

## Marin County Flood Control & Water Conservation District

### 2015-2016 Maintenance & Storm Preparedness Summary Zone 7

*Updated: September 3, 2015*

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#### **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.

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#### **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 was the Santa Venetia Pump Station #3 Back-up pump. The amount budgeted for completing this work was \$30,000 and all work was completed under budget (\$24,083).

Pumps not due for preventative maintenance are still 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 maintained as well. The generators at Pump Stations #1, #2, #4, and #5 were just load tested. The pump station wet wells are also cleaned out in early fall as needed to optimize pump operation.

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### **Vegetation Maintenance**

Vegetation maintenance will occur in all flood control easements by October 15. Ditches to be maintained at the end of September include the one between Birch and Mabry Way, Santa Venetia Marsh Levee toe drain ("Estancia Ditch"), and Castro Ditch.

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**

Sediment removal needs are being assessed this summer. A diver recently inspected the La Pasada Interceptor Drain outfall and found it to be above sediment levels in Las Gallinas Creek. Sediment levels within the system are likely to be low now that the new tide gate is keeping the sediment-laden tide water out of the pipe. In the early fall when county crews perform vactoring of the upstream portion of the interceptor drain, they will note if any sedimentation from material up in the watershed is occurring. The other two interceptor drains, Meadow Way and Sunny Oaks drain, will be inspected later this September.

### **Levee/Floodwall Maintenance & Rodent Control**

The wooden floodwall that tops the earthen levee along Vendola Drive is inspected every other summer by District staff and is due for inspection at the end of September. It is only inspected where permission is granted by the private property owner as most of the levee is located on residential property and/or access is through private yards. This year, unlike prior years, the District requested 5-year Rights-to-Enter from property owners to cut down on administrative costs. Once the wooden floodwalls are inspected, replacement occurs in order of priority and as budget allows. This year the district is making an effort to report back to property owners regarding inspection results so property owners can understand the status of their floodwall and anticipated schedule for rehabilitation, if necessary.

Rodent control efforts on the earthen levees are ongoing, and are conducted in accordance with the County's Integrated Pest Management policy. Traps will be set early this fall and, following successful rodent removal, holes will be filled with bentonite grout to restore the levee fill material. Residents who notice rodent activity can contact the District to request information on how to fight burrowing rodents in their yards and/or report problems in nearby levees to have traps set near the levees.

### **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 gauge sites are in Novato. 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.

## **Marin County Flood Control & Water Conservation District**

### **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. The District keeps sand and bags, for authorized emergency use only, at the Pump Stations #2, #4, and #5. 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.

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.