:

- 16 (1) a 15 foot-long-crack in the concrete at a gate in the dam’s headworks (flood
17 control structure) which appeared to be growing;
18 (2) spalling of concrete in other areas of the dam;
19 (3) cracking tendons, or trunnion rods, that help move the dam’s 20-ton radial gates,
20 which control the flow of water through the dam; and
21 (4) failure of DWR to develop a long-term plan to monitor the amount and speed of
22 water that naturally flows through the earthen dam, despite requests by federal
23 inspectors to do so since 2011.

24 119. Don Colson, a former engineer at DWR, told NBC Bay Area that the green
25 spot on the face of the Oroville Dam could be a sign that the phreatic surface is already
26 leaking internally through the face of the dam. If the phreatic surface comes out at the
27 wrong place and the wrong speed, it could erode the structure from the inside, and if
28 enough force is created, it could wash away the entire dam.

1 120. NBC Bay Area also spoke with two retired DWR engineers who identified
2 serious problems at the Oroville Dam. They wished to remain anonymous for fear that
3 DWR would retaliate against them. One of the insiders, known by the pseudonym “Mark,”
4 said that DWR is **“not addressing issues that have been pointed out and documented in
5 previous [DSOD] inspection reports.”** The other insider, called “Tony” in the report,
6 said that DWR’s delayed response to these issues may be in due large part to DWR’s
7 culture:

8 **“They have a tendency to try to reduce their maintenance costs by trying to do
9 things themselves and not getting adequate technical help.”**

10 Those same individuals worried these problems could lead to a collapse worse than the one
11 in February 2017. Tony said:

12 **“Here you’ll have catastrophic structural failure that’s not going to allow you
13 to operate the facility the way it’s supposed to.”**

14 **3. Independent Forensic Team (“IFT”) Faults DWR for
15 Organizational and Operational Failures**

16 121. At the request of federal officials, DWR retained an Independent Forensic
17 Team (“IFT”), composed of professional engineers, to determine the root cause of the 2017
18 spillway incident at the Oroville Dam. The IFT issued a final report summarizing its
19 findings on January 5, 2018. A copy of the IFT’s Report is attached hereto as **Exhibit G**.

20 122. In its January 5 report, the IFT concluded that the dam’s service spillway
21 chute failure was most likely initiated by the uplift and removal of a slab in the main
22 spillway chute. Once the initial section of the chute slab was removed, the underlying rock
23 and soil material was directly exposed to high-velocity spillway flow. The high-velocity
24 flow rapidly eroded the foundation materials, removed additional chute slab sections in
25 both upstream and downstream directions, and quickly created an erosion hole.

26 123. According to the IFT, the uplift and removal of the slab section was most
27 likely caused by water uplift pressure beneath a section of the chute slab. The excessive
28 uplift pressure was mainly due to high-velocity spillway flow injecting water into slab

1 surface features, such as open joints, unsealed cracks over the herringbone drains, spalled
2 concrete at either a joint or drain location in either a new or previously repaired area, or
3 some combination of these features.

4 124. The IFT identified a number of design and construction fragilities which lead
5 to vulnerability to uplift, which included:

6 (1) underdrains that intruded into the chute slabs section, resulting in cracks above
7 most of the herring bone drains;

8 (2) absence of waterstops at contraction joints, and less than optimal shear key
9 configuration;

10 (3) up to 50 percent of the foundation in some areas was not properly treated by
11 removal of weathered materials and cleaning of soil-like materials from the surface;

12 (4) shallow and inadequate rock anchorage;

13 (5) a drainage system with many deficiencies, such as no filtering, possibly broken
14 or disconnected pipes, and inadequate collector drain capacity;

15 (6) single top layer of nominal reinforcement bars; and

16 (7) placement of joint dowels so as to create a plane of weakness near the top
17 surface of the joint.

18 125. According to the IFT, DWR represented to the public that the entire SWP
19 was designed by the “**best of the best.**” This was a total falsehood. DWR concealed from
20 the public the fact that the principal designer of this “tallest in the nation” dam was a young
21 man hired right out of a post-grad program, with very limited engineering work experience,
22 and no prior professional experience in spillway design. Subsequently, cracks were
23 observed at the main spillway soon after the dam’s construction. These cracks, and the
24 associated large drain flows resulting from dam seepage, were considered to be normal.
25 Such seepage further contributed to the corrosion of spillway anchors and erosion of the
26 spillway foundation.

27 126. The IFT found that the failure of the emergency spillway was caused by
28 “significant depths of erodible soil and rock in features orientated to allow rapid

1 headcutting toward the crest control structure.” Emergency spillway damage also resulted
2 from factors such as hillside topography that concentrated flows and increased erosive
3 forces, facilitating headcut formation.

4 127. IFT states that, “Although the poor foundation conditions at both spill ways
5 were well documented in geology reports, these conditions were not properly addressed in
6 the original design and construction, and all subsequent reviews mischaracterized the
7 foundation as good quality rock.”

8 128. IFT **faulted** DWR for failing to conduct comprehensive periodic reviews of
9 the original design and construction of the dam that took into account a comparison with
10 the current state of the practice. Such a review would have “connected the dots” and
11 identified the physical factors that led to the failure of the service spillway shoot, including
12 design shortcomings; construction procedures, decisions, and changes to designs that
13 exacerbated the shortcomings of the dam design; subsurface geologic conditions that left
14 portions of the spillway susceptible to uplift and subsequent foundation erosion; chute
15 repairs that were generally limited in extent, rather than designed to reliably and durably
16 withstand high-velocity flows, thermal effects, and other loading conditions; and geology,
17 topography, infrastructure, and other conditions on the hillside downstream of the
18 emergency spillway that made the hillside susceptible to substantial and rapid erosion.

19 129. IFT states that the primarily visual inspections which have occurred in the
20 past may offer a base for the recommendation of further investigation and testing methods,
21 but are not typically capable of detecting “‘hidden’ defects and deficiencies, such as
22 problematic chute slab details and voids under slabs.”

23 130. IFT concluded:

24 **“DWR has been somewhat overconfident and complacent regarding the**
25 **integrity of its civil infrastructure and has tended to emphasize shorter-term**
26 **operational considerations. Combined with cost pressures, this resulted in**
27 **strained internal relationships and inadequate priority for dam safety.”**

28

1 131. IFT also identified other general organizational, regulatory, and industry
2 factors that contributed to the spillways failure. These factors included: a reactive
3 approach to civil infrastructure maintenance and cost control; insufficient priority on dam
4 safety; a reliance by dam owners on regulators and regulatory processes; inadequate
5 information management for dams; insufficient technical expertise in dam engineering and
6 safety.

7 132. IFT further concluded that:

8 **“DWR has been a somewhat insular organization, which inhibited accessing**
9 **industry knowledge and developing needed technical expertise.”**

10 133. IFT refers to the crisis as a “wake-up call for everyone involved in dam
11 safety” as the incident occurred at the nation’s tallest dam in spite of federal regulatory
12 oversight and numerous consultant evaluations.

13 134. IFT concludes that, although “decisions were made with the best of
14 intentions,” the choice to take the main spillway out of service was “against the advice of
15 civil engineering and geological personnel.” Essentially, dam operators should have never
16 allowed water releases which utilized the emergency spillway.

17 135. The IFT also found that neither the probabilities nor the risks of limiting
18 releases from the main spillway at the time of the crisis were adequately reviewed and laid
19 out for decision makers. At the time of the crisis, concerns were expressed that if water
20 releases over the main spillway were not limited, DWR could lose the ability to deliver
21 water to agricultural and urban water districts. One top official at DWR told the IFT that
22 losing the ability to deliver water “was deemed as potentially one of the biggest disasters in
23 the history of California.” In fact, according to the IFT, “the reduction in water availability
24 to downstream Contractors would have perhaps been more correctly portrayed as
25 presenting significant business and legal challenges, but actual reductions in water
26 deliveries would have been no worse than in the drought years.”

27 136. In sum, the IFT found that the crisis was ultimately the result of a **“long-**
28 **term systemic failure.”**

1 **G. DWR’S INTENTIONAL COVER-UP OF THE LACK OF**
2 **MAINTENANCE**

3 **1. DWR’s Cover-up and Destruction of Evidence**

4 137. After the Oroville Dam’s failure, there were rumors that DWR issued a
5 directive that any notes, files, memos, or other documents regarding the crisis be destroyed.

6 138. On October 23, 2017, the undersigned counsel sent a letter to the Chief
7 Counsel of DWR, requesting that nothing be destroyed or tampered with, which in any way
8 concerned the design, construction of, inspection, maintenance or repairs upon Oroville
9 Dam, or the Oroville Dam crisis of February 2017. A copy of that letter is attached hereto
10 as **Exhibit H.**

11 139. DWR has never responded to this letter as of the date of this filing.

12 140. DWR also disposed of key physical evidence of its inadequate maintenance.

13 141. When the Oroville Dam’s main spillway failed in February 2017, a large
14 chunk of cement from the spillway floor, about 12 feet thick, was uprooted and came to
15 rest against one of the spillway’s energy dissipaters, large concrete columns at the bottom
16 of the spillway used to break up the flow of water into the river below. This piece of
17 concrete appears to have been evidence of improper low pressure grouting. DWR disposed
18 of the concrete before it could be inspected or tested according to some at DWR.

19 142. DWR also barred Robert Bea, a renowned expert in catastrophic risk
20 management and the head of CCRM from inspecting the Oroville Dam site after the crisis,
21 claiming potential “terrorism concerns.”

22 **2. DWR’s Mischaracterization of Dam Seepage**

23 143. Wet spots and vegetation growing on the face of the Oroville Dam (also
24 called “green spots”) have raised concerns that a large volume of water is running through
25 the earthen dam, threatening the integrity of the entire structure.

26 144. DWR dismissed these concerns in an August 30, 2017 report, stating that
27 vegetation growing on the face of the Oroville Dam was caused by rain, and posed no real
28 threat. DWR has stated the green spot is not a cause for the worry because it is dry in the

1 summer and green in wet months, and because seepage measurements at the base of the
2 dam have stayed low since the dam's construction.

3 145. In a report issued on September 5, 2017, CCRM disputed the DWR report as
4 a "superficial" public relations ploy that mischaracterized the risks of seepage related
5 hazards at the dam. A copy of the report is attached hereto as **Exhibit I**.

6 146. CCRM asserted that DWR's explanation was wrong because wet spots had
7 been observed on the dam even during drought years and in times of extreme heat. CCRM
8 also noted that DWR's explanation of the wet spots had changed over time. In 2014, DWR
9 then told FERC that the seepage source was from a natural spring or springs.

10 147. CCRM also noted the lack of working piezometers² in the dam, meaning that
11 DWR could not reliably measure water flow through the dam. Moreover, since at least
12 2013, federal and state dam inspections had noted that of the 56 piezometers installed in
13 the dam to detect leaks and other problems, only three still worked. In place of these
14 piezometers, DWR monitors peripheral seepage points, which collect water at certain
15 locations. DWR staff merely observe these locations to see whether or not they are wet.
16 As a result, DWR has no accurate way of determining how much water is seeping through
17 the earthen dam, or at what rate.

18 148. Moreover, DSOD inspection reports have noted a volume of water
19 penetration, increasing every year, through deep rock cracks in an abutment into the Hyatt
20 plant. According to CCRM, this level of high transmissivity in the abutment has the ability
21 to divert internal unseen leakages away from the toe drain seepage weir used by DWR as
22 an indicator.

23 3. DWR Has Redacted Key Maintenance Documents to Hide Key 24 Facts

25 149. DWR has retained a Board of Consultants (BOC) to assess the repairs and
26 emergency response which have occurred at the Oroville Dam spillways since the dam's
27 failure in February 2017.

28 ² A piezometer which measures the pressure of groundwater at a specific point, and can
be used to gauge uplift pressures in dam foundations.

1 150. Despite DWR’s commitment to maintain transparency with regard to BOC
2 findings and recommendations, DWR has heavily redacted each of the BOC’s 14 reports,
3 claiming they contain sensitive “Critical Energy Infrastructure Information.” A selection
4 of these redacted documents are attached hereto as **Exhibit J**.

5 151. DWR’s redaction of these key documents constitutes a blatant attempt to
6 keep the public in the dark about the safety of the Oroville Dam and DWR’s failure of
7 maintenance and supervision.

8 **4. DWR Retained as Consultants Retired DWR Staff, Formerly**
9 **Responsible for the Inadequate Supervision of the Oroville Dam**

10 152. Effective management of DWR and DSOD has also been hampered by the
11 outsourcing of management responsibilities to private consultants – retired DSOD chiefs
12 and retired SWP chiefs who take paid positions with local engineering consultant firms.
13 Most of these consultants are provided by GEI Consultants, Inc. (“GEI”), a consulting
14 engineering and environmental firm. According to former DWR executives, these
15 consultant’s high level involvement on DWR projects may intimidate current DWR staff
16 and affect DWR’s independent decision making process.

17 153. These same insiders have also expressed concerns that the GEI consultants
18 hired by DWR were responsible for the lax supervision and maintenance at the Oroville
19 Dam, and that they are now being brought on to cover-up the fact that supervision and
20 maintenance of the dam was lacking.

21 154. For example, in February 2017, DWR began using GEI consultant David
22 Gutiérrez to advise DWR on the Oroville Dam Spillway. As former chief of DSOD,
23 Gutiérrez had been responsible for inspection reports for the Oroville Dam headworks and
24 concrete spillway. Gutiérrez is now being used (and paid as a consultant) by DWR as a
25 spokesperson on the current repairs to the Oroville Dam spillway. He was also used (and
26 paid as a consultant) by DWR as an Oroville Dam spillway spokesperson during a May
27 2017 legislative hearing on the subject.

1 155. DWR has also retained GEI consultant Steve Verigin, who served as chief of
2 DSOD from 1999 to 2004.

3 **H. THE CITY WAS HARMED BY OROVILLE DAM CRISIS**

4 156. The City suffered significant damages as a result of the Oroville Dam crisis,
5 including but not limited to:

- 6 a. Damage to City infrastructure, including roadways, which were damaged by
7 both flooding and by emergency response and reconstruction efforts;
- 8 b. Costs incurred to evacuate citizens;
- 9 c. Salary, benefits, and other compensation paid to impacted City employees;
- 10 d. Rental and use of equipment and personal property;
- 11 e. Loss of sales tax revenue;
- 12 f. Loss of revenue from tourism;
- 13 g. Law enforcement, administration, and emergency and fire services dedicated
14 substantial time and resources to evacuate and/or facilitate the evacuation of
15 thousands of City residents;
- 16 h. Law enforcement also devoted substantial resources in response to the
17 aftermath of the crises.

18 157. As a result of the foregoing, the City suffered damages in amount which will
19 be proved at trial and which exceed the jurisdictional minimum of this court.

20 158. On July 6, 2017, the City filed a claim with the State of California in
21 connection with the damages it sustained as a result of the Oroville Dam Crisis.

22 159. On July 19, 2017, the State of California sent the City a letter rejecting its
23 claims. The letter explained: “The claim involves complex issues that are beyond the
24 scope of analysis and legal interpretation typically undertaken by the GCP [Government
25 Claims Program]. Claims involving complex issues are best determined by the courts.
26 Therefore, staff did not make a determination regarding the merit of the claim, and it is
27 being rejected so you can initiate court action if you choose to pursue this matter further.”
28

1 **V. CAUSES OF ACTION**

2 **FIRST CAUSE OF ACTION**

3 **Dangerous Condition Of Public Property**

4 **Government Code § 835**

5 **(Against Defendant and Does 1-100)**

6 160. The City incorporates herein by reference and realleges the allegations stated
7 in this complaint.

8 161. Defendant owns or controls the Oroville Dam.

9 162. The Oroville Dam was in a dangerous condition at the time the main spillway
10 and emergency spillway failed in February 2017.

11 163. The dangerous condition of the Oroville Dam created a reasonably
12 foreseeable risk that the main spillway and emergency spillway would fail pursuant to the
13 law of California.

14 164. Defendant had actual and constructive notice of the Oroville Dam's
15 dangerous condition in a reasonable amount of time to have taken preventative measures.

16 165. The City was injured as a result of the failure of the Oroville Dam in
17 February 2017 as set forth above.

18 **SECOND CAUSE OF ACTION**

19 **Private Nuisance**

20 **(Against Defendant and Does 1-100)**

21 166. The City incorporates herein by reference and realleges the allegations stated
22 in this complaint.

23 167. Defendant owns or controls the Oroville Dam.

24 168. Defendant's operation of the Oroville Dam created a condition or permitted a
25 condition to exist that was and continues to be harmful to health; or was an obstruction to
26 the free use of property, so as to interfere with the comfortable enjoyment of life or
27 property; or posed a danger of flooding the City's property.

1 182. Defendant's conduct was a substantial factor in causing the City harm.

2 **FOURTH CAUSE OF ACTION**

3 **Premises Liability**

4 **(Against Defendant and Does 1-100)**

5 183. The City incorporates herein by reference and realleges the allegations stated
6 in this complaint.

7 184. Defendant owns or controls the Oroville Dam.

8 185. Defendant was negligent in the use or maintenance of the Oroville Dam
9 pursuant to California law under the facts above stated.

10 186. The City was harmed and damaged, and Defendant's negligence was a
11 substantial factor in causing that harm.

12 **VI. PRAYER FOR RELIEF AND DEMAND FOR JURY**

13 WHEREFORE, the City Oroville prays this Court enter a judgment against
14 Defendant that:

15 1. Awards compensatory, statutory and all other damages sustained by Plaintiff
16 as to all causes of action where such relief is permitted.

17 2. Awards Plaintiff the costs of this action, including reasonable attorney's fees
18 and expenses.

19 3. Awards appropriate injunctive relief;

20 4. Awards attorney's fees and expert fees as may be allowable under applicable
21 law, including California Code of Civil Procedure sections 1021.5 and 1036;

22 5. Awards pre-judgment and post-judgment interest;

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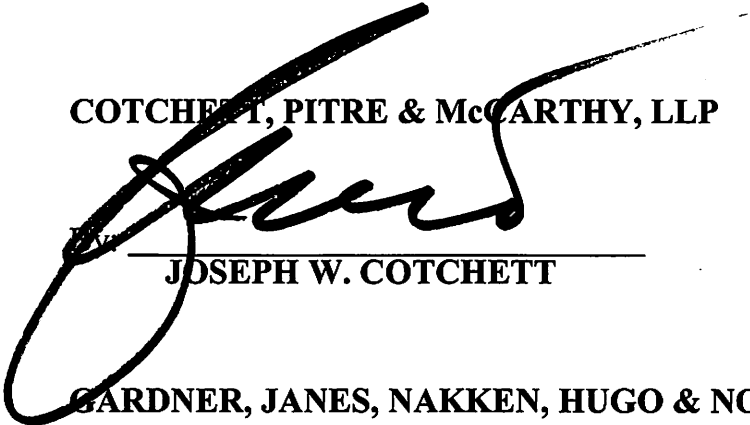
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1 6. Orders appropriate declaratory relief; and such further legal and equitable
2 relief as this Court may deem just and proper.

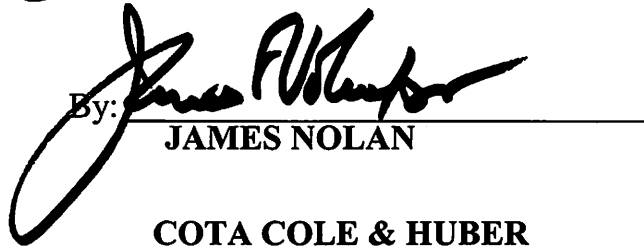
3 7. Plaintiff demands a jury trial on all issues so triable.

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5 Dated: January 17, 2018

COTCHETT, PITRE & McCARTHY, LLP

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8 _____
9 **JOSEPH W. COTCHETT**

GARDNER, JANES, NAKKEN, HUGO & NOLAN

10
11 
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13 **JAMES NOLAN**

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