

William Nguyen  
Draft Outline  
Targeted audience – 10-12<sup>th</sup> graders  
LS2.C: Ecosystem Dynamics, Functioning, and Resilience

**Title: “Formerly wet, currently dry California”**

**Personal Introduction (5 minutes)**

1. Academic background
  1. My passion for the environment

**Hydrological cycle (15 minutes)**

**1. What makes up the Hydrological cycle?**

1. Ocean (5 minutes)
  1. Condensation
  2. Precipitation
    1. Surface runoff
    2. Streamflow
2. Ice and Snow (5 minutes)
  1. Snowmelt Runoff
  2. Infiltration
    1. Groundwater flow (Seepage, Springs)
3. Evaporation (5 minutes)
  1. Evapotranspiration
  2. Plant uptake
  3. Dew

**California Drought (20 minutes)**

1. California’s water resources
  1. Ground water
  2. Snowcap
2. Eras of wet/dry periods
  1. Glaciation/Deglaciation
  2. Ice core records
3. Climate Change
  1. Human influence from CO2 emissions
  2. Decrease in snow pack
4. Societal impact of the drought
  1. Water availability
    1. Industrial and City usage
  2. Agricultural impact
    1. Provides %50 of fruits, nuts, and vegetables to the country
    2. 2013 Agricultural exports amounted to \$21.4 billion
  3. Ecosystem disturbance
    1. Wildlife and vegetation dependent on our same water resources
5. Closing statement
  1. Conserve water

Sources:

<http://water.usgs.gov/edu/watercycle.html>

[http://www.fs.fed.us/ecosystemservices/About\\_ES/index.shtml](http://www.fs.fed.us/ecosystemservices/About_ES/index.shtml)