Activity 23: Your Impact on Salmon
-Self-Assessment-

Ages:

7th grade and up.

Time:

This is an ongoing project that you will initiate in a 15-30 minute activity. For at least one month, the teacher will check in with the students weekly regarding their progress.

State Essential Learning Requirements

Geography: 3.1

Civics: 4.1, 4.2

Materials:

Master of " Your Impact on Salmon" available in trunk or WDFW website

Overview:

The self-assessment is designed to make participants aware of how their personal actions in their households, property, workplace and community affect salmon. Participants use the self-assessment to analyze their life-styles and to figure out how they can be "salmon savers" instead of a "salmon threat". Students will take a pledge to undertake two "salmon enhancing" activities for at least one month.

Objectives:

- To determine which variables you are responsible for that impact salmon.
- To plan changes you can make that will help conserve salmon.

Critical Questions Addressed:

3. Recovery

Preparation:

Make one copy of the handout for each student.

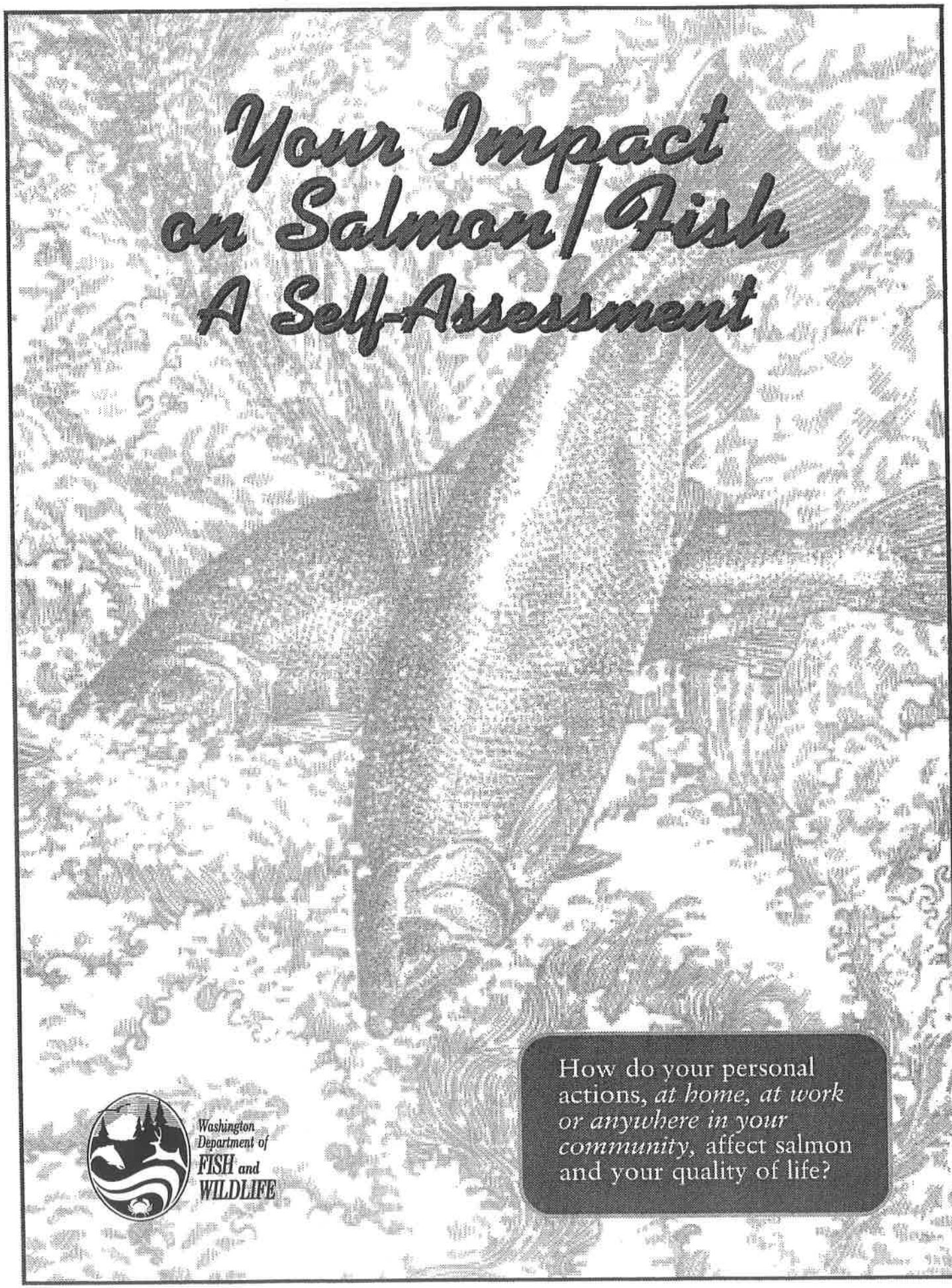
Directions:

- Ask students to complete each category of "Your Impact on Salmon."
- Many categories will need help from the family to complete with confidence.
- Ask students to find some examples where they can improve conditions for salmon.
- Ask students to find some examples where their family can improve conditions for salmon.
- Complete page on "Plan to Save Salmon."
- The Governor wants to know what you are doing for salmon.

You can submit your plan to:

WILD Salmon Education
Washington Dept. of Fish and Wildlife
600 Capital Way N
Olympia, WA 98501

Your plan of action will be reported to the Governor's Salmon Recovery Team.



Your Impact on Salmon/Fish
A Self-Assessment

How do your personal actions, *at home, at work or anywhere in your community,* affect salmon and your quality of life?

Washington Department of FISH and WILDLIFE

Your Impact on Salmon/Fish
A Self-Assessment

Protecting Salmon/Fish by your choices.

Every household and property owner is responsible for our land and water. Consider how you manage your home and property to make it a healthy living space for you and your family; a valuable asset; and a place which protects your fish and wildlife legacy.

Your Goal:

Your goal is to protect your land and quality of life while helping salmon. This assessment guides your choices to achieve this goal.

Why should you be concerned?

Salmon and other fish are in decline in the Northwest. We must act now to save salmon and protect our lifestyle. Salmon are one link in a complex food chain and depend on a healthy environment to maintain their populations. If salmon disappear, so will other species, and our quality of life will change. The decline of salmon is a warning to us to act now to maintain and restore the natural environment which sustains us.

What can you do?

This assessment has been designed to make you aware of your practices that increase the risk of hurting salmon and degrading our quality of life.

ake action now by completing the "Action Plan" worksheet located at the end of this booklet.

"It isn't just our salmon that are in trouble–
it's our Northwest quality of life that is in trouble.
We're all connected by our land and water.
When rivers flood and our lakes are polluted,
people and fish are hurt."

–Governor Locke, February 1998

Assessing Your Impact on Salmon/Fish

How do your personal actions, *at home, at work or anywhere in your community,* affect salmon and your quality of life?

Use this guide to look at the effects your lifestyle has on salmon and other fish. Check what best describes your actions in each category.

Enter the number of checks for each risk factor.

- ☐ **Saver** (low risk to salmon)
- ☐ **Friend** (moderate risk to salmon)
- ☐ **Threat** (high risk to salmon)

Example: # of Activities Checked

- [3] Saver
- [2] Friend
- [1] Threat

Fill in the planning chart on page 18 with your identified high risk activities which can degrade salmon.

Example: [1] Threat [✓] Drive to work alone

Develop a plan to reduce your high risk activities.

Example: Action possible: Take bus or carpool

Definitions:

A Salmon Saver Activity is one that helps salmon and protects our quality of life.

A Salmon Friendly Activity is one that has a neutral effect on salmon and quality of life.

A Salmon Threatening Activity is one that harms salmon and degrades quality of life.

Note: If you have checked activities which harm salmon, you can learn how to do things differently through the "Get Help" groups listed.

Salmon Saver Rating Chart

As a Salmon Saver You

Household Water Use

Get help from:

- Cooperative Extension
- Public Utility Districts
- City Water Utilities

A basic need of fish is water.

The more water you take from streams and groundwater, the less is available for fish passage and habitat.

- ☐ Look at household water use to find ways to use less. Ideally use less than 20 gallons of water per day per person.
- ☐ Install low flow toilets and ***save up to 34,000 gallons of water per year.***
- ☐ Install low flow shower-heads ***and reduce water use by 70%.***

Garden/Lawn Water Use

Get help from:

- Conservation District
- Cooperative Extension

- ☐ Minimize water use on gardens. Reduce lawn watering during summer. Use drip irrigation in garden.
- ☐ Maintain an organic lawn or reduce the size of your lawn.
- ☐ Grow native plants that use less water.

Landscaping

Get help from:

- WDFW Backyard Sanctuary Publications
- Cooperative Extension
- Local plant nurseries
- Conservation Districts often have an annual native plant sale at wholesale prices.
- City water utilites
- County Environmental Departments

See pg. 17 for information on native plants.

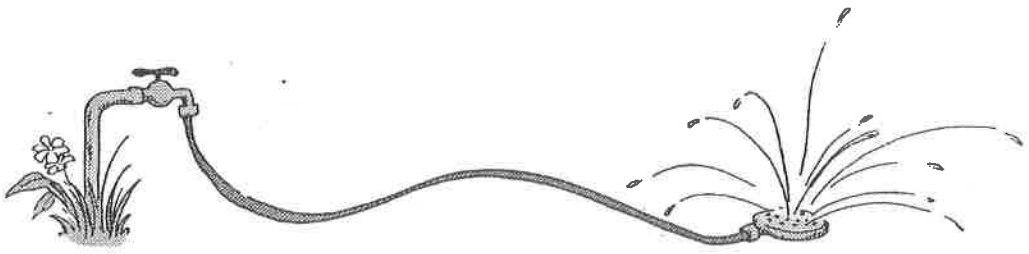
Mow it high and let it lie.

Lawns do not absorb rain well.

Native plants absorb rain, reducing the amount of runoff

- ☐ Keep surface areas natural where possible: poke holes in ground to increase water absorption.
- ☐ Maximize use of native plants in landscaping and reduce lawn size. Enjoy the benefits of native plants which attract wildlife, do not need fertilizers or pesticides, are drought resistant and need little maintainance.
- ☐ Make sure rainwater drains to yard, not street or septic drain field.
- ☐ Use efficient watering system; don't over-water.

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked
☐ Use as little household water for washing, cleaning, flushing, etc. as possible. ☐ Limit bath and shower time. ☐ Reduce toilet flush volume by installing a displacement device and save up to 12,000 gallons of water per year.	☐ Do not take into account household water use. ☐ Use more than 60 gallons per person per day. ☐ Take long showers at full blast	☐ Saver ☐ Friend ☐ Threat
☐ Minimize water use on gardens and lawns. ☐ Water lawn and plants early morning and evening when more water is absorbed. ☐ Turn off water at first sign the ground is saturated to allow time for water to be absorbed.	☐ Use more water than necessary on your garden.	☐ Saver ☐ Friend ☐ Threat
☐ Use some native plants in landscaping. ☐ Use mulching lawn mower. ☐ Set lawnmower to 2-3" height to get deeper healthier grass roots which retain moisture.	☐ Remove native plant species and plant lawns. ☐ Appy lots of water to landscape plants.	☐ Saver ☐ Friend ☐ Threat



Salmon Saver Rating Chart

As a Salmon Saver You

Electricity Consumption

Get help from:

- Local utilities can survey your energy use and make suggestions to reduce it.
- Local non-profit groups e.g. Energy Outreach Center
- Energy Extension at Cooperation Extension

In the Northwest electricity is largely generated through hydroelectric dams. Some dams block fish passage.

Using less electricity reduces the need for dam-generated power, and leaves more water to carry young salmon to sea

Turn lights off and help save a salmon.

- ☐ Survey household electrical use and follow family plan to reduce.
- ☐ Schedule electrical use for non-peak periods.

Pesticides and Weed Killers

Get help from:

- Cooperative Extension
- Conservation District
- The Toxics Coalition
- Local weed board
- 1-800-RECYCLE (to find out how to dispose)

Reduce your use

Fact: The cumulative effects of household use are 70 times more than agricultural use.

These are hazardous wastes that can poison fish, wildlife and vegetation, and eventually affect human health.

- ☐ Use Integrated Pest Management. (Get help from cooperative extension or conservation district.)
- ☐ Be happy with less-than-perfect plant specimens and lawn.

Use:

- ☐ Avoid use of weed killers. Pull weeds by hand.
- ☐ Use natural substitutes

Storage:

- ☐ Store chemicals where there's no chance for them to pollute surface or ground water.
- ☐ Store chemicals in original containers which are sealed and covered.

Disposal:

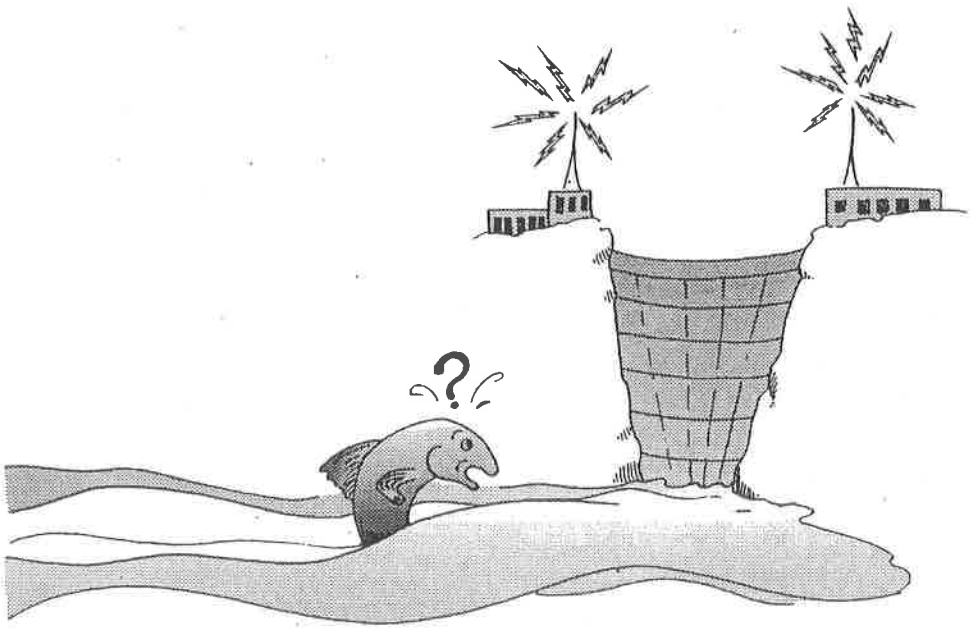
- ☐ Dispose of chemicals at designated hazardous waste sites.

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked

- ☐ Minimize electricity use.
- ☐ Buy energy efficient electrical appliances.

- ☐ Make no effort to reduce electricity use.
- ☐ Leave lights on in unoccupied rooms.

☐ Saver
☐ Friend
☐ Threat



Use:

- ☐ Seldom use pesticides and weed killers.
- ☐ Follow label instructions carefully.
- ☐ Use pest-resistant plants in landscaping.

Storage and Disposal:

- ☐ Never put left-over chemicals down drain.

Use:

- ☐ Do not follow chemical application guidelines.
- ☐ Use weed killers to control weeds.

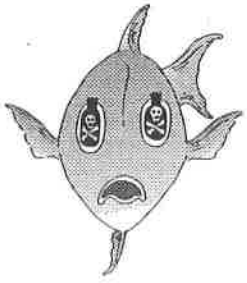
Storage and Disposal:

- ☐ Do not follow storage and disposal guidelines.

☐ Saver
☐ Friend
☐ Threat

Integrated Pest Management Hints:

- Monitor pest populations and use pesticides as a last resort after first trying all other methods.
- Plant pest resistant varieties.
- Maintain healthy plants and full ground cover to minimize pests and weeds.



Salmon Saver Rating Chart

As a Salmon Saver You

Fertilizers

Get help from:

- Cooperative Extension
- Conservation District

Natural Use

Fertilizers reduce good fish habitat by promoting excessive growth of aquatic plants that deplete oxygen for fish.

- ☐ Use home compost on garden, instead of commercial fertilizers.
- ☐ Keep use of nitrogen fertilizers to a bare minimum.
- ☐ Test soil to make sure you use appropriate fertilizer.
- ☐ Use slow release natural fertilizers.

Phosphates in Detergents

- Hint: Usually liquid detergents contain less phosphate than powders.

Hint: Electric dishwashing detergent often contains high phosphorus.

Reduce your use

Phosphates reduce good fish habitat by promoting excessive growth of aquatic plants that deplete oxygen for fish.

- ☐ Use only low phosphate detergents for all household purposes.
- ☐ Provide suggestions to grocery stores to stock low phosphate detergents.

Septic Systems

Get help from:

- City and County Health Department on septic system maintenance

In septic drainfields that fail the waste products percolate through the soil into the ground water, reaching streams & wetlands with pollution that depletes oxygen needed by fish.

- ☐ Pump septic tank every 2-3 years.
- ☐ Inspect annually when indicated, and avoid flushing non-biodegradable items and toxics. Avoid "drowning" the system with too much water at once.
- ☐ Prevent compacting soil over drainfield by vehicles and large animals.
- ☐ Don't use garbage disposal–or you don't have one.
- ☐ Don't use chemical additives that are sold to improve septic function.

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked
☐ Seldom use fertilizers. ☐ Follow label instructions carefully.	☐ Pay little attention to fertilizer application guidelines. ☐ Use petroleum-based fertilizers.	☐ Saver ☐ Friend ☐ Threat

☐ Look for detergents labeled low phosphate at local grocery store and buy when available.	☐ Disregard phosphate content of detergents.	☐ Saver ☐ Friend ☐ Threat

☐ Pump every 3-5 years. ☐ Inspect every few years. ☐ Use garbage disposal on a limited basis. ☐ Keep deep rooted plants off septic drainfield.	☐ Unsure when (or if) last pumping occurred or where drainfield is located. ☐ Use garbage disposal regularly. ☐ Pour hazardous chemicals down household drains.	☐ Saver ☐ Friend ☐ Threat

Salmon Saver Rating Chart

As a Salmon Saver You

Storm Drains

Get help from:

- City & County Stormwater Department
- Cooperative Extension

Runoff from urban/suburban property mainly goes to storm drains.

Most storm drains go directly to streams, wetlands & lakes - the wastes and runoff water entering the drain do not go to the sewage treatment plant.

These hazardous wastes poison fish, wildlife and their habitat.

- ☐ Never dump waste materials in storm drains – especially oils, paints, antifreeze, or household chemicals of any kind.
- ☐ Take hazardous waste to local hazardous waste disposal facility.

Reduce Runoff from Property.

Get help from:

- Conservation Districts
- Cooperative Extension
- Stormwater/surface water authority

- ☐ Drain rainwater from roof to yard where it is absorbed and kept off street or drainfield.
- ☐ Sweep driveways and sidewalks with a broom, not the hose.
- ☐ Maintain your neighborhood stormwater pond (in newer housing developments).

Cars/Trucks

Get help from:

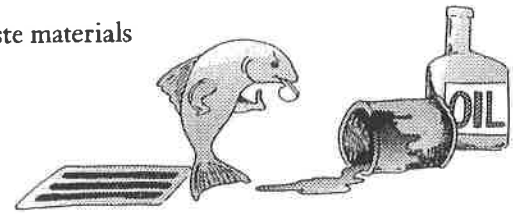
- Regional Transit Authorities
- State Department of Transportation
- Stormwater/surface water authority

Washing driveways & sidewalks sends car-generated pollutants into the stormwater drains which go directly to streams and wetlands and poison fish.

- ☐ Wash car on lawn; so water won't drain to street or storm drains. Or go to a commercial car wash where waste water is recycled.
- ☐ Check for oil & radiator leaks often and repair them at once.
- ☐ Use mass transit, car pools, walking or bicycling as often as possible.
- ☐ Use telecommuting when possible.

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked

☐ Prevent, where possible, waste materials from reaching storm drains.

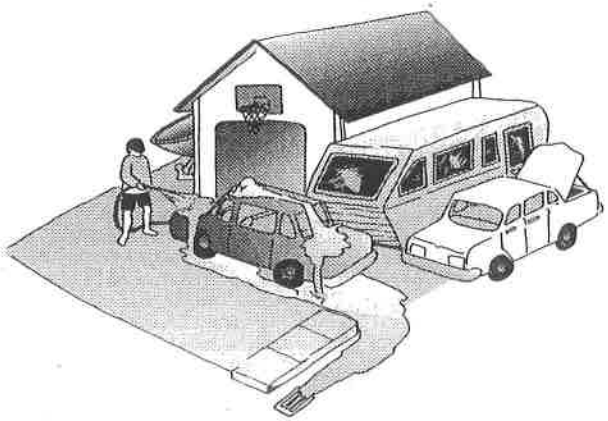


☐ Dispose of oil, paint and household waste down storm drains.

☐ Saver
☐ Friend
☐ Threat

☐ Minimize paved area on property.

☐ Limit size of your driveway and patio to no bigger than necessary.



☐ Cover property with lawn or leaves bare soil.

☐ Remove native vegetation.

☐ Maintain wide concrete or asphalt driveway.

☐ Spray and wash away driveway and sidewalk debris.

☐ Put in a tennis court and extra paved parking for RV's, boats, and guests.

☐ Saver
☐ Friend
☐ Threat

☐ Have mechanic check for oil & radiator leaks when car is serviced.

☐ Car pool or use mass transit sometimes. Or drive fuel-efficient car.

☐ Keep your vehicle(s) tuned for maximum efficiency.

☐ Wash vehicle in driveway or on street.

☐ Do not check vehicle for leaks.

☐ Drive to work alone.

☐ Drive a gas guzzler.

☐ Saver
☐ Friend
☐ Threat

Salmon Saver Rating Chart

As a Salmon Saver You

Living Near Water

Get help from:

- Conservation Districts
- WDFW
- Watershed Councils
- Cooperative Extension
- DOE

Waterfront owners have the greatest opportunity as stewards to manage their property for salmon survival.

Wetlands and estuaries are the nurseries that keep young salmon safe

- ☐ Maintain native streamside vegetation –the riparian zone– as habitat for fish and wildlife, to filter pollutants and minimize erosion.
- ☐ Replant with native plants if streamside plants have been removed –as wide a buffer as possible.
- ☐ Use natural ground cover or porous materials such as gravel or bark instead of asphalt and concrete for paths and drivesways.
- ☐ Ensure roof runoff soaks into the ground. Avoid piping to ravines or streams as it causes erosion.
- ☐ Minimize steep slope and bank erosion by leaving trees and shrubs.

Managing Large Animals

Get help from:

- Cooperative Extension
- Conservation District
- City and County Utilities

Waste from livestock and pets is a major source of water pollution, degrading water quality and the supporting habitat for fish.

- ☐ Fence livestock away from stream, wetlands or lakes.
- ☐ Consult local government recommendations on Best Management Practices to handle animal waste.
- ☐ Use best management practices for pastures and livestock facilities to minimize erosion and runoff

Managing Small Animals

Get help from:

- Cooperative Extension have suggestions for pet waste disposal.
- City & county Environmental Health

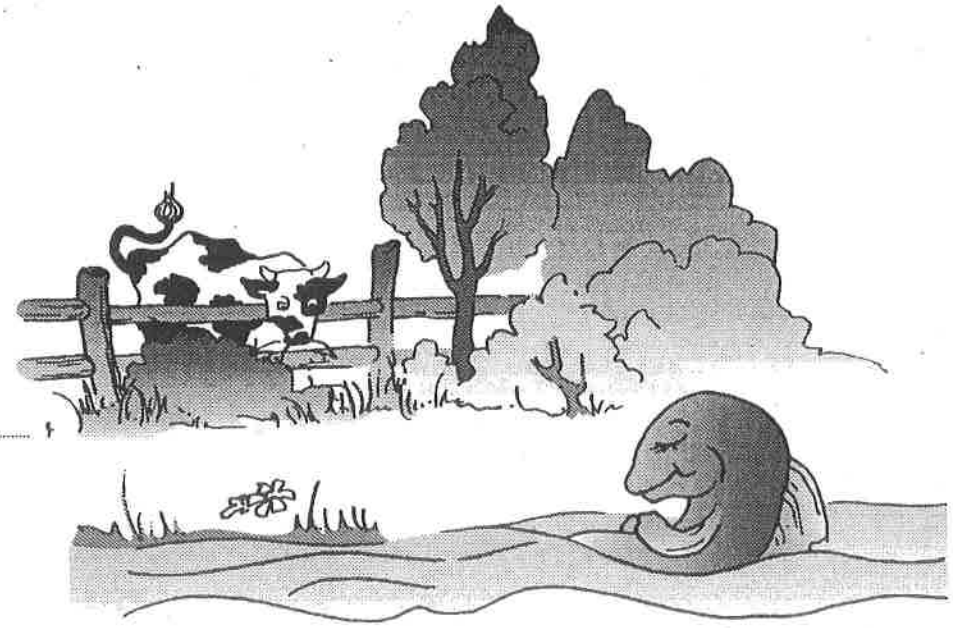
- ☐ Scoop up all pet feces and flush down toilet.

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked

- ☐ Maintain native vegetation at stream side.
- ☐ Check often for signs of erosion and pollution –follow up with remedies if possible.
- ☐ Keep lawn and grass clippings off waterway banks and buffers. Use curbside pickup or compost clippings away from streams and ravines.

- ☐ Landscape right up to the stream side, wetland or lake shore.
- ☐ Remove native plants along shore line.
- ☐ Pave paths leading to and around streams, wetlands and lake sides.

☐ Saver
☐ Friend
☐ Threat



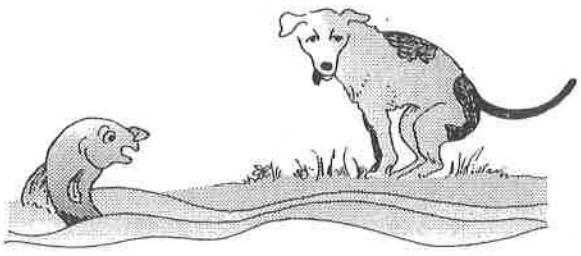
- ☐ Minimize animal access to streams.

- ☐ Allow livestock to stand in stream.

☐ Saver
☐ Friend
☐ Threat

- ☐ Clean up pet feces on sidewalks, driveways and other impervious areas and throw in unused part of yard.

- ☐ Leave pet feces where deposited.



☐ Saver
☐ Friend
☐ Threat

Salmon Saver Rating Chart

As a Salmon Saver You

Hazardous Waste

Get help from:

- All Department of Ecology regions have a 24 hour response line.

  Central WA, Yakima: (509) 575-2490

  Eastern WA, Spokane: (509) 456-2926

  Northwest WA, Bellevue: (425) 649-7000

  Southwest WA, Lacey: (360) 407-6300

Hazardous waste poisons all fish and aquatic life.

- ☐ Keep a close watch for evidence of oil and other contamination in waterways, and report such occurences to authorities.

Becoming a Salmon Steward

Get help from

- WDFW publication: *"NatureMapping for Fish and Streams"* and *"Restoring the Watershed."*
- Conservation Districts
- Watershed Councils
- Local Stream Team
- Adopt-A-Stream
- Cooperative Extension Volunteer Programs, 4H, Master Watershed Stewards

Citizen projects, including data collecting and monitoring, are valued by private groups & public agencies, and directly contribute to salmon in our future.

- ☐ Take stewardship classes and volunteer on stewardship projects.
- ☐ Assess the health of streams, wetlands or lakes.
- ☐ Report data.
- ☐ *Volunteer in the community to do projects that help salmon such as:*
  - ☐ Riparian area planting
  - ☐ Water and habitat monitoring
  - ☐ Aquatic insect surveys
  - ☐ Giving presentations to schools and adults on how they can make a difference.
  - ☐ Helping with stream, wetland or lake enhancement projects
  - ☐ Instream restoration with permits and technical expertise creating habitat in streams for fish using logs and gravel

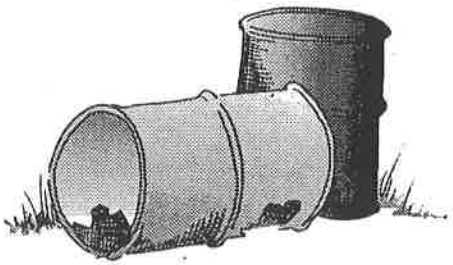
- ***Websites:***

http:/salmo.cqs.washington.edu/~wagap/nm (Nature Mapping)

http:/www.wa.gov/ecology/wa/wow (Watch Over Washington)

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked

☐ Report spills.



☐ Ignore neighbor pouring oil or chemicals into streams.

☐ Ignore evidence of spill, expecting someone else to report.

☐ Saver

☐ Friend

☐ Threat

☐ Seek assistance to assess the health of local watershed for salmon.

☐ Know where the streams are located and what fish use them. Periodically walk the stream to check on water level and the presence of fish, and to look for anything unusual.

☐ Know where water from property drains.

☐ Watch for environmental changes in your community.

☐ Minimize your impact outdoors when recreating. Do not ride through streams on bikes. Stay on trails and do not trample streamside plants.

☐ Avoid vehicle travel off road and on muddy roads.

☐ Believe salmon/fish are someone else's problem.

☐ Are unaware of local streams; their location, or the fish that use them.

☐ Do not know where water drains from property.

☐ Do not know what a watershed is.

☐ Saver

☐ Friend

☐ Threat

Salmon Saver Rating Chart

As a Salmon Saver You

Volunteering

Get help from

- WDFW publication on "Restoring the Watershed"
- Watershed councils
- Salmon Enhancement Groups
- Sportsman groups
- Cooperative Extension Volunteer Programs (see website)
- Adopt-A-Stream Foundation
- Local Stream Teams
- Save Our Stream & other organizations
- Regional Fisheries Enhancement Groups
- WDFW Website http ://www.wa.gov/wdfw
- Conservation Districts "Earth Team," etc.

Saving salmon/fish begins with you.

Your personal actions will make a measurable difference.

- ☐ Assess community practices according to these guidelines.
- ☐ Educate your community by offering training on what to do.
- ☐ Get out on the streams and restore the habitat.
- ☐ Regularly contribute volunteer hours to a project that improves the environment.
- ☐ Participate in the running of a volunteer organization.

Getting Involved

Get help from:

- Department of Community Trade and Economic Development
- Check local city and county growth management plans for ordinances which affect salmon.

Local county commissions and city councils are deciding the future of fish, wildlife and salmon recovery through growth management plans.

Your input counts.

- ☐ Check local growth management plans for policies that reflect good practices.
- ☐ Seek changes in plans to make streams safe for fish.
- ☐ Keep neighborhood associations informed on watershed health & neighborhood practices that could improve it.

As a Salmon Friend You	As a Salmon Threat You	Your Impact # Activities Checked

☐ Hope to find more time to volunteer for local groups saving the salmon.

☐ Contribute a few volunteer hours or money to a project that improves the environment.

☐ *No Action is An Action!*

☐ Saver

☐ Friend

☐ Threat

☐ Read the growth management plans and support local officials in developing policy which positively affects the environment.

☐ Participate in a neighborhood association.

☐ *No Action is An Action!*

☐ Saver

☐ Friend

☐ Threat

Beneficial Plants

Native and other plants recommended for your property that enhance salmon and wildlife habitat:

Western Washington

Trees:

- Sitka spruce
- Red Alder
- Black Hawthorn
- Oregon Ash
- Black cottonwood
- Western hemlock
- Douglas fir
- Western Red Cedar
- Grand Fir
- Aspen
- River Birch

Shrubs:

- Serviceberry
- Red-osier dogwood
- Ninebark
- Snowberry
- Tall Oregon-grape
- Oceanspray
- Red-flowering current
- Evergreen huckleberry
- Salmonberry
- Hazelnut
- Vine Maple
- Nootka Rose
- Hardhack
- Black twinberry
- Red Elderberry

Eastern Washington

Trees:

- Ponderosa pine
- Douglas fir
- Englemand Spruce
- Black Cottonwood
- Western Red Cedar
- Quaking Aspen
- Oregon White Oak

Shrubs:

- Douglas hawthorne
- Serviceberry
- Woods rose
- Chokecherry
- Golden currant
- Elderberry
- Willow
- Red-osier dogwood
- Snowberry
- Rabbitbush
- Mock Orange
- Bitterbrush

Grass cover:

- Upland grass mix for Eastern WA.
- Blue fescue
- Great Basin wild rye
- Idaho fescue

For information on tree and shrub species and planting guidelines:
Contact the Community Forestry Program: 1-800-523-TREE,
or Washington Dept. of Natural Resource Urban,
and WDFW Urban Wildlife Program 425-775-1311 Ext. 110

Plan to Save Salmon by limiting High Risk Activity

List activities that ranked "high risk - Threat"

Activity Identified as High Risk	Immediate Action Possible	Further Planning Required	Taking Action
	(change in activity only, cost not a factor)	(involves long term planning and cost)	(Proposed first step to address concern)

Central Contact Numbers

Washington Department of Fish and Wildlife (WDFW)
360- 902-2200
Website: http://www.wa.gov/wdfw

Department of Ecology
360-407-6000

Department of Transportation (DOT)
360-705-7000

For an Environmental Emergency call Ecology 24-hour Emergency Spill Response Line: 360-407-6300

For information on Growth Management Planning in your area call: 360-753-2222

To Find a Conservation District in Your Area call:
Conservation Commission: 360-407-6200
Website: http://www.conserver.org/wcc.html

To Find a Cooperative Extension Office in Your Area call:
Washington State University: 509-335-2811
Website: http://ext.wsu.edu - Link to CSANR and Master Gardeners

For Information on Disposal of Pesticides, Herbicides and other Hazardous Wastes call:
Ecology Hazardous Waste Hotline: 1-800-RECYCLE

For Landscape Information call:
Washington Native Plant Society: 1-888-288-8022

For Information on local City and County Sewer and Water Districts call:
253-872-4063

For Information on Public Utility Districts in your area call:
Washington PUD Association: 206-682-3110

Washington Toxics Coalition:
1-800-844-SAFE

Washington Dept. of Natural Resources Forest Stewardship Program
(Technical and Financial assistance to forest owners for forestry, fish and wildlife practices): 1-800-527-3305.
Website: http://www.wa.gov/dnr. E-mail: forest_stewardship@wadnr.gov

Many individuals from the above groups were involved in the development and review of this document.
Written and Produced by Washington Project WILD Programs at WDFW

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