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Maintaining Driveways

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Maintaining Driveways



WHY DO WE CARE?

Driveways provide a variety of challenges to water quality. If unpaved, driveways are subject to erosion. The soil and rocks that make up driveways can erode and make their way into waterways decreasing water clarity and increasing water temperatures as the sun heats up those particles. Sediments in water also decrease water clarity, reducing the ability of plants to photosynthesize, irritating fish gills, and decreasing the ability of sight feeding fish to find their prey.

Paved driveways can also have negative environmental impacts. As paved driveways are impermeable, rainwater and snowmelt cannot infiltrate into the ground, and the amount of runoff that leaves a property increases. Such runoff can carry nutrients, oil, metals, and other pollutants to local waterways.

Further, parked cars can leak chemicals such as motor oil, anti-freeze, radiator fluid, and gasoline. Motor oil contains toxic substances such as benzene, cadmium, and lead that are harmful to aquatic plants, fish, and shellfish.

Once in a waterbody, motor oil floats on the surface and blocks sunlight from penetrating the water column, which in turn, reduces the ability of plants to photosynthesize. Similarly, if anti-freeze enters waterways, it can reduce oxygen levels available to fish and other aquatic life.

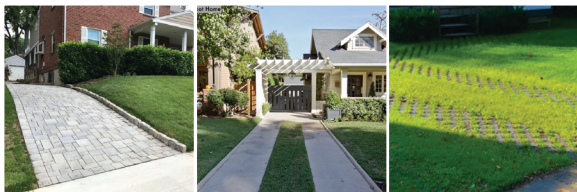
The process of resealing driveways can also pollute water especially when coal tar or asphalt-based sealants are used. These types of sealants contain Polycyclic aromatic hydrocarbons (PAHs) at concentrations 65 times higher than unsealed driveways. PAHs can cause cancer in humans and animals. It can take months for PAHs to breakdown in soil and water. In that time, they can contaminate ground and surface waters.



Driveway contaminants flow into nearby stormdrains.

WHAT IS BURLINGTON DOING?

- Encouraging development and re-development projects to both reduce impervious driveway area (e.g., ribbon strips) and utilize pervious pavers (e.g., interlocking brick or grassed cells) in lieu of traditional pavement.
- This program! Through incentivizing projects at the parcel level, the City hopes to encourage a culture of incremental and powerful change in how driveways, and development itself, is approached.



Beautiful options of environmentally-friendly driveways: permeable pavers (left) and two options of ribbon strips (center and right).

ACTIONS YOU CAN TAKE TO KEEP WATER CLEAN:

- Consider installing permeable pavers or ribbon strips to increase infiltration of rainwater and snowmelt into the ground.
- Alternatively, direct driveway runoff to a permeable area by installing a water bar to a stone-lined infiltration trench or to a rain garden.
- When possible, walk, bike, or take the bus. Drive an electric vehicle to reduce the potential chemicals that may spill from it and enter waterbodies.
- Consider leaving your driveway unsealed or using environmentally friendly sealers that do not contain coal-tar.

Contact us: blue@uvm.edu

Find out what you can do to be more **BLUE**



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BLUE BTV is a residential green stormwater infrastructure incentive program in Burlington, VT. BLUE BTV educates and collaborates with residents to identify opportunities for stormwater mitigation, affect behavioral changes, and establish stewardship principles to protect our waters from cyanobacteria blooms.