

8. Salmon Population

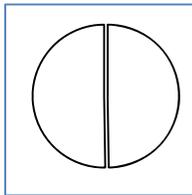
Target: Number of Salmon returning is maintained or increased

About this indicator: The number of returning salmon are recorded and tracked year to year. This is an indicator of the biological health of stream systems and can play a crucial role in the stream ecosystem.

Influencing factors: Numerous items influence the number of salmon returning year to year. Data on Vashon is not assessed due to lack of data collection in 2010.

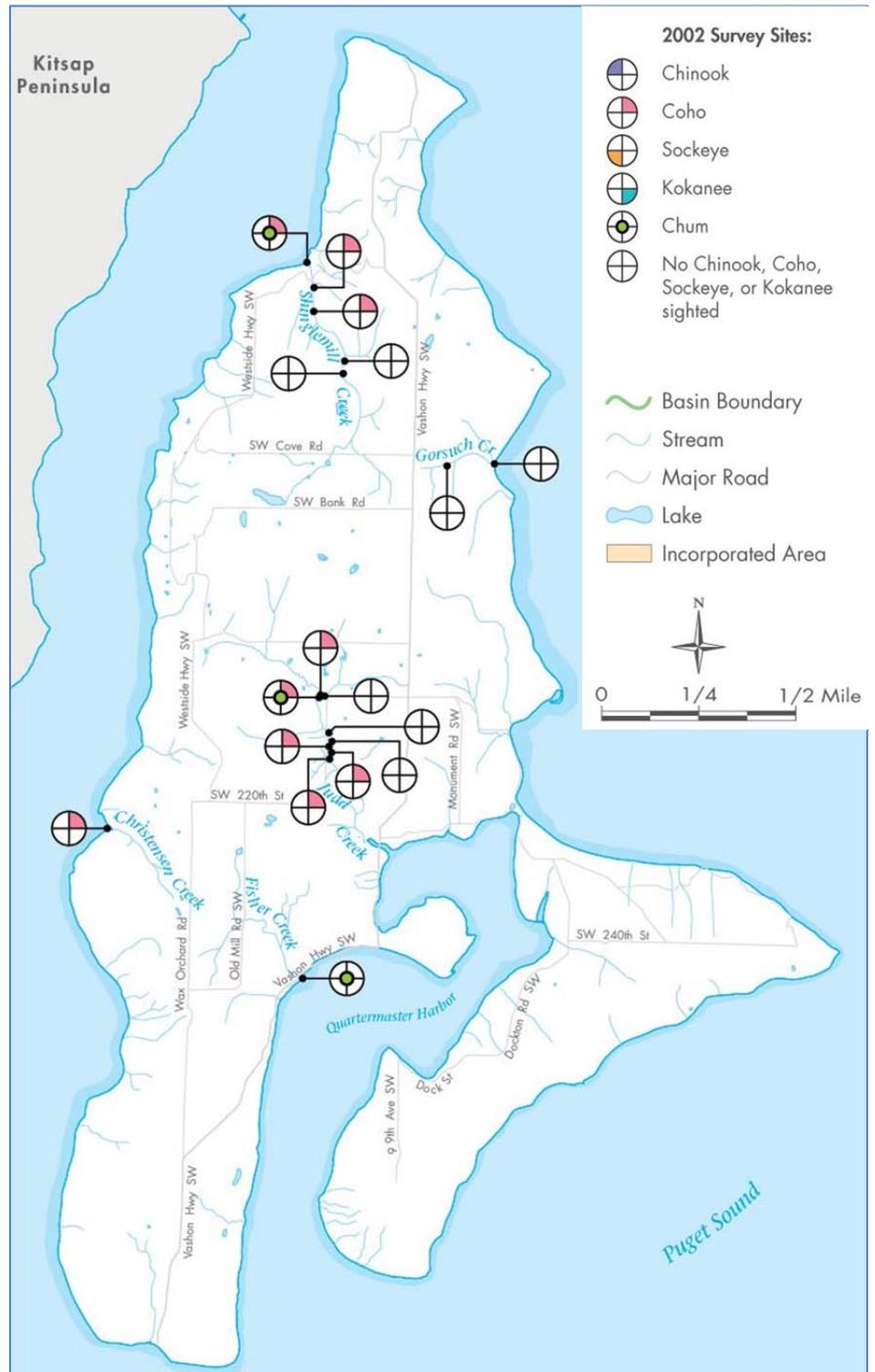
2010 Target: The number of returning salmon are recorded and tracked year to year

2010 Finding:
No data reported in 2010



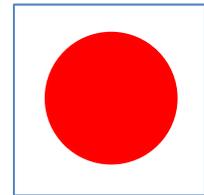
2010 Status: No data were reported to Salmon Watchers in 2010. Overall participation in Salmon Watchers data collection has been decreasing since 2002. Data shown in Figure 1 is from 2002 as an example of the potential data collection.

Figure 1. Salmonids Observed on Vashon-Maury Island in 2002. No data was reported in 2010. This figure is an example plot of data if community involvement in Salmon Watchers increases again to previous levels. Most recent data in 2009 had no salmonids observed at two locations on Shinglemill Creek.



2001-2010 Target: The number of returning salmon are maintained or increase over time.

2001-2010 Assessment: Overall Salmon Watchers data collection effort has been decreasing from 2002 to 2010



2001-2010 Status: No data were reported to Salmon Watchers program in 2010. Overall participation in Salmon Watchers data collection has been decreasing since 2002. The number of salmon reported per survey year has decreased since 2001 for several creeks, Table 1. However, the number of volunteers reporting the data and the number of sites surveyed has also decreased over the same period. At this point, there is insufficient data to conclude whether salmon populations are maintaining.

Table 1. Overall Salmon Watchers data collection effort on Vashon Maury Island in the last 10 years. The table shows an “S” for surveyed creek or “N” for no data collected for a given creek by year from 2001 until 2010. The number shown in parenthesis (1) refers to the number of live fish reported during that surveyed year. Each creek may have numerous reaches surveyed – as example in 2002: 5 reaches in Shinglemill Creek were surveyed, 2 reaches in Gorsuch Creek and 8 reaches in Judd Creek. No data were reported in 2010. In 2009, only 2 reaches of Shinglemill Creek were surveyed.

Creek\Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Shinglemill Creek	S (33)	S (11)	S (2)	S (0)	S (1)	S (0)	S (1)	S (0)	S (0)	N
Christensen Creek	S (0)	S (1)	S (1)	N	S (0)	S (0)	N	N	N	N
Fisher Creek	S (30)	S (6)	S (1)	N	S (2)	N	S (2)	S (1)	N	N
Judd Creek	S (136)	S (163)	S (321)	S (146)	S (31)	S (27)	S (1)	S (4)	N	N
Gorsuch Creek	N	S (0)	N	N	N	N	N	N	N	N
Number of reported surveyed periods per year - all creeks	195	302	285	79	113	67	58	70	16	0

Technical Notes Salmon Population

Data source: The data for this indicator comes from King County’s Salmon Watchers Program. This program involves volunteers watching streams for spawning salmon in King and Snohomish Counties.

Collection frequency: Volunteers watch for fish on their assigned creeks two times a week from September through December. Volunteers report their data to King County when completed. No data were reported in 2010. As many as five creeks have been monitored in the past – Shinglemill, Christenson, Fisher, Judd, and Gorsuch Creek, Table 1.

Methods for analysis: Volunteers are trained to identify fish in creeks and report their data to King County when their surveying period is completed. King County compiles the data by stream, reach, Juveniles, Redds, Citizens, SpeciesCode, LiveCount, DeadCount, FinsClipped, and Tagged. King County writes a report summarizing the data collected annually, (see link below).

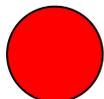
Data Reliability and Quality: The data quality of this indicator can be good to high based on the training of observers. The reliability is poor based on the recent participation. Vashon-Maury Island has 75 mapped streams. Sixteen of these creeks are reported as fish bearing in the VMI Reconnaissance Report (2004).

Data Reference: Salmon Watcher Program, Volunteer Monitoring Program
<http://www.kingcounty.gov/environment/animalsandplants/salmon-and-trout/salmon-watchers.aspx>

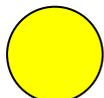
Vashon-Maury Island Reconnaissance Report (2004) King County
<http://www.kingcounty.gov/environment/watersheds/central-puget-sound/vashon-maury-island/recon-report.aspx>

Legend

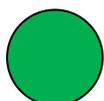
2010 Finding



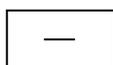
Poor Conditions: Reported data are above Maximum Contaminant Level (MCL) and/or fails to meet the state standard or criteria for a given indicator; needs improvement.



Fair Conditions: On average, data fell between the standard or criteria for “poor” and “good” and may be variable.

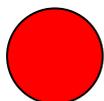


Good Conditions: Reported data are below MCL and/or meet the state standard or criteria for a given indicator.



No Annual Assessment

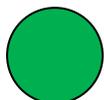
2001-2010 Status



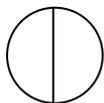
Downward Trajectory: 2001-2010 data shows decreasing or worsening conditions



No Change: 2001-2010 data shows no change with time.



Upward Trajectory: 2001-2010 data indicate increasing or improving conditions



Insufficient Data: reported data has too few data points and/or too short a period

