

Marin County Flood Control & Water Conservation District

2015-2016 Maintenance & Storm Preparedness Summary Zone 1

Updated: September 3, 2015

Winter Weather Outlook

The National Weather Service's [Climate Prediction Center](#) anticipates that there will be a strong El Niño this upcoming winter and their latest [precipitation outlook](#) for December through March indicates that Marin is likely to receive higher than average amounts of precipitation. Additionally, due in part to warmer than average ocean waters, tides could be significantly higher than predicted.

Maintenance Overview

Regardless of predictions, the Marin County Flood Control & Water Conservation District (District) prepares for every year as though it is an "El Niño year." Although two major flooding years in Marin's history occurred during years with El Niño episodes (1997/98 and 1982/83), it is not unusual to experience major flooding in the absence of El Niño, such as in 2005/06. Flooding can even occur during a drought year such as last year, when the County suffered some of its worst flooding damage since 2006.

It is for these reasons that the District follows a consistent system of facility and creek maintenance each year which mitigates the risk of flooding. We conduct regular inspections of the creeks, floodwalls, and levees within our jurisdiction, and frequently test our pumps, motors, and generators. Creeks, drainage ditches, pipes, trash racks, and pump wet wells are cleared of vegetation, sediment, and trash in the fall and throughout the winter as needed. A flood control zone-specific update regarding maintenance, storm preparedness and response in your local area is provided below.

Pump Station Maintenance

None of the pump stations have pumps up for major preventative maintenance this year. (Individual pumps and motors are scheduled for major maintenance on a six year interval.) Alternative portable pumps for Simmons Slough (the existing pump is called "Big Bertha") are being investigated for this winter due to the existing pump's age and cumbersome operation. All of the pumps in the zone (Lynwood and Cheda Pump Station, and Farmers and Big Bertha pumps), are run and checked monthly during the summer and more frequently during the winter season even if there is a dry period.

Each year before the rainy season each pump station's electrical components are tested and the engines maintained. The Lynwood Pump Station wet well is also cleaned out as needed to optimize pump operation (the other pump stations in Zone 1 do not have wet wells).

Vegetation Maintenance

Vegetation maintenance within flood control properties and easements started in July. Maintenance work includes trimming of vegetation in the channel and debris removal. The work is performed under contract with the North Bay Conservation

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Corps. Pre-inspections of the creeks and channels are conducted to determine maintenance needs so as to reduce annual costs. Maintenance operations will continue throughout the summer and will result in having creeks and channels throughout the Zone ready for the winter season flows. The final step is cutting of cattails which occurs in October right before the rains.

Vegetation maintenance is being permitted through a Routine Maintenance Agreement with the CA Department of Fish and Wildlife (DFW) which streamlines the process.

Sediment Removal

Earlier this year the need for sediment removal was assessed at multiple locations where sediment removal has been performed in the past. Individual permits are being sought from the San Francisco Regional Water Quality Control Board for sediment removal on Vineyard Creek at Center Road and at the Arroyo Avichi bypass to Baccaglio Basin. A programmatic permit has been secured for this work from DFW. Work is scheduled to take place prior to October 15.

Levee/Floodwall Maintenance & Rodent Control

This fall the District is hiring a contractor to excavate and recompact a trench down a portion of the earthen levee on Novato Creek which experienced through-flow due to rodent holes last winter. The purpose is to create a solid cut-off through any potential rodent holes. Any ongoing rodent control will be conducted in accordance with the County's Integrated Pest Management policy.

Precipitation and Stream Gauge Maintenance

The District owns several precipitation and stream gauges throughout the County which help inform us of water levels in creeks and heavy rainfall in real-time. Zone 1 has gauge sites on Novato Creek and at the Library. For more information on the gauges visit <https://marin.onerain.com/home.php>. Preventative maintenance on the gauges is performed twice annually - September/October and February/March - and as needed. A grant has recently been awarded to upgrade the gauge software and is expected to be underway after this rainy season.

Storm Response

Before, during, and after storms, the Conservation Corps North Bay inspects and clears facilities as needed. They are also available for sandbagging and/or tarping levees and creek banks if requested. Additionally, county crews make rounds to all of the District pump stations to make sure they are in working order, and receive alarms from the pump stations to warn of emergency situations.

The District has a fleet of portable pumps which are maintained and tested prior to the winter season and some are pre-deployed in key locations. The nearest pumps that are not pre-deployed are stored at Pump Station #3 in Santa Venetia.

The District is evaluating and has received a bid for temporary removable flood barriers which could be deployed quickly and in lieu of sandbags at flood threatened locations. The barriers are made of high strength plastic and achieve their stability by filling them with water.