AGENCY:	**City Council**
MEETING DATE:	**September 26, 2016**
DEPARTMENT:	**Public Works**
PRESENTED BY:	**Tom Varga**

AGENDA ITEM SUMMARY

TITLE:
RECEIVE REPORT AND CONSIDER ADOPTION OF CITY COUNCIL RESOLUTION DECLARING A STAGE 2 WATER EMERGENCY IN RESPONSE TO DECREASING SOURCE WATER AND THE POSSIBILITY OF A DELAYED RAINY SEASON

ISSUE:

The prolonged drought affecting the State of California, as well as Fort Bragg, has eased but not ended. Fall is the season when source water flows reach their minimum. While this year's flows are better than the record setting lows of last year, they are still below normal levels. The long range climatological forecast is for an average chance of normal precipitation in the latter part of September through October and November as the usual rainy season begins. The City's water supply resources are expected to be adequate until the start of the rainy season. However, given the wide variability of what can be expected as normal rainfall, a delayed start to the rainy season is possible. A precautionary approach to water supply availability may be appropriate. Rather than waiting until a crisis is impending, the Council may choose to impose additional water conservation measures at this time through the declaration of a Stage 2 Water Emergency.

RECOMMENDED ACTION:

Adopt City Council resolution declaring Stage 2 Water Emergency.

ALTERNATIVE ACTION(S):

1. No Action. The Council may choose a wait and see approach.
2. Direct staff to agendize this matter for consideration on subsequent Council agendas.
3. Modify the resolution prior to its adoption.

ANALYSIS:

The Fort Bragg Municipal Code authorizes the City Council to declare water emergencies when the flow from the City's raw water sources has declined to the point that it is becoming difficult for the City to reliably supply water to its customers and maintain adequate fire protection. Finished water production in September has been regularly below 600,000 gallons per day, and the City's water sources continue to reliably produce sufficient water.

Flows from the City's two spring fed sources (Waterfall Gulch and Newman Gulch) have declined to seasonal norms. However, approximately half of the City's raw water is drawn from the Noyo River. Noyo River flows dropped below three cubic feet per second (cfs) during the first week of September. At that level and lower, the river comes under the influence of ocean saltwater when high tides reach six feet or more. This becomes a problem when both of the two daily high tides exceed this height and the reduced flows slow the retreat of the brackish water back to the ocean. These dual high tide events occur once every 28 days of the lunar/tidal cycle. During such events, the river pumps are not used and several hours of raw water pumping is lost each day.

This lost pumping capacity is compensated for by carefully maximizing storage in the water treatment plant's storage facilities and blending the stored water with saltier river water. With the Summers Lane Reservoir now online, the City's storage capacity has been greatly expanded and the ability to address multiple high tide events is now possible. By the time of the Council's September 26th meeting, approximately 4.5 million gallons will be stored in the new reservoir, (about 30% of capacity).

The most recent climatological forecasts from the National Weather Service predict an average chance of normal precipitation during the months of October, November, and on into the rest of winter. The rainy season most commonly begins sometime in October. However, this is a variable event and it is good planning practice to be prepared for a later than usual start.

The next period of double high tides is expected to be from October 15 through October 22. By October 15th, estimated storage in Summers Lane Reservoir will be between 8 and 9 million gallons. The worst-case scenario would be for the City to not use any Noyo River source water for eight days. In turn, this would require a maximum drawdown of approximately 2 million gallons of Summers Lane Reservoir storage. This worst-case scenario also assumes essentially no rainfall from now through the latter part of October.

Presently, a Stage 1 Water Emergency is in effect to meet State mandates for water conservation. In addition, a Council resolution is adopted monthly declaring the continued existence of a local drought emergency that reflects the continued drought and the conditions noted above. A Stage 2 Water Emergency could be put in place until the rainy season has reliably begun.

Under Stage 2 Water Emergency restrictions, the conservation goal is 20% below the consumption of the same month during the 2013 base year, (before wide-scale water conservation measures were implemented). Outdoor irrigation of landscaping (private and public) would be suspended. Section 14.060.050 – Conservation Goals and Prohibited Water Uses during Water Emergency of the Fort Bragg Municipal Code (FBMC) is attached for reference. The Stage 2 Water Emergency declaration is an effective tool to inform the community of the importance that extra care is needed to minimize water use until the winter rains start again. With a timely start to the winter rains, a Stage 2 Water Emergency can be a short-lived action.

FISCAL IMPACT:

There are no direct fiscal impacts. Between the expected short period of a Stage 2 Water Emergency, and given the significant on-going water conservation measures already being practiced by the community, the effects of additional water conservation on water revenues should be nominal.

ATTACHMENTS:

1. Resolution
2. FBMC § 14.06.050

NOTIFICATION:
None.

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Agency Action ☐ Approved ☐ Denied ☐ Approved as Amended
Resolution No.: _____ Ordinance No.: _____
Moved by: _____ Seconded by: _____
Vote: _____
☐ Deferred/Continued to meeting of: _____
☐ Referred to: _____