

Protect Water and Wildlife During Timber Harvests: *Best Management Practices (BMP's) for Forestry*

Forest streams, lakes and rivers naturally have good, clean water. Proper timber harvesting can protect water quality and good forest management can improve it, but improper timber harvesting causes soil erosion and degrades water quality as a result.

How does it happen?

- ▶ Duff, slash and ground plants are removed and soil gets scraped off, torn up, or pushed away.
- ▶ Water movement occurs in the form of driving rain, melting snow, or high stream levels.
- ▶ Water accumulates and gathers enough speed to pick up soil.
- ▶ The increased flow of water deepens and widens a waterway, creating a fast moving channel.

The Result

Water with soil suspended in it flows across the ground and into a stream, river, or lake and dumps its load of mud onto the bottom. Or silt creates cloudy water far downstream. Fish and other small aquatic animals are choked as a result. The silt also buries fish eggs and smothers small insects and invertebrates that fish rely on for food. With nothing in place to slow water movement, each new rainfall cuts away at exposed soil and brings a fresh load of sediment into the waterway.

BMP techniques prevent erosion and poor water quality. Use them on forest roads, yards and landings, skid trails, stream crossings or wherever logging equipment operates.

BMP's prevent erosion by:

- ▶ Stabilizing the soil by maintaining natural vegetation that filters out silt, or by using natural or man-made materials to cover exposed soils.

- ▶ Slowing down water (*especially on steep slopes*) with water bars, skid humps, or other structures.
- ▶ Spreading water out by diverting it from exposed areas back into undisturbed vegetation.
- ▶ Preventing stream channels from deepening and widening.

The most important BMP: PLAN AHEAD.

- ▶ Know the direction water will flow across the ground and where it will end up.
- ▶ Identify natural water bodies and avoid harvesting activity near them when possible.
- ▶ Limit the area of disturbed soil or work only on frozen or snow-covered ground.
- ▶ Stabilize exposed soil with brush, mulch, or other materials BEFORE erosion occurs.
- ▶ Avoid steep slopes and use techniques to break up and divert the flow of water, BEFORE channels form in waterways.
- ▶ Use as few stream crossings as necessary and build them to accommodate high water levels.
- ▶ Stabilize and/or replant the area after the timber harvest.

The End Result

The end result is a timber harvest that keeps mud out of streams, rivers and ponds, avoids water quality problems, looks good and keeps fish and other aquatic life healthy.

Contact the Maine Forest Service for a booklet on Forest Water Quality BMP's.



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**Protect Yourself —
Call Before You Cut!**