

## **GAP ANALYSIS**

**Lake Washington/Cedar River/Sammamish  
Watershed (WRIA 8)  
Chinook Salmon Conservation Plan  
Education/Outreach**

**Sage Enviro  
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## Purpose of this report

Local governments participating in the Chinook Salmon Conservation Plan for the Lake Washington/Cedar/Sammamish Watershed (WRIA 8) are engaged in a number of actions to help salmon recovery in the watershed. Some of these actions relate to public education and outreach (see below). WRIA 8 asked Sage Enviro to do research and analysis to help answer the following questions:

- Where are the gaps in implementation of the WRIA 8 salmon recovery plan's education and outreach recommendations?
- What can WRIA 8 do to improve implementation of these recommendations?

This document describes current activities related to education and outreach. A separate document outlines recommendations for filling any gaps.

## Background

In 1999, the federal government listed Puget Sound Chinook salmon as threatened under the Endangered Species Act. In 2000, 27 local governments in WRIA 8 came together to develop a plan to protect and restore habitat for Chinook salmon. The WRIA 8 Chinook Salmon Conservation Plan contains a comprehensive and ambitious agenda for restoring salmon in the watershed. The Plan is being implemented as a collaborative effort of these 27 local governments along with citizens groups, businesses, and state and federal government agencies.

The Plan's actions are grouped into three categories of actions:

- **Site-specific habitat protection and restoration activities**, such as levee setbacks, revegetation and removal of barriers to fish passage.
- **Land use and planning actions** that aim to accommodate future growth while minimizing impacts to salmon habitat, such as incentive programs, regulations, best management practices and enforcement actions.
- **Public education and outreach** to support the other actions or encourage behavior that benefits habitat health.

There is good reason for the Plan to include education and outreach as a key element for recovering salmon. The three approaches—site-specific projects, land use and planning, and education and outreach—work best if they are done in concert. For example, changes in a policy or regulation will not be effective if they meet with resistance in the community. Volunteers can be recruited to help with restoration projects. Education can help increase the willingness of residents or businesses to support salmon recovery.

Residents and businesses engage in numerous actions every day that affect salmon in positive or negative ways. From washing a car to fertilizing a lawn, from planting native vegetation to managing runoff from parking lots: these behaviors and many others need to be addressed if we are to be successful in restoring salmon in WRIA 8. There is also an ongoing need to promote the value of salmon recovery so that people will continue to support funding, regulations, enforcement and other actions.

Many of the Plan’s 1,200 comprehensive actions focus on public outreach. A matrix of outreach and education actions on the Plan’s 10-year “Start List” is 30 pages long. Many recommendations overlap because the plan is geographically based and different actions may be recommended in different parts of the watershed. This report addresses watershed-wide actions.

## Methodology

### Step 1. The big picture: What is most important?

We began by stepping back to get a big-picture look. We developed a matrix that included key salmon recovery issues and key behaviors. WRIA 8 staff did an informal ranking of which behaviors were more important to salmon recovery. This was not a scientific exercise but a rough estimate based on experience and their best judgment. Here is the resulting list of key behaviors. The behaviors included were ranked 4 or 5 on a 5-point scale. This is still a long list, and it should be revisited at a future date. Forest cover was added to the matrix in the process of writing this report.

### Behaviors addressed in this strategy

Key salmon recovery issues	Key behaviors affecting issues	Importance to salmon recovery
Support for salmon recovery	Willingness to pay, accept regulation, change behaviors, help restoration	5
Political, financial support	Funding, policies	5
Stormwater flows (too much; not enough)	Low-impact development	5
Stormwater flows	Natural yard care, compost use, salmon-friendly landscape design	4-
Water quality	Low-impact development	5
Water quality	Natural yard care, compost use, salmon-friendly landscape design	4-
Water quality	Auto maintenance Car washing	4+
Water quality	Stormwater BMPs: parking lots, storm drains, roads	4+
Habitat for shelter, rearing, migration	Lakes: shoreline design and maintenance (docks, pilings, bulkheads), slope stabilization	5
Habitat for shelter, rearing, migration	Rivers and streams: shoreline design, stream bank armoring, slope stabilization	5
Forest cover; habitat for shelter, rearing, migration	Voluntary stewardship, restoration	5
Forest cover	Low-impact development	5
Forest cover	Salmon-friendly landscape design	4-
Forest cover	Lakes: shoreline design and maintenance, slope stabilization, plantings	5
Forest cover	Rivers and streams: shoreline design and plantings, slope stabilization	5
Forest cover	Retain existing forests; plant trees	5
Native & shoreline vegetation, invasive plants	Plant shorelines with native or other appropriate plants; control invasive plants	5
Woody debris in streams	Acceptance, retention; awareness of rules, public safety, salmon benefit	5

The Plan includes other behaviors that received lower rankings. These behaviors may be important for other reasons, but they are less important for salmon recovery. To reduce the number of possible actions and help establish priorities for near-term actions, they are not addressed in this report. Here is the list of lower priority behaviors.

**Behaviors NOT addressed in this strategy**

Key salmon recovery issues	Key behaviors affecting issues	Importance to salmon recovery
Stormwater flows	Groundwater: recharge, illegal withdrawals	3; locally important, e.g., Bear, Rock, N. Fork Issaquah
Stormwater flows	Water conservation	3
Stormwater flows	Rainwater capture/graywater capture	3+
Water quality	Livestock BMPs	1
Water quality	Pet waste	1
Water quality	Septic system maintenance	2
Water quality	Aquatic weed control	? unknown
Wetlands, seeps	Coexist with beavers	3

**Step 2. Completing the matrix**

In addition to these two columns, the strategy matrix (included as an appendix to this report) also has columns on:

- Key audiences
- Ease of behavior change
- Can partners work together?
- Can the WRIA 8 team affect?
- Who is working on the issue or behavior?
- Notes, especially on behavior changes

Various groups worked to complete entries in the different columns. Sage Enviro and Frause assessed how easy it would likely be to change various behaviors. We asked the WRIA 8 Communications Committee to discuss which issues they might be interested in working on together, and the WRIA 8 team discussed which issues they thought the team could affect. The results of these exercises were added to the matrix.

**Step 3. Who is doing what? Where are the gaps?**

The next step was to get a better picture of which jurisdictions were working on the issue or behavior and what they were doing. We used several sources:

- The survey that most jurisdictions completed for the *WRIA 8 Implementation Progress Report 2006-2007*.
- Follow-up interviews with jurisdictions that completed the survey to gather more details.
- Additional interviews with a few key people and jurisdictions.

For each issue below, we have described what we know about the current status of outreach and education in WRIA 8.

#### **Step 4. How could WRIA 8 support or enhance current efforts?**

We looked at this in various ways: What could WRIA 8 do in 2009 with existing funds? Where could WRIA 8 have the greatest impact on salmon recovery? What are priority behaviors that should be addressed with additional funds in the future? These are briefly described below and are outlined in more detail in a separate report titled “Recommendations for WRIA 8 Education/Outreach Strategy.”

#### **Key issue: Support for salmon recovery**

#### **Key behaviors: Willingness to pay, accept regulation, change behaviors or help with restoration**

The WRIA 8 plan includes hundreds of recommendations addressing education and outreach to promote salmon recovery, but does not include recommendations to encourage overall support for salmon recovery. For the plan to be successful in the long run, it is important to grow and maintain support for funding, regulations, salmon-friendly behaviors and voluntary restoration.

There are a few key audiences for these behaviors. The easy target audience is people who currently participate in volunteer restoration efforts. These people already believe that restoring habitat and protecting the environment are priorities. See section on page 10 on volunteer events. People who come out to see salmon through Salmon SEEsion and similar efforts are also likely to be supportive.

The larger audience of watershed residents is a tougher sell. People are busy, and many things compete for their attention. Salmon recovery is not on most people’s radar screens. Salmon are not warm and fuzzy. Disappearing orcas and drowning polar bears have more potential to capture attention than threatened salmon. As Paul Bergman from the Puget Sound Partnership said, people are suffering from “salmon fatigue” (see Puget Sound Partnership below).

Local, state and federal governments are another key audience. Given the recent economic downturn, many priorities will also be competing for government attention and funds. If money has not already been allocated (and even if it has), it will be difficult to argue for funding for salmon recovery, habitat improvements, water quality, low-impact development and other actions that affect salmon.

#### **Current actions affecting support for salmon recovery**

The **Puget Sound Partnership** plans to focus its efforts on raising awareness about the threats facing Puget Sound. They want people to know the Sound is in trouble and something should be done about it. They recently conducted surveys and focus groups to help them frame the problem and create a sense of urgency around Puget Sound recovery.

Here are some of the findings from a survey conducted for the Puget Sound Partnership:

- Most people don’t understand how the storm drain system works and how misuse and abuse of it leads to pollution.
- Most people are not very concerned about pollution of Puget Sound waters, and nearly half think the waters are in good condition.

- People are not aware of how their everyday behaviors contribute to pollution, and are not very concerned about actions that contribute to pollution.
- When people hear specific facts about how everyday actions pollute Puget Sound, their concern increases.
- Research shows that visual images along with verbal descriptions produce more changes in attitudes and behaviors than descriptions alone.
- After hearing the facts, residents consider it a shared responsibility to pay for cleaning up and protecting Puget Sound.

According to Paul Bergman, communications director for PSP, contaminated water and health concerns are the messages that are most likely to motivate people. If people believe that local rivers, streams and Puget Sound are contaminated, they see a personal connection to the water they drink or come in contact with.

Bergman said that creating a legacy for the future and protecting salmon and other critters are less effective messages. People don't see that salmon affect their lives. The average household doesn't eat much salmon. "If salmon go away, life goes on," Bergman said. "If you can convince them the water is polluted and it ruins their creeks and bays, you've won. It has to be very personal."

**Salmon SEEson** is the most visible effort to promote salmon recovery in WRIA 8. The cooperative program, managed by WRIA 8, publicizes sites where people can view salmon returning to spawn. Several cities and nonprofit groups participate in Salmon SEEson. When people come to the sites, they usually receive education on salmon, the ongoing efforts to promote salmon recovery, and behaviors and actions that will help salmon, such as protecting water quality or preserving habitat.

In addition, nonprofit organizations such as People for Puget Sound and Friends of the Cedar River Watershed are educating members and others about salmon recovery, water quality, habitat and other important issues.

There is less promotion of salmon recovery than when salmon were first listed as threatened under the Endangered Species Act. Any efforts that exist are not coordinated, and there are no watershed-wide efforts.

### **Possible enhancements**

The "Recommendations" document suggests that WRIA 8 work collaboratively with participating jurisdictions to reframe the message to connect salmon recovery to other important local issues. These messages could be used with both elected officials and watershed residents. WRIA 8 could also continue to refine Salmon SEEson. See that document for more details.

### **Key behavior: Low-impact development**

Low-impact development (LID) protects streams, rivers and lakes by reducing the amount of runoff and reducing pollutants that end up in surface water. This is accomplished through soil amendment, plant choice, retention of existing trees, rain

gardens and swales, pervious pavement and other means. Key audiences include the construction industry (builders, architects, engineers and developers), the green industry (landscape architects, landscape designers and contractors) and those who own or buy property, such as homeowners.

Several cities and counties are working on low-impact development. This includes pilot development projects, changes in building codes and other regulations, seminars for builders and developers, and information about new ordinances.

- Mercer Island is doing an LID pilot project.
- Woodinville incorporated LID into its code in 2008.
- Renton is developing a stormwater design manual, which will include LID standards and their applicability within the city. They plan to adopt the manual no later than August 2009.
- Snohomish County is partnering with Edmonds Community College to educate building and development community about LID.
- Sammamish is adopting an LID ordinance.
- Redmond has a pilot project with an LID component under construction.
- Kirkland is working on code changes to provide incentives and facilitate the use of LID. Kirkland has also developed a brochure on residential LID.
- King County regulations require the application of LID techniques on nearly all new development and redevelopment projects that are subject to drainage review.
- King County has a Green Tools website that includes resources for suburban cities on LID and site conservation.  
<http://your.kingcounty.gov/solidwaste/greenbuilding/toolkit/>
- Seattle is working on green stormwater infrastructure and natural drainage systems.
- Stewardship Partners is working with several local agencies to present workshops for homeowners on why and how to build rain gardens.
- The 2008 WRIA 8 legislative tour of the watershed included LID sites.
- The Puget Sound Partnership has produced a wealth of information on LID, including web site information and links, a technical manual, brochure and workshops.
- The Department of Ecology has provided grants to local governments for LID practices.
- Both LEED and Built Green include some measures related to sustainable landscapes.

### **Possible enhancements**

Given the wide range of existing activities, WRIA 8's role could be to coordinate efforts, such as developing joint educational materials or other tools or making existing resources more widely available. See the Recommendations document for more details.

### **Key behavior: Alterations to lakeshore habitat**

Lakeshores provide important shelter, cool water and food for young salmon as they grow and develop. Many properties along lakeshores are not friendly to young salmon

because of their choices for armoring (such as riprap), plantings, docks or other features. For example, trees, shrubs and native groundcovers are often replaced with lawns. Bulkheads displace beaches and cause erosion.

Key audiences include lakeshore homeowners, the construction industry (builders, architects, engineers and developers), the green industry (landscape architects, landscape designers and contractors), marine contractors and designers.

In 2007 several jurisdictions around Lake Washington worked with students at the University of Washington to survey lakeshore homeowners. The survey asked about current practices with their shoreline property, whether they had changed or attempted to change the shoreline, where and how they obtained information about the neighborhood, what they thought were desirable natural functions for the shoreline, and what their barriers were to changing their properties to include a more natural shoreline.

There are several key barriers that prevent shoreline property owners from voluntarily choosing to create more natural conditions along Lake Washington's shoreline.

### **Key barriers to green shorelines**

Permitting process	78%
Cost	70%
Ineffective erosion control	66%
Ineffective wave protection	61%
Time	54%

Seattle developed a comprehensive handbook to address the barriers called "Green Shorelines: Bulkhead alternatives for a healthier Lake Washington." The handbook covers green shoreline practices, approaches, docks, cost and maintenance, choosing a shoreline professional and getting permits. Seattle has sent copies of the handbook to communities surrounding the lake for their use.

The WRIA 8 team is currently co-hosting three workshops with private landowners, permit staff from participating cities and others to discuss barriers and other issues affecting lake shorelines. The workshops should lead to recommendations and tangible ideas for a strategy, such as methods to reach shoreline property owners, distribution methods for the guidebook and ways to change the behavior of property owners. The work should be completed by June 2009.

#### **Other actions:**

- Bellevue's Critical Areas handbook includes landscape templates for all critical areas, including lakeshore, streamside and wetland properties.
- Renton's permit review process encourages the use of more natural protection and landscaping practices. The city has no immediate plans for shoreline workshops or demonstration projects.
- Issaquah planned to initiate a private landowner assistance program in 2008.

- Snohomish County has developed a shoreline enhancement demonstration project for Lake Serene. This includes information for lakeshore users and boat owners about the invasion of aquatic nuisance species and toxic algae risks.
- The Snohomish County Master Recycler Composters has held workshops on using native plants to help stabilize bluffs. There is no soft alternative in the county for people to see, which makes it more difficult to get people to consider alternative designs.
- WSU Beach watchers in Snohomish County commit to hours of educational outreach that includes natural shoreline protection and vegetation enhancement BMPs.
- Seattle received a grant to develop a demonstration project of soft shorelines on private property.

### **Possible enhancements**

WRIA 8 should use the results of the workshops described above to develop a joint strategy for lakeshore homeowners. See Recommendations document for more details.

### **Key behavior: Alterations to habitat on rivers and streams**

Habitat in and on rivers and streams is key to salmon survival as they migrate to and from the ocean. Streamside or riverfront property owners can help or hinder salmon survival through the choices they make for shoreline design, such as stream bank armoring, slope stabilization, plant choice, retention or removal of existing trees and removal of invasive plants. In addition to property owners, other potential audiences include the construction industry (builders, architects, engineers and developers), the green industry (landscape architects, landscape designers and contractors), marine contractors and designers.

Some current actions related to streamside property owners:

- Bellevue's residential outreach program includes sustainable design and assistance for streamside property owners. The city does outreach to streamside homeowners, including workshops, as part of its Critical Areas Ordinance.
- Woodinville distributes brochures to homeowners near Natural Growth Protection easements and waterways about pollution and water quality. Woodinville's code has incentives that require enhancement and restoration to reduce buffers.
- Seattle has an aquatic habitat grant program that provides funds to restore habitat on both public and private property. Seattle Public Utilities is focused on stormwater and drainage, so the utility cannot fund restoration on shorelines unless there is a stormwater pipe nearby.
- Issaquah did outreach to streamside landowners about four years ago using grant funding. While workshops had good participation, only a few landowners agreed to have on-site consultations. Issaquah is interested in working with streamside landowners again because the restoration on city-owned property has reached its limits. If the city wants to do more, it will need to work with private property owners. The city sees permitting, understanding buffers, and the cost of permits and design as barriers for private property owners.

## **Snohomish County research and workshops**

Snohomish County did several surveys and focus groups related to streams, salmon conservation and water quality. However, most of the questions dealt with stream pollution rather than streamside habitat.

Two focus groups and a survey of 400 residents in unincorporated Snohomish County assessed how to motivate public involvement in salmon conservation and water quality. Here are a few key findings:

- Residents' priority targets for protection include Puget Sound and its shorelines, salmon and other wildlife habitat, and local creeks and streams.
- Residents believe these areas should be protected from polluted runoff, illegal dumping and the effects of development.
- Ways that Snohomish County could encourage residents to learn and do more:
  - Cooperate with local stores and nurseries to offer incentives for native plants and less toxic products.
  - Place messages in utility bills or other forms of mail contact.
  - Create school curricula to reach children.
  - Place information kiosks where people naturally gather: stores, malls, farmers markets, community fairs, etc.
  - Develop a website and hotline number. People are unlikely to seek information out on their own.

This research identified three groups: Ready and Willing, Persuadable and Unwilling.

- “Ready and Willing” tend to be renters, parents, urban and small-town residents, young people, especially women, and non-college educated residents.
- “Persuadable” tend to be over 50, especially women with a college degree.
- “Unwilling” tend to be men over 50 with a college degree.

Another Snohomish County study surveyed 300 streamside property owners. The survey found the following barriers to streamside stewardship:

- Lack of knowledge (most don't think they have any erosion or drainage problems; don't know how to take proper care of the stream)
- Proximity of house to stream (house is not close to the stream, so “out of sight, out of mind”)
- Desire to keep it “natural” (nature will take care of itself)
- Lack of time or money
- Fear of reprisal from Snohomish for actions they take

Snohomish County has reached about 600 streamside residential landowners through workshops and on-site technical assistance from watershed stewards. The county also has extensive information for streamside landowners on its website:

[www1.co.snohomish.wa.us/Departments/Public\\_Works/Divisions/SWM/Services/Landowners/Streamside/](http://www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/SWM/Services/Landowners/Streamside/).

### **Possible enhancements**

Streamside property owners are a priority for WRIA 8, and only a few local governments have done recent work in this area. The WRIA 8 team and interested jurisdictions could play an important role in moving this forward in the watershed. It would be worth exploring options with WRIA 8 committees. See Recommendations document for more details.

### **Key behavior: Voluntary stewardship, restoration**

Volunteer restoration efforts can help improve habitat for salmon. People who turn out to plant trees and clear invasive plants are also prime targets for messages about the importance of salmon recovery and what else they can do to help, such as changing other behaviors to better protect water quality and habitat. Possible audiences include property owners, members of community organizations and land trusts, children and watershed residents in general.

Participating governments are involved in a number of actions related to voluntary stewardship.

- Issaquah does tree planting events in partnership with Mountains to Sound Greenway Trust. The events have high participation and there are many repeat volunteers. Messages that work for Issaquah: clean air, clean water and wildlife. They have found that the events are useful for education.
- King County's "reLeaf" program has hundreds of participants.
- Woodinville gets about 100 volunteers at each of its Sammamish reLeaf events (this includes Earth Corps volunteers).
- Mill Creek and Bellevue both have volunteer planting events.
- Woodinville has a Salmon Watcher program and Sammamish River Stewards that work on restoration sites. The city is developing a new program for restoration volunteers.
- Renton does volunteer plantings with environmental groups, high schools and existing volunteer programs.
- Snohomish County does education through basin stewards, watershed keepers, tree planting events, salmon watcher programs and other workshops.
- Shoreline does a family restoration event in the largest watershed, Boeing Creek, and works with schools and the nonprofit Sustainable Shoreline Education Association.
- Redmond participates in Sammamish reLeaf and sponsors other planting events. The city uses King County's native plant brochures.
- Kirkland is partnering with the Cascade Land Conservancy on the Green Kirkland Partnership. The partnership sponsors and promotes events to control invasive plants and plant native plants and trees.
- Friends of the Cedar River Watershed sponsors a number of restoration and education events each year.
- Seattle does restoration events through different "friends of parks" groups and through watershed councils, such as Thornton and Pipers creeks. The city supports volunteers through a creek stewardship program that removes invasive

plants and installs native plants. The city is also involved in restoration of its parks, especially removing invasive plants and planting trees, through the Green Seattle Partnership with Cascade Land Conservancy

- The MudUp campaign is recruiting people to do restoration work on Puget Sound shorelines. MudUp is sponsored by the Alliance for Puget Sound Shorelines, a collaboration of The Trust for Public Land, The Nature Conservancy, and People for Puget Sound. A generous grant has allowed MudUp to create a website and do media outreach.

### **Possible enhancements**

Since so many jurisdictions and organizations are sponsoring stewardship activities, the most useful role for WRIA 8 could be to help make the work of its partners more effective, such as through building skills, improving coordination and/or doing research on key audiences. See Recommendations document for more details.

### **Key behavior: Retention of existing forests; planting trees**

Forest cover plays an important role in reducing runoff and peak flows, maintaining stream temperatures and protecting water quality. Much of the forest cover is in protected areas, such as the drinking water supply in the upper Cedar River watershed. However, forested areas also exist on public and private property elsewhere in the watershed.

Potential key audiences include commercial and residential property owners, members of community organizations and land trusts, tree advocates, the green industry (landscape architects and designers, landscape maintenance companies and arborists) and the construction industry (builders, architects, engineers and developers).

Activities addressing several key behaviors can help encourage the protection and restoration of forested areas, including:

- Voluntary stewardship and restoration
- Low-impact development
- Salmon-friendly landscape design
- Alterations to lakeshore habitat
- Alterations to habitat on rivers and streams

Several cities have activities to protect existing trees, such as ordinances that require permits to remove significant trees from private property. Both Seattle and Redmond are working with the Cascade Land Conservancy to recruit volunteers to remove invasive plants and plant trees in city parks. Seattle is promoting the benefits of trees to residents through its Seattle reLeaf program and encouraging them to plant and maintain trees. King County has a program to encourage retention of forests through current use taxation, education and technical assistance.

### **Possible enhancements**

A key role for WRIA 8 could be developing messages about the importance of trees and how they relate to salmon recovery, global warming and quality of life. See Recommendations document for more details.

## **Key behavior: Acceptance and retention of woody debris in streams**

Woody debris in streams provides important shelter for salmon and helps reduce velocity during storm events. There is a small amount of outreach, such as brochures. Potential audiences include members of community groups, boating organizations and recreational boaters.

This is an important issue, but it is also politically contentious. Recreational boaters, in particular, are opposed because they are concerned about boater safety. There is a current controversy about woody debris in the Cedar River.

### **Possible enhancements**

WRIA 8 could develop key messages and provide these messages to supporters who are willing to talk to elected officials. See Recommendations document.

## **Key behavior: Auto maintenance and car washing**

Auto maintenance affects salmon habitat through runoff of soaps, motor oil and other car products. More than half of the participating jurisdictions have programs in place to encourage use of commercial car washes or car wash coupons. Many cities have car wash kits to provide to charity car washes. Most of the programs target residential audiences. Other potential audiences include the auto maintenance industry and businesses with corporate fleets. In addition, STORM has selected vehicle operation and maintenance as one of its priorities.

Some of the current activities:

- Issaquah has been providing car wash kits for about five years. The Friends of the Issaquah Salmon Hatchery now manage the program and check out kits. Six car wash sites have been approved to date. The city is educating children and businesses (host sites) about use of the kits and why it's important. The city also plans to work with Friends on school outreach. Issaquah has promoted kits through its monthly e-news letter to 700 people, its printed newsletter and outreach to the local newspaper. Recent promotion increased kit use. There are a number of repeat users.
- Bellevue lends car wash kits. The city would like to sell more car wash coupons instead of encouraging use of the kits. Research has found too much human error with kit use. The city also runs ads encouraging people to take cars to commercial car washes or wash cars on grassy areas.
- Woodinville lends car wash kits and also does outreach to gas stations about the kits.
- Renton has been providing car wash kits to charity car washes for more than five years. The city met one-on-one to educate car wash hosts. The kits are checked out most weekends. There has been some education to charity organizations, but demand has decreased.
- Redmond has car wash kits that are on long-term loan to two business locations. A recent grant will allow more sites. They are promoted by word-of-mouth. The city hired Full Circle Environmental to evaluate the car wash program. They

looked for unapproved car washes and didn't find any. Redmond hasn't had great luck with car wash coupons. It's possible that people use charity car washes on impulse to help charities and kids.

- Mill Creek does car wash pledges. The city purchased a hundred car wash tickets from a local car wash and got 75 participants. They gave away a keychain reminder.

### **Possible enhancements**

Given the wide range of existing activities, WRIA 8 could play a supportive role, such as promoting the use of car wash coupons. See Recommendations document.

### **Key behavior: Stormwater BMPS for businesses**

The way businesses maintain their parking lots, storm drains and roads (best management practices) can have a major impact on pollution from runoff. Key audiences include property managers and local business communities. Several cities do some outreach to businesses on stormwater best management practices. Most cities did not provide much detail about their business outreach in their survey for the WRIA 8 progress report or in their follow-up interviews.

Some of the current activities:

- Issaquah has targeted 300 businesses and had completed about 70 visits as of September 2008. Outreach is related to a range of business practices, not just stormwater. Sectors include dentists, dry cleaners, photofinishing, restaurants and gas stations. Outreach includes printed material forwarded by e-mail and a website.
- Bellevue has been doing a range of stormwater outreach activities for businesses for a number of years.
- Renton's surface water utility has adopted stormwater standards and performs a development review and construction inspections for new construction. The utility provides a range of services.
- Snohomish County does investigations under its stormwater pollution control ordinance. The county will implement business outreach and commercial drainage inspection under the phase 2 NPDES permit.
- Mill Creek does education on BMPs for businesses and hazardous waste disposal.
- Seattle does pollution control inspections and has published several fact sheets for businesses on stormwater BMPs.
- King County developed a pollution prevention manual and web site information and does drainage inspections.
- The Local Hazardous Waste Management Program in King County visits priority industries to educate about stormwater pollution and hazardous waste.

### **Possible enhancements**

If WRIA 8 decides that the business audience is a high priority, a joint project could be developed to reach businesses about stormwater BMPs. See Recommendations document for details.

## **Key behavior: Natural yard care and salmon-friendly landscape design**

Yard maintenance can affect salmon through the amount of water used and runoff of pesticides and fertilizers. Landscape design issues include plant choice, soil amendments, retention of existing trees, the amount of pervious surfaces and stream bank plantings. Most outreach has focused on homeowners. Other potential audiences include those doing maintenance on public or private property (groundskeepers, landscape companies and arborists), nurseries and home and garden stores.

More than half of the jurisdictions in King County either run a Natural Yard Care Neighborhoods program or participate in the county's program. This includes several cities in WRIA 8: Bellevue, Kent, Kirkland, Redmond, Seattle and Sammamish. It is likely that all of these cities will run a Natural Yard Care program in 2009. This has been an effective social marketing program. If recruitment is done correctly, 100 or more people may attend workshops in a neighborhood. Follow-up research indicates that people change their behavior, maintain the changes and tell others about what they've done.

In 2008 a design focus was incorporated into the Natural Yard Care Neighborhoods program. The first workshop session is dedicated to design, and each following presentation (lawn care, pesticide use, soil, composting, watering, etc.) is tailored around design. It is not specifically salmon-friendly design (such as stream-bank armoring), but the principles of amending soil and using mulch, reducing water and pesticide use, and similar actions are likely to protect salmon.

Other actions related to natural yard care:

- Mercer Island offers a landscape assessment to water utility customers who use large amounts of water. The City used to hold well-attended workshops, but they ran their course.
- Bellevue's residential outreach program includes sustainable design and assistance for streamside property owners.
- Woodinville has Arbor Day garden tours and promotes native plant landscaping.
- Shoreline promotes natural yard care through an annual event at Central Market; 1,500 to 2,000 people attend each year. Follow-up surveys have helped refine the program.
- Renton has done natural yard care neighborhood classes and has had limited success working with landscape designers and contractors.
- Redmond works with regional partners on a garden fair. The city has also built a demonstration garden with interpretive signs.
- Snohomish County is developing a natural yard care program to be launched in 2009.
- Seattle plans to launch a residential incentive program in 2009 called RainWise to encourage homeowners to retain stormwater and reduce flows through elements such as cisterns, green roofs, bioswales, porous pavement and compost-amended soil.

**STORM (Stormwater Outreach for Regional Municipalities)** is a group of 38 municipalities and four counties developing outreach for the NPDES stormwater permit. STORM has a grant to develop an awareness campaign, including a media campaign, a menu of existing programs that work that could be borrowed, evaluation of programs, and social marketing to change behaviors related to some key issues. STORM’s target audience is residential. STORM has narrowed its focus to three issues:

- Natural yard care behaviors: fertilize sparingly, use pesticides only for spot treatment (not broad application), use compost and mulch.
- Pet waste behaviors: pick it up and put it in the trash
- Vehicle operation and maintenance behaviors: use a commercial car wash, perform regular maintenance; if you don’t use a commercial facility, wash on a pervious surface
- There has not yet been a final decision about which behavior(s) within each category will be addressed in the media campaign.

### **Possible enhancements**

Between Natural Yard Care Neighborhoods and STORM, jurisdictions are reaching a large audience of homeowners about natural yard care. To make sure that salmon-friendly design is included, WRIA 8 could adapt existing information and provide it to King County, STORM and participating cities. See Recommendations document.

### **Recommendations**

For more information about ways that WRIA 8 could enhance outreach and education to promote salmon recovery, see “Recommendations for WRIA 8 Education/Outreach Strategy.”

## **Appendix A. Strategy Matrix**