



The Impacts of urbanism on Seattle's forest and wetland restoration programs and ecosystems

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Seattle Parks and Recreation
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2017 Urban Natural Areas Seminar
Nature in the Balance: An Interdisciplinary View of Urban Area Restoration
The Center for Urban Horticulture
University of Washington Botanic Gardens

Except where noted, all photos taken by Jon Jainga

Introduction

Increasing human actions and activities

Encampments, illegal dumping, crime and CPTED

Welcome to the Edge









Addressing Homelessness

The Issue

+\$100

a rent increase of
\$100 correlates
with a 15%
increase in city
homelessness



+15%



2,813

living unsheltered
in Seattle



3,000

homeless children attending Seattle
Public Schools



an average of 1 homeless child per
classroom

Investment

In 2015 HSD allocated nearly
\$40.84M across 183 contracts
and 60 agencies to address
homelessness.

**INTERVENTION
70%**

\$28.68M in emergency shelter,
transitional housing, day/hygiene
centers, street outreach and meal
programs.

**PERMANENT HOUSING
19%**

\$7.59M in permanent supportive
housing and rapid re-housing programs
for families.

**PREVENTION
11%**

\$4.55M of investments in
homelessness prevention
including: rental assistance,
eviction prevention, housing
stability services for seniors
and tenant-based education.



\$7.3 M

ONE TIME STATE OF
EMERGENCY

**\$40.8 M
INVESTMENT**

Impact

Mary's Place

The Human Services Department funds Mary's Place more than \$250,000 to help families like Laura Long and son, Gio'moni (6) who has multiple disabilities. They came to Seattle to be treated at Seattle Children's Hospital. Mary's Place gave them shelter in a former hotel in downtown Seattle on loan from Amazon. Here, the family accesses housing and employment resources each day, and enjoys community and acceptance each night - safe inside, together.



Seattle Human Services department, 2016

<http://hsdprodweb1/inweb/about/docs/Addressing%20Homelessness.pdf>



Seattle Public Utilities

Mami Hara, General Manager/CEO

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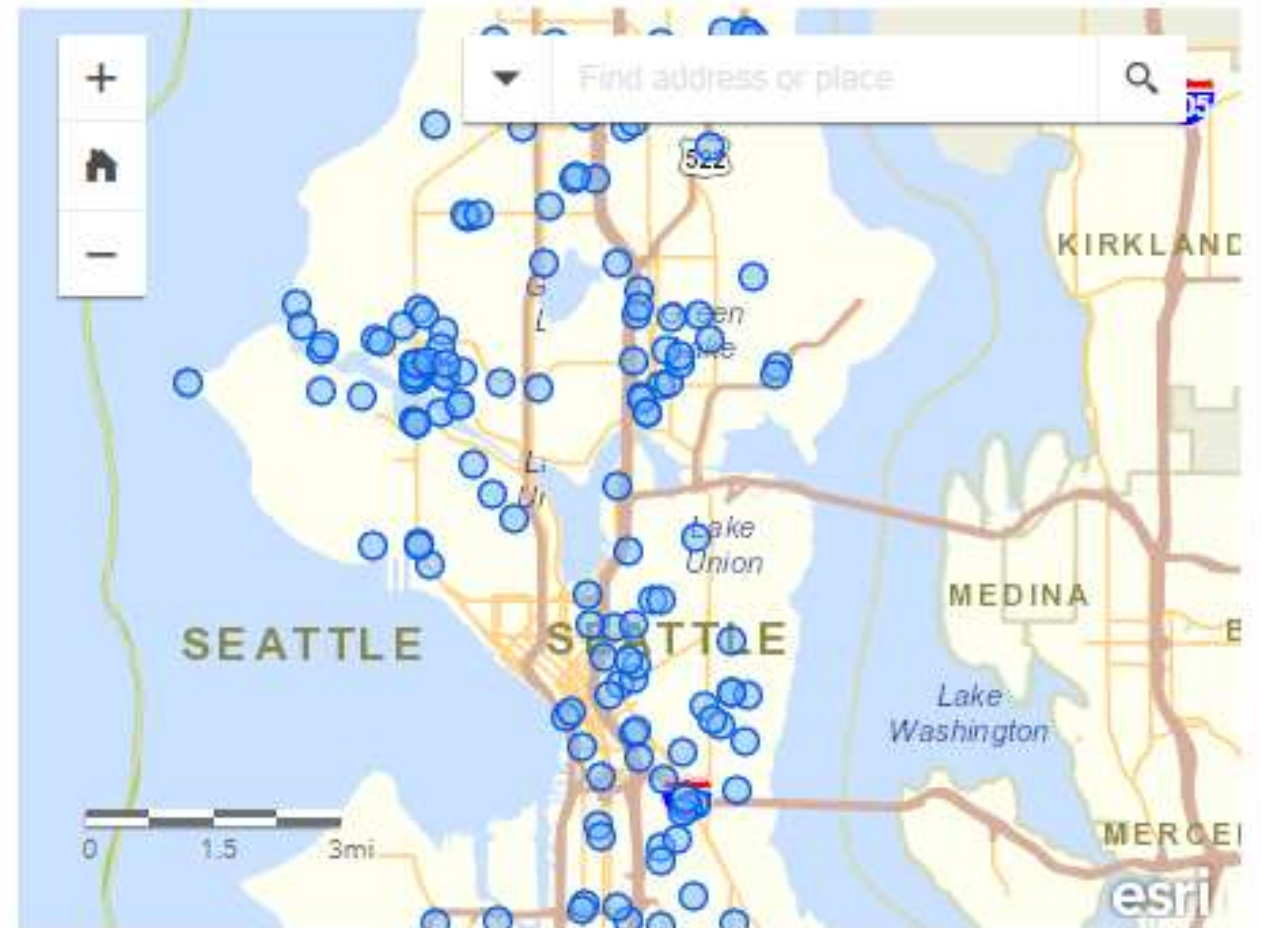
[My Home](#) [Our City](#) [Our Watersheds](#) [Projects](#) [Education](#) [Lawn & Garden](#) [Get Involved](#) [Climate Change](#)

[Environment & Conservation](#) > [Our City](#) > [Report Illegal Dumping](#)

Report Illegal Dumping

Status of illegal dumping reports

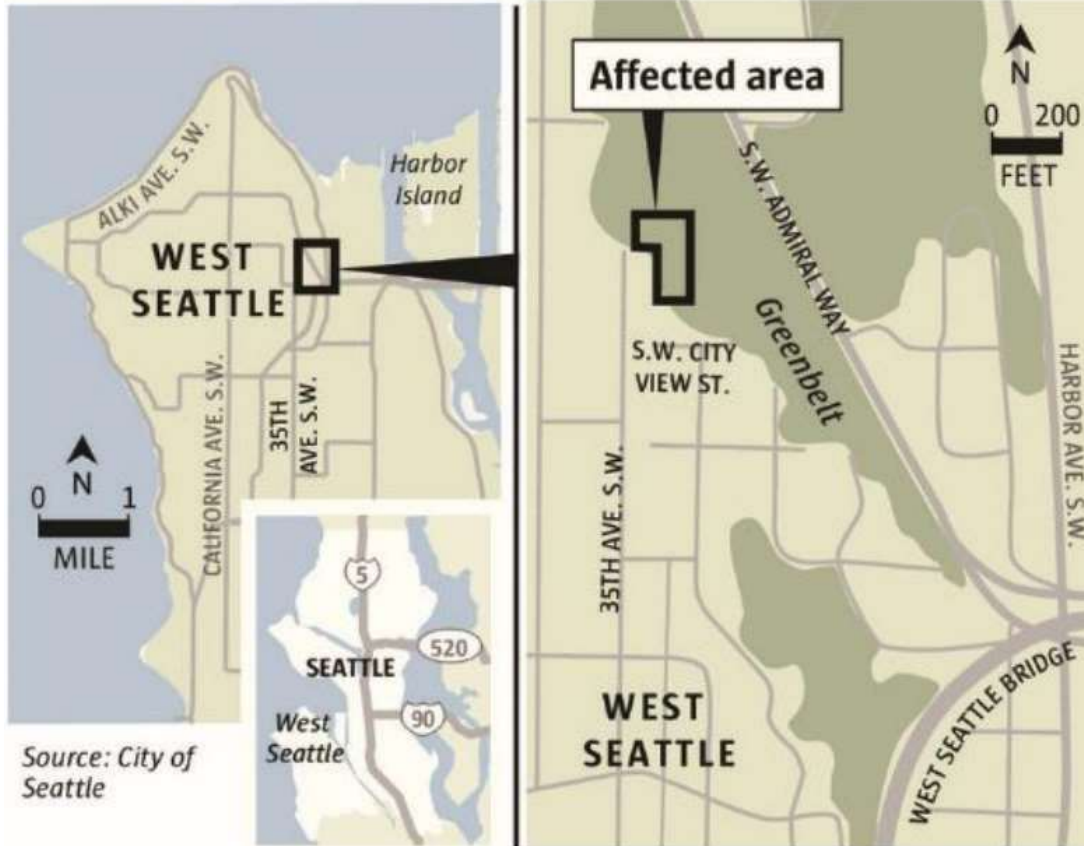
This map shows reports of illegal dumping on public property that are currently under investigation. The map does not show reports made for private property.





Trees cut down without permit in Seattle greenbelt

Seattle officials are investigating the unpermitted chopping down of more than 150 trees in a city-owned greenbelt.



KELLY SHEA / THE SEATTLE TIMES



<http://westseattleblog.com/2016/05/followups-west-seattle-illegal-tree-cutting-investigations/>



Seattle Police Department

Kathleen O'Toole, Chief of Police

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CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)



An example of gate controlled access that still allows visibility.

NATURAL SURVEILLANCE

CPTED does not promote the "fortressing" of properties, quite the contrary. The ability to see what is going on in and around a property should be your first priority. Perpetrators of crime are attracted to areas and residences with low visibility. This can be counteracted in the following ways:

- **Lighting** – street lights should be well spaced and in working order, alleys and parking areas should also be lit. Lighting should also reflect the intended hours of operation, i.e. lighting of playfields or structures in local parks may actually encourage after hour criminal activities. Motion-sensing lights perform the double duty of providing light when needed and letting trespasser know that "they have been seen."
- **Landscaping** – Generally uniformly shaped sites are safer than irregularly shaped sites because there are less hiding places. Plants should follow the 3-8 rule of thumb; hedges no higher than 3 feet, and tree canopies starting no lower than 8 feet. This should be especially important around entryways and windows.
- **Fencing** – Fences should allow people to see in. Even if the fences are built for privacy, they should be of a design that is not too tall and has some visibility.
- **Windows** – Windows that look out on streets and alleys are good natural surveillance, especially bay windows. These should not be blocked. Retirees, stay at home parents, and people working from home offices can provide good surveillance for the neighborhood during the day.

Common and new native and non-native intruders

Invasive weeds and wildlife



http://www.kingcounty.gov/~media/environment/animalsAndPlants/noxious_weeds/imagesD_G/English_ivy_Ravenna_Park.ashx?la=en



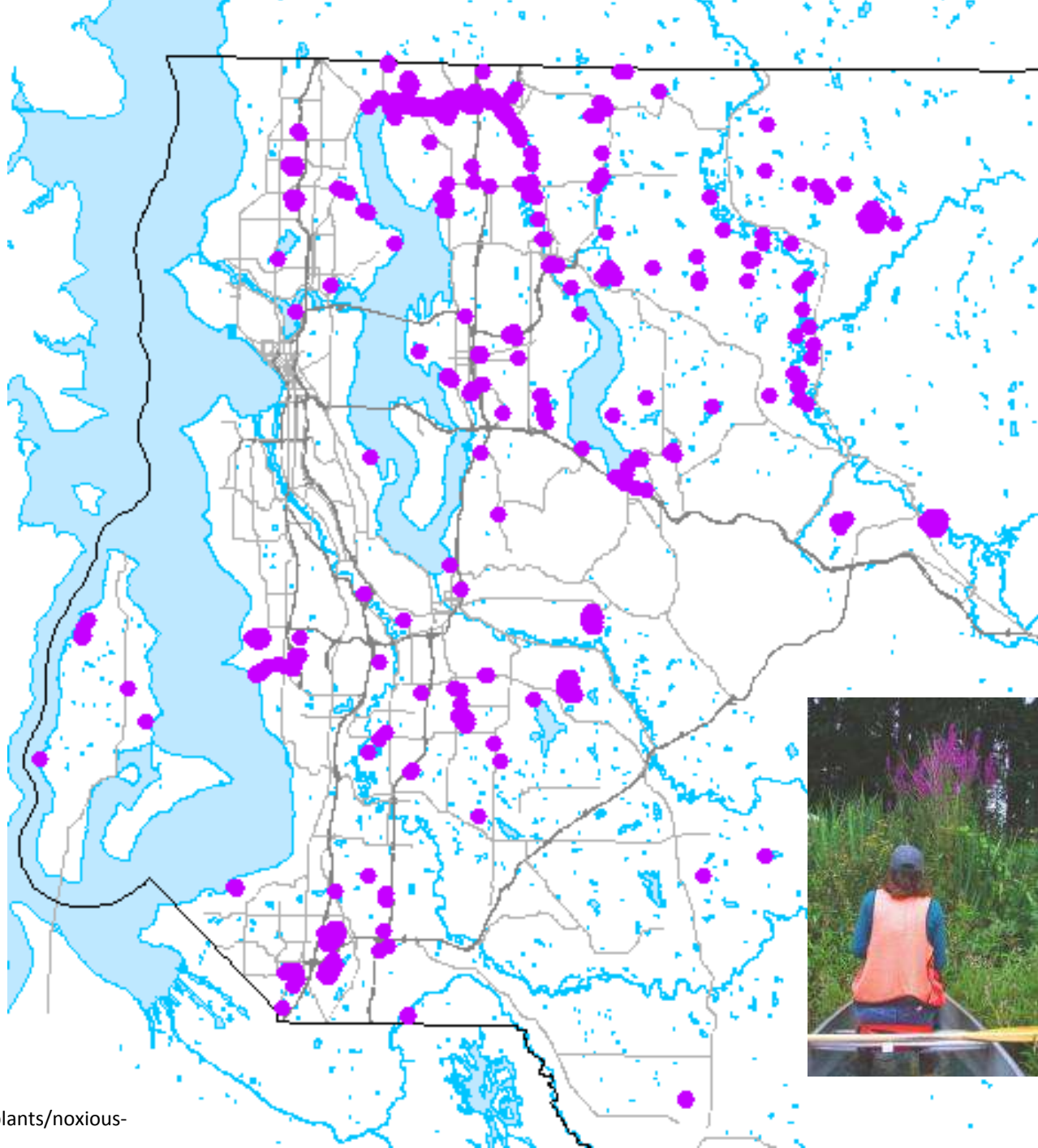




Specialist surveying large infestation of purple loosestrife

<http://www.kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/weed-identification/purple-loosestrife.aspx>

Purple loosestrife distribution in King County





<http://www.summitpost.org/purple-loosestrife/336626>



<http://healthyhomegardening.com/Plant.php?pid=2245>



<http://www.kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/weed-identification/garden-loosestrife.aspx>

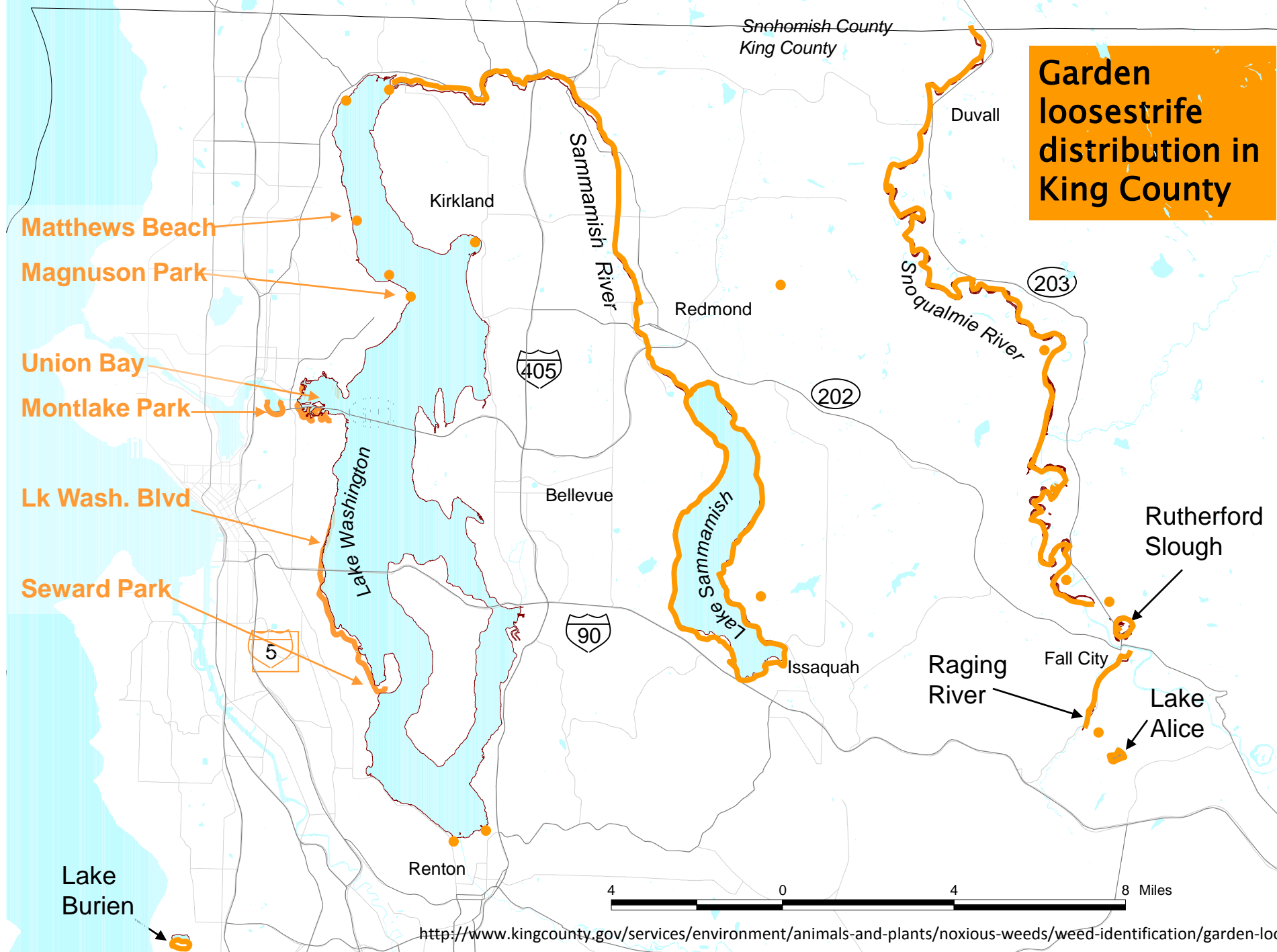


Garden loosestrife infestation at Marymoor Park

<http://www.kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/weed-identification/garden-loosestrife.aspx>



http://www.kingcounty.gov/~media/environment/animalsAndPlants/noxious_weeds/imagesK_L/LysimachiaVulgarisFlowering.ashx?la=en



Yellow Loosestrife on bog island Cranberry Lake





Photos by Rose Brittenham



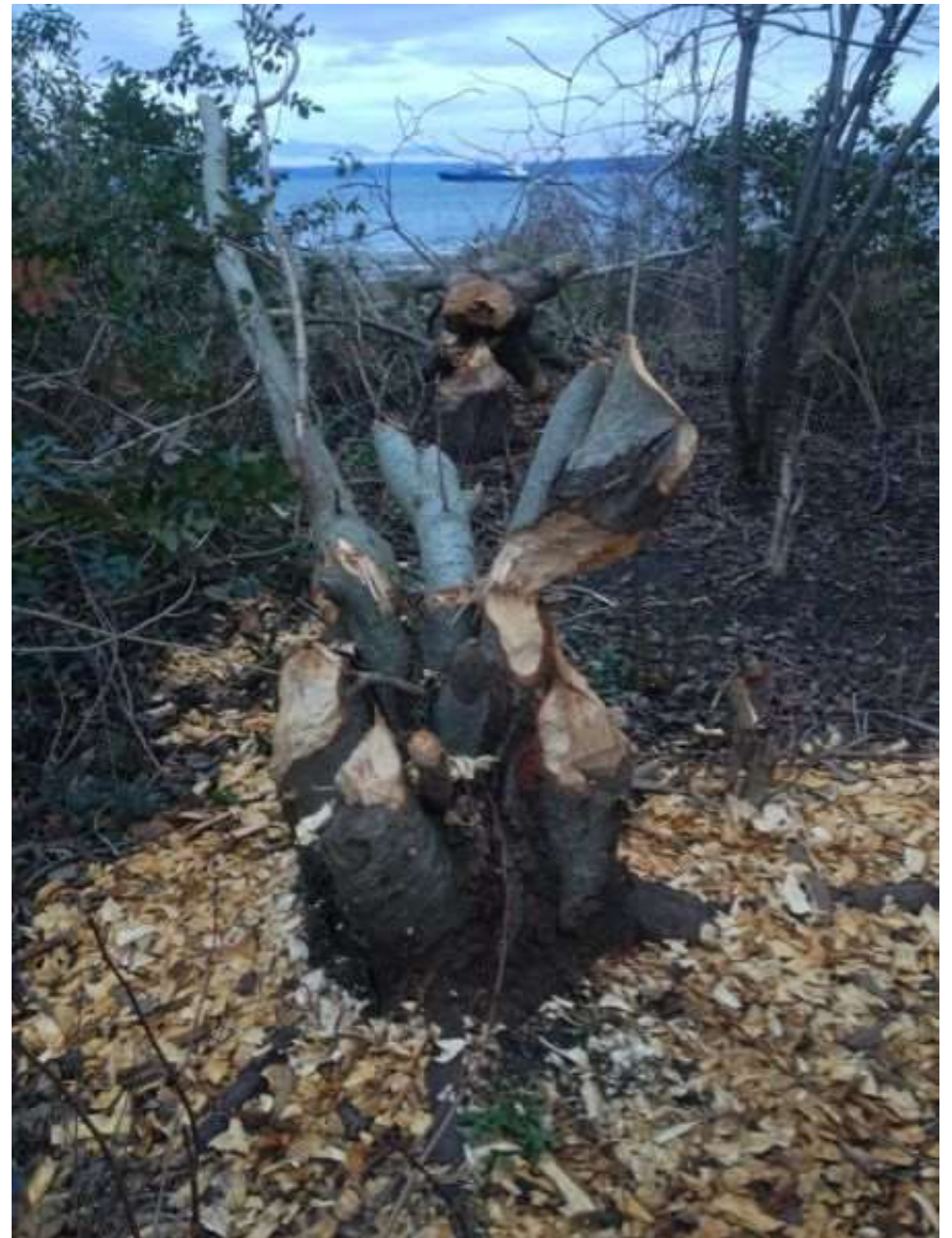
<https://d.ibtimes.co.uk/en/full/408499/american-beaver.jpg>



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<https://i.stack.imgur.com/UOrGR.jpg>



http://www.seattletimes.nwsourc.com/html/localnews/2022770942_beaverdamxml.html

<http://www.myballard.com/2013/01/07/beavers-transforming-north-end-of-golden-gardens-park/>

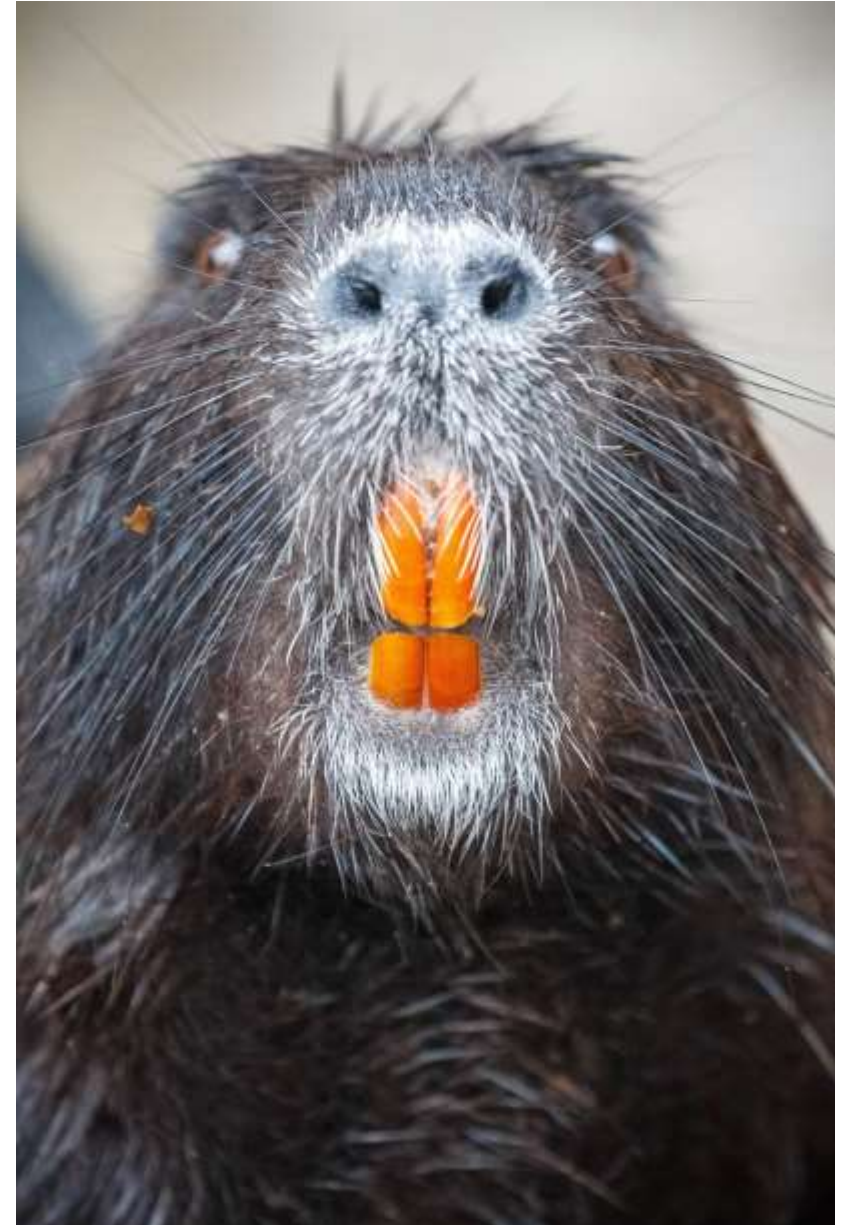


<http://www.restonpaths.com/HuntleyMeadows/index.htm>

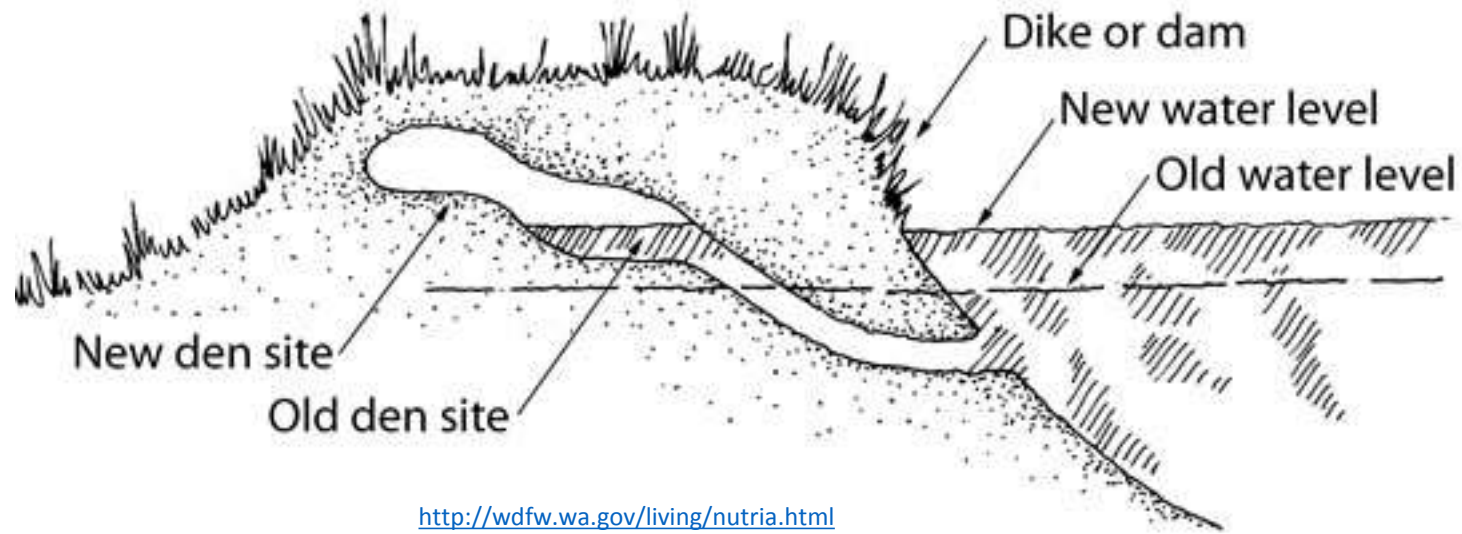


<https://www.sciencedaily.com/releases/2008/03/080306094624.htm>

Credit: iStockphoto/Per Jørgensen



<http://animals.nationalgeographic.com/animals/mammals/nutria/>



<http://wdfw.wa.gov/living/nutria.html>



<https://www.flickr.com/photos/12567713@N00/1698583510>



<http://skagitnutria.com/>





<http://www.seattletimes.com/seattle-news/bunnies-running-wild-in-northwest-parks/>



https://commons.wikimedia.org/wiki/File:Rabbit_burrows_-_geograph.org.uk_-_256060.jpg



<http://westseattleblog.com/2012/10/west-seattle-coyote-sightings-another-reader-report-roundup/>

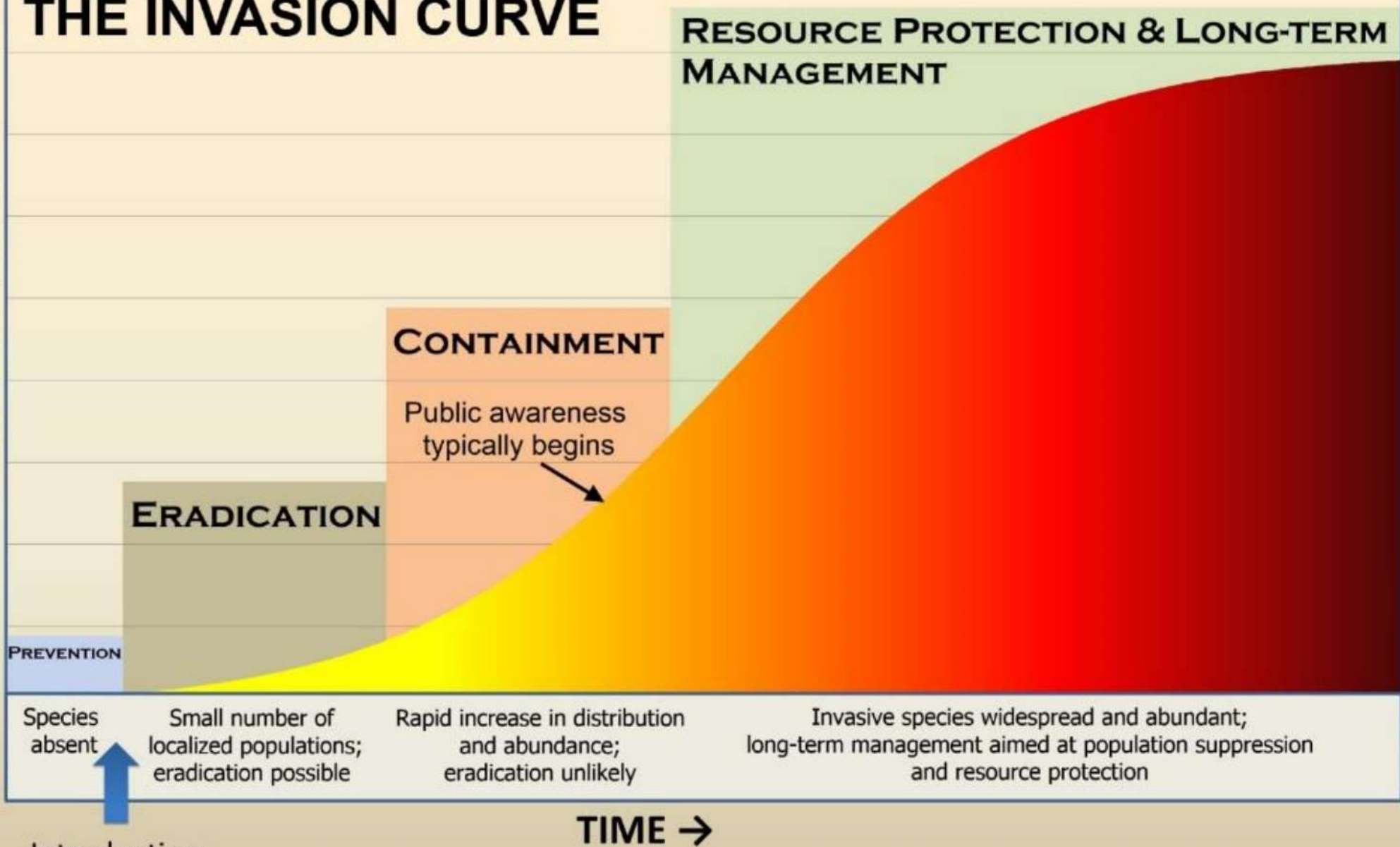


Photo of Blacktail deer in Snohomish County by Mark Harrison, The Seattle Times

THE INVASION CURVE

AREA INFESTED →

CONTROL COSTS →



Introduction

Increasing active recreational uses

Outdoor learning, bike trails and dogs off leash









Cheasty Greenspace trail plan



Activation, community love









<https://www.pinterest.com/pin/352054895852636142/>

<https://tau0.wordpress.com/tag/playing/>

Loss of ecological function

Fragmentation, pathogens and disturbance



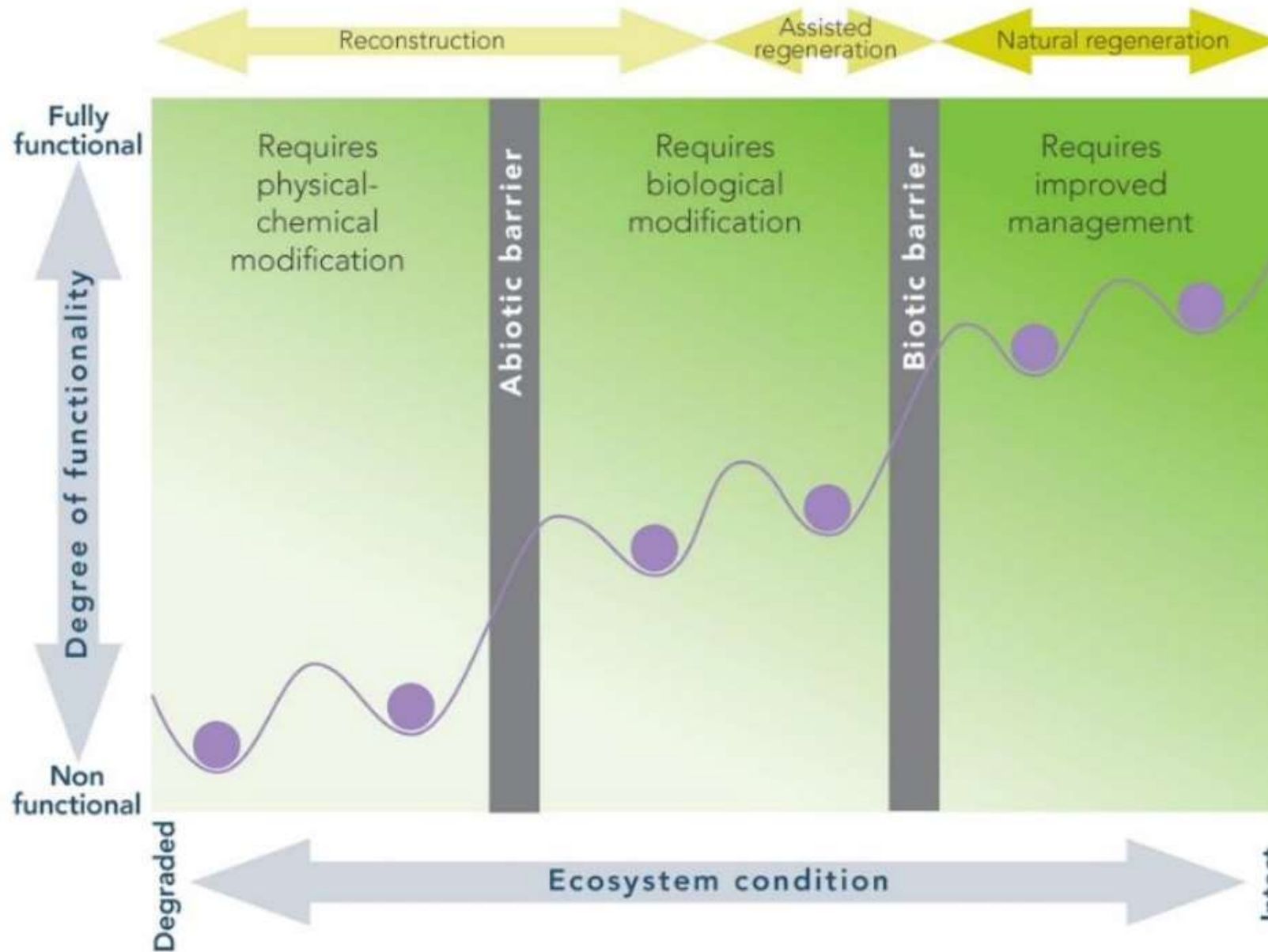


Spring 2013



Fall 2016

Figure 1.
Conceptual model
of ecosystem
degradation and
restoration.
(Adapted from
Keenleyside et al
2012, after
Whisenant 1999,
and Hobbs &
Harris 2001).

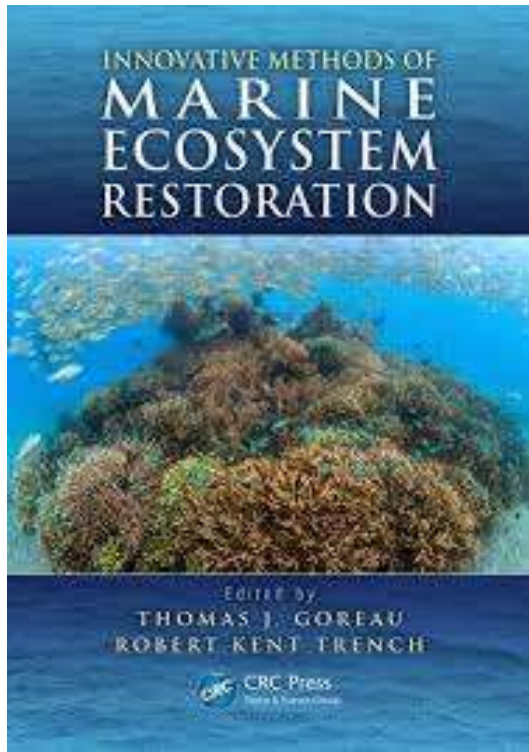


Planning: Did we get it right yet?

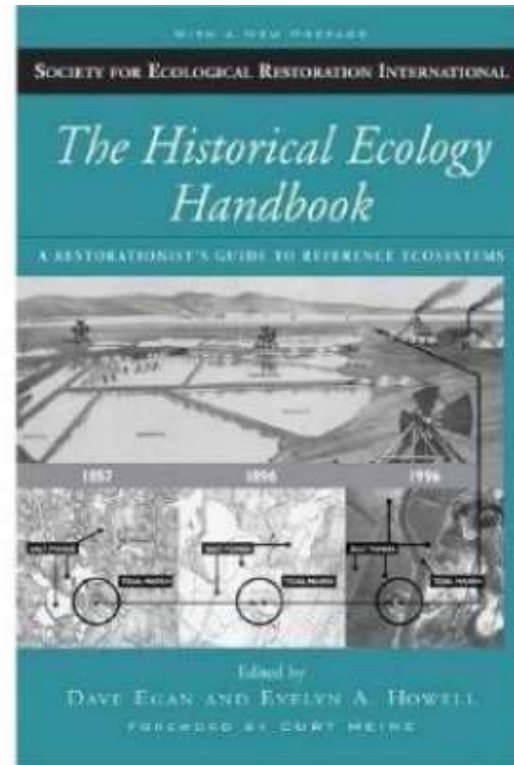
Right plant, right place

Uncertainty

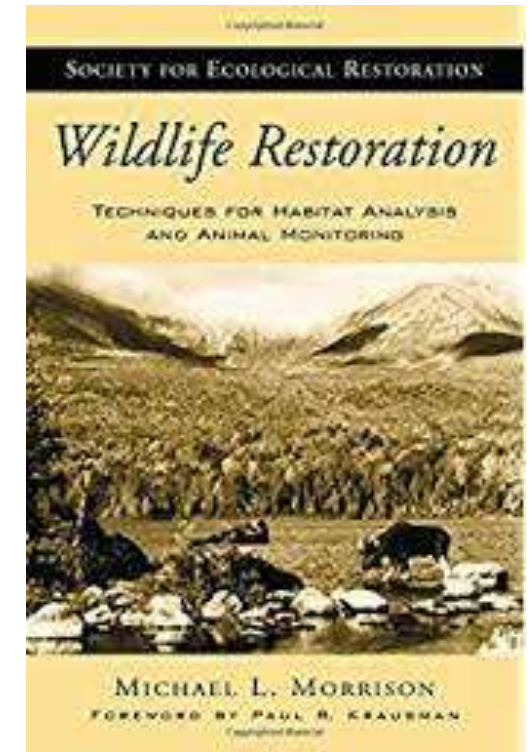
Maintenance and project impacts on habitat



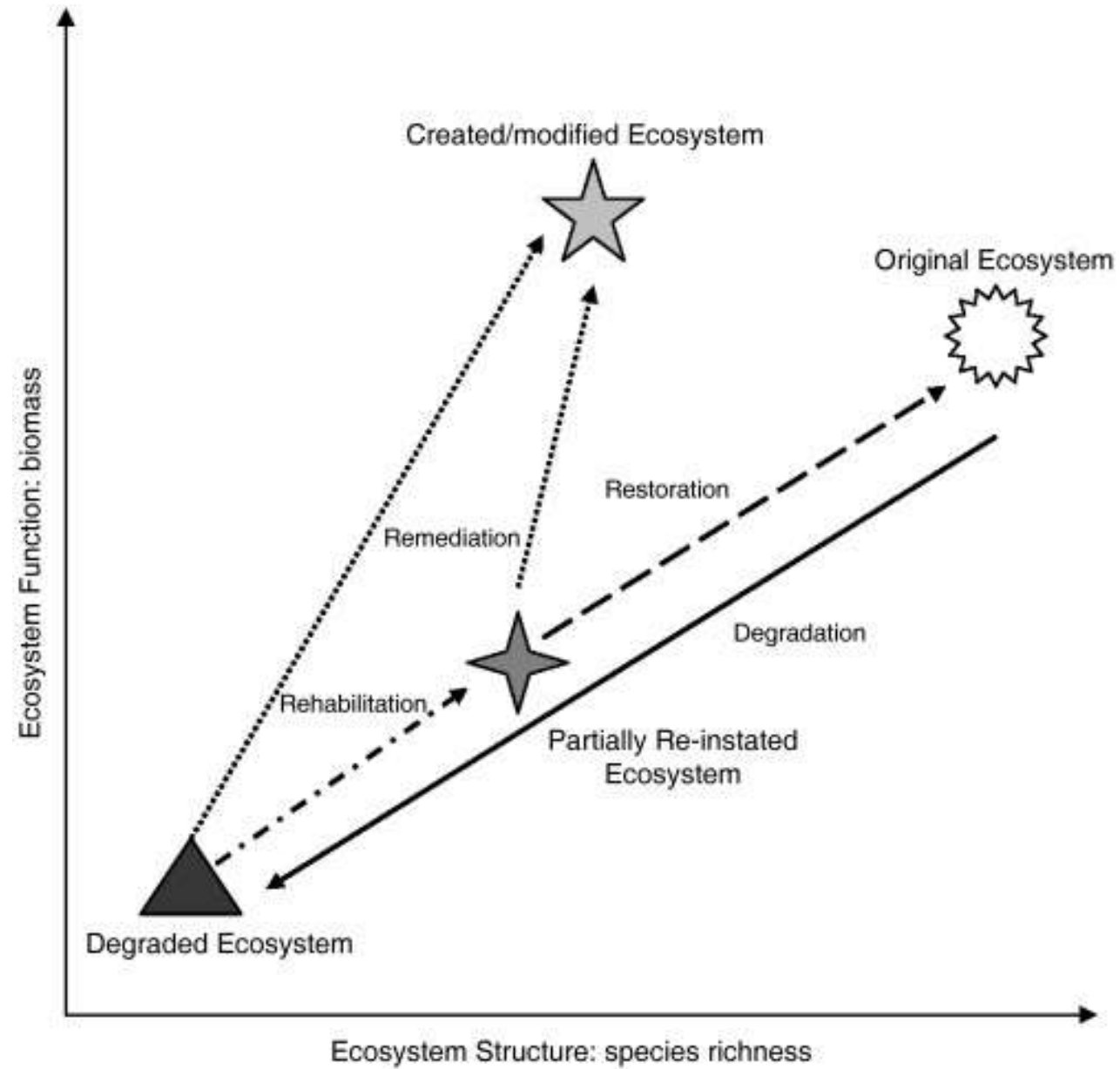
<https://www.crcpress.com/Innovative-Methods-of-Marine-Ecosystem-Restoration/Goreau-Trench/p/book/9781466557734>



http://www.goodreads.com/book/show/1298938.The_Historical_Ecology_Handbook



<https://www.amazon.com/Historical-Ecology-Handbook-Restorationists-Ecosystems/dp/1559637463>

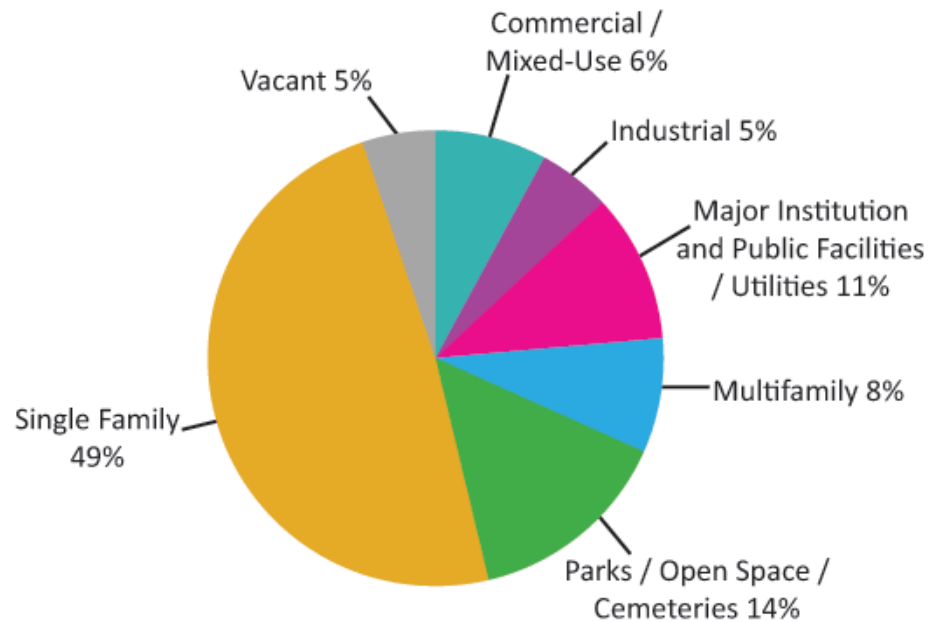


Urban Bird Treaty Cities



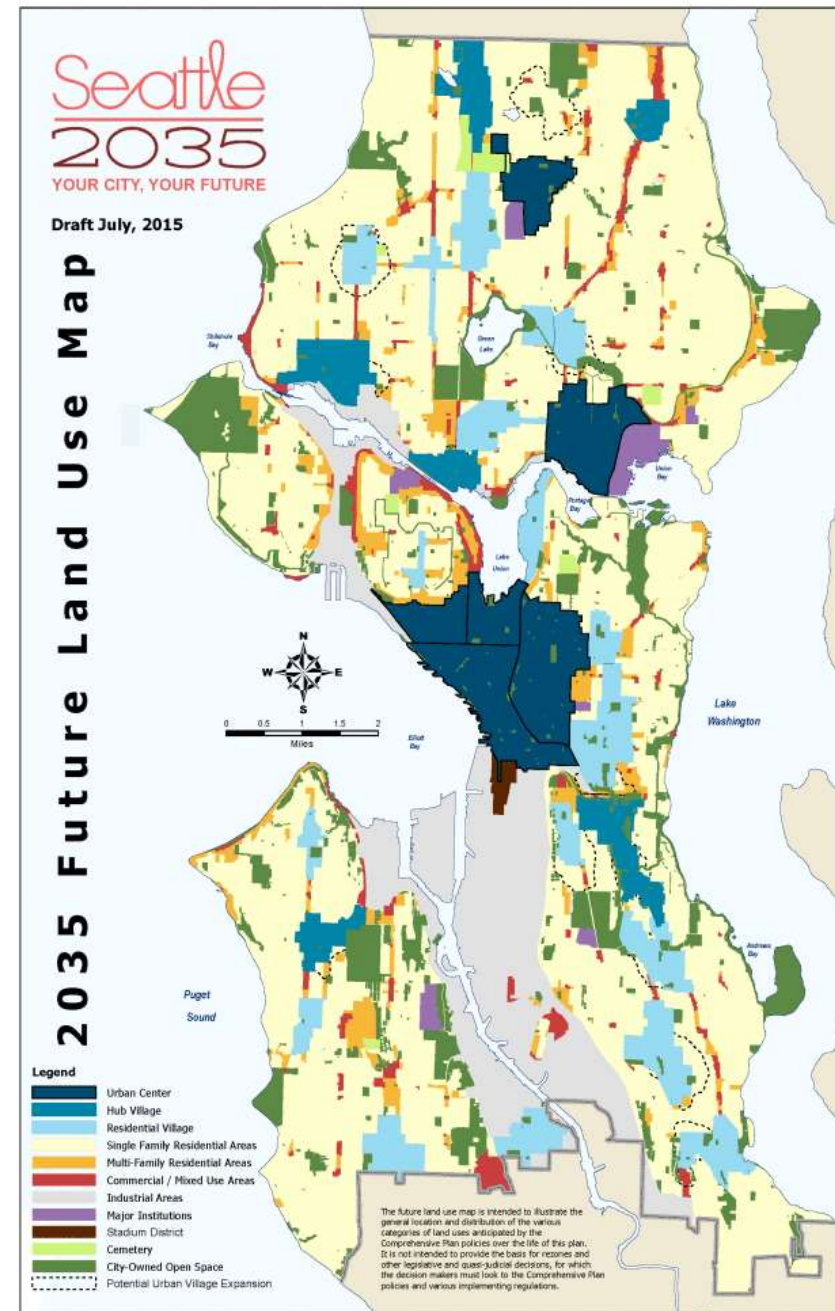
Conclusion: the future is not yet set

Existing Land Use



Source: King County Department of Assessments; City of Seattle

http://www.seattle.gov/dPd/cs/groups/pan/@pan/documents/web_informational/dpdd016851.png





<http://www.archidose.org/Blog/olympic-wm.jpg>



<http://council.seattle.gov/2012/06/15/preserve-green-open-space-and-get-a-tax-break/>

