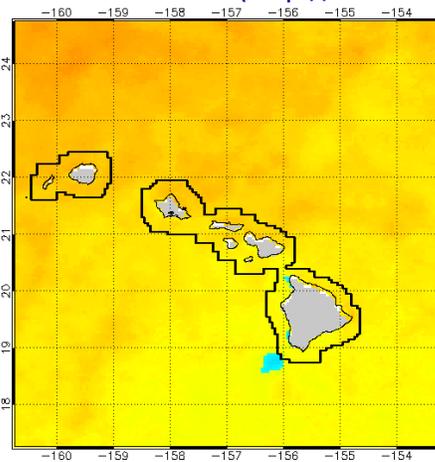


UPDATE: CORAL BLEACHING

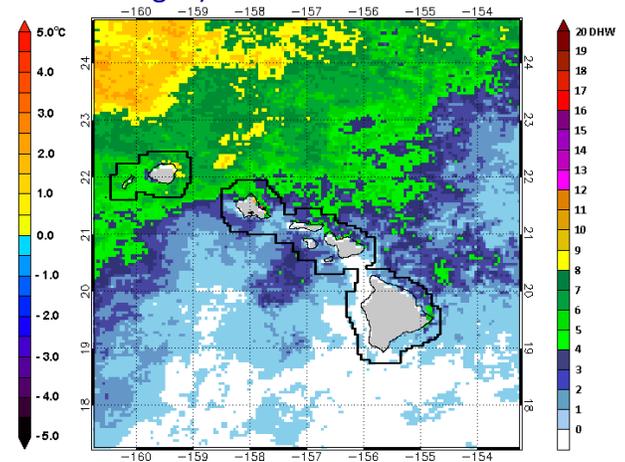
10/23/2014

NOAA CORAL REEF WATCH DATA (<http://coralreefwatch.noaa.gov>)

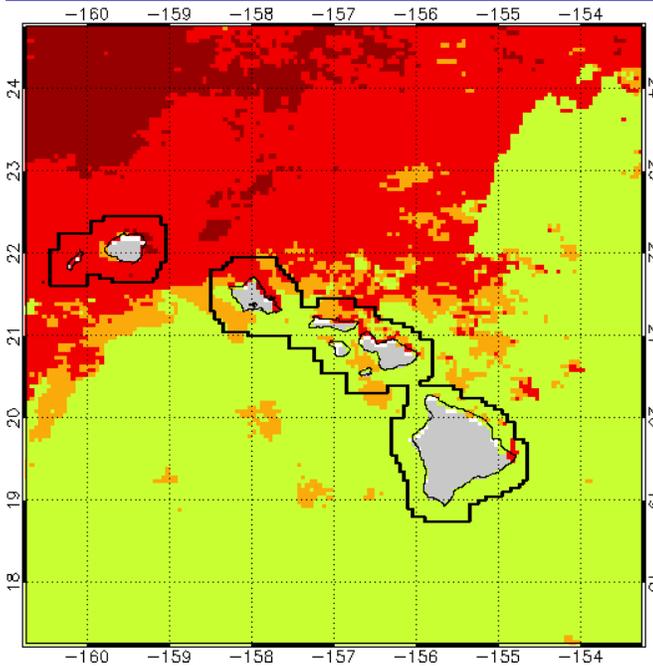
The NOAA Coral Reef Watch Sea Surface Temperature (SST) Anomaly map (top left) shows the difference between today's temperature and the long-term average. The Degree Heating Week map (top right) shows accumulated thermal stress, which can lead to coral bleaching. Significant coral bleaching usually occurs when DHW values reach 4 °C-weeks. At 8 °C-weeks, widespread bleaching is likely and significant mortality can be expected.



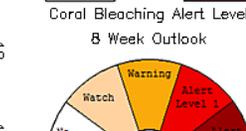
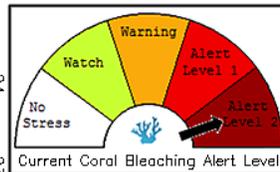
Sea Surface Temperature Anomaly—
10/18/2014



Degree Heating Week- 10/18/2014



Coral Bleaching Alert Area and Outlook—10/13/2014



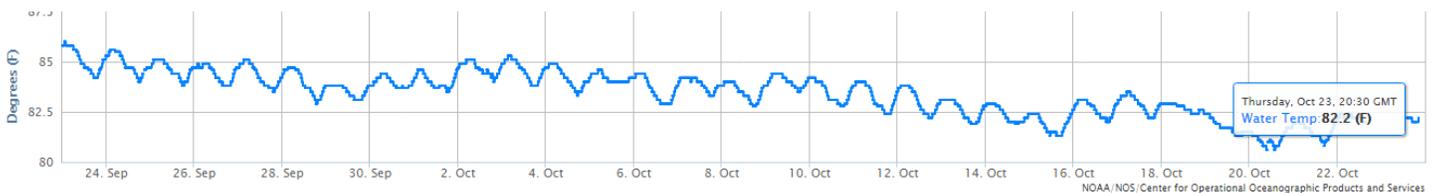
NOAA Potential Bleaching Intensity Levels

- No Stress No bleaching
- Bleaching Watch Possible bleaching
- Bleaching Warning Possible bleaching
- Alert Level 1 Bleaching Likely
- Alert Level 2 Coral Mortality Likely

This experimental map product provides a summary of current satellite data as well as forecasted conditions for coral bleaching. The bleaching alert gauges reflect the high alert category observed and forecasted. Currently, the highest coral bleaching category being observed is 'Alert Level 2' in specific areas. This bleaching alert level is projected to continue for the next 4 weeks. In 8 weeks, thermal stress is predicted to reduce to a 'no stress' level.

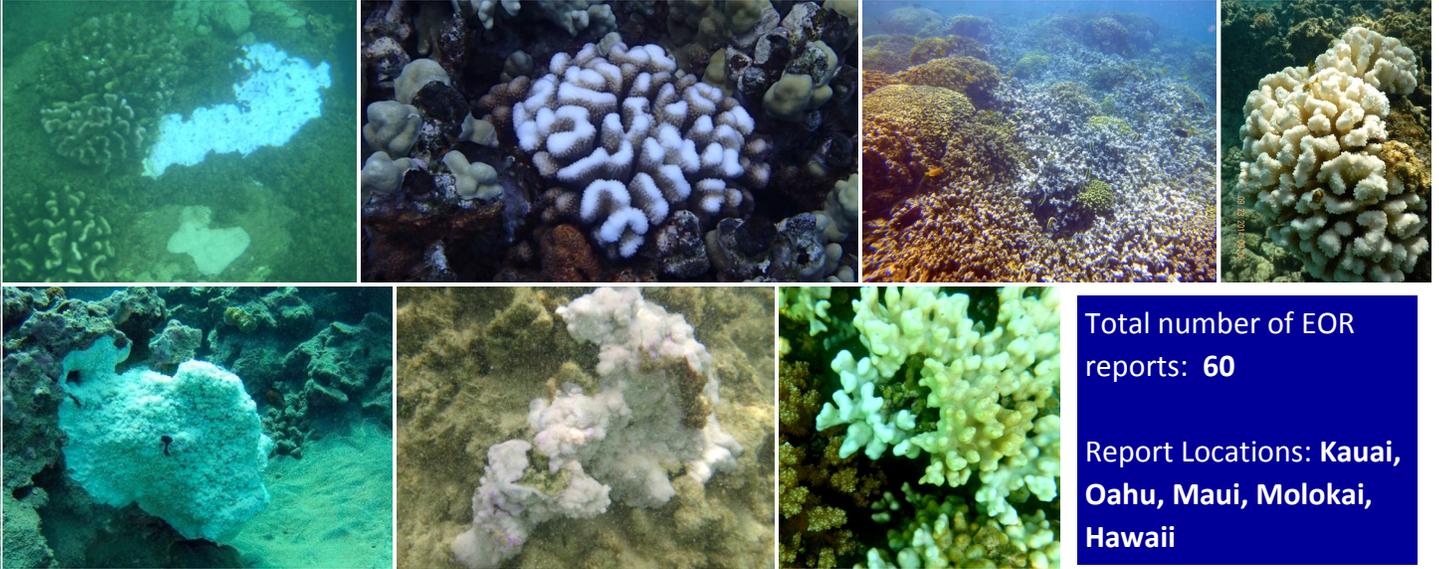
KANEOHE BAY WATER TEMPERATURE DATA

(<http://tidesandcurrents.noaa.gov/physocean.html?bdate=20140929&edate=20141013&units=standard&timezone=GMT&id=1612480&interval=6>)



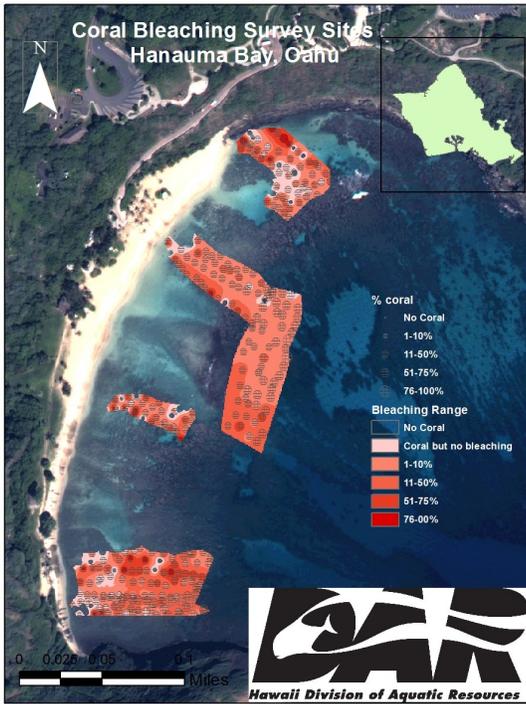
This graph displays water temperature information from the NOAA/NOS/CO-OPS station at Mokuole, HI, located in Kaneohe Bay at the Hawaii Institute of Marine Biology (HIMB). The highest recorded temperature during this time period was 85.3F. The latest temperature recorded was 82.2F.

EYES OF THE REEF CITIZEN REPORTS (9/21—10/23)



Total number of EOR reports: **60**
 Report Locations: **Kauai, Oahu, Maui, Molokai, Hawaii**

DAR RAPID ASSESSMENT DATA



Hanauma Bay Results:

Total number of reef areas surveyed: **4**

Severe bleaching was observed in less than 1% of the colonies surveyed

Pale bleaching was observed in approximately 20% of the coral colonies surveyed



Molokini Results:

Isolated bleaching observed

Coral disease also surveyed and documented

Will be surveying additional Maui locations in coming weeks

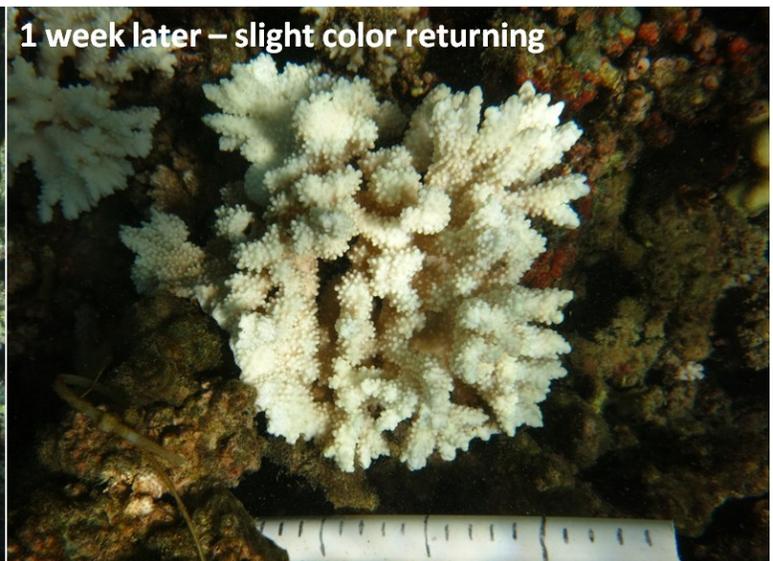
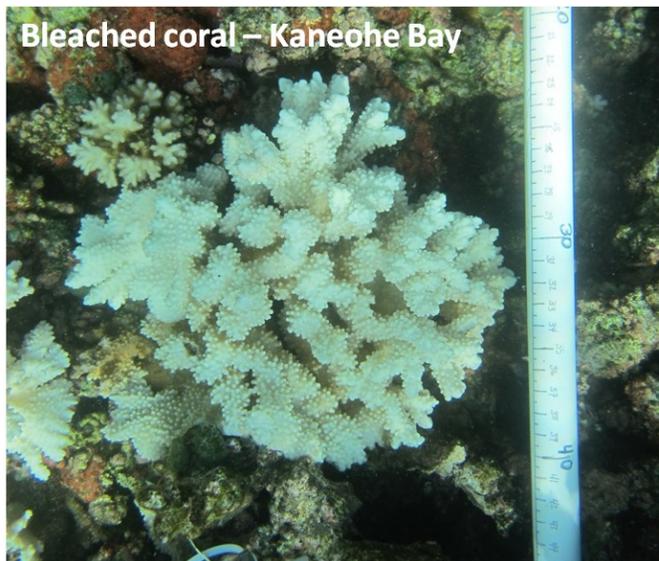
DAR RAPID ASSESSMENT

Kaneohe Bay Update:

Approximately 20 coral colonies were tagged to monitor signs of recovery throughout Kaneohe Bay.

A week into the monitoring project, most bleached colonies are still bleached, showing no change.

Some colonies showed signs of color returning



Kauai Results:

DAR partnered with staff from the Papahānaumokuākea Marine National Monument (PMNM) to survey 3 areas: Lepe`uli, Anahola Beach Park, and Anini.