



GREEN GROUND

Low Impact Development Program

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Cars, Boats and Lawn Mowers: *Tips for cleaner emissions*

The most effective way to reduce your emissions is to reduce your use of the device that is causing the emissions. This advice may work for automobile users, but boating enthusiasts probably want to use their boats more, not less; and those mowing lawns have a spring and summer season when the grass really grows. BUT... there are options for all three user groups to reduce emissions and still have transportation, recreation or mowing. What are emissions? Exhaust emissions means matter emitted into the atmosphere from the exhaust port of an engine.

Cars: Although technological advances have allowed for many new options in more energy efficient travel, one of the easiest and most effective methods for reducing your emissions is to reduce or better plan your trips. Use our public transportation, school aged children can take the school bus to get to school, the buses run daily for all our public schools, they are safe and their funding is dependent on ridership. Riding a horse is a fun way to travel (it was common when I was a child growing up on Orcas Island if the animal was safe around vehicles and there was a horse friendly destination). Hybrid vehicles are a newer option and there are tax incentives for purchasing one. Motorcycles, mopeds and motorized bicycles are an economical means of transportation and they use less gas. Try to incorporate walking and biking more often by preparing for the terrain and the weather. Changing your family's mode of travel once a week can be good ...for you, our community and the environment.

Good Car Maintenance Equals Cleaner Air

Every car has items that need to be checked on a regular basis and others that need to be replaced periodically. These include the air filter, coolant hoses, oil, oil filter, fluids, belts and so on. It is important to keep the tires inflated to the recommended pressure. This will minimize tire wear and help your car get the best possible fuel economy.

How to *DECREASE* Your Car Emission Levels

DON'T LEAVE YOUR CAR IDLING: *You will save gas by turning the engine off and restarting it again if you expect to idle for more than 30 seconds. You will also prevent pollution by avoiding long idles.*

DON'T USE YOUR AIR CONDITIONING: *Use of a vehicle air conditioner increases load on the engine. This can increase emissions and decrease fuel economy. When it is warm outside, park in the shade. Shade will help lessen the pollution and waste that occurs when gasoline evaporates.*

DON'T "STOP & GO" WHEN DRIVING: *The Island Drivers Ed teacher, Carl Wills would say, "no jackrabbit starts" and remember to use "feather braking." These methods will save gasoline and help smooth your driving by accelerating and decelerating gradually, anticipating stops and starts.*

DON'T WARM UP YOUR CAR BEFORE DRIVING IN COLD TEMPERATURES: *Emission control systems take longer to warm up and become fully operational in cold weather. However, idling will not help. Modern vehicles need little warm-up; they're most efficient when being driven. Idling for long periods in cold weather can actually cause excessive engine wear.*

Lawn Mowers: On a weekend, about 54 million Americans mow their lawns, using 800 million gallons of gas per year and producing significant air pollutants. Lawn mowers and other small engines produce several types of pollutants, including polycyclic aromatic hydrocarbons (PAHs) and carbon dioxide. Mowers and other small-engines contribute far fewer emissions overall than cars and trucks, the average walk-behind mower pollutes 11 times as much per hour, according to the Environmental Protection Agency.

Today's lawn mowers generate more than 70 percent less exhaust emissions than they did in 1995. Gas-powered mowers and ride-on mowers now sold in California must hack another 40 percent off their exhaust emissions and 90 percent from evaporative fuel emissions. Similar federal rules are expected for the rest of the country.

You don't have to wait for cleaner mowers to make your lawn-care a little greener.

- *Use a no-spill gas can. These containers reduce evaporative emissions, ground pollution and wasted fuel. Fill the fuel tank only three-quarters full, allowing room for expansion without overflowing.*
- *Don't buy more mower than you need. A walk-behind mower, particularly a self-propelled version, is fine for most lawns and uses less fuel than a larger tractor.*
- *Consider a corded or even a cordless electric mower if you have a small, flat lawn. Both types offer push-button starting and create no exhaust emissions. Manual reel mowers are a good choice for smaller spaces, though cutting performance does not match rotary mowers.*
- *Keep gas-powered mowers running properly. Change the oil each mowing season, drain the crankcase and refill it with manufacturer-recommended oil. Replace the spark plugs, clean or replace the air filter and sharpen the blades to cut the lawn, rather than tear it.*
- *Reduce the size of your lawn. Besides saving time and money (about \$700 per acre per year for maintenance), smaller lawns mean fewer emissions because you mow less. Alternatives include replacing a portion of lawn with ground cover or landscaping like trees, shrubs and/or perennials native to the Pacific Northwest.*

(Consumer Reports 5/2008)

Recreational Boats: Cleaner marine engines are now available to boaters. As expected, emissions from the two-stroke engine are much higher than those from the four-stroke counterpart. *(Environmental Science & Technology, 2000)*. Results from a study conducted at Lake Tahoe concluded that carbureted two-stroke engines released 10-15 times more gasoline than the four stroke engines. *(Motorized Watercraft Report - An Integration of Water Quality Issues; John Muir Institute, Davis, CA, 1998)*

Boating Pollution Prevention Tips:

- · *Limit engine operation at full throttle and unnecessary idling.*
- · *Avoid spilling gasoline or diesel, pour slowly and smoothly.*
- · *Use a funnel or a spout with an automatic stop device to prevent overfilling.*
- · *Close the vent on portable gas tanks when not in use or when the tank is stored.*
- · *Transport and store gasoline out of direct sunlight in a cool, dry place.*
- · *For two stroke engines, use the proper amounts of gasoline and oil when refueling.*
- · *Follow the manufacturer's recommended maintenance schedule.*

Keep in mind, the 20,000,000 small engines sold in the U.S. each year contribute about 10% of the total U.S. mobile source hydro-carbon emissions. -Roger Westerholm (Environmental Science and Technology, 2001).

The San Juan Islands Conservation District is a non-regulatory, non-enforcement agency. We provide FREE technical assistance to landowners interested in the conservation of natural resources.

For information about Conservation District services phone us at 360-378-6621 or email us at info2007@sanjuanislandscd.org.

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