

- Use soaker hoses or drip irrigation. This is more efficient than sprinklers and can significantly reduce water use!
- Water plants when needed, not according to a predetermined schedule. Water requirements vary depending on plant species, age, and size as well as weather and soil characteristics.

**DID YOU KNOW** that grass clippings are composed of 85% water? Keep them on the lawn!

- Avoid frequent, light irrigations as they tend to encourage shallow rooting and make plants more susceptible to drought.

## PEST MANAGEMENT

- Offer your clients fresh designs each season! Rotating plants and plant families so that they do not occupy the same space year after year can reduce insect infestations and the buildup of soilborne disease.
- Properly identify plant problems before acting! Most problems are cultural or environmental and are not corrected with pesticide application.

### **A SPECIAL NOTE ON PESTICIDES....**

State regulation requires anyone engaging in the commercial or contract use of a pesticide OR acting as a pesticide consultant to be a certified pesticide applicator. Any product with an EPA registration number on it is a pesticide! For more information go to [www.dec.state.ak.us/eh/pest/permit.htm](http://www.dec.state.ak.us/eh/pest/permit.htm) or contact the Department of Environmental Conservation.

- Apply pesticides when the pest is most susceptible, not according to a fixed schedule.

- Spot treat only those plants or plant parts that are affected by the pest. Spot treatments can reduce pesticide use and still achieve results!

## LANDSCAPE DEBRIS

- Use leaves and grass clippings as mulch. This practice reduces erosion, watering requirements, and weed problems.
- Run prunings and woody brush through a chipper for use as mulch or as a permeable cover for pathways.
- Compost what you do not use as mulch. Leaves, grass clippings, and weeds (before they flower) create a valuable organic soil addition. The use of compost improves soil texture, structure, and moisture retention and adds valuable nutrients. But be careful if you've used pesticides!

**DID YOU KNOW** that grass clippings, leaves, and other landscape debris contain phosphorus? One pound of phosphorus can grow up to 500 pounds of algae!

- Do not blow, sweep, or dump landscaping debris into the street, down a storm drain, or into a drainage ditch. Decaying plant matter can deplete dissolved oxygen levels in waterbodies killing aquatic plant and animal life. This type of disposal is also illegal!
- Mulch-mow grass to reduce the amount of fertilizer necessary. This type of grass recycling builds the organic matter in the soil.

For more information on Storm Water issues in Fairbanks, check out the FSWAC website at: <http://co.fairbanks.ak.us/pworks/StormWaterManagementProgram/>

## WATER POLLUTION SOLUTIONS

FOR

## COMMERCIAL LANDSCAPERS AND LAWN CARE PROFESSIONALS

Are your landscaping and lawn care practices as "green" as you think?

...

Brought to you by the Fairbanks Storm Water Advisory Committee (FSWAC).

Clean water is important to all of us. It is essential for human health, wildlife, recreation, and industry. But pesticides, fertilizers, and the various types of landscape debris used and generated here in Fairbanks can pollute our lakes, streams, rivers, and groundwater. This type of pollution can pose many problems including:

- ☠ Contamination of drinking water supplies.
- ☠ Destruction of aquatic habitat.
- ☠ Overstimulation of oxygen depleting aquatic plant growth.
- ☠ Contamination of fish and wildlife harvested for human consumption.
- ☠ Contamination of recreation areas.

You do not want that on your business's record! Since landscapes thrive when good water quality practices are implemented and the same techniques that protect water quality also improve soil, reduce landscaping maintenance, and enhance plant health, it is in your best interest to keep our area waterbodies clean.

**Green-up** your clients' landscape with the following best management practices! You'll avoid common mistakes that can lead to fines and may reduce your operation costs in the process.

## DESIGN AND INSTALLATION

- 🌱 Design a landscape that uses native vegetation or plants (including grass) best adapted to our sub-arctic climate. This will reduce maintenance needs!
- 🌱 Protect nearby waterbodies and reduce erosion by including a vegetative buffer along stream banks. Did you know soil, fertilizers, pesticides, or other landscape debris draining directly from your site into a nearby stream is

an illicit discharge, which is illegal and subject to the fines outlined in both city and borough ordinances?

- 🌱 Capture roof runoff to supplement irrigation or direct it into a rain garden.

**HELPFUL HINT:** Check out the Department of Natural Resources' *Revegetation Manual for Alaska* at [dnr.alaska.gov/ag/RevegManual.pdf](http://dnr.alaska.gov/ag/RevegManual.pdf).

This is a great tool when choosing ground cover! Also look at the Cold Climate Housing Research Center's guide for planting rain gardens in Fairbanks at [www.cchrc.org/green-infrastructure](http://www.cchrc.org/green-infrastructure).

- 🌱 Do not use grass in densely shaded areas, on steep slopes, or in narrow, hard to irrigate areas. Think trees, shrubs, or other native perennials.
- 🌱 Use porous material such as wood decking, gravel, or wood chips for pathways, and consider building gravel trenches along driveways where impermeable pavements are used.

## SOIL MANAGEMENT

- 🌱 Provide soil testing services for your clients. Testing can detect pH problems and nutrient imbalances or deficiencies. Knowing the chemical make-up of the soil will help you determine your mulch and fertilizer needs.

### **SOIL IS ALIVE AND SOIL LIFE MATTERS!**

A teaspoonful of healthy soil contains about **4 billion organisms!** These creatures create a loose environment that allows air, water, and root growth into the soil. Compost and proper fertilization will benefit this soil life!

- 🌱 Apply only the type and amount of fertilizer that is necessary. More is not always better! And remember, trees and shrubs do not need annual applications if they are putting on adequate growth and their leaf color is healthy.
- 🌱 Time your fertilizer applications correctly. Different plants make the most out of fertilizers at different times in their growing cycle.
- 🌱 Avoid fertilizing when heavy or extended rain showers are predicted...rain can wash fertilizer away or increase leaching potential. Also avoid fertilizing during periods of limited rainfall as fertilizers can dehydrate plant roots.
- 🌱 Use your fertilizer application equipment to your advantage...calibrate it to ensure proper application rates, use deflector shields when application is near a waterbody, and close the spreader when passing over non-target areas.
- 🌱 Use "slow release" fertilizers! If you must use "quick release" fertilizers, make several small applications over a period of time instead of a large application at once.

## WATER USAGE

- 🌱 Select plants suited for the sub-arctic and limit the amount of lawn. Lawn requires more irrigation than established trees, shrubs, and native groundcovers.
- 🌱 Increase the drought tolerance of lawn by proper soil preparation and proper mowing frequency and height.
- 🌱 Divide the landscape into irrigation zones by grouping plants based on their water needs.