



AGENCY: City Council
MEETING DATE: August 31, 2020
DEPARTMENT: City Manager/Public Works
PRESENTED BY: T. Miller/J. Smith
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AGENDA ITEM SUMMARY

TITLE:

Receive Report and Consider Adoption of City Council Resolution Declaring a Stage 2 Water Emergency and Implementing Stage 2 Water Conservation Measures

ISSUE:

The City of Fort Bragg Municipal Code Chapter 14.06, Water Conservation, sets forth the parameters for the City to declare a water emergency and implement mandatory water conservation consistent with the stage or level of the emergency.

Mendocino County is currently experiencing a severe drought, providing a strain on our water sources. Flows in the Noyo River have declined more quickly than staff has seen in previous years. The City is currently unable to maintain a 10% buffer between its ability to replenish water in its storage tanks and the total daily demand for water. Staff recommends declaring a Stage 2 water emergency and implementing Stage 2 water conservation measures immediately.

ANALYSIS:

Fort Bragg Municipal Code Chapter 14.06, Water Conservation, section 14.06.020 was most recently updated on January 25, 2016 and sets forth the three independent triggers that measure the City's ability to replenish water storage and declaration of a water emergency. The City has met the first of those requirements, in that we are unable to maintain a 10% buffer in replenishing water storage and total daily water demand.

The City of Fort Bragg's water supply system relies solely on three surface water sources: Waterfall Gulch (tributary to Hare Creek), Newman Gulch (tributary to Noyo River), and the Noyo River (diversion at Madsen Hole). In 2015 the City's water supply system could only store small amounts of water that provided enough to maintain proper water system pressure and to provide a safety margin for fire-fighting flows. Five years later, the City has made great progress with water storage by including an additional 1.5 million gallon finished water storage tank and the Summers Lane Reservoir with a raw water capacity of 14.7 million gallons. This brings our total water storage capacity to 22.6 million gallons.

Current water production from the three City sources is:

- Waterfall Gulch, 140 gallons per minute (gpm)
- Newman Gulch, 151 gpm
- Noyo River pumping, 300-400 gpm, on average (as needed)

During the winter and spring, pumping of the Noyo River is used only to supplement the Waterfall Gulch and Newman Gulch sources. The two tributary sources generally provide a

higher quality of raw water and they gravity-feed to the water treatment plant, whereas water from the City's Noyo River diversion must be pumped. As summer progresses and the flows in the tributary streams diminish, the Noyo River diversion is used more frequently and in greater quantities.

Currently the Noyo River is flowing at 0.90 cubic feet per second (cfs). This flow level has dropped below the 2015 low flows and has surpassed 1977 flows. Staff has not experienced flows as low as these. With this in mind, we expect flows to continue to decrease through September and into October. Our average water demand is 838,000 gallons per day. Currently sources are providing 758,000 gallons per day.

While we've made major water storage improvements, we are now in uncharted territory. It is anticipated that the most challenging period for meeting water demand will extend from now through mid-October. Once again, the Fort Bragg community is being asked to come together and see us through a difficult period of limited water availability. Staff will continue to monitor water usage and the City's ability to continue to replenish water storage.

RECOMMENDED ACTION:

Adopt Resolution declaring a Stage 2 water emergency and implementation of Stage 2 water conservation measures which target a 20% decrease in water usage from the same time in the base year.

ALTERNATIVE ACTION(S):

1. Do not adopt Resolution.
2. Provide alternative direction to staff.

FISCAL IMPACT:

Reduced water usage will impact Water Fund revenues during the time frame customers practice water conservation, however, the water fund's reserves and fund balance can absorb the loss.

GREENHOUSE GAS EMISSIONS IMPACT:

Reduced water usage will have an incremental reduction in pumping and water treatment, which will result in a small decrease in the use of electricity and resulting greenhouse gas emissions.

CONSISTENCY:

N/A

IMPLEMENTATION/TIMEFRAMES:

Compliance with a Stage 2 water emergency would be immediate and if implemented, water usage could be reduced immediately.

ATTACHMENTS:

1. Resolution
2. Water Flow Graphs

NOTIFICATION:
N/A.