BUILDING A FISH FRIENDLY MAT-SU BASIN

Salmon-Safe Guidelines for Development in the Matanuska-Susitna Borough, Alaska

DAN KENT
SALMON-SAFE

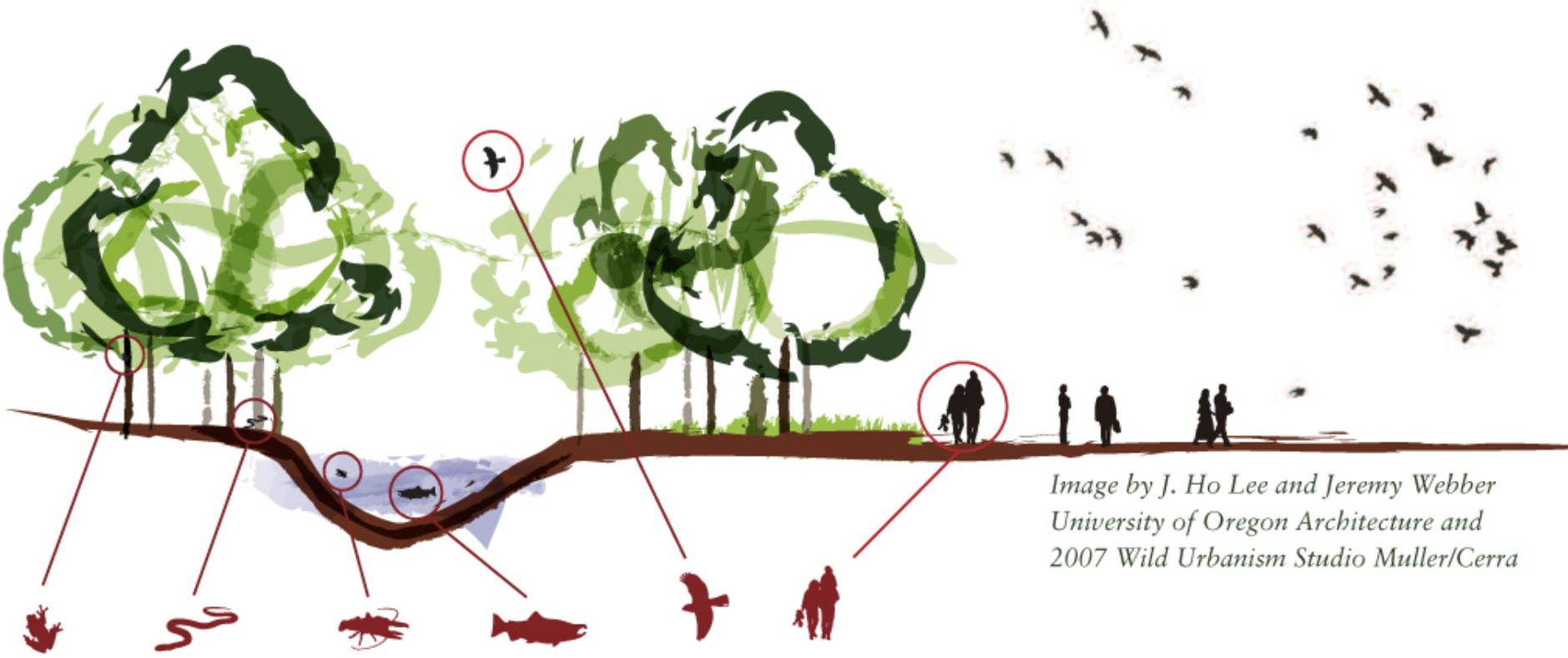


Image by J. Ho Lee and Jeremy Webber
University of Oregon Architecture and
2007 Wild Urbanism Studio Muller/Cerra

salmon-safe
purpose & programs

ten principles for fish-friendly development

SALMON-SAFE

- Founded by environmental NGO Pacific Rivers
- Independent Portland-based nonprofit
- A leading West Coast eco-label
- Expanding on West Coast through Partner Network


MAT-SU BASIN
BRITISH COLUMBIA
PUGET SOUND
INTERIOR COLUMBIA
RIVER BASIN
WESTERN OREGON
WATERSHEDS
NORTHERN CALIFORNIA
SALMON
SAFE

CERTIFYING TO INSPIRE RESTORATION

- Urban/commercial development
- Corporate & university campuses
- Municipal operations & park systems
- Airports, light industrial/infrastructure
- Farms/vineyards


SIP. SAVE.
WILLAMETTE VALLEY
VINEYARDS
WILLAMETTE VALLEY • OREGON
PINOT NOIR
SALMON SAFE
Look for Salmon-Safe certified wine
from Willamette Valley Vineyards.
SalmonSafe.org

Wine found beneficial to salmon.

These are just a few of the many Washingston wines that are certified salmon-safe, which means the vineyard's growing practices protect streams and rivers. Erosion and run-off from vineyards can bring silt into streams, reducing the ability of migrating salmon to survive. Salmon-Safe vineyards restore salmon habitat by planting trees on streams, growing cover crops to reduce run off, and applying natural methods to control weeds and pests. Look for the Salmon-Safe label when you shop. To learn more about these fine wines check out their websites:

abeja.net, hedgesfamilyestate.com, lecole.com, lopezislandvineyards.com, noveltyhillwines.com, sevenhillswinery.com, terrablanca.com, watermillwinery.com, woodwardcanyon.com

SALMON SAFE
salmonsafe.org

An apple a day keeps the salmon at play.

Salmon-Safe certified apple growers help keep our rivers clean for native salmon to thrive. By restoring riparian habitat, returning clean water to streams and finding natural alternatives to pesticides, they are helping salmon return to the Columbia River watershed.

SALMON SAFE

w w w . s a l m o n s a f e . o r g

Rainier FRUIT COMPANY

drink Like a FISH

Fish need clean water. Deschutes Brewery uses Salmon-Safe hops which helps keep Northwest rivers clean.

SALMON SAFE

MADE WITH SALMON SAFE CERTIFIED HOPS

HOW TO DRINK LIKE A FISH

Fish need cool clean water. So do you. That's why we sourced Salmon-Safe certified Sterling hops for our first organic beer. The way these flavorful, rich hops are grown makes sure that streams are shaded and there is not runoff to nearby waterways. That way the rivers stay cool and clean for migrating salmon. Not only is our Green Lakes beer organic, it helps protect our rivers as well.

GREEN LAKES ORGANIC ALE

Please Recycle.

This bookmark printed on 50% recycled paper with 25% post consumer waste.

www.deschutesbrewery.com

Salmon-Safe certifies agricultural products ranging from Skagit Valley pears and Willamette Valley hazelnuts to Rogue Valley goat cheese and Walla Walla wine. And now we've certified the Sterling hops grown on a family farm near Silverton used to brew Green Lakes Organic Ale. Salmon-Safe growers protect biodiversity on their farms, reduce irrigation water use, apply natural methods to control weeds and farm pests, and restore streamside buffers. These important practices help ensure clean and healthy rivers so salmon can spawn and thrive.

www.salmonsafe.org

SALMON SAFE

DESCHUTES BREWERY BEND OREGON

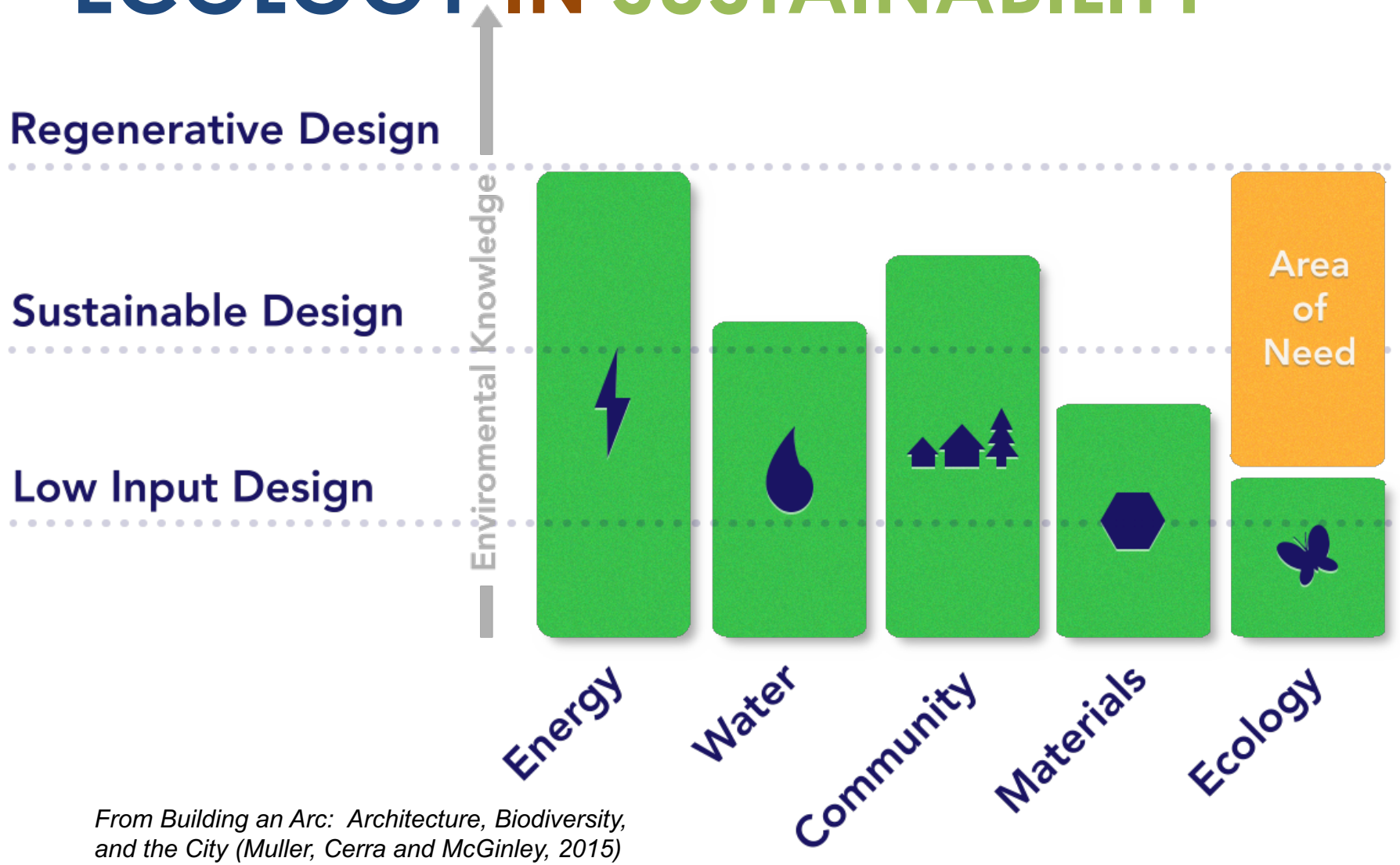

Farmer Owned.
Northwest Grown.
Certified Salmon-Safe.
SALMON
SAFE
www.salmonsafe.org
Supported by a USDA Multi-State Specialty Crop Block Grant through the Washington State Department of Agriculture and the Oregon Department of Agriculture.


SALMON SAFE
SATURDAY!
JOIN STEWARDSHIP PARTNERS AND ORGANICALLY GROWN COMPANY TO CELEBRATE SALMON SAFE PRACTICES!
SATURDAY, AUGUST 12 • NOON TO 5 PM
SALMON
SAFE
SOUP
$4.99/ea
SALMON
SAFE
CERTIFIED FARM

SECTOR-BASED WATERSHED PROTECTION STANDARDS

- Farm (2013)
- Park systems (2004)
- Urban campus (2005)
- Golf (2010)
- Large-construction accreditation (2014)
- Urban Development (2014)
- Infrastructure (2015)
- Developer accreditation (2015)
- Designer accreditation (2017)

WHY SALMON-SAFE: ELEVATING ECOLOGY IN SUSTAINABILITY

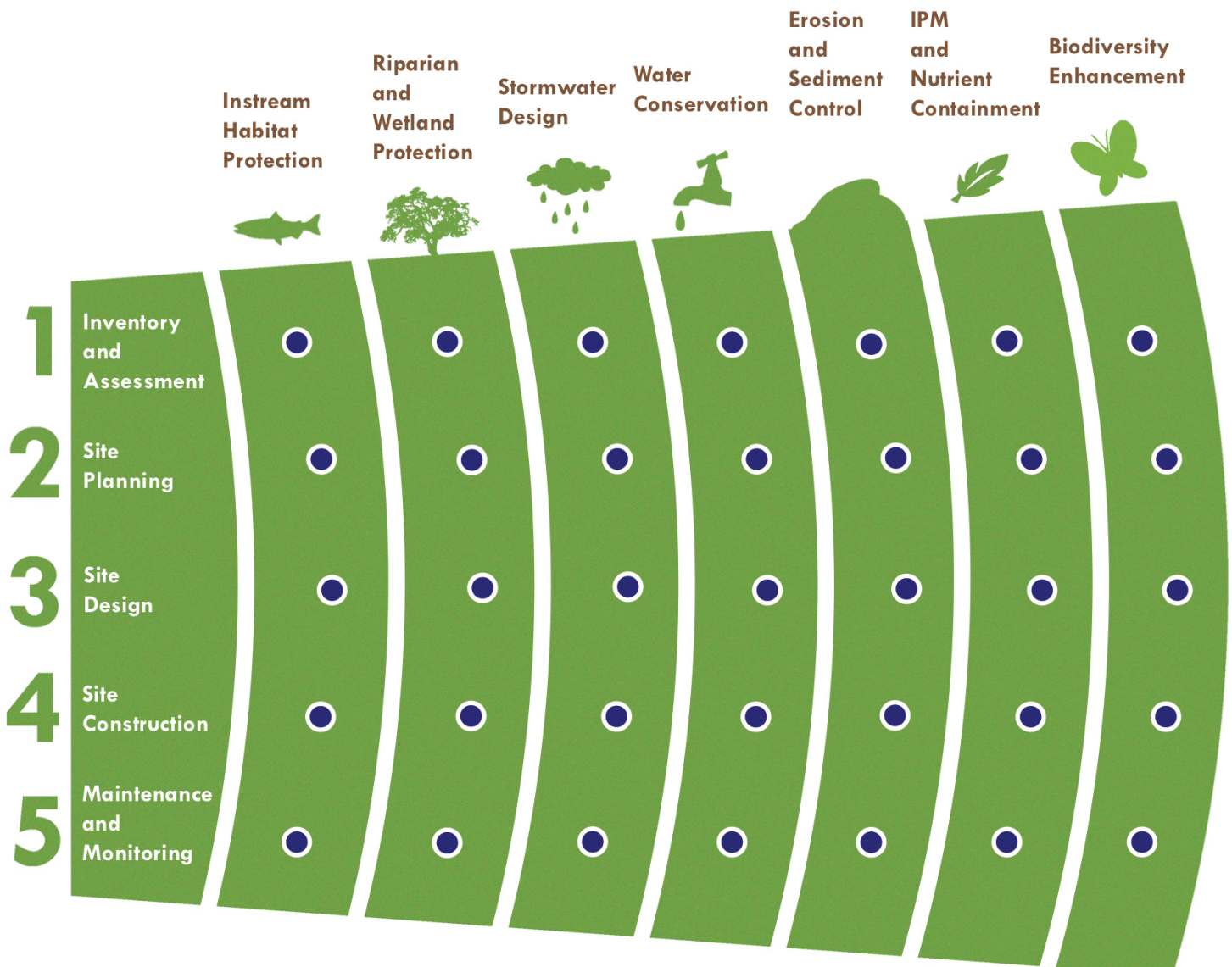


From Building an Arc: Architecture, Biodiversity, and the City (Muller, Cerra and McGinley, 2015)

SALMON-SAFE PROJECT SCALE: LARGE & COMPLEX


Millions of our visitors don't have boarding passes
YVR is located at the mouth of the Fraser River, one of the world's most productive salmon rivers. As the first Salmon-Safe Certified airport in North America, we're investing in programs with the Pacific Salmon Foundation for present and future conservation.
And we could really use your help: PSF.ca/YVR
PACIFIC SALMON FOUNDATION psf.ca
YVR VANCOUVER INTERNATIONAL AIRPORT
Beyond, Every Day.
astral

SALMON-SAFE DEVELOPMENT




MAT-SU BASIN
SALMON
SAFE

SALMON-SAFE TNC MAT-SU DEVELOPMENT INITIATIVE

- Background review & establish regulatory baseline
- Gap analysis
- Fish friendly guidelines

10 PRINCIPLES

for Fish Friendly Development

SALMON SAFE

Vulcan Development, South Lake Union District, Salmon-Safe Accredited 2017

CONNECT TO WATERSHED CONTEXT

Every project and property is part of something bigger. Know your watershed. Many watersheds have specific restoration or recovery plans defineing strategies that can benefit important species. Incorporate these strategies into your development planning decisions.


300


NO
PARKING

WATERSHED CONTEXT: PORTLAND MAYOR'S SALMON-SAFE CHALLENGE

- City-wide reach
- Policy and planning focus
- Bureau-by-bureau engagement
- 5-year implementation

Portland. The First

Salmon-Safe City.

salmonsafe.org

UW Bothell Re-certified Salmon-Safe 2013

INTEGRATE HABITATS

Restore degraded habitat based on pre-development native species and ecosystems as well as future need for climate change adaptations. Habitat diversity can make project sites more resilient and adaptable. A site can support larger natural systems through corridor linkages.


WETLANDS
RESTORATION
AREA
NO TRESPASSING
NO ACCESS
BEYOND THIS
POINT
PLEASE STAY
ON TRAIL

The Woods at Golden Given, Salmon-Safe Certified 2015

START WITH SITE ECOLOGY

Approach landscape ecological systems as site infrastructure and incorporate them early in the design process. Habitat can be retained, reestablished, or both, as part of site development. Design your site to avoid impacting wetlands, streams, riparian areas, and wildlife habitat.

Turner Construction Salmon-Safe Reaccredited 2016.

PROTECT HABITAT AND WATER QUALITY DURING CONSTRUCTION

Implement construction site pollutant control and runoff protection measures that achieve zero sediment discharge. Protect and salvage healthy native soils, vegetation, and habitat structures

Issaquah Highlands Residential Development, Salmon-Safe Certified 2016

MANAGE WATER AT THE SOURCE

Disperse and infiltrate stormwater on site through Low Impact Development (LID) approaches to reduce pollution and downstream impacts. Design site to reduce stormwater runoff by minimizing impervious rooftop areas and reduced roadway widths and pervious road systems.


SLOW
Watch for
Pedestrians

Nike World Campus Salmon-Safe Re-Certified 2016

DESIGN FOR THE LAND

Consider each part of the project, including buildings, open space, parking, stormwater retention features, as contributing components of the greater hydrology and ecology. Structure and buildings can also positively contribute to natural system performance.


Nike 2016


106
672
Thanks to Nike, they'll run a clean race.

PCC Natural Markets Edmonds Salmon-Safe certified

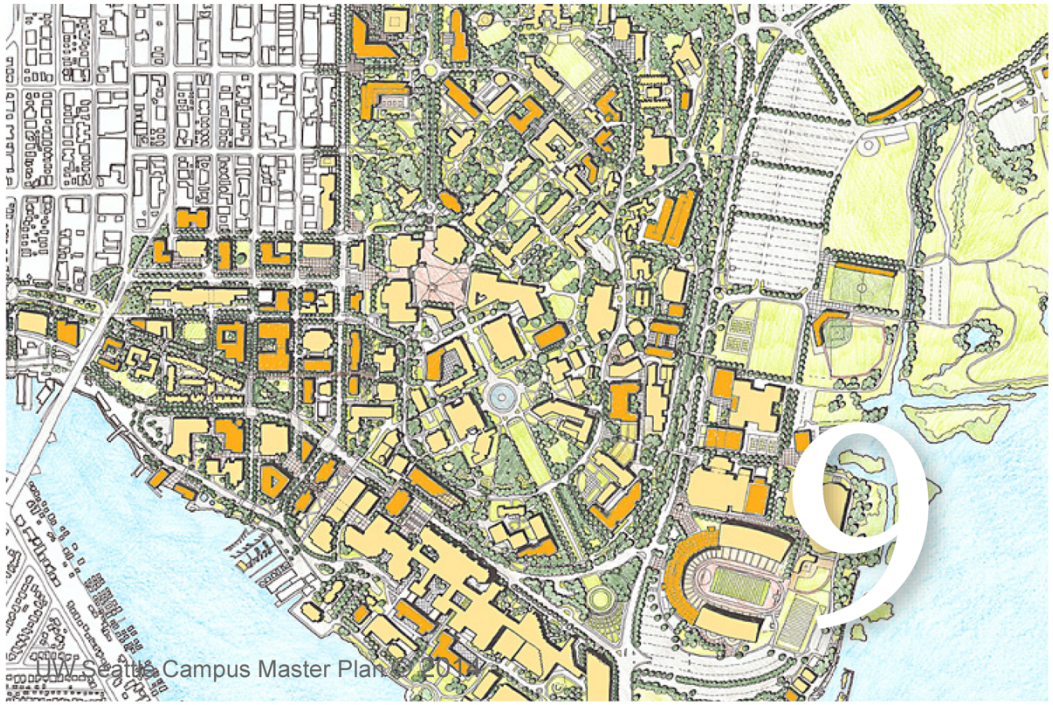
PRIORITIZE WATER CONSERVATION

Install rainwater harvest systems to balance water budgets. Limit water demand by selecting native and non-native vegetation adapted to site conditions and climate.

Seattle Children's Hospital, Salmon-Safe certified 2017

CARE FOR LAND OVER TIME

Encourage consistent post-development land management practices by embedding riparian restoration, irrigation management, and integrated pest management practices into site management guidelines, policies, or project legal documents.



University of Washington Salmon-Safe Recertified 2015

CLEAN WATER FOR SALMON

Manage projects with an ongoing commitment to low input landscaping, habitat restoration that filters contaminants, and low-impact (LID) designs in future development phases.


WASHINGTON

Vulcan Yesler 3, Salmon-Safe certified 2017

DESIGN LEARNING LANDSCAPES

Development presents opportunities for interpretive signage and/or demonstration projects highlighting features that contribute to an ecologically functional urban landscape.

Troll Avenue Bioretention System

In its former condition, runoff from the Aurora Bridge was carried down the bridge columns to the surface of Troll Avenue. From there, it collected in a storm drain and flowed directly untreated to Lake Union.

AN INTERVENTION

The office building behind you was completed in 2017, and the wide public right-of-way provided the design and development team with an opportunity to voluntarily clean this untreated highway runoff. From the bridge, this water is re-routed to bioretention cells that are filled with special soil and hardy, drought-tolerant plants. The water is slowed and treated, flowing over metal weir walls from cell to cell until it is collected again here, where a dedicated storm drains leads to Lake Union.

By treating this runoff we are protecting the health of our waterways and habitat. **160,000 gallons of water are treated annually on average.** The numbers you see next to each metal weir wall represent the cumulative maximum number of gallons every hour that can be treated by those cells.

SALMON SAFE

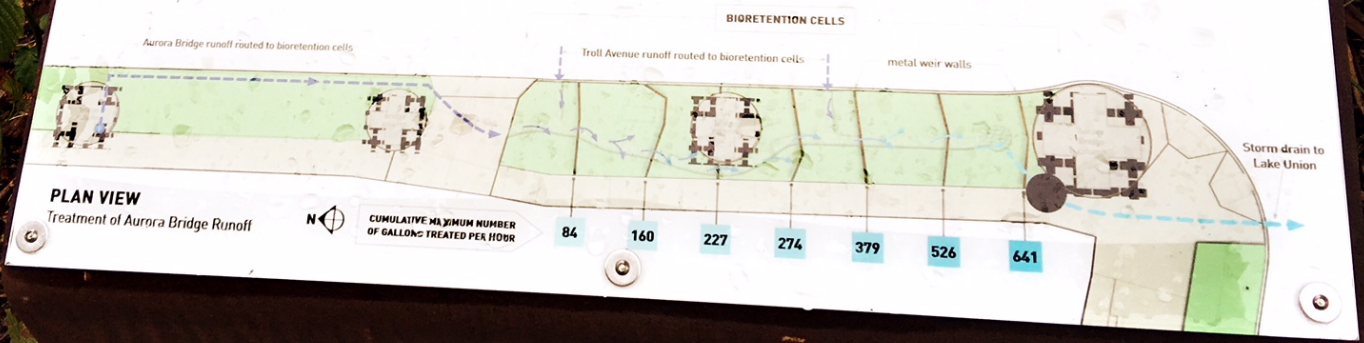
This site is Salmon-Safe certified, meaning that careful attention is given to its construction and long term operations.

Salmon-Safe sites:

- Control erosion and sediment runoff
- Minimize chemical use for landscaping and maintenance
- Efficiently irrigate
- Promote native habitat and biodiversity which encourages bees, birds and other pollinators
- Manage stormwater on-site
- Incorporate raingardens and bio-swales to treat the stormwater

The runoff from this site impacts an important migration route for salmon. Chinook, coho, sockeye and steelhead trout all swim from the Pacific Ocean and Puget Sound back through the canal and Lake Union to reach their spawning grounds in the upper watershed.

WWW.SALMONSAFE.ORG



PLAN VIEW

Treatment of Aurora Bridge Runoff

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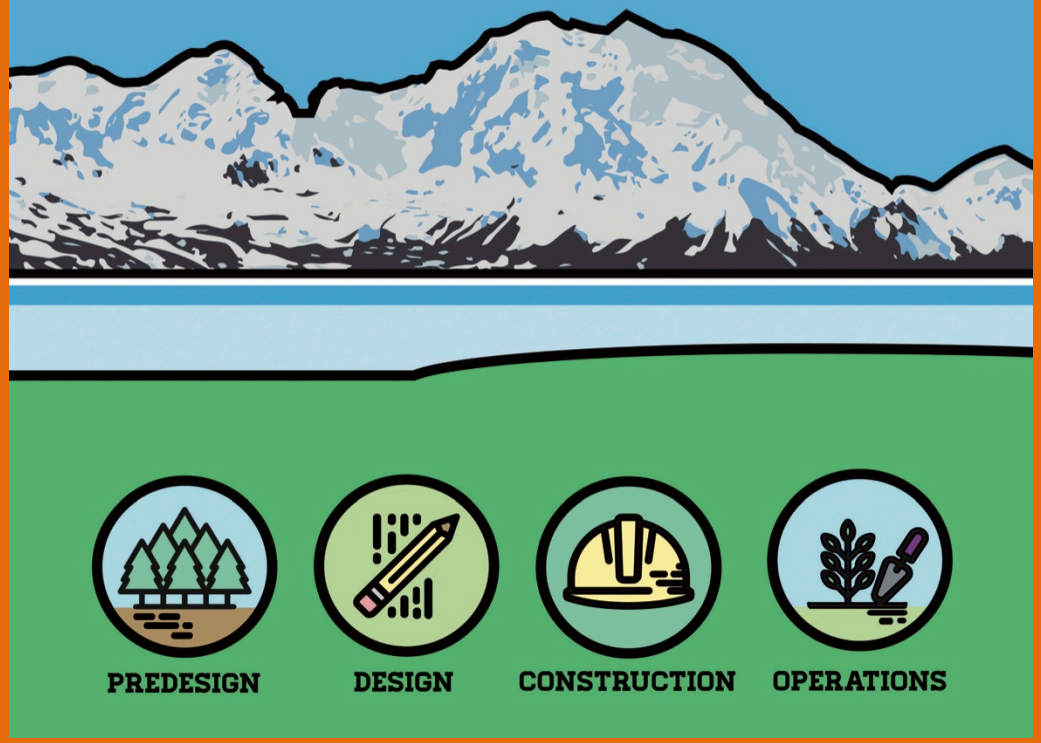

salmonsafe.org/alaskaguidelines.pdf

HELP SHAPE A VISION FOR SALMON-SAFE IN THE MAT-SU

JOIN US TOMORROW AT 1:15 FOR AN OPEN DISCUSSION GROUP

www.salmonsafe.ca