

How Can My Industry Minimize Stormwater Run-off?

Industries can help preserve the health of Vermont's rivers and streams by minimizing on-site pollution of stormwater by adopting **Best Management Practices (BMPs)**.

Why does the Timber Products Industry have to comply with the Multi Sector General Permit?

Vermont's Forest Products Industry processes millions of board feet of logs annually and contributes a large amount of money to the Vermont economy. The industry is a vital part of maintaining the health of the State's forests.

The industry developed along the banks of our streams and rivers to take advantage of water power and as a result many mills and wood manufacturers are located close to water bodies. This fact combined with the need to store large quantities of raw materials, residues and finished product outdoors makes stormwater management a challenge.

Over the years, VT has seen the waters of the state affected by solids, sawdust and other particulate matter from Vermont's Timber Products Industries due to wind, rain and snow melt.

One of the most important challenges faced by the Timber Products industry with regard to stormwater management is how to prevent the discharge of solid materials into the waters of the state. Materials such as sawdust, shavings, wood chips, bark and soil can be blown or washed into streams and rivers. Uncovered, outdoor storage of surplus equipment and scrap metal can be the cause of rusty run-off. Contamination can occur from improperly maintained equipment and fuel or hydraulic oil spills, as well.

When properly applied, BMPs can help reduce, eliminate or prevent stormwater pollution.

What is a Stormwater BMP?

BMPs are effective ways to improve our state's water quality and can include physical structures like ponds and catch basins, improved maintenance activities, banning certain practices, provide employee prevention awareness training and other management activities.

The following is a list of suggested BMP's organized by activity. BMPs are the essential component of your facilities' Stormwater Pollution Prevention Plan (SWPPP). Consider incorporating some, any, or all of these BMPs into your Plan. The BMPs cover the following operations:

- Materials Handling
- Log & Lumber Storage Areas
- Log, Lumber & Firewood Processing
- Bark, Sawdust, Shavings & Chip Storage
- Equipment Maintenance
- Above Ground Tanks & Fueling Areas
- Surplus Equipment & Scrap Metal
- Spill Prevention & Response
- Snow Removal
- Employee Training



Sector A

The most important thing to remember when developing your Stormwater Pollution Prevention Plan is that the goal is to limit the pollutants leaving your site. In some cases simply improving housekeeping may be enough to meet the required discharge limitations and benchmarks. In other cases, structures like settling ponds and catch basins may be needed to achieve the goal.

There are no standard practices or standard plans... each facility will have its own unique set of circumstances and solutions.

By utilizing the simplest solution(s) which will accomplish the goal of limiting stormwater pollution, we can protect streams and watercourses and minimize the impacts on businesses. The bottom line -- there is no reason to attempt a complex solution where a simple one will suffice.

Materials Handling

“Good Housekeeping”, avoiding the spilling of sawdust, chips and bark, can eliminate many possible stormwater contamination sources.

- Minimize spillage when loading sawdust and other materials; clean-up spills immediately.
- When unloading fuel or other liquids, have a spill kit and trained employee on-hand.
- Limit loading and unloading operations to areas where spilled materials can be easily contained and cleaned-up.
- Load or unload light weight materials out of windy areas. Softwood wind-breaks may help in some areas.
- Use berms or grading to direct stormwater away from loading areas.
- Load and unload materials under cover whenever possible.

Log & Lumber Storage Areas

Utilize shrub plantings, trees, and grassy areas around the perimeter of your log or lumber yard to provide a natural buffer for stormwater runoff.

- Stabilize erosion sensitive areas. Seed, mulch, or use gravel to reduce erosion.
- Use pile covers to protect lumber from rainwater.
- Use swales, ditches, berms and grading to direct water away from log and lumber storage areas.
- Scrape log yards periodically and dispose of accumulated bark and debris.
- Maintain or establish vegetated buffers between storage areas and water.
- Silt fencing or hay bale dams can make a narrow buffer more effective when properly installed and maintained.
- Where buffers are too narrow to filter stormwater runoff, use berms or grading to direct water away from water courses, and to treatment structures such as vegetated filter strips, silt fence/hay bale check dams or into settling ponds.
- Recycle stormwater settling ponds to water logs whenever possible.

Log, Lumber and Firewood Processing

- Use berms or grading to direct stormwater away from areas where wood is processed.
- Clean-up residues frequently.
- Maintain dust collectors, cyclones and duct work to minimize material spillage.
- If possible, conduct all timber processing operations under cover.

Residue Storage

Sawdust, shavings, wood chips and bark can easily be washed or blown into streams or watercourses. These are probably the most important pollution sources to be controlled at Timber Product manufacturing facilities.

- Use berms and grading to direct stormwater away from residue storage areas.
- Establish dikes or walls around outdoor storage areas to prevent materials from washing off-site.
- Silt fencing installed can be very effective at filtering out particulates such as fine sawdust and bark.
- Plow and stockpile snow away from streams and watercourses.
- Cover stockpiles with weighted tarps or plastic if reasonable.
- Store residues like shavings which may be easily wind-blown or washed away, inside a trailer, bin or closed structure.

Equipment Maintenance

Vehicle and equipment maintenance and repair work are performed indoors whenever possible.

- Prevent excessive build-up of oils and grease on equipment.
- Perform equipment and vehicle maintenance in designated areas to prevent discharges, and use drip pans under equipment.
- Routinely inspect vehicles and equipment for leaks.
- Use secondary containment for hazardous liquid products and liquid wastes.
- Collect and properly manage (dispose of or recycle) used oil, filters, antifreeze, cleaning solutions, batteries, hydraulic and transmission fluids, and tires.
- Refer to **Helpful Resources** section and the Vehicle Guide Book for more information.

Above Ground Tanks & Fueling

Roofed secondary containment (110%) structures minimize the potential amount of rainwater collected and snow damage. (In order to avoid additional federal regulations, oil containers on your site should add up to no more than 1,320 gallons – The equivalent of 24, 55-gallon drums).

- Visually inspect tanks on a regular basis. Pay particular attention to the tank's foundation, connections, coatings, welded joints, and the piping system.
- Provide a protected, designated fueling area.
- Inspect any stormwater collected in secondary containment systems for signs of contamination (such as an oily sheen, foul odors, or discolored water) before releasing.
- Equip fueling areas with spill kits containing dry absorbent materials for small spills when fueling vehicles and machines.
- Discourage topping off and unattended fueling.
- Post fueling instructions and emergency numbers.
- Refer to **Helpful Resources** section and the Federal Spill Prevention, Control, & Countermeasure (SPCC) Regulation Fact Sheet for more information.

Surplus Equipment & Scrap Metal

Minimize the amount of scrap left on-site. Take unnecessary scrap metal and recycle it off-site.

- Minimize contact with rain by keeping metals/equipment stored inside.
- If you must keep outside, consider managing them under a shelter and on an impervious surface.
- No shelter? Then minimize pollution by providing some type of temporary cover and drip pan or under carriage

protection. You must then monitor to ensure temporary protection stays in place.

Spill Prevention and Response

Prevent spills before they happen, develop a spill prevention and response plan that outlines procedures to stop the source of a spill if one should occur and how to manage the disposal of contaminated materials after clean-up.

- Use drip pans to minimize the use of absorbents. If you must use absorbents, consider reusable, lightweight absorbents (pads, socks, booms, launderable rags).
- Avoid using *clay* absorbents.
- Absorbent booms can be used to reduce the amount of absorbents needed by diking the spill immediately.
- Refer to **Helpful Resources** section and the Spills Fact Sheet for more information.

Snow Removal / Yard Clean-up

Be especially careful where you place your plowed snow or place your yard scrapings. Keep these piles as far away from banks and waters edge as possible to avoid run-off of debris during storms and in the spring of the year.

- Place salted sand in small shelters, or in barrels.
- Rake, collect, and remove yard debris in the summer months when it is dry and easily handled.
- Plow and stockpile snow away from streams and watercourses.

Employee Training

- Train employees who use solvents and chemicals correctly, efficiently, and safely, using minimum amounts to get the job done.
- Train employees to practice good housekeeping habits when handling materials & wood residues.

- Inform employees of stormwater pollution sources, prevention, and applicable BMPs.
- Ensure that all employees who handle hazardous materials are familiar with the facility's Spill Plan and are trained in spill clean-up in order to minimize clean-up debris and any further environmental impact.
- Provide training for employees and oversight all subcontractors

Other Current Environmental Regulations affecting the Timber Products Industry

Discharges to waters of the state from log watering operations require an NPDES Direct Discharge Permit from the Wastewater Management Division. This is required by Federal Law – 40 CFR Part 429, Subpart I “Wet Storage”.

[For more information refer to:](#)

The Code of Federal Regulations – Timber Products processing Point Source Category

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=0498ee6ec42603829b3390851f0b8aa0&rqn=div5&view=text&node=40:29.0.1.1.5&idno=40>

Note:

If stormwater discharges from your site co-mingles with process or industrial waste it must comply with the NPDES Direct Discharge Permit rules as per Federal Law.

**Subpart I—
Wet Storage Subcategory**

§429.100 Applicability; description of the wet storage subcategory.

This subpart applies to discharges to waters of the United States and to the introduction of process wastewater pollutants into publicly owned treatment works from the storage of unprocessed wood, i.e., the storage of logs or roundwood before or after removal of bark in self-contained bodies of water (mill ponds or log ponds) or the storage of logs or roundwood on land during which water is sprayed or deposited intentionally on the logs (wet decking).

§429.101 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in [40 CFR 125.30 through 125.32](#), any existing point source subject to this subpart must achieve the following effluent reduction attainable by the application of the best practicable control technology currently available (BPT): There shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0

**§429.102 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).
[Reserved]**

§429.103 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).

Except as provided in [40 CFR 125.30 through 125.32](#), any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT): There shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0.

§429.104 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS): There shall be no debris discharged and the pH shall be within the range of 6.0 to 9.0.

§429.105 Pretreatment standards for existing sources (PSES).

Any existing source subject to this subpart which introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403.

§429.106 Pretreatment standards for new sources (PSNS).

Any new source subject to this subpart which introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403.

Questions or Assistance with your Stormwater SWPPP, contact:

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802-241-3770**

www.anr.state.vt.us/dec/waterq/stormwater/htm/sw_msgp.htm

