**FACT SHEET: Proposed Swanton Industrial Wind Project**

According to the EPA and Vermont Agency of Natural Resources,

Saving Lake Champlain requires us as citizens to do three things.

**Maintain Vegetation Buffers**: **ANR and EPA says a buffer slows water flow, absorbs moisture, cleans water, ANR describes a buffer to be a minimum of 50 feet.**

The Swanton Wind project will create **tons and tons truck loads of blast rock**. Some of which according to the proposed Swanton Industrial Wind project **will be placed in wetland buffers**. See Swanton Wind LLC Map.

**Maintain Forests and Trees: ANR and EPA says a forest will slow water flow, clean water and help prevent erosion.** A single tree can absorb 100 gals of water per day, an acre of trees will absorb 410,060 pounds of CO2.

The Swanton Industrial Wind Project proposes to **clear cut 39 acres of Forest.**

**\***10,235ft x 100ft for road + 300ft x 300ft (7) turbine pads + 200ft x 200ft 10 Storm water basins = 47 acres of clear cut required per Swanton Wind project map (developer says 39 acres). For comparison the Wal-Mart parking lot in St Albans is 7 acres, Swanton Wind is proposing to clear cut 5 Wal-Mart parking lots in the headwaters of St Albans Bay and Missisquoi Bay

**Get pervious: ANR and EPA say the creation of impervious surfaces will speed water flow which causes erosion resulting in pollution entering the Lake. (For reference, Lowell Wind disturbed 135 acres of soil.)**

The Swanton wind project proposes to create 9 acres of impervious surfaces in the headwaters of St Albans Bay and Missisquoi Bay, for comparison that's greater than the Wal-Mart Parking lot on a ridgeline in the headwaters of St Albans Bay and Missisquoi Bay.

\*10,235ft x 35ft road + 300ft x 300ft (7) turbine pads = 22 acres of impervious surface created in the headwaters of St Albans Bay and Missisquoi.(developers says 9 acres)

From the Vermont Agency of Natural Resources Website: **Water and Forests: a close relationship**

There is a close relationship between our water resources and the surrounding land. How land is used — whether it is forested, used for agriculture, or developed with buildings and roads — is a critical factor in determining the quality and quantity of groundwater and surface water. Forests provide remarkable benefits, helping to ensure clean water in sufficient quantities for aquatic habitat, safe drinking water, and recreational opportunities.

Forest vegetation occurs in several layers — trees, shrubs, and smaller plants. This vegetation provides a tremendous amount of surface area that can collect water during storms, much more than a farm field or developed area. During storms, water adheres to leaves, twigs, and branches, intercepting as much as 25 percent of total rainfall in a dense forest. Rather than flowing into streams and rivers where it would increase flooding, much of this water returns to the atmosphere by evaporation *(Figure 1)*.

In addition to the water intercepted by vegetation, rainfall also collects and forms puddles in depressions in the ground. Forests generally have a greater capacity to store water in this way than agricultural or developed areas because of their irregular ground surface. This water can evaporate or filter into the soil to recharge underground aquifers. These aquifers provide much of our drinking water and also recharge rivers, streams, wetlands, and lakes during dry periods.



Conversely, the roads, parking lots, and rooftops associated with development do not store rainfall, resulting in concentrated flows that are channeled and quickly discharged to rivers and streams. Loss of forest land to development contributes to flooding by increasing the amount of water that flows directly to streams and rivers during storms.

The thick vegetation in many of Vermont’s forests helps prevent erosion. Ground vegetation, litter (leaves and twigs), and plant roots protect the soil from erosion during periods of heavy rainfall, keeping sediment out of lakes and rivers. Vegetation also stabilizes streambanks and shorelines.

Not only is the volume of run-off from developed land vastly greater than run-off from forest land, run-off in urban or suburban settings is often turbid and laden with pesticides from lawns and metals, gasoline, and solvents from vehicles. On agricultural lands, run-off often carries sediment, fertilizer, and pesticides. These pollutants are rarely found in run-off in forested areas. In addition, forested buffers along streams and lakes filter pollutants from run-off before it enters surface waters and jeopardizes water quality.

Development converts forests to buildings, roads, parking lots, and lawns, increasing the possibility of flooding and reducing the recharge of groundwater. Removing too many trees, especially in high-elevation watersheds, can change a stream’s hydrology and result in higher flood flows, movement of stream channels, and excessive erosion. Logging too close to surface waters or skidding across streams can deposit sediment that degrades habitat for plants and animals that live in our waters.