



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Raymond Riordan

SUBJECT: WINTER 2020 READINESS

DATE: December 9, 2019

Approved

Date

12/10/19

INFORMATION

The City of San José values preparedness for all potential natural disasters. As we move into the rainy season we are prepared and engaged. This memo outlines preparations taken in advance of the rainy season, anticipation of incoming storms, and key information we are sharing.

PRE-WINTER ACTIVITIES

Three Public Safety Power Shutoffs delayed two annually planned winter preparedness activities:

- The Santa Clara Valley Water District (Valley Water) Winter Preparedness Event was postponed from October 31, 2019 to December 5, 2019.
- The City of San José and Valley Water Joint Emergency Action Plan Exercise was postponed from December 6, 2019 to January 16, 2020.

The planning required to conduct the above events was redirected to Public Safety Power Shutoffs response. Coordination with the National Weather Service (NWS) continued as planned.

On October 17, 2019, the NWS indicated that conditions in Northern and Central California are predicted to be drier than average during the upcoming winter (see <https://www.noaa.gov/media-release/winter-outlook-warmer-than-average-for-many-wetter-in-north> for more information).

On Thursday, November 21, the NWS announced that the weather conditions identified a drier than normal winter. According to the NWS El Niño Southern Oscillation (ENSO) website, <https://www.weather.gov/ict/enso>, “(N)eutral conditions are present. Northern Hemisphere winter 2019-2020 (75% chance of normal), and into spring (55-60% chance of normal).”

For reference the NWS definitions for El Niño, La Niña and Neutral conditions include:

- ***El Niño:*** A warming of the ocean surface, or above-average sea surface temperatures (SST), in the central and eastern tropical Pacific Ocean. Over Indonesia, rainfall tends to become reduced while rainfall increases over the central and eastern tropical Pacific Ocean. In general, the warmer the ocean temperature anomalies, the stronger the El Niño, the storms could be more intense.
- ***La Niña:*** A cooling of the ocean surface, or below-average sea surface temperatures (SST), in the central and eastern tropical Pacific Ocean. Over Indonesia, rainfall tends to increase while rainfall decreases over the central and eastern tropical Pacific Ocean. In general, the cooler the ocean temperature anomalies, the stronger the La Niña, the less intense storms may occur.
- ***Neutral:*** Neither El Niño or La Niña. Often tropical Pacific SSTs are generally close to average. However, there are some instances the ocean conditions can mimic either an El Niño or La Niña state, during neutral weather conditions.

On November 27, 2019, the NWS identified that northern sections of California remained abnormally dry along with Nevada, and parts of Oregon and Washington. Through November 25, early-season snowpack was less than 25% of average in several river basins across California, Nevada, Oregon, and Washington. In addition, low streamflow values were apparent in the Pacific Northwest, especially across western Oregon.

<https://droughtmonitor.unl.edu/>

CITY READINESS ACTIVITIES

The City's Department of Transportation has a five-stage response plan for rainy conditions and predictions. Each stage is related to the amount of predicted rain (0.25 inches of rain; 0.5 inches of rain; 1.0 inch of rain, etc.). A Storm Supervisor makes sure that teams of maintenance staff crews inspect routes and act when appropriate. Crews monitor (and clear as needed) storm basins, water levels in the waterways, tree limbs, and other hazardous conditions.

In preparation for winter storms, DOT cleaned all city storm inlets and prior to Thanksgiving completed a second cleaning of sanitary sewer mains and laterals and storm drain inlets in and around the downtown area. DOT continues to inspect and maintain all 30 store pump stations and placed portable pumps in Alviso and Charcot, which are areas prone to high levels of storm water flow. DOT staff also cleared all storm retention basins and drainage channels in foothills.

In addition, the Office of Emergency Management (OEM) has participated in briefings with the NWS, Santa Clara County, and Valley Water. Staff have awareness of where to locate gage information for action as needed.

ALVISO PREPAREDNESS

The Alviso Storm Pump Station project was completed in September 2019. This project includes the installation of four pumps with total capacity of 110 cubic feet per second and more than 1,000 feet of force main along Catherine Street to discharge stormwater into the Guadalupe River. Staff expects that the new pump station, in conjunction with the existing 30 cubic feet per second Gold Street Pump Station, will help alleviate the impact to the community of Alviso from a 100-year flood event. This year, DOT staff will continue to place portable pumps in the area as an added precaution and that practice will be evaluated both during and at the completion of the storm season.

ANDERSON RESERVOIR UPDATE

Valley Water Anderson Dam Seismic Retrofit Project is currently in the design phase, and construction is scheduled to begin in fall 2022 with an anticipated completion in 2027. The total project cost, including planning, design, environmental studies and permitting, and construction is estimated at \$550 million. The Project includes replacement of the existing spillway, installation of a temporary diversion system, removal and reconstruction of the dam embankment, and installation of outlet piping. Completion of the Project will improve the dam's reliability and safety, and return the reservoir to its original storage capacity. With the outlet piping improvements, Valley Water will have the ability to rapidly release water in advance of storms to preserve water storage capacity in the reservoir.

Valley Water staff will brief City staff on the construction staging and anticipated stream by-pass operations in December 2019.

RECENT WEATHER

Over the last two weeks, the Bay Area experienced two Atmospheric Rivers (AR). Historically referred to as a "Pineapple Express", ARs are a funnel of intense rain that comes from the tropical area of Hawaii directed at the west coast. In the case of the last two ARs the storms had direct impact on the Bay Area. These intense rains are frequently accompanied with high winds causing local area power outages.

Currently local reservoirs and water ways have the capacity to receive the rainfall. Viewing the SCVWD gages <http://alert.valleywater.org/datawise/index.php>, the waterways are low. As of Monday, December 2, 2019.

- Guadalupe River, downstream toward Alviso, at Montague Expressway currently at 11.4 feet. Joint Emergency Action Plan Monitoring Response initiates at 20 feet. Actual flooding is 30 feet.

December 9, 2019

Subject: Winter 2020 Readiness

Page 4

- Coyote Creek at Mabury, downstream at city yards, currently at 0.20 feet. Joint Emergency Action Plan Monitoring Response initiates at 17 feet. Actual flooding at 22 feet.
- Reservoir levels were at the following capacity levels:
 - Anderson Reservoir at 29.8% capacity.
 - Lexington Reservoir at 51.5% capacity.
 - Guadalupe Reservoir at 11.2% capacity.

CONTINUED ACTIONS

The Joint Emergency Action Plan between the City of San José and the Valley Water remains at a Preparedness Stage. When storms initiate, both OEM and Valley Water monitor gages, and when the threat of heavy rains increase the threat, OEM will organize routine conference calls with the Valley Water as needed. In addition, the following actions will occur:

- Continue to respond per prepared City plans.
- Continue communications between departments and with Valley Water.
- Activate the Public Works and/or DOT Department Operations Center as needed.
- Notify executive management as gages and actions require activation of the Monitoring Stage in the JEAP.
- Notify elected officials as conditions progress.



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For questions, please contact Raymond Riordan, Director of the City Manager's Office of Emergency Management, at (408) 794-7050.

