

## 2017 Wet Season Rainfall Analysis

October 1, 2016-April 30, 2017

### **Executive Summary**

As highlighted by numerous recent news reports, water year 2017 has brought on high rainfall volumes in cities across the Pacific Northwest.<sup>1,2</sup> Data from rain gauges at various sites throughout the City of Bellevue indicate that the local 2017 wet season followed this trend, characterized by particularly high rainfall volumes relative to historical averages.

Climate change is expected to increase both the frequency and intensity of rainfall events throughout the region.<sup>3</sup> By comparing local rainfall volumes to historical averages, the City of Bellevue can monitor patterns and detect changes as they emerge.

### **Background**

In the Pacific Northwest, the wet season is considered to be the period from October 1 of any given year through April 30 of the following year, during which the majority of rainfall typically occurs.

The period of record, during which rainfall data has been collected at rain gauges throughout the City of Bellevue, spans 1981 to present.

### **2017 Wet Season and Historical Comparison**

- The total 2017 wet season rainfall volume was 47.26 inches. The average wet season rainfall (October 1-April 30) for the period of record is 28.80 inches. 2017 has seen over 65% more rainfall than the average wet season.
- Rainfall totals for the months of October 2016 and February 2017 were the highest on record.
  - October 2016: 11.21 inches measured over a record-high span of 27 rain days that month. The average October rainfall for the period of record is 3.47 inches.
  - February 2017: 9.50 inches measured over a span of 22 rain days that month. The average February rainfall for the period of record is 3.27 inches.

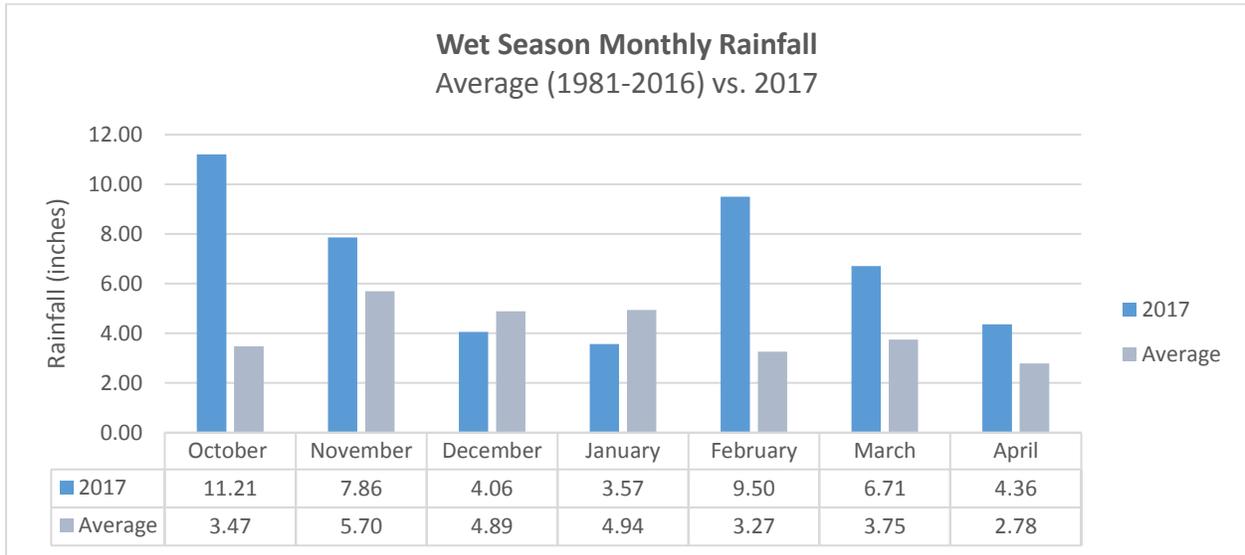
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<sup>1</sup> <http://www.seattletimes.com/seattle-news/weather/seattle-just-broke-a-122-year-old-record-for-rain-because-of-course-it-did/>

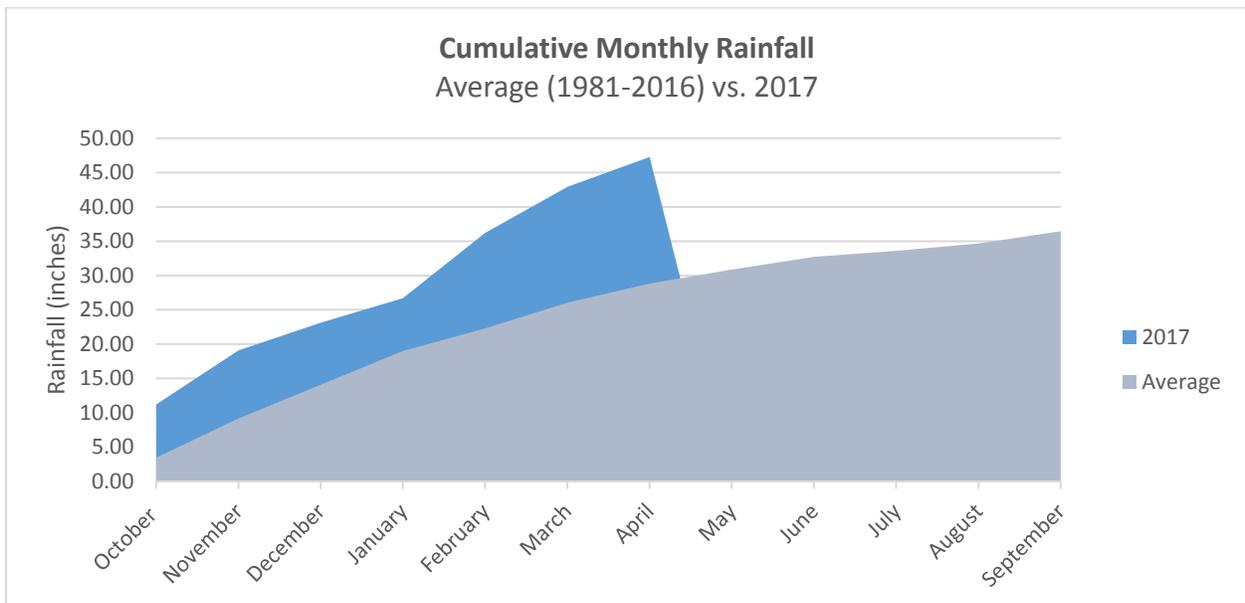
<sup>2</sup> <http://cliffmass.blogspot.com/2017/04/darth-vapor-strikes-again-and-again.html>

<sup>3</sup> <https://www.fws.gov/pacific/Climatechange/changepnw.html>

This chart shows the average monthly rainfall totals for the period of record wet season (grey) as compared to the monthly rainfall totals for the 2017 wet season (blue).<sup>4</sup>



This chart shows the average cumulative rainfall totals by month for the period of record (grey) as compared to the cumulative rainfall by month for the 2017 water year to date (blue).<sup>5</sup>



<sup>4</sup> Rainfall totals refer to the City of Bellevue BSC gauge near I-405 & SR-520 interchange.

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