



Sunset Cliffs
Natural Park
City of San Diego



What do our photos show?

Our photos show a tale of two forests, one inside a canyon and bordering on the cliffs that is green and lively. So much so, that it has attracted graffiti artists and the homeless.

The other forest is dry, sandy and barren, the brown landscape covered only by bushes and dried out grasses.

Our Hypothesis

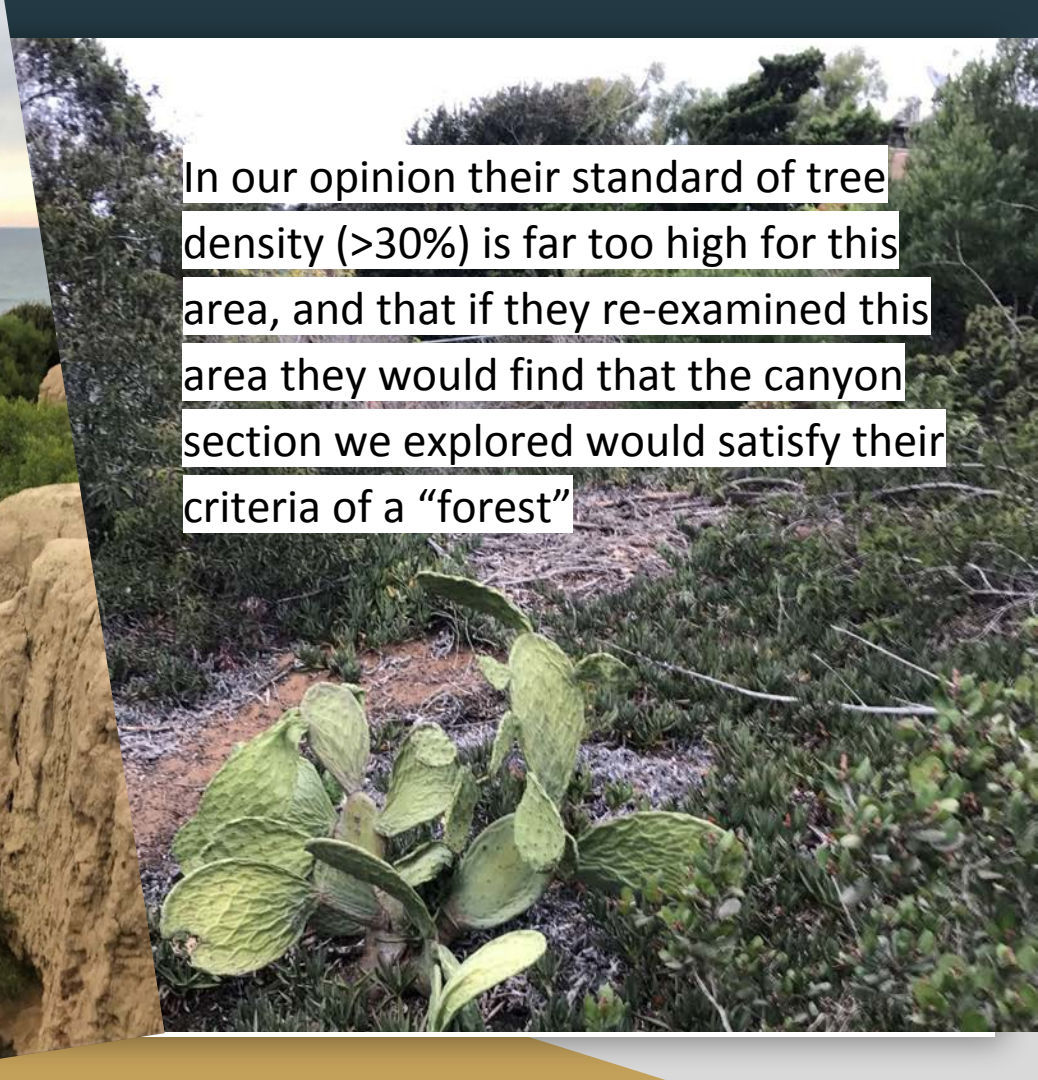
After a thorough examination of the forest, we believe that although conditions can be significantly improved, the foliage at Sunset Cliffs National Park is nonetheless in a fair state because the lively green area in the canyon balances the vast dry stretches outside of it.



What GFW Tells Us About The Forest

A photograph of a coastal cliff. At the top, a person is standing, looking out over the ocean. The cliff face is eroded and has some graffiti on it. The vegetation is sparse and dry.

Global Forest Watch tells us that the forest does not have a significant amount of trees to be evaluated.

A close-up photograph of a prickly pear cactus. The cactus is green and has several flat, paddle-shaped segments. It is surrounded by other coastal vegetation, including low-lying shrubs and trees in the background.

In our opinion their standard of tree density ($>30\%$) is far too high for this area, and that if they re-examined this area they would find that the canyon section we explored would satisfy their criteria of a “forest”

What do other sources tell you about the forest?

The problems plaguing the Park have been going on for well over a decade and include

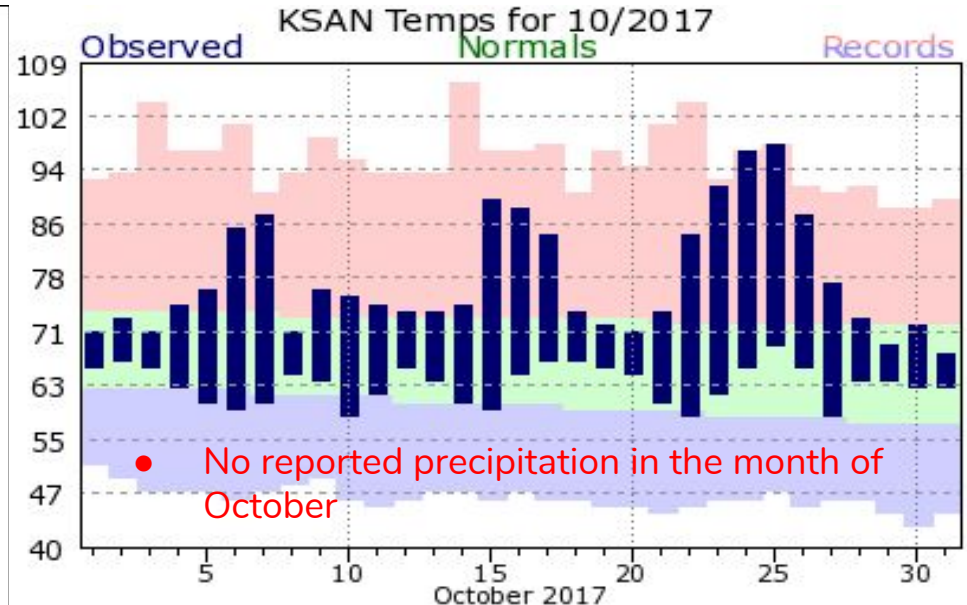
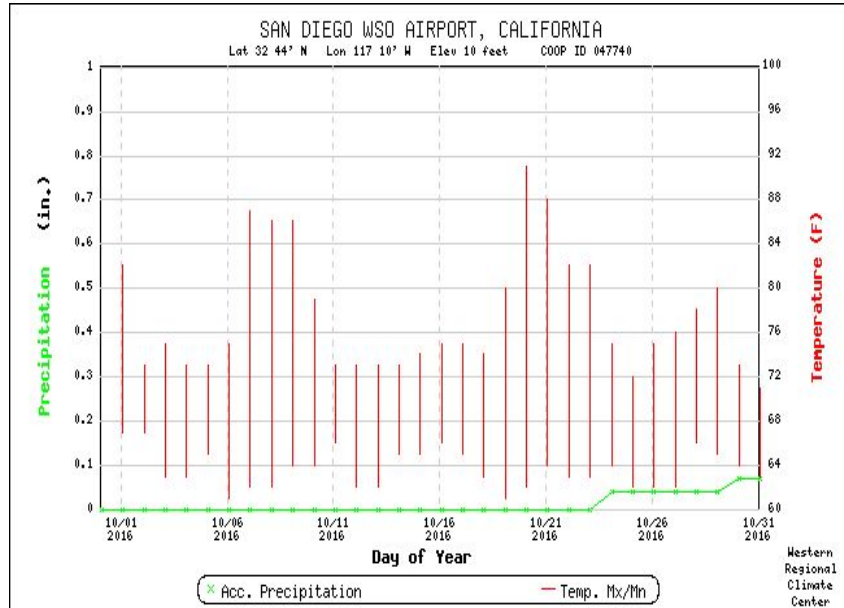
The erosion of 120,000 year old sandstone formations due to runoff water from Point Loma Nazarene University and the surrounding neighborhood flowing through the park and destabilizing the soil

This results in the loss of park land as the cliff formations fall into the ocean

Invasive species such as the crystalline iceplant and cheeseweed run rampant throughout the park

Temperature and Rainfall

- The data (as shown in the graphs below) reports no significant statistical difference in temperature between 2016 and 2017 but **it does show a major difference between the past two years and the thirty year average in both temperature and precipitation**
- Most Concerning Statistic: There was **no reported rainfall for the entire month of October** (more than a half inch below the average)



- Graphs from the National Weather Service Office at Lindbergh Field and temperatures at Sunset Cliffs would likely be slightly cooler due to its increased proximity to the ocean

Conclusion

Our hypothesis severely underestimates the structural issues of Sunset Cliffs Natural Park due to the possibility of vast sections of the park being lost to the ocean and what remains being mistreated by the citizens who fail to appreciate its natural beauty.



Bibliography

Canyoneers, The. "San Diego Reader." *Sinister Nonnatives at Sunset Cliffs Natural Park*, San Diego Reader, 5 Apr. 2017, www.sandiegoreader.com/news/2017/apr/05/roam-sunset-cliffs/. This article made us aware of the problem of invasive species at our forest, Sunset Cliffs National Park

Institute, World Resources. "Global Forest Watch." *Global Forest Watch Map*, Global Forest Watch, 3 Nov. 2017, www.globalforestwatch.org/map/3/15.00/27.00/ALL/grayscale/loss,forestgain?tab=analysis-tab&begin=2001-01-01&end=2017-01-01&threshold=30&dont_analyze=true. This source helped us realize exactly how barren the vast majority of the park is.

Lewis, Rob. "As Sunset Cliffs Shrinks, City Looks for Answers." *Voice of San Diego*, Voice of San Diego, 16 July 2007, www.voiceofsandiego.org/topics/news/as-sunset-cliffs-shrinks-city-looks-for-answers-3/. This source gave us useful and important information about the erosion at Sunset Cliffs and how it has accelerated in the last several decades.

Ruiz, Sebastian. "Cliff Erosion, Safety Take Center Stage." *Issuu*, The Peninsula Beacon, 21 Jan. 2009, issuu.com/sdcng/docs/bcn_01-22-09. This source showed how the path to improving safety and reducing erosion at the Park could easily fall into petty politics and never happen in a way that would actually solve anything.

US Department of Commerce, NOAA, National Weather Service. "National Weather Service." *Western Region Headquarters*, NOAA's National Weather Service, 1 Nov. 2017, www.wrh.noaa.gov/mesowest/timeseries.php?wfo=&sid=KSAN&num=48. This source gave us detailed data on temperature and rainfall in San Diego and allowed us to make conclusions about the weather.