

TALKING POINTS THAT YOU COULD USE FOR WRITING LETTERS TO THE EDITOR

What is Clearcutting? Clearcutting is one method of logging to cut forests for lumber and paper products, as well as bio-energy. Loggers first remove all the profitable saw log-sized trees on a logging site. Following that, most clearcut sites are bulldozed to strip away young, smaller trees, shrubs, and other plants that industrial timber companies say compete with conifer seedlings, but are food sources for many kinds of wildlife. This “debris” is usually piled and sometimes burned. What remains is a moonscape that disrupts the natural forest ecosystem. Herbicides are almost always used to kill the grasses and groundcovers and any remaining native plants that may survive the bulldozing. Herbicides are also routinely sprayed pre-cutting. Conifer seedlings (mostly ponderosa pine) are planted, and they grow into an even-aged plantation of trees that are all the same age and size, instead of a biodiverse forest. (Adapted from California Sierra Environmental Resource Center). Clearcutting is widespread across the Sierra Nevada, the Cascades and the Trinity mountains and coastal Redwoods.

What is Wrong With Clearcutting?

Clearcutting denudes mountains slopes, leaving bare soil that can erode during heavy winter rains. Open areas increase soil temperature and force snowmelt earlier in the year. Erosion often causes topsoil to be washed off the clearcuts and the massive road networks into downslope streams and rivers, affecting water quality and habitat for salmon and other wildlife.

Critical habitat values such as large trees, snags, and down logs are usually removed. An undisturbed forest is converted into a nearly sterile tree plantation- an uninhabitable environment for many of the diverse native plant and animal species that are part of a functioning forest community. Clearcutting also reduces and fragments habitat. Reduction of canopy cover makes areas hotter and drier, potentially leading to more fires and higher fire intensity. (Adapted from California Sierra Environmental Resource Center).

Clearcutting cuts down most of the big trees, which are even more valuable than we already knew. A new study published in Nature finds that big trees continue to grow faster- and take more carbon out of the atmosphere- as they get older and bigger. This contradicts the previously held assumption that younger trees grow faster, often cited by the timber industry to justify cutting down older forests and replacing them with tree plantation.

Clearcutting is allowed in 20-30 acres plots in California, but there is no limit on the number of plots permitted in a given watershed. The cumulative effect of not limiting the extent of clearcutting is that there have been over a million acres approved for this sort of harvest since 1990. Clearcutting sites are usually replanted with up to 300 seedlings per

acre, but for many years the small seedlings do not provide the resource, habitat, and carbon sequestration benefits of the mature trees that have been removed.

SPI- Sierra Pacific Industries (SPI), the largest timber company in California, is a private company owned by Archie “Red” Emmerson, who has a net worth of 3.3 billion dollars. SPI is the single largest private landowner in California and the third largest in the U.S. SPI owns 1.7 million acres largely in the Sierra Nevada but also in coastal redwood forests. SPI is well on its way to clear-cut close to 1.2 million acres converting grown, diverse forests to industrial tree plantations. SPI claims that it practices sustainable forestry, but clearcutting is anything but sustainable. Clearcutting causes extreme damage to our environment. SPI has clearcut more than 350,00 acres of California forests since 1999 and has plans to clearcut a million acres. Large timber companies like SPI spend tens of thousands of dollars a year lobbying state officials and contributing to political campaigns so they can continue this destructive practice.

Herbicides- Before and after cutting all the trees in a designated area, the land is sprayed heavily with herbicides, pesticides, and rodenticides such as strychnine (used to kill rodents). This practice kills native shrubs and plant needed for wildlife habitat, and can be disastrous for amphibians, and poses a risk to stream and other water sources. SPI currently uses glyphosate/Round-Up. Many recent studies have linked Round-Up to many diseases. These practices can pollute our watersheds; more than 80% of California’s urban water sources originate in forested watersheds. Herbicides also eliminate most of the vegetation, and damage fish and wildlife habitat.

Sierra Pacific Industries maintains that they conduct extensive water monitoring and that it NEVER shows any herbicide detection of concern. But they refuse to release the results of monitoring to the public or even to CAL FIRE, the main regulatory body for timber harvesting. Local water agencies in the Sierra Nevada, the source of most of our water, lack the funding to do any adequate stream monitoring for herbicides down stream of the clearcutting herbicide applications.

SPI’s logging plans document that they may apply herbicides by aerial applications (helicopter, etc.) or by other methods (back pack sprayers, etc.) on the ground. In Oregon residents near forest herbicide spraying all tested positive for herbicides used in the clearcutting. The reasons for their contamination continue to be investigated.
<http://www.earthfix.info/communities/article/6-things-you-should-know-about-the-triangle-lake-p>

Wildlife- Clearcutting destroys wildlife habitat, since so few sources of food or shelter are left after clearcutting. Wildlife either dies or has to migrate to new areas, but as more and more of our forests are clearcut, there are fewer and fewer places for them to go. Clear-cutting also impacts critical wildlife corridors that are necessary for safe passage for animals from predators. Tree plantations lack snags and other sources of homes for

wildlife. The process of using heavy machinery and herbicides to prepare for planting causes damage to streams and habitat for salmon and aquatic species.

Plantation Forests- Timber companies claim that by replanting trees after clearcutting that they are replacing natural forests. But industrial tree planting will never contain the biodiversity and wildlife structure of a natural forest. Natural forests may contain a dozen species of trees and shrubs, including a variety of conifers, oaks, dogwood, Manzanita, as well as fragile native wildflowers. But the tree plantations that replace natural forests consist of one or two species of conifers in one plantation, chosen from perhaps as many as five species. Timber companies replace the older forest with new trees but due to the use of herbicides, they will never replace the older biodiverse forests. Big trees and older forests are critical for wildlife habitat, stable soils, and clean water and limiting climate change.

An example of loss from the wholesale removal of mature trees through clearcutting is the Black Oaks found in Sierra forests. These crucial trees provide food or habitat for hundreds of animal species. Once destroyed, they are not easily replaced, as a Black Oak does not produce acorns for animals to eat for at least 50 years.

Tree plantations also have a high risk of crown and catastrophic fire damage, because the trees are all one size and closely spaced, and they have thin bark that is not resistant to fire, whereas older trees with thick bark can often survive fires.

Climate Change- Growing numbers of Americans believe that climate change is one of the gravest problems we face, and most know that our use of fossil fuels is a major cause of climate change. But how many realize that extensive clear-cutting is the other major cause? According to the United Nations Intergovernmental Panel on Climate Change, the leading scientific body on this issue, deforestation is one of two primary causes of global warming, along with fossil fuel combustion.

The most irreversible and catastrophic aspect of clearcutting is its contribution to global warming. Each year Sierra Nevada forests remove and store five million tons of CO₂ (carbon dioxide, one of the major greenhouse gases) in the trees and the soil, keeping it out of the atmosphere. When the trees are cut and the soil ripped by heavy machinery that CO₂ is released into the atmosphere, accelerating climate change. Additional massive burn piles are generated from clear-cutting debris, and contribute both to hazardous smoke pollution and CO₂.

Furthermore, these emissions may exceed the carbon storage in the tree plantations that follow clearcuts for at least twenty years. The timber industry claims that their practice of planting industrial tree farms after clearcutting stores CO₂ rather than releasing it, because young trees absorb carbon at a faster rate than older trees. But scientists point out that the amount of carbon stored by young tree farms does not approach the amount that was stored by older forests for many decades. We now know that preserving big trees are

critical to fighting global warming, as older forests are great at storing carbon long-term. Growing and protecting large trees and older forests is one of the most important things we can do to help our forests in the fight against climate change.

Under the hotter and drier conditions that will occur as the climate changes, California forests will be challenged and have reduced yields. Pine plantations created after clearcutting are particularly expected to suffer the greatest decline in yield. With the drier conditions and lessened snowpack even the initial survival of the planted seedlings may be severely compromised.

Drought and Water Resources-

Governor Brown has declared a Drought Emergency for the State of California. Officials announced on January 31st that they wouldn't send any water from state's reservoir system to local agencies in Southern California beginning this spring. That has never happened before in the history of the 54 year old State Water Project. Coastal rivers will be closed to fishing to help the survival of salmon and steelhead.

During this extremely dry fall and winter in California, we need to understand that the forested watersheds of California provide 80% of the state's water supply. Our lives depend on that water for drinking, agriculture, wildlife habitat, and other uses. Forests trap, filter, and store our water, partly in the form of snow during the winter. In a natural forest, the snow melts during the spring and summer and provides water to our thirsty agricultural valleys and urban areas in the summer. Forests are thus an essential part of the hydrological cycle, serving as natural filters, reservoirs, and shelters of snowpack.

*But if the forest is clearcut and there is no forest canopy to provide shade, the snow melts more quickly in spring, leaving less water for use in the summer when it is needed most in California's agricultural valleys and urban areas.

Furthermore, clear-cutting causes erosion, which leads to buildup of sediment in streams and rivers, and ultimately to sediment buildup behind dams, provides less water storage. Excess runoff also muddies water and destroys fish habitat.

Recent studies have been done on snowpack retention and runoff, and how those might be manipulated through forest management. One of the most striking finds about the work, however, is that the greatest amount of snowpack sublimation (and therefore water loss) by far comes from large open areas, including clearcuts. (Dr. Roger Bales et. al, University of California-Merced)

*The current practice of extensive clearcutting of our forests presents a major threat to our water supplies. Until we end the extensive clearcutting occurring in our mountains, our water supplies will continue to be impacted.

Forest Fires

Forest fires have always been part of the natural history of forests in the western U.S., and they can play a positive role in re-creating a rich biological diversity in the succeeding forest. However, the widespread practice of clearcutting has two negative impacts on our fire situation.

First, clearcutting releases large quantities of carbon dioxide to the atmosphere, thus increasing the pace of climate change, which in turn may increase the frequency of forest fires.

Second, a fire that burns through an industrial tree plantation that has been planted after clear-cutting is likely to burn everything down in its path, because the trees are closely spaced, and all the same age and height, and thin-barked. In addition, there is no windbreak provided by adjacent larger trees that would naturally there in a diverse forest. A fire that burns in a diverse forest often leaves behind large older trees with thick bark that can survive the fire, or large dead trees that replenish the soil and foster regrowth.

Third, by removing forest canopy, clearcutting dries out our forests and increases the risk of fire, flooding and water shortages.

Fires will not be able to resume their natural role of rejuvenating our forests until we stop clearcutting forests and replacing them with industrial tree plantations. We must demand an end to clearcutting and a return to sustainable logging in California's forests.

Clearcutting after Major Forest Fires

The 2013 Rim Fire, which burned 401 square miles of land in and near Yosemite, is the largest fire in the recorded history of the Sierra Nevada Mountains. In its wake of the Rim Fire and other recent major fires, there are misguided efforts to promote salvage logging in the burned area. If forests that have been burned are left alone, the damaged trees provide habitat for birds and after they fall down they return to the soil and become sources of nutrients for regrowth of trees and brush supporting wildlife. When timber companies cut down the dead trees, many animals lose food sources and nesting places. Often invasive species take over, and exclude native plants from coming back.

Selective Logging

Selective logging was the most common form of logging in California from the mid- 20th century until the mid 1990s, when the largest timber companies moved toward clearcutting. Selective logging involves the use of individual loggers with chainsaws cutting down individual trees that have been selected for their use as lumber, and with an eye to preserving the overall health of the forest. What remains includes smaller trees that will continue to grow, species of trees that aren't useful for lumber, and a whole variety shrubs, vines grasses, mosses, as well as many types of wildlife that live in a diverse forest. You can walk through a selectively logged forest and still have experience of the beauty and calm of a forest. In contrast, a clearcut looks and feels like a wasteland.

Impact on Tourism and Recreation.

Many people note that a clearcut landscape is ugly and has none of the charm and beauty of a diverse forest. This negative impact across much of California threatens the tourism and recreation that account for a significant part of the economy.