

Life on the Waterfront

PEOPLE, PLANTS, WILDLIFE - SHARING THE WATERS OF THE MATANUSKA-SUSITNA BOROUGH



A GUIDE FOR IMPROVING THE QUALITY OF THE WATERS IN OUR WATERSHED

Did you know?

“ **When the well is dry, we know the worth of water.** ”
— Benjamin Franklin



FISH RETURN TO SPAWN, visiting our waters only a few weeks a year and salmon can spawn in the tiniest of streams. An ATV's muddy trail can block a small creek and prevent salmon from spawning.

BIRDS REST AND NEST in our backyards after their long journeys and visit only a few weeks a year. They rely on native plants and trees for shelter and food.

WILDLIFE LOVE WETLANDS. Healthy marshes help support wildlife by providing food and shelter. A healthy, sustainable moose population need wetlands to forage for their favorite food on the bottom of the bog.

PEOPLE'S ACTIONS AFFECT the quality of water in our streams, creeks, rivers, lakes, and wetlands and can impact the quality of ground water—the source for our drinking water wells.



you can make a difference ...

People want to do the right thing.

LANDOWNERS AND RECREATIONAL users are loving their shorelines too much. Life on the waterfront at first glance may appear to be sedate, but this is nature at its best simply made of components we humans often take for granted.

WE MEAN WELL WHEN WE MOVE to the waterfront, but can't resist the urge to "fix it up". Unwittingly, we remove the natural vegetation along the shore. Some land use practices impact water quality and quantity affecting fish and wildlife.

STRIPS OF LAND ALONG WATERBODIES called riparian areas contain ingredients to maintain a healthy waterfront. This includes specialized vegetation for sustaining water quality and quantity, preventing bank and shore erosion, filtering nutrients and pollutants so they don't enter the waterbody. Riparian areas provide critical wildlife and fish habitat.

WATERFRONT OWNERS CAN HAVE open views and access to the water without destroying life along the shore. It is a matter of planning and design with nature in mind. Resist the urge to clean it up because the fish and elements that provide food and shelter for the fish will disappear.

- *Don't use rock, plastic, cement or walls to stabilize the shoreline.*
- *Do leave the woody debris along the water's edge for fish and wildlife.*
- *Do leave aquatic vegetation for fish and birds.*



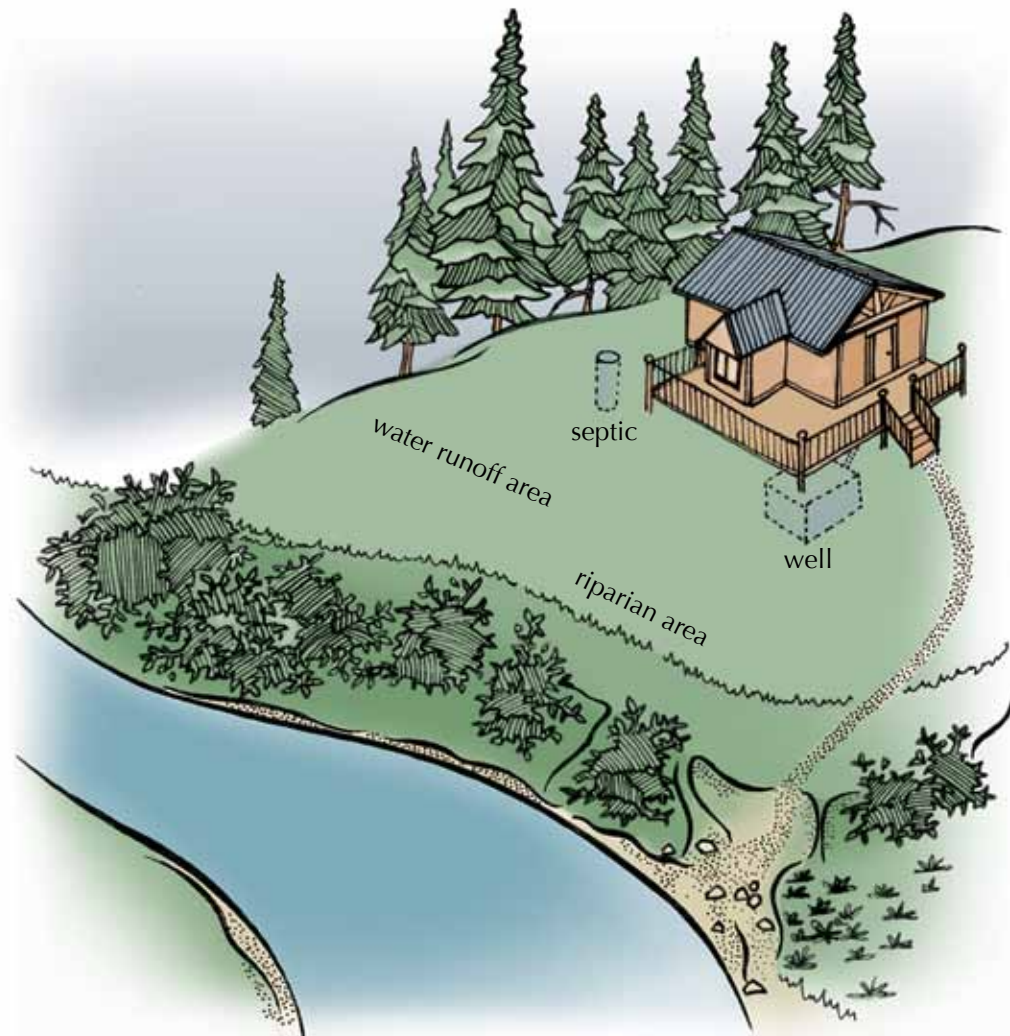
Creating a Healthy Alliance

THE MORE NATURAL YOUR YARD,
the less likely it is to pollute the water.

Water quality is assured through a system of buffers and riparian zones which filter runoff and stormwater before it enters the water. Fish and wildlife need overhanging vegetation at the shoreline and woody debris as places to rest and hide. Lawns increase the amount of runoff into our waterbodies and this runoff takes with it all the weed killers, fertilizers, pesticides, and pet waste.

- *Don't use fertilizers, herbicides or pesticides within 50' of the water's edge.*
- *Do plant low growing grasses, shrubs and perennials along the shore if native vegetation is removed.*
- *Do consider reducing lawn size and planting native species.*

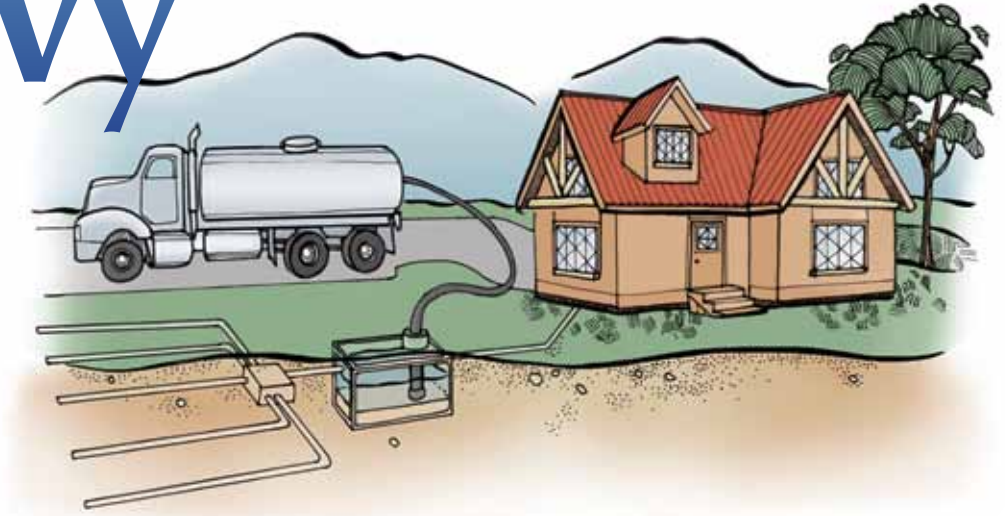
SETBACKS ARE IMPORTANT for our health and the health of the water body. Hazardous materials need to be 100 feet from the shore. Fuel containers, fuel tanks, and chemicals should not be stored near the water, not even in the boathouse. Vehicles and structures should be located over 75 feet from the water.



Be Septic Savvy

PUMP YOUR SEPTIC SYSTEM

regularly – most septic businesses suggest every other year. Pumping will keep your system working, lengthen its life, prevent costly repairs or replacement, and will protect groundwater. Septic seepage is a major cause of coliform bacteria in our impaired waters.



Pet Waste

SCOOP THE POOP – PICK UP AFTER

your pets. Animals should be kept at least 100 feet from the water. Organize neighborhood scoop the poop days. Animal waste does not decompose after one winter of being frozen, but you can compost the waste or take it to the nearest landfill. Local businesses will even scoop it for you for low fees.



Impervious Surfaces

These can include:

Buildings, Decks, Docks, Driveways, Roads and Outbuildings

IMPERVIOUS SURFACES CAUSE WATER to run-off rapidly carrying pollutants directly into waterbodies. Stormwater runoff is the number one water quality problem. Native plants and raingardens clean water naturally, anchoring soil, acting as filters, collecting dirty run-off from streets and rooftops. This will separate out pollutants while absorbing water and decreasing flooding.

WHEN IT COMES TIME TO REPLACE your driveway, consider switching to a permeable surface such as porous asphalt or pervious concrete. Pervious surfaces allow 70-80% of run off to seep into the ground. By replacing your driveway or walkways with gravel, paving stones, or grass pavers, you will reduce the amount of pollution entering the waterway by slowing stormwater run off.



Better with Buffers

- *Don't add sand or fill material to the shore or water.*
- *Do minimize impervious surfaces on or near shorelines.*
- *Do support efforts to establish buffers along waterways.*

Leave it

IT'S HARD TO IMPROVE ON NATURE. Natural vegetation along the shore is the best with no need for improvement and provides space for overflow and filtering. It regulates water temperature for fish and aquatic life habitat and there is little to no maintenance of a natural buffer.

Landscape it

BUFFER STRIPS SHOULD BE AT LEAST 35' wide but 75' is better. They should be continuous and undisturbed for at least 50% of the waterfront. Use landscape techniques that mimic natural shorelines and non-invasive plants. Consider using non pervious materials like gravel, stepping stones or light penetrating gratewalks to access the water.

Waterfront Habitat



AQUATIC VEGETATION may look like weeds, yet they are essential to provide fish and wildlife food and habitat. Aquatic plants filter nutrients and produce oxygen keeping lakes healthy and clean. These plants also stabilize the shoreline from the erosive actions of boat and jetski waves.



BOTTOM MATERIALS like rock and gravel provide spawning grounds for fish. Adding sand to the bottom of your shoreline destroys important fish habitat. Muddy lake bottoms support a host of insects and aquatic life which are food for growing salmon.



WOODY DEBRIS provides hiding and feeding areas for many fish and wildlife species. Ducks and other wildlife use partially submerged fallen trees and shrubs as resting places. Fish and frogs hide in the submerged branches from larger predators. Woody debris improves fish and wildlife habitat.

Wetlands:

why we need them

MARSHES STORE AND SLOWLY release water, reducing flooding and erosion. Wetlands are home to muskrat, moose, birds, frogs and fish. Growing salmon need slow moving water. Native marsh plants and woody debris trap sediments and filter pollutants improving water quality.

WETLANDS ACT LIKE SPONGES naturally soaking up and slowing down water. This important function reduces flooding. It stabilizes lake levels, and provides a filter for groundwater. Loss of wetlands leads to poor water quality, a decrease in fish populations, higher water levels and flooding.



Holding the Line

“ For many of us, water simply flows from a faucet, and we think little about it beyond this point of contact. We have lost a sense of respect for the wild river, for the complex workings of a wetland, for the intricate web of life that water supports. ”
—Sandra Postel

IT'S UP TO US.

People's actions may unwittingly damage or destroy habitat. Constant foot traffic, atv's crossing streams, fueling boats, and removing vegetation all contribute to degradation of the waterfront. Waters in the Mat-Su valley have been listed as impaired since 1978. Our individual actions can help to restore their health.

A HEALTHY WATERBODY

depends on a healthy watershed. Urban development occurring in a watershed can affect water quality. Poor land use several miles away can end up harming fish and wildlife habitat down the line. Pollutants and eroding soil within the entire watershed can end up in the water or groundwater. In a healthy lake, the water is safe for swimming and the fish are good to eat.



What can you do ?

Keep it Natural

- You don't need to give up a green lawn and If you have 100 feet of shoreline, consider reverting 75 feet to a more natural condition.
- Leave a buffer strip of natural vegetation along the shoreline to reduce erosion, help maintain water quality, and provide habitat and travel corridors for wildlife.
- Consider revegetating your shoreline to provide bank stabilization, erosion control and to filter surface runoff.
- Consider replacing the last 50 feet of your lawn down to the water with natural grasses and shrubs. This will allow plenty of lawn near your house while helping ducks, songbirds, butterflies, fish, and other wildlife.
- Pathways to your water should disturb the shoreline as little as possible. They can be vegetated with grasses or constructed with gravel or wood or gratewalks.
- By leaving your landscape natural, you improve the water quality of the Mat-Su Borough.



Resources:Alaska

Alaska Department of Fish and Game
www.adfg.state.ak.us, Palmer, 907-746-6300

Habitat Restoration and Protection
www.habitat.adfg.alaska.gov/streambankrestprot.php

University of Alaska Fairbanks
www.uaf.edu, Palmer, 907-745-3360
Cooperative Extension Service
www.uaf.edu/ces/water/publications

Matanuska-Susitna Borough
www.matsugov.us, Palmer, 907-745-9851
Planning, www.matsugov.us/planning

Alaska Department of Environmental Conservation
www.dec.state.ak.us, 907-376-1854

Water Quality, Assessment, & Restoration
www.dec.state.ak.us/water/wqsar
Water Quality 907-269-7647
www.dec.alaska.gov/eh/dw/dwp/source_water.html

Alaska Department of Natural Resources
Division of Agriculture
www.dnr.alaska.gov/ag
Plant Materials Center, Palmer, 907-745-4469
www.dnr.alaska.gov/ag/ag_pmc.htm

Resources:U.S.

US Department of Agriculture
Natural Resources & Conservation Service
www.ak.nrcs.usda.gov
Wasilla, 907-373-6492
www.nrcs.usda.gov/partners/for_homeowners.html

US Army Corp of Engineers, 907-753-2522
www.poa.usace.army.mil
Do I need a permit?
www.poa.usace.army.mil/reg/NeedPermit.htm

US Environmental Protection Agency
water quality restoration success stories
www.epa.gov/owow/nps/Success319/

Information

For more information please visit:

Friends of Mat-Su, 907-746-0130, www.FoMS.net
all links on this page are available @ FoMS.net/LINKS

Shoreline Landscaping: www.BlueThumb.org
Responsible Recreation: www.TreadLightly.org

Acknowledgements

Kenai Watershed Forum (Illustrations)

Ted Cox (Cover Photo)

Matt LaCroix, Heather ?? & Maggie Schildt (photos)

Layout, design and graphics by Deborah Schildt

Funding provided by

Kodak Greenways

Alaska Department of Environmental Conservation
Alaska Clean Water Actions

A special thanks to the many individuals who
donated their time, energy and talent in preparation
for this guide.

PRODUCED BY FRIENDS OF MAT-SU 2010