2020-2021 Wet Season Rainfall Summary for Hawai‘i

Summary of October 2020 through April 2021 wet season

- Started the wet season with severe or extreme drought in portions of every county in the state.
- Wet season started with a strengthening La Niña.
- Wet season forecast called for above average rainfall, especially along the east-facing slopes of the state. There was the potential for lower than average rainfall in the leeward areas of Maui and the Big Island, which was consistent with tendencies expected in a moderate to strong La Niña.
- Wet season produced above average rainfall at many locations, especially in Kaua‘i County and on O‘ahu.
  - February and March rainfall provided the most drought relief.
- Leeward Kohala on the Big Island had below average wet season rainfall.
  - Drought already returned to the South Kohala District by the end of April.
- Moderate drought (D1 category on U.S. Drought Monitor) returned to leeward Maui County in early May after a dry April.

Wet season statistics

- Overall: 8th wettest in the last 30 years (average rankings from 8 sites)
- Kaua‘i
  - Most rain totals greater than 120% of average.
  - Mount Wai‘ale‘ale: Highest wet season total in 30 years (312.13 inches, 138% of average).
  - Līhu‘e Airport: 30.48 inches, 9th wettest Oct – Apr in the last 30 years.
- O‘ahu
  - Most O‘ahu totals 80 to 120% of average.
  - Honolulu Airport: 13.09 inches, ranked 11th wettest.
- Maui County
  - Maui County totals mostly 70 to 110% of average.
  - Kahului Airport: 15.35 inches, 7th wettest wet season.
- Big Island
  - North and South Kohala Districts mostly 30 to 70% of average.
  - Rest of Big Island mostly greater than 100% of average.
  - Hilo Airport: 101.73 inches, 7th wettest wet season.
2020-2021 Wet Season Rainfall Summary for Hawai‘i - cont’d

Dry season (May through September 2021) outlook

- La Niña has transitioned to ENSO-neutral.
- ENSO-neutral expected to persist through summer 2021.
- La Niña may return in fall 2021, but the forecast uncertainty is high this far in advance.
  - It is not uncommon to have two La Niñas in a row.
- NOAA Climate Prediction Center’s forecast probabilities and climate model consensus favor below normal precipitation through the dry season.
- Existing areas of drought in Maui County and the Big Island expected to worsen and expand.
  - Extreme drought (D3 category) possible again by the end of September.
- New areas of drought expected to develop in the leeward areas of O‘ahu and Kaua‘i County by mid-summer.
  - Severe drought (D2 category) in leeward areas possible by the end of September, mainly affecting the agriculture sector.
- Some windward areas could see moderate to severe drought (D1 to D2 category).
  - For windward areas, summer drought often involves a normal number of days with rainfall, but a lower than normal amount of rain per day.
  - Supply systems dependent on surface water and rain catchment will be most vulnerable.

On the Web:
Wet Season Maps
Kaua‘i: https://www.weather.gov/images/hfo/hydrosum/kauai_2021_hooilo.gif
Moloka‘i/Lāna‘i: https://www.weather.gov/images/hfo/hydrosum/molan_2021_hooilo.gif
Big Island: https://www.weather.gov/images/hfo/hydrosum/bigis_2021_hooilo.gif
State percent of average: https://www.weather.gov/images/hfo/hydrosum/Hooilo21HIPctAvg.jpg

NOAA National Weather Service Honolulu HI: https://www.weather.gov/hfo/
NOAA Climate Prediction Center: https://www.cpc.ncep.noaa.gov/
U.S. Drought Monitor: https://droughtmonitor.unl.edu/