

Weyerhaeuser Outdoors

Sustainable FORESTRY

HOW HUNTERS CAN HELP

By Glenn Johnson, Vice President—Recreation

Weyerhaeuser has a long allegiance to sustainable forestry.

In fact, company executives commissioned research into sustainable yield forestry way back in 1937, decades before modern sustainability initiatives were formed. Today, as the world's largest Sustainable Forestry Initiative® (SFI®) certified landowner, we are committed to ensuring our forestry operations protect the environment and the wildlife habitat you lease.

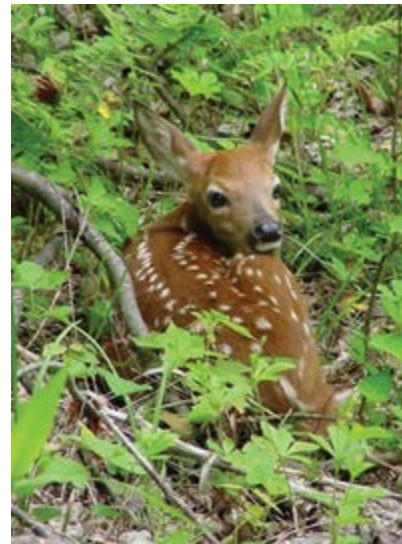
The 13 principles of the SFI forest management standard provide guidance for protecting water quality and wildlife habitat and maintaining forest productivity. Many people play important roles in our work to maintain healthy working forests. Annual third-party audits of our management practices ensure we meet or exceed the SFI standards during timber harvest, site preparation, reforestation, road maintenance, and other activities.

With this newsletter, we hope to give our recreational leaseholders a better understanding of the special things we do to safeguard the environment. The contents here illustrate special road structures, bare soil stabilization, and streambank protection techniques you may encounter during hunting visits — and that may require you to adjust your normal activities for a short time. We want you to recognize these measures and know how to respond. Like those of us at Weyerhaeuser, most outdoor enthusiasts want healthy forests, and your participation makes a big difference. How well we perform depends not only on how successfully we implement measures on the ground, but also on conscientious leaseholders who do not accidentally undo our good work.

You can help us tremendously by reading and sharing this publication with everyone in your hunting club. Watch for these forestry practices on your lease and follow our guidelines related to hunting activities. Discuss

this information at your group meetings and, most importantly, contact us if you ever have questions. We will be happy to help you satisfy lease obligations and avoid serious problems.

Thank you in advance for working with us to sustain healthy, productive forests for recreation and many other great benefits.



SUMMER 2020

Forestry BMPs

PROTECT WATER QUALITY FOR PEOPLE AND WILDLIFE

We all depend on clean water, which is why Weyerhaeuser strives to protect water quality and aquatic resources on our timberlands. And like farmers, foresters understand the importance of nutrient-rich soil.

But what does that have to do with water quality? Soil erosion affects water quality as well as land productivity. That's why preventing erosion is a large part of our sustainability efforts.

We use Best Management Practices (BMPs) to protect water quality as well as the productivity of the land. BMPs are guidelines developed specifically for each state and the circumstances across the different landscapes in that state— from flat bottomlands to hillsides and mountaintops—where timber harvesting may occur. The BMP guidelines help us plan common forest work such as thinning, fertilization, and harvest. They provide performance standards designed to protect water sources and prevent erosion. They also help us avoid unnecessary disturbance to the site (such as extra roads) and minimize the need to repair damaged areas (such as washed-out culverts).

BMPs not only protect water quality but also enhance wildlife habitat. For instance, strips of trees left along streams create travel corridors, and seeds planted to stabilize soil sprout into important forage and bugging areas for deer and turkeys.



This stabilized, temporary creek crossing is covered with slash to protect the stream until natural vegetation can regenerate.



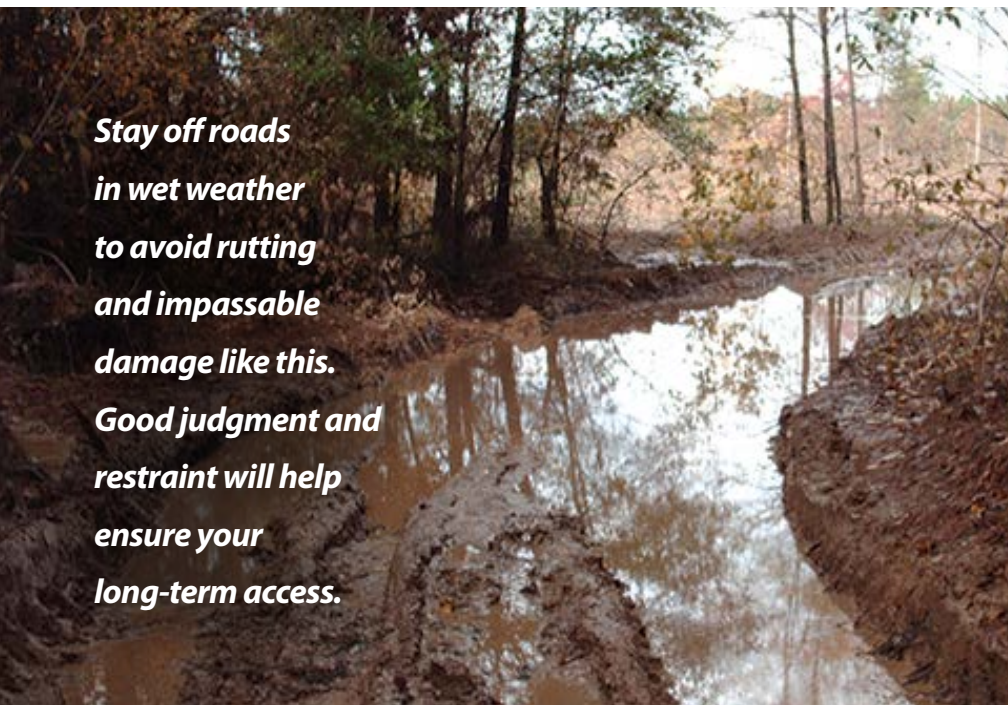
Weyerhaeuser follows state BMPs for all its forest management activities because everyone benefits from clean water and the healthy ecosystems in well-managed forests. But we need your help to make sure the steps we take to maintain a healthy forest and protect water quality are not damaged or undone. Please follow the specific examples and guidelines in this publication, and feel free to contact us with any questions about our BMPs and how they translate to what you see in the forest.

Around streams,
BMPs such as proper culvert placement ensure both access and water quality.

Getting there:

FOREST ROADS AND HUNTER ACCESS

For most hunting clubs, the quality and quantity of access is significant in deciding to lease a property. Most clubs want to easily reach every portion of their lease, regardless of weather. Access is only possible, however, when roads remain in good condition.



Stay off roads in wet weather to avoid rutting and impassable damage like this. Good judgment and restraint will help ensure your long-term access.

For Weyerhaeuser, roads provide valuable access, but they also take space that could be used for growing timber, bring environmental risk related to erosion and water quality, and are expensive to build and maintain. New road construction typically costs \$7,000 to \$10,000 per mile, and light maintenance averages \$1,500 per mile. That's one reason we keep the number of roads necessary to manage a property to a minimum.

Changes to roads

We regularly evaluate our roads, especially when a timber stand is considered for harvest. Unnecessary roads or sections of roads may be closed. Shortly after a harvest, weather permitting, we conduct road maintenance that may include installing water control structures such as water bars (a small berm that directs water off the road), broad-based dips, and wing ditches. In flatter terrain, we grade crowned roads and pull the ditches, which divert water off the road to prevent damage. Once a road with proper water control structures like these has settled, it should last for several years before needing maintenance.

After a harvest, we may also close roads by covering them with logging slash to prevent erosion. Please do not remove the slash or try to use closed roads.

WEYERHAEUSER ROAD FACTS:

- We own both small parcels of land with roads only a few yards long and massive properties with 100 or more miles of road. Roads vary by geography, property size, and purpose.
- The primary roads through a large property may be crowned, ditched, or rocked to facilitate year-round access.
- Secondary roads feed into primary roads on large properties. Smaller properties may have only secondary roads, which typically are managed using water diversion devices and generally are not meant for all-weather use.
- Access to most properties will require four-wheel drive in wetter periods or to navigate certain stretches of road. We do not provide all-weather access on every property.
- Hunters are not the only people who can be rained out. In wet weather, we move loggers to properties suited for wet weather logging or send them home until road conditions improve. Sometimes, the right thing is to stay off a road when it's vulnerable to damage.
- Some Weyerhaeuser lands were previously owned by others with different management philosophies. As a result, many "roads" on our land are just firebreaks or trails that can raise environmental concerns. At the right time, we may close many of these substandard roads.

Protect

THE ROADS WE SHARE

Protecting the roads on your lease is critical to ensuring long-term road quality and access. You can help ensure good access by following a few common-sense guidelines:

- Don't drive on recently worked roads, which are soft and prone to damage, especially after a rain. Once the road has been rained on and dried out a few times, it will solidify and support traffic.
- Don't rut roads. Doing so can channel water down the road and lead to gullying, reducing road life by years. If you see that you are rutting your road, STOP! Use an ATV or walk.
- Never disk or plow roadbeds or along roadsides. Doing so will dramatically soften the road and lead to rutting and road failure.
- Protect water bars. Water bars that have been flattened or pushed over channel water down the road instead, which leads to gullying.
- Maintain wing and turnout ditches on your lease. If an outlet is plugged or water is coming over the water bar, the road will wash out. Spending a few minutes with a shovel unclogging an outlet will add years to the life of your road.
- Keep ATV trails on the contour, especially in steep terrain. Trails oriented up and down the slope are much more prone to erosion.



- Need rock in a few wet spots in the road? Clubs can fix such small issues on their own. If more extensive road maintenance or grading is needed, please contact your local RLM representative for an evaluation of roads on your lease.

We realize many club members have limited opportunities to hunt and head to their hunting lease when their schedules allow, regardless of weather. But remember that those roads are a long-term asset that, if treated well, will serve you for many years. If you insist on getting to a stand regardless of the resulting road damage, however, your club will be billed for repair and your lease agreement may be terminated.

To prevent damage, avoid driving on freshly worked or recently seeded roads until they're firm and well established. Signs may identify these areas, but not in all cases. Club members need to be mindful of road conditions and refrain from using some roads in the short term to ensure long-term road quality going forward.



Streamside

MANAGEMENT ZONES AND STREAM CROSSINGS

Streams, swamps, or other wetlands on a property definitely improve its hunting value. Protecting these water resources is important to Weyerhaeuser.

A streamside management zone (SMZ) is a strip of vegetation next to a stream or similar body of water. SMZs act as filters, removing sediment from any water flowing over the land before it reaches the stream. State BMPs recommend leaving SMZs alongside streams that flow year-round or for a major portion of the year.

The SMZ also shades the stream, supporting healthier plant and animal communities. On most properties, SMZs typically contain mostly hardwood trees, many of which provide valuable food for wildlife. Weyerhaeuser meets or exceeds all state BMP guidelines when working around streams and other wetlands.

Stream crossings

Proper stream crossings are important to protecting water quality. Properties may have a combination of permanent and temporary crossings, although temporary crossings are generally in place only during harvest operations.



SMZs are strips of vegetation along waterways that help protect water quality, stabilize soils, and provide valuable wildlife habitat.

Permanent crossings include culvert crossings, rock fords, and bridges. Culverts are the permanent crossing used most frequently by Weyerhaeuser. Undersized culverts may be used temporarily until a more permanent solution is in place. Either way, culverts involve much more than throwing a pipe in a stream and covering it. We pay strict attention to the stream channel and the approaches to the crossing. Rock is frequently used to armor the crossing, which can cost \$10,000 or more.

Permanent bridges are very expensive and entail environmental sensitivities, so we use temporary crossings when possible. Temporary bridges may allow passage for trucks or, more commonly, skidders that pull harvested wood over the stream. Once the harvest is complete, such a bridge will be removed for use elsewhere, and its approaches will be covered with logging slash to guard against erosion and sedimentation of the stream.

SMZs provide travel corridors for wildlife.



Cautions

FOR STREAM CROSSINGS

We need your help to protect the resources we all share.

To avoid harming water quality, use caution near stream crossings:

- Be especially mindful of water bars on approaches. Under no circumstances should water bars be pushed over or cut down. They are helping divert water off the road for filtering before entering the stream.
- Make sure ATV trails always follow contours of the land to prevent erosion.
- Never use the stream channel or SMZ buffer zone as an ATV trail.
- ATVs should not cross streams indiscriminately, as this can damage stream banks and channels. Instead, cross at existing permanent culvert crossings or fords.
- Locate food plots outside of the SMZ. No plowing or planting is permitted within SMZs.
- Logging debris is often left on the approaches to temporary crossings to serve as a filter; please leave it in place.

Thank you for being a steward of water resources on your lease.

Permanent bridges are very expensive and entail environmental sensitivities, so we use temporary crossings when possible. Temporary bridges may allow passage for trucks or, more commonly, skidders to pull wood over the stream. Once the harvest is complete, such a bridge is removed for use elsewhere and the approaches covered with slash to prevent erosion. Such sites are often narrow enough for clubs to build foot or ATV bridges there afterward.



When conditions allow, we use rock fords, which involve armoring with rock but not installing a culvert.





Logging slash: MORE THAN A BUNCH OF STICKS

If you've leased land from Weyerhaeuser for more than a few years, you've probably experienced timber harvest activities. Southern pine management usually consists of a first thinning when the trees reach 12 to 15 years old and a final clear-cut harvest before the stand reaches 30 years old.

These harvest activities create logging slash, which we use to maintain environmental quality.

Logging slash is simply the debris left over from logging, such as tree tops and limbs. Even though these parts are not sold, they are valuable and serve several purposes.

First, the pine needles and woody debris contain valuable nutrients that decay into the soil to help the next stand of timber to grow. This nutrient recycling protects soil quality, providing nutritional benefits for the next generation of trees.

Logging slash is also effective at stabilizing soil. Erosion occurs when water gains speed as it runs downhill. Anything that slows it helps prevent soil movement, and logging slash does an excellent job, covering exposed soil while slowing and diverting runoff.

HELP SLASH IMPROVE THE FOREST


As you enter your lease property after harvest is complete, you might see roads or trails covered in logging slash. You can help slash do its stabilization work to improve the long-term value of your lease:

- Do not clear logging slash from roads or trails. It won't limit access for long, and the resulting access will be improved. Over time, vegetation will take root and the slash will decompose, allowing limited travel using an ATV or four-wheel drive vehicle.
- After a harvest is a great time to locate new food plots and enroll them in our wildlife opening program, but please contact your lease manager first. We will ensure the site is suitable and work with you to develop a high-quality wildlife opening.
- Clubs must seek written permission before bringing bulldozers, trackhoes, or other heavy equipment on to Weyerhaeuser land. Farm tractors are allowed, but avoid clearing any slash or moving dirt without Weyerhaeuser Lease Manager approval.

Thanks to Texas A&M for the use of some of the photos in this publication.

CONTACT WEYERHAEUSER

Do you have questions or concerns about hunting lease programs or any of the information in this publication? Find more information at www.wyrecreation.com or contact us on our telephone helpline at (855) 248-6872.



Logging slash is deliberately spread across areas prone to erosion, especially in hilly areas or adjacent to streams. Please don't remove it.