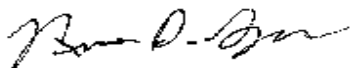


City of Calistoga

Staff Report

TO: Honorable Mayor and City Council
FROM: Michael Kirn, Director of Public Works/City Engineer
DATE: September 3, 2013
SUBJECT: Kimball Reservoir Storage Status and Consideration of a Resolution to Declare a Stage I Water Emergency

APPROVAL FOR FORWARDING:



Richard D. Spitler, City Manager

1
2 **ISSUE:**

3
4 Kimball Reservoir Status and Consideration of a Resolution Declaring a Stage I Water Emergency.
5

6 **RECOMMENDATION:**

7
8 Accept the report and as deemed necessary, adopt a resolution declaring a Stage I water
9 emergency authorizing the Mayor to issue a proclamation urging citizens to commence voluntary
10 water conservation measures.
11

12 **BACKGROUND / DISCUSSION:**

13
14 The City (along with the State of California) experienced a relatively dry late winter and spring.
15 Our water supply from the State Water Project was declared at 35% (674 acre feet) of our
16 annual entitlement of 1,950 acre feet, and rain fall at the Kimball Reservoir for January–May
17 was approximately twenty (20%) of historical average.
18

Month	Monthly Average	Actual 2013	Percent of Average
January	8.26	1.17	14.1
February	8.08	0.39	4.8
March	5.72	1.93	33.7
April	2.39	1.39	58.2
May	1.4	0.13	9.2

Total	25.85	5.02	19.4
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19 In accordance with our water rights licenses we cannot install the flashboards at the reservoir
20 spillway until after March 2, and only if the reservoir is in a continuous “spill mode”. Without
21 the flashboards the maximum storage in the reservoir is approximately 254 acre feet (water
22 surface elevation 575’) and with all the flashboards installed (water surface elevation 579’) the
23 reservoir holds approximately 311 acre feet.

24
25 On February 8, 2013 the reservoir stopped spilling over the spillway, which prevented the
26 installation of the flashboards. This was an unusual situation because in the past there typically
27 is sufficient rainfall to allow the installation of the flashboards to maximize water storage and
28 capture an additional 57 acre feet of water. Typically we produce and use about 20 acre feet
29 from Kimball and the 57 acre feet equates to about three months of supply for the City.

30
31 As of August 26 the storage level in the reservoir is approximately 49 acre feet. We anticipate
32 that towards the end of September (possibly sooner) the storage level and water quality (algae,
33 sediment, etc.) will preclude us from producing water from the Kimball Water Treatment Plant.
34 Under normal conditions, we would be able to use Kimball water through the late fall (we can
35 sometimes process water as the reservoir is filling, if rainfall is not severe). Once the Kimball
36 Water treatment Plant is off line our only source of water will be the NBA, which we can deliver
37 approximately one-million gallons per day – which is about our average daily demand barring
38 significant irrigation demands from the residential customers.

39
40 Staff is recommending that the Council consider declaring a Stage I water emergency (in
41 accordance with CMC 13.04.340) and implementing Stage 1 water conservation which would be
42 voluntary water conservation. A recommended goal would be to reduce water usage by 10%.
43 In Sonoma County they have implemented a “20 gallons a day challenge” encouraging each
44 person to save twenty gallons a day. This would result in water conservation of approximately
45 11%, assuming 175 gallons per day per person.

46
47 The attached draft resolution encourages some voluntary conservation practices, which include,
48 but are not limited to:

- 49 1. Apply irrigation water only during the early morning hours to reduce evaporation
50 loss and implement odd/even address watering schedule (odd addresses water
51 Tuesday, Thursday, Saturday and even water Sunday, Wednesday, Friday).
- 52 2. Inspect all irrigation systems, repair leaks, and adjust spray heads to provide
53 optimum coverage and eliminate avoidable over-spray.
- 54 3. Reduce minutes of run-time for each irrigation cycle if water begins to run-off to
55 gutters and ditches before the irrigation cycle is complete.
- 56 4. Avoid planting new annual plants or landscaping, except for drought resistant
57 landscaping or vegetation irrigated by reclaimed wastewater.
- 58 5. Limit washing sidewalks, driveways, patios, or other paved areas to once a week

59 or less.

60

61 If the Council adopts the recommended resolution, staff will prepare a proclamation per CMC
62 13.04.340 for the Mayor's signature and the City Clerk will publish it once a week for 4 weeks in
63 the City's official newspaper, post the proclamation on the City's web page, and run it on
64 Channel 28 for two weeks.

65

66 **FISCAL IMPACT:**

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68 There may be a slight reduction in revenue if the 10% conservation goal is realized.

69

70 **ATTACHMENTS**

71

- 72 1. Resolution
- 73 2. Proclamation

RESOLUTION 2013 - XXX

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CALISTOGA, COUNTY OF NAPA, STATE OF CALIFORNIA, DECLARING A STAGE I WATER EMERGENCY

WHEREAS, the City of Calistoga obtains its drinking water from the State Water Project (SWP) and its Kimball Reservoir Water Treatment Facility; and

WHEREAS, for the current rain season, the City of Calistoga and most regions of California have experienced unusually low precipitation levels realizing only twenty percent of our historical average rain for the months of January – May of 2013; and

WHEREAS, for the current year, the State Department of Water Resources has projected an initial SWP allocation of thirty-five percent; and

WHEREAS, as of August 26, 2013 the City of Calistoga’s Kimball Reservoir held 49 acre feet of water, well below typical levels for August; and

WHEREAS, by the end of September or sooner Public Works staff expects storage in the Kimball Reservoir to drop to less than thirty acre feet, and due to stagnant water conditions, the Kimball Water Treatment Plant will have to be removed from service; and

WHEREAS, the North Bay Aqueduct can deliver approximately one-million gallons of water per day to Calistoga, which is approximately the average daily demand for the City and its water customers; and

WHEREAS, the City’s Municipal Code stipulates that a Stage I Water Emergency be declared to implement Stage I voluntary restrictions of water use.

NOW, THEREFORE BE IT RESOLVED that the City Council declares a Stage I Water Emergency for the City of Calistoga and its water consumers; and

BE IT FURTHER RESOLVED that the City Council authorizes the Mayor to issue a proclamation urging all potable water customers of the City to voluntarily conserve water with the goal of conserving 10% of water use by implementing conservation practices including, but not limited to:

1. Apply irrigation water only during the early morning hours to reduce evaporation loss, and implement odd/even address watering schedule (odd addresses water Tuesday, Thursday, Saturday and even water Sunday, Wednesday, Friday).
2. Inspect all irrigation systems, repair leaks, and adjust spray heads to provide optimum coverage and eliminate avoidable over-spray.
3. Reduce minutes of run-time for each irrigation cycle if water begins to run-off to gutters and ditches before the irrigation cycle is complete.
4. Avoid planting new annual plants or landscaping, except for drought resistant landscaping or vegetation irrigated by reclaimed wastewater.

**CITY OF CALISTOGA
PROCLAMATION**

**A PROCLAMATION OF THE CITY COUNCIL OF THE
CITY OF CALISTOGA DECLARING A STAGE I WATER EMERGENCY**

WHEREAS, the City of Calistoga obtains its drinking water from the State Water Project (SWP) and its Kimball Reservoir Water Treatment Facility; and

WHEREAS, the City of Calistoga has experienced unusually low precipitation levels this winter realizing only twenty percent of our historical average rainfall; and

WHEREAS, as of August 26, 2013 the City of Calistoga's Kimball Reservoir held 49 acre feet of water, well below typical levels for August; and

WHEREAS, by the end of September or sooner Public Works staff expects storage in the Kimball Reservoir to drop to less than thirty acre feet, and due to stagnant water conditions, the Kimball Water Treatment Plant will have to be removed from service; and

WHEREAS, the North Bay Aqueduct can deliver approximately one-million gallons of water per day to Calistoga, which is approximately the average daily demand for the City and its water customers; and

WHEREAS, the City's Municipal Code stipulates that a Stage I Water Emergency be declared to implement Stage I voluntary restrictions of water use.

NOW, THEREFORE BE IT PROCLAIMED that the City Council declares a Stage I Water Emergency for the City of Calistoga and its water consumers and authorizes the Mayor to issue a proclamation urging all potable water customers of the City to voluntarily conserve water with the goal of conserving 10% of water use by implementing conservation practices including, but not limited to:

- Irrigating with potable water only during the early morning hours, and implementing odd/even address watering schedule (odd addresses water Tuesday, Thursday, Saturday and even water Sunday, Wednesday, Friday).
- Inspect irrigation systems, repair leaks, and adjust spray heads.
- Reduce run-time for irrigation cycles
- Plant drought resistant landscaping or vegetation irrigated by reclaimed wastewater.
- Limit washing sidewalks, driveways, patios, or other paved areas

September 3, 2013

SO ORDERED:

CHRIS CANNING, MAYOR