

Rainfall & Flood Event Report

March 12 – 13, 2020

prepared by

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On March 12, 2020 low pressure off of southern California moved onshore and the low's center traveled in an easterly direction staying south of Clark County, Nevada. This was one of many such storms to impact southern Nevada in March; however, this one drew much more precipitable water into the region resulting in significant runoff throughout the Las Vegas Valley. First responders performed multiple swift water rescues throughout the event. Unfortunately, local media reported two homeless people missing, and the Clark County coroner's office reported two victims had drowned.

The National Weather Service (NWS) forecast for the week beginning on Monday, March 9, 2020 was for a very active period with possible flooding concerns for Wednesday, March 11, 2020. Rainfall totals ending on Wednesday at 5:00pm were in the range of 0.20 inches in the eastern Las Vegas Valley to 0.80 inches in the western valley. Already saturated ground at this point likely contributed to rapid runoff that occurred the following evening.

Daily briefings by NWS kept first responders informed of each event. A Flash Flood Watch for southern Clark County and the Lake Mead National Recreation Area was issued on March 11th and went into effect on March 12th at 11:00am. The Flash Flood Watch coverage area was expanded to include all of Clark County beginning at 5:00pm. NWS also highlighted the possibility that 1-2 inches of rainfall would occur in the Flash Flood Watch area.

Counterclockwise flow around the approaching low transported strong storms into southern Nevada. A Flash Flood Advisory was issued by NWS at 8:44pm for central Clark County, including the Las Vegas Valley. District personnel began e-mail & telephone notifications at this time. Another Flash Flood Advisory for central and northern Clark County would be issued on the morning of March 13, 2020.

Table 1. Maximum Depth and associated Storage Volumes

<u>Facility Name</u>	<u>Max Depth</u>	<u>Volume</u>
Upper Flamingo DB	7.7 feet	262 acre-feet
Tropicana DB North Bay	25.0 feet	103 acre-feet
Tropicana DB South Bay	5.0 feet	19 acre-feet
Tropicana North Branch DB	3.0 feet	6 acre-feet
Carey / Lake Mead DB	9.3 feet	41 acre-feet
Lower Blue Diamond DB	4.8 feet	24 acre-feet
Oakey DB	6.3 feet	9 acre-feet
Rainbow Curve DB	6.0 feet	7 acre-feet

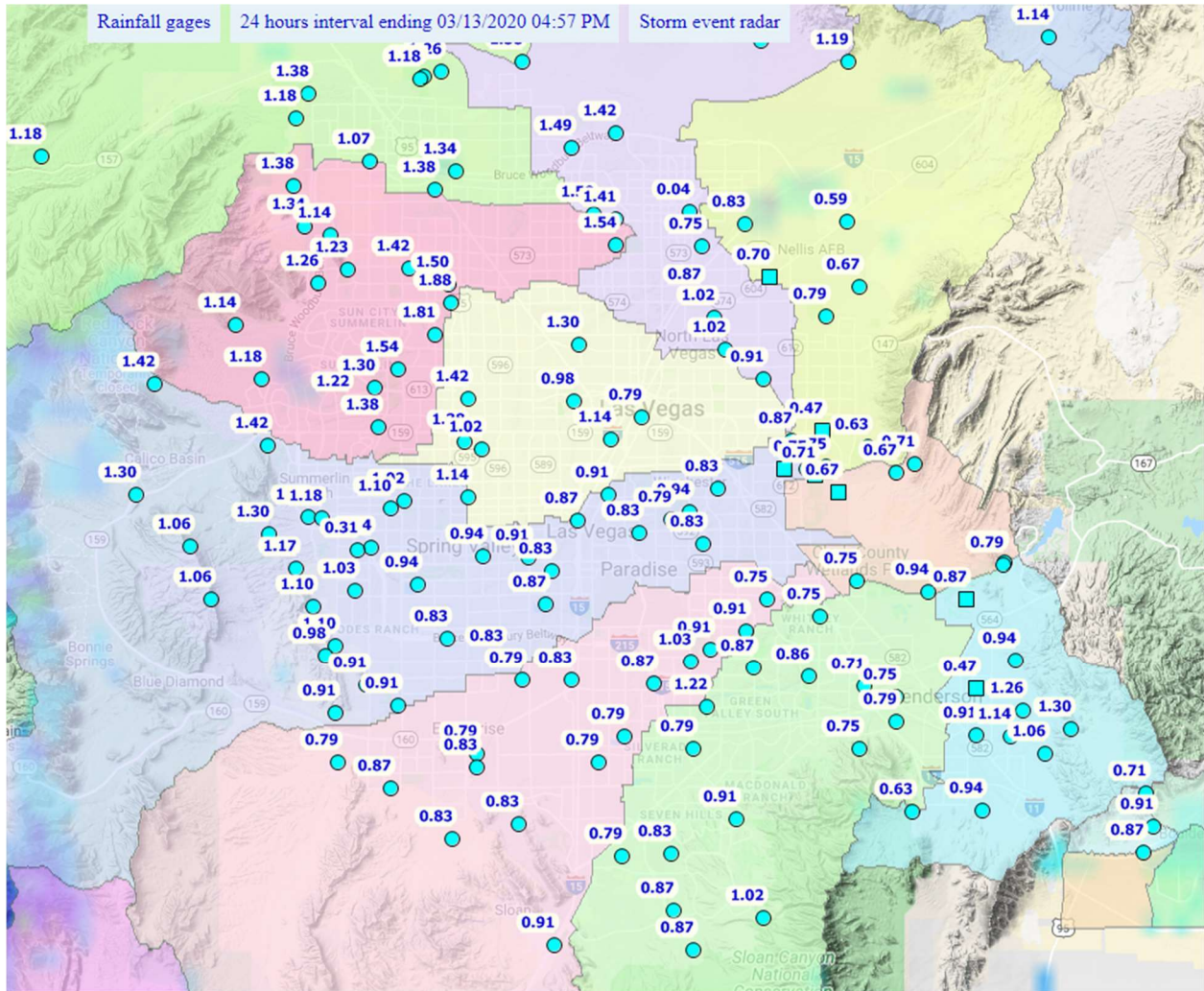


Figure 1 - 24 Hour Rainfall in the Las Vegas Valley

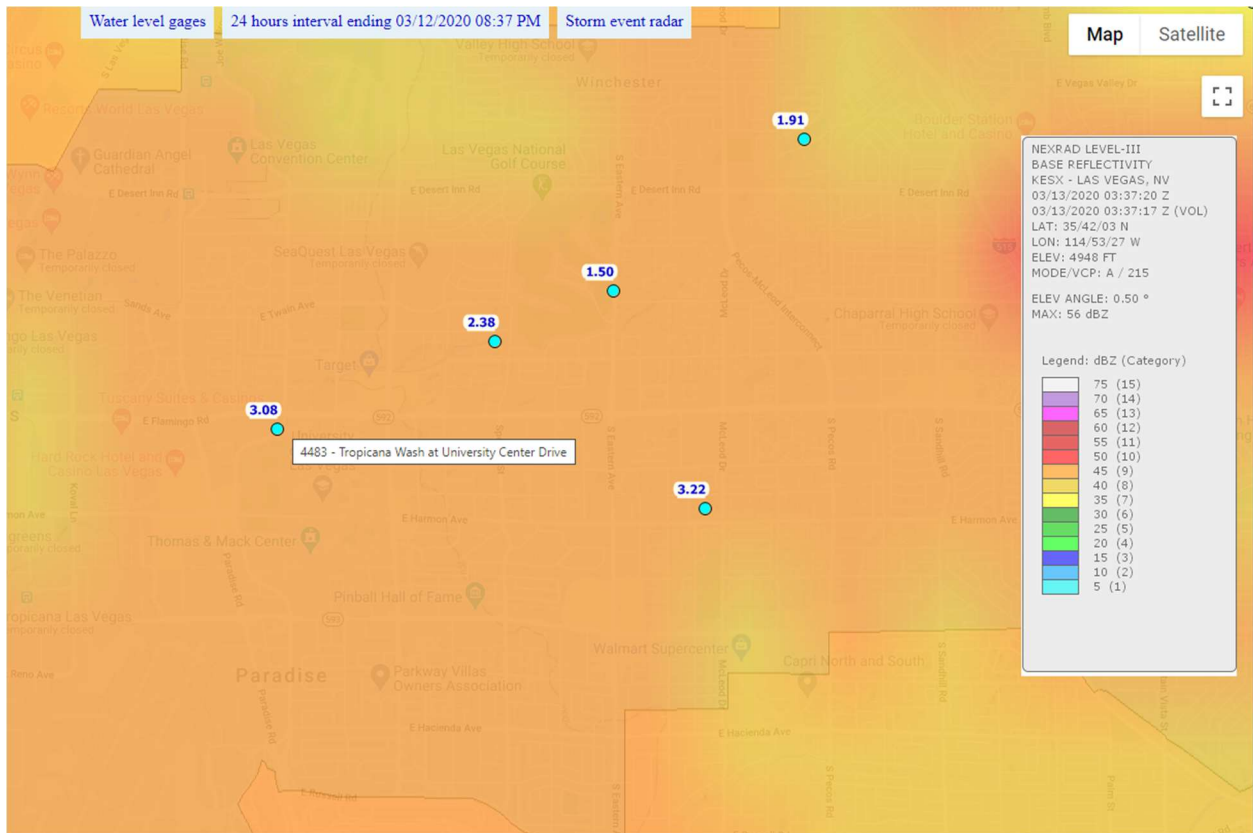


Figure 2 - Peak runoff at station 4483 of 1140 cubic feet per second. Moderate precipitation still occurring.

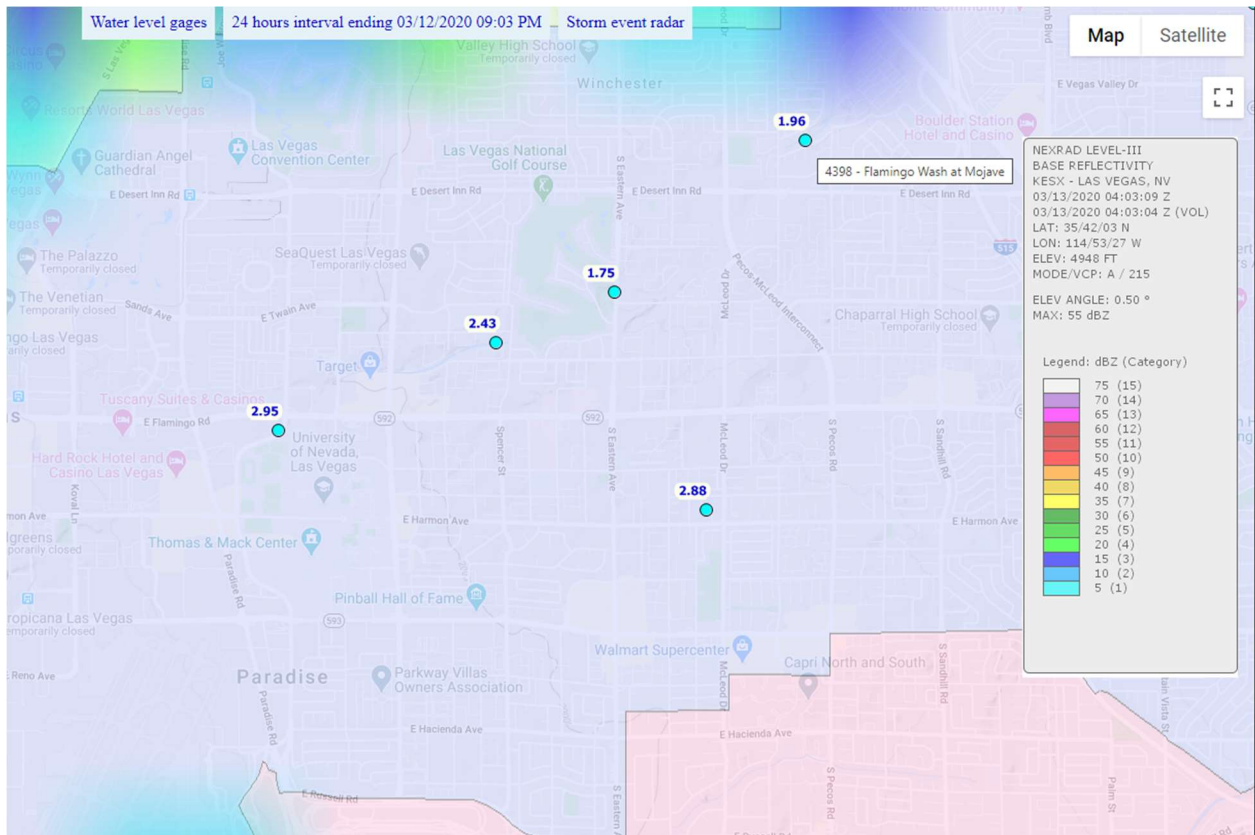


Figure 3 - Peak runoff now downstream. 1820 cubic feet per second at station 4398. Precipitation moving northwestward.

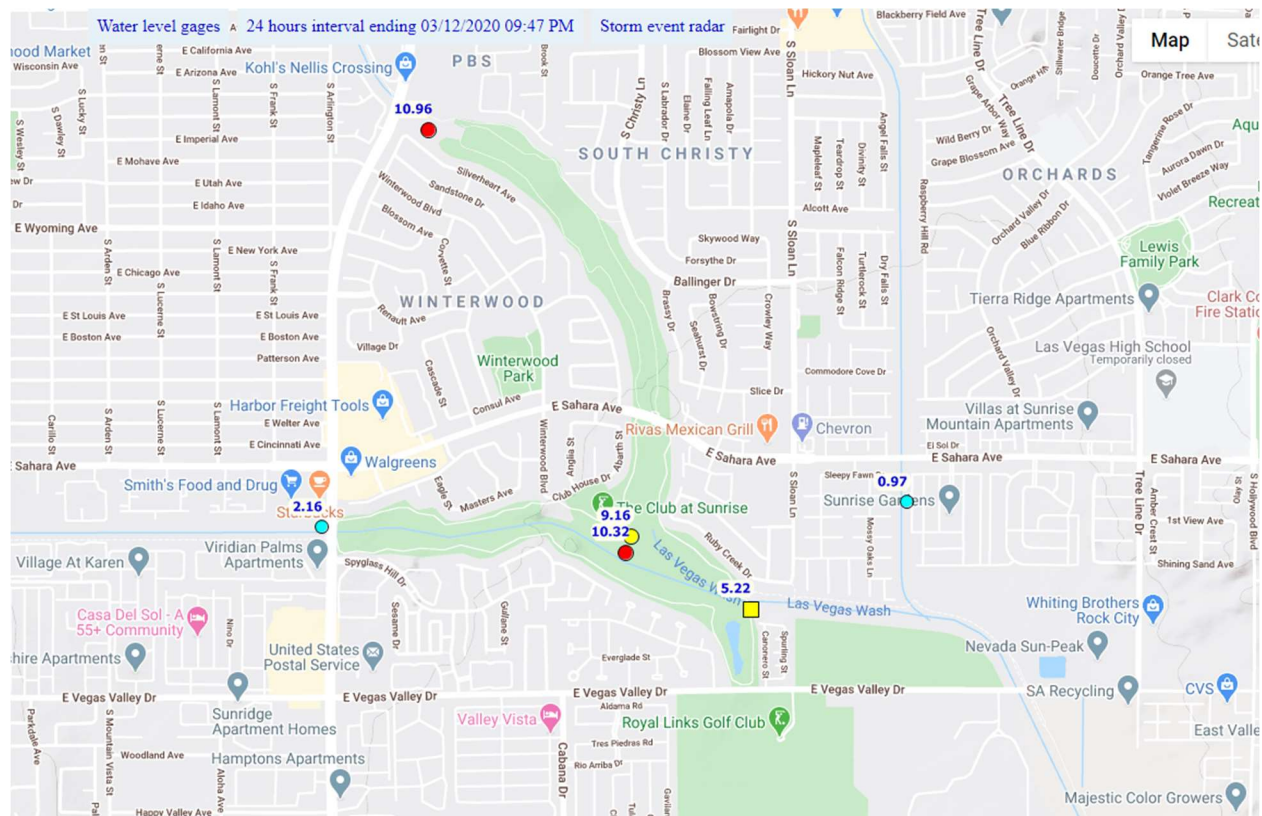


Figure 4 - Peak flows at the Flamingo Wash and Las Vegas Wash Confluence.

Table 2. Maximum Depth and Associated Discharge of Concrete Lined Channels

<u>Facility Name</u>	<u>Max Depth</u>	<u>Discharge</u>
Las Vegas Wash at Nellis Blvd.	10.96 feet	7,310 cfs*
Flamingo Wash at Nellis Blvd. (USGS)	2.16 feet	1,130 cfs*
Las Vegas Wash at The Club at Sunrise (USGS)	5.22 feet	11,260 cfs*

*cfs = cubic feet per second