

Marin County Flood Control & Water Conservation District

2015-2016 Maintenance & Storm Preparedness Summary Zone 4

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

All scheduled annual pump maintenance will be completed by the onset of our rainy season. This includes both major maintenance for select pumps and electric motors, as well as preventative maintenance for all pumps/motors. (Individual pumps and motors are scheduled for major maintenance on a six year interval.)

Due for planned maintenance this year were pump #1 at Cove. The amount budgeted for completing this work was \$25,000 and, with current projected costs of \$15,000, all work was completed under budget at a cost of \$14,608. A secondary inlet grate at Cove is being replaced to help prevent trash and debris from entering the pump station. Also, the District has placed extra emphasis on addressing debris within the storm drain systems which flow to the pump stations by inspecting and vactoring pipes within its right of way and coordinating with the City and private property owners on pre-season inspection and cleaning. In addition, the District plans on sending a community newsletter to all residents which aims to increase awareness of the dangers of garbage and debris within the storm drain system and also presents best practices for refuse disposal.

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Pumps not due for preventative maintenance are tested and routine maintenance and repair are performed as necessary. Each year before the rainy season, the pump station's electrical components are tested and the engines are maintained. The generator at Strawberry Circle Pump Station was load tested with no issue. The pump station wet wells are also cleaned out as needed to optimize pump operation.

Vegetation Maintenance

The Conservation Corps North Bay performed annual vegetation maintenance along East and West Creeks and at the Karen Way Trash Rack. During maintenance, the District performed some isolated bank stabilization repairs and also removed deteriorated sandbags. The East Creek access road was also mowed this summer.

Sediment Removal

Earlier this year the need for sediment removal was assessed along West Creek near the Cecilia Way crossing and it was determined that sediment accumulation warranted some sediment removal. An individual permit is being sought from the San Francisco Regional Water Quality Control Board and a programmatic permit has previously been secured for this work from California Fish & Wildlife as part of the Routine Maintenance Agreement (RMA). Work is scheduled to take place prior to October 15.

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. The nearest sites are in Tam Valley at Coyote Creek, upper Coyote Creek, and Arroyo Corte Madera del Presidio. 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.

Storm Preparedness & Response

The Conservation Corps North Bay inspects and clears facilities as needed before, during, and after storms. They are also available for sandbagging and/or tarping levees and creek banks if requested. The District keeps sand and bags at the Crest Marin Pump Station for authorized emergency use only. Additionally, County crews make rounds to all 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 Shoreline Pump Station (in Zone 3) and Pamela Court Pump Station (in Zone 4).

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.