

# Service-Learning Final Project: Flooding issues near me.

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GEOG F001

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# Learning Objectives

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- Understand the way Geographers can use maps to analyze flooding.
- Scientific method on mega storms that cause flooding.
- Learning the distribution of water in Northern California.



## FLOOD WARNING

Until 1:15 am Mon

Moderate to  
heavy rain

Local flooding

Impact: roads,  
low water crossings

[www.abc10.com/weather](http://www.abc10.com/weather)



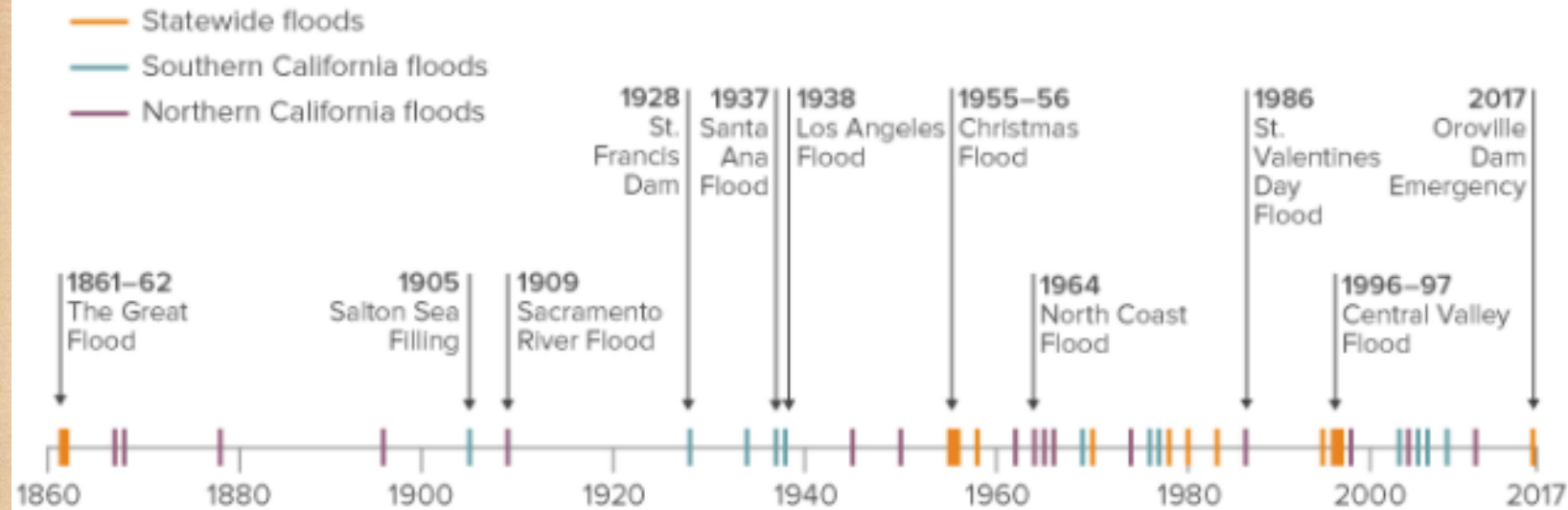
## How we can use Maps

- As depicted in this map it shows areas where flooding can happen.
- As seen in this map flooding is happening just east of Stockton and Modesto.

## Damaging Floods are Common in California

- Can see throughout the years statewide floods happen several times since 1861

### Damaging floods are common in California



SOURCE: Updated from California Department of Water Resources, *California's Flood Future, Attachment C* (2013).

NOTE: The figure includes floods that caused significant property damage and/or loss of life. The Oroville Dam emergency is included here because it highlights increasing risk from aging flood infrastructure and is likely to impact flood policy.



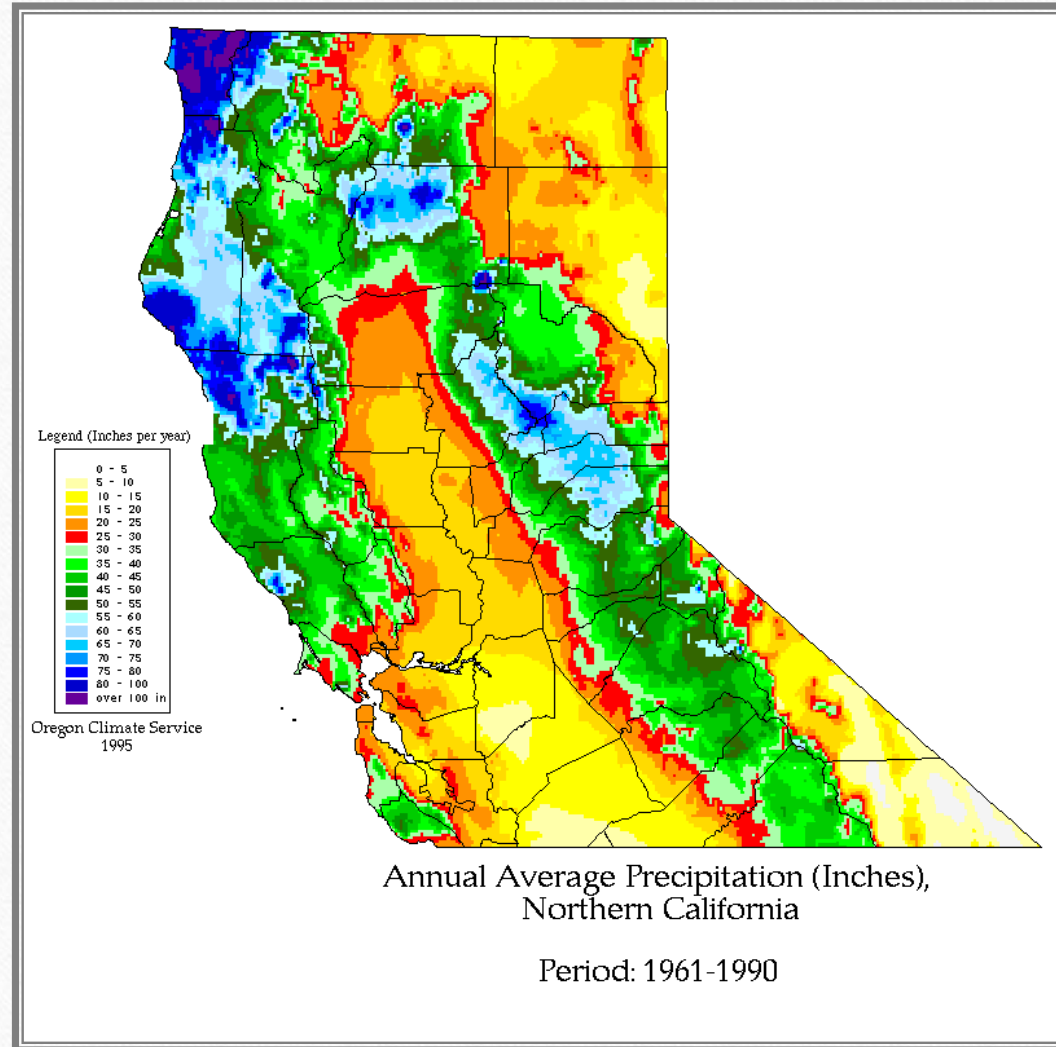
# Northern California Struggles with Extreme Flooding

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- **Mega Storms can cause flash floods along with server damage to the surrounding areas.**
- **The following link shows the damage that flooding can do to Northern California.**
  - <https://www.nbcnews.com/nightly-news/video/northern-california-struggles-with-extreme-flooding-after-week-of-rain-874778179975>

In this chart you can see the distribution of precipitation throughout California

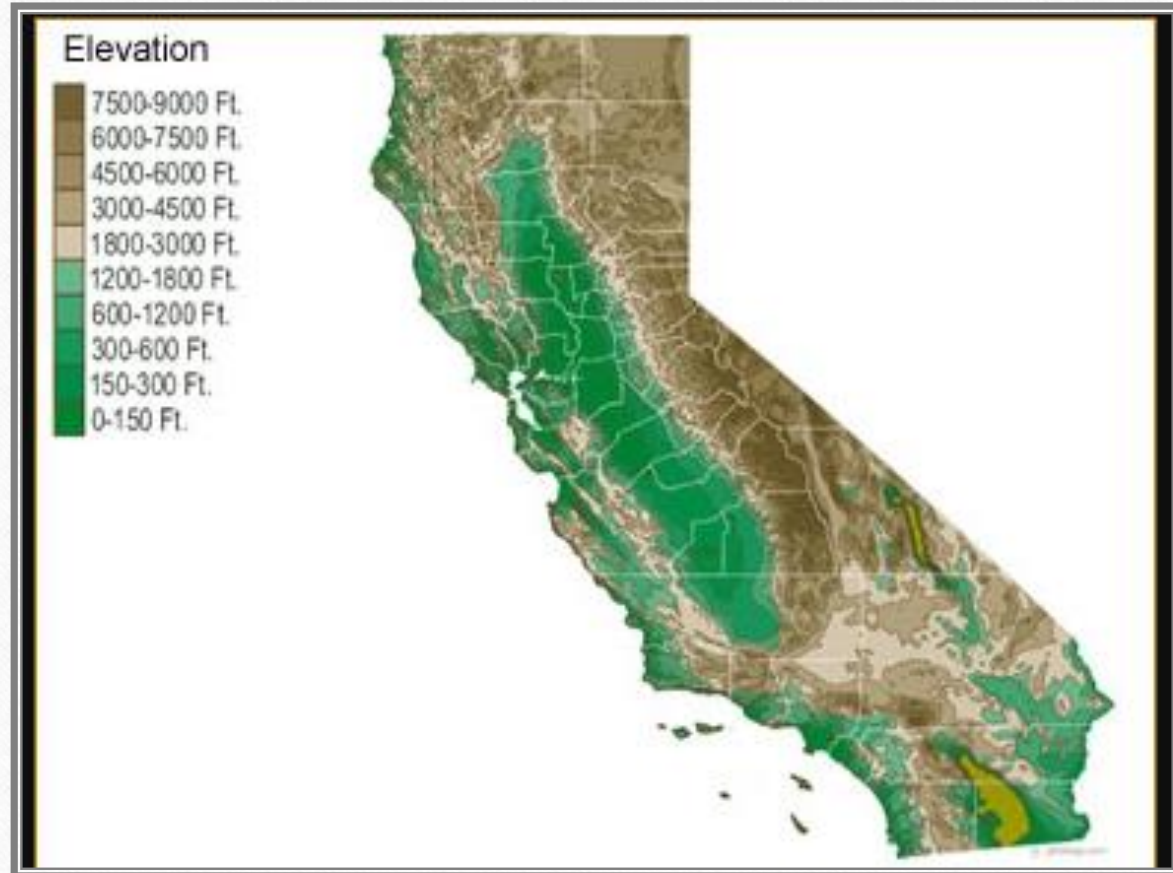
- This chart is an example of annual average precipitation between the time of 1961 through 1990.
- The yellow indicates next to no precipitation.
- However when a mega storm hits it will effect the yellow areas dramatically due to being at a lower altitude.





## Who is affected by flooding?

- In this chart you can see the elevation. Almost all of California farmland is in the lower elevation the flat lands “bottom of the bowl”. In case of a mega storm the entire economic farming community will suffer tremendous losses.
- Communities and individuals will feel a large-scale consequences. Lose of human life and local wildlife. Destruction of crops and livestock to also include the potential of server health conditions and waterborne diseases.



## The Great Flood of 1861/1862

- The first of a series of storms slammed into California on Dec. ( 1861) and continued through Jan 15, 1862.
- Most of the population was in the central valley region were underwater.
- The city of Sacramento was underwater.

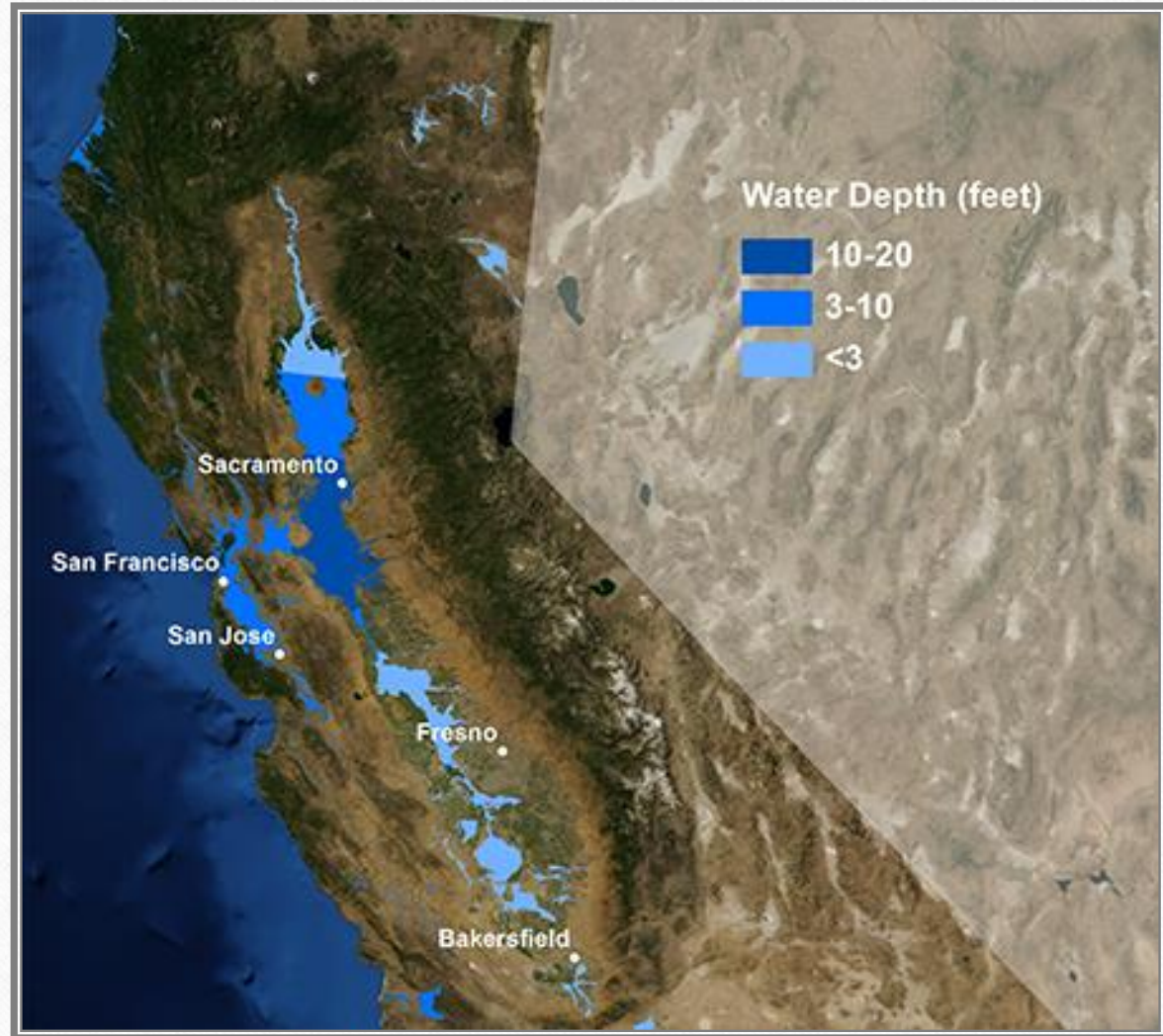




## Flood Area in California 1862

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- This is a diagram of the flood area in California between December 1861 through January 1862.
- The estimated cost of the damage was well over \$750 Billion which has been said to be more disastrous than the California's major earthquake.



# Conclusion

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- When looking at Northern California you need to take into consideration on where you chose to live. Though a huge mega storm has not hit Californian in a very long time, Scientist have speculated that we are due for massive storm soon.
- We need to make sure we take the proper precautions and be prepared for anything that might come about.



# References

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