

# Cornell Notes

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<b>Topic / Objective:</b>	<b>Name:</b>
The Fault Line and dams	<b>Class / Period:</b>
	<b>Date:</b>
<b>Essential Question:</b> How does The Fault Line threaten dams?	
<b>Questions:</b>	<b>Notes:</b>
Fremont, California	working class city next to San Francisco; 10 miles away from a reservoir next to an active earthquake fault— could cause a dam break flooding thousands of homes.
replacement dams	owners of Calaveras Reservoir were concerned so they built this— slow in building— very difficult to repair or replace old dams
2016 National Inventory of Dams	30% are rated as posing a high or significant hazard; 2170 are deficient and need of upgrading
Funding and inspection staffing	Inadequate; \$64 billion needed to upgrade dams; \$22 billion for those posing highest hazard
Evan Wong	seismologist from Walnut Creek, California— "huge problem— possible disaster"
<b>Summary:</b>	





Questions:	Notes:
Why is Calaveras Reservoir no more than 40% full?	California's Division of Safety of Dams ordered San Francisco Public Utilities to keep 31 billion-gallon capacity low
Dam fail-proof?	1200 foot wide base and spillway walls 4 feet thick needed; \$800 million project
Seismic threat	highest along West Coast including Washington and Oregon
California	3/4 of state's 1585 dams rated as having high or significant risk of failure
New Calaveras Dam	Constructed largely out of rock, dirt + other natural materials - zones of compacted material - thicker core of impermeable clay
Problems	dams were built decades ago when less was known about effect of earthquakes; didn't know loose rock + soil formerly used for the base could liquefy in a strong earthquake
Calaveras Dam	poses flooding threat because base was built on loose earth of previously failed dam; 300,000 people live below - could be disastrous if fails
<b>Summary:</b>	most of the dams along the West Coast are in need of repair using rock, dirt, and other natural materials including compacted material and impermeable clay. These repairs are needed to prevent disastrous flooding of adjacent communities. should the dams be damaged by earthquakes along the Fault Line

