



# STOP CLEARCUTTING CALIFORNIA

*SAVE OUR FORESTS, WATER AND CLIMATE*

## CLEARCUT FORESTS THREATEN OUR WATER



California's forested watersheds provide over 60% of our State's water supply. Forest clearcutting threatens water quality through contamination from sedimentation and herbicide application. Forest clearcutting increases winter run-off, leading to lower water availability in summer and contributing to drought.

### PRODUCES EROSION AND SEDIMENTATION OF STREAMS

When forests are clearcut, most other vegetation is also removed. With no root systems to stabilize the soil, slopes are vulnerable to erosion.

- During heavy rainfall events, the soil is easily washed away, leading to sedimentation downstream.
- Sediment transport in streams increases the siltation of our lakes and reservoirs reducing their water storage capacity.
- This sedimentation adds to the turbidity of our streams. A high level of turbidity in waterways degrades aquatic habitat by reducing the oxygen available for aquatic species and clogging spawning gravels.

### RAISES STREAM TEMPERATURES

Bare clearcut surfaces with less forest canopy make streams warmer and reduce the amount of oxygen in the water. Lower oxygen levels make aquatic ecosystems less hospitable. Warmer streams are a threat to protected species such as salmon and trout, which require cool temperatures for their development and survival. Also, higher temperatures make our streams susceptible to toxic algae growth.

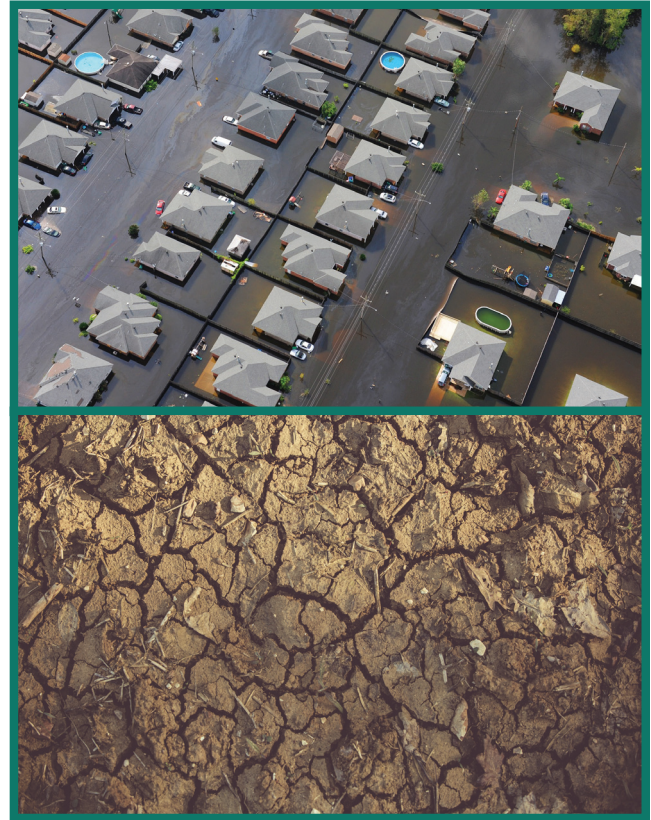


For more information, see [StopClearcuttingCA.org](http://StopClearcuttingCA.org), [Sierraclub.org/clearcutting](http://Sierraclub.org/clearcutting), [Facebook.com/StopClearcuttingCA](https://Facebook.com/StopClearcuttingCA) or contact [forests@lomaprieta.sierraclub.org](mailto:forests@lomaprieta.sierraclub.org).

WATER

# INCREASES FLOODING AND REDUCES WATER AVAILABILITY

- Unshaded clearcut land can be 10 to 15 degrees hotter than forested land.
- In clearcut areas, the lack of tree cover will cause the snow to melt faster and earlier. The ground warms earlier, further accelerating early snowmelt.
- Clearcut watersheds have higher runoff rates during times of “peak flow” in streams, increasing the chance of flooding.
- Conversely, due to water running off rather than being absorbed by the land, there is less water retained in the surface and subsurface of the soil in the summer months when the moisture is most needed to reduce fire risks and avoid droughts.



## OUR LIVES DEPEND ON US PROTECTING OUR WATER

### THREATENS WATERSHEDS WITH CHEMICAL HERBICIDES



Forest water quality is threatened due to the large quantities of herbicides applied to clearcut industrial tree farm lands. These herbicides are used to reduce competition from native plants, allowing industrial tree farm seedlings to grow quickly. These chemicals can end up in the waterways due to binding to soil particles and being carried by water runoff. Many of the chemicals used are potential carcinogenic and endocrine disruptors known to adversely impact human and wildlife health.