

Okanogan Basin Monitoring & Evaluation Program (OBMEP)



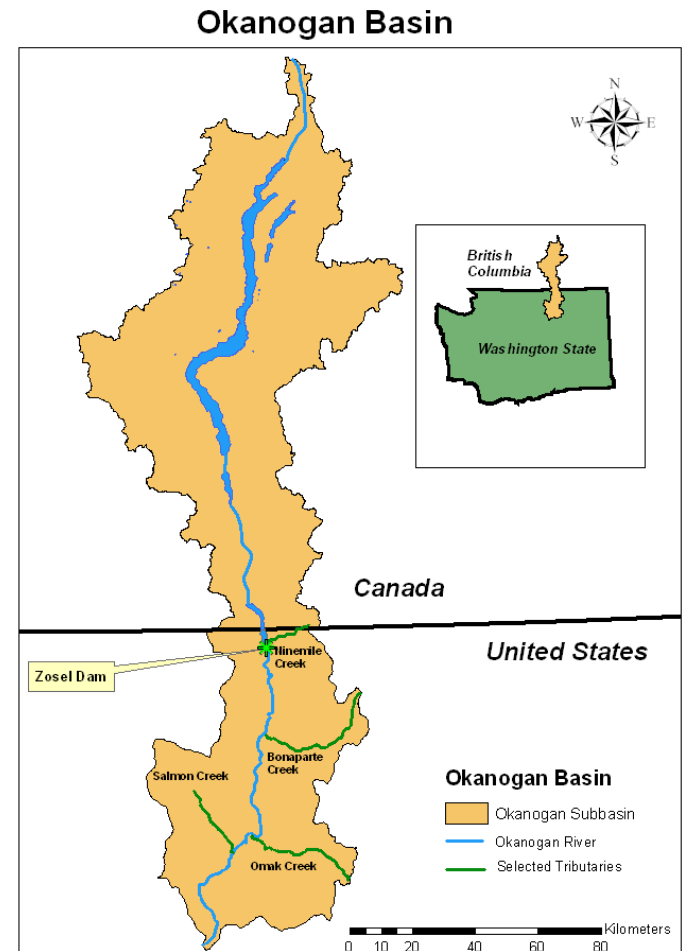
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Region of Operation, Goals

- OBMEP is responsible for monitoring and evaluating changes in status and trends of populations and habitats for anadromous fish within the Okanogan river basin.
- Additional information and reports can be found at:

<http://nrd.colvilletribes.com/obmep>
(Google: OBMEP)



Methods

- Summer spawner estimates
 - Census Redd Surveys (U.S.)
 - Trap/Weir Counts
 - Zosel Dam Video Monitoring

- Relative smolt abundance estimates
 - Smolt Trapping

- Fall Spawner counts at Zosel Dam



Smolt Trap Data

Chinook		
Description	Hatchery smolts	Wild sub yearlings
2008 Catch	4,277	2,228
2007 Catch	341	5,679
2008 CPUE	3.97	2.07
2007 CPUE	0.53	8.82
2008 Population Estimate	N/A	267,266
2007 Population Estimate	19,729	328,568



Smolt Trap Data

Sockeye		
Description	Hatchery smolts	Wild smolts
2008 Catch	5,865	4,039
2007 Catch	4,215	11,873
2008 CPUE	5.45	4.58
2007 CPUE	6.55	11.16
2008 Population Estimate	360,985	1,513,508
2007 Population Estimate	281,000	1,547,221



Smolt Trap Data

Steelhead		
Description	Hatchery smolts	Wild smolts
2008 Catch	1,445	131
2007 Catch	1,195	87
2008 CPUE	1.34	0.12
2007 CPUE	1.86	0.14
2008 Population Estimate	46,253	N/A
2007 Population Estimate	79,667	5,800



Zosel Dam, Sockeye Counts

	Zosel Sockeye Count	Wells Sockeye Count
2008 Total	77,533	165,334
2007 Total	17,708	22,273
2006 Total	19,245	22,075
10-year Average	N/D	36,951



Zosel Dam, Chinook Counts

	Zosel Chinook Count	Wells Chinook Counts
2008 Total	328	27,731
2007 Total	454	13,244
2006 Total	481	25,671
10-year Average	N/D	33,667



2008 Steelhead Return Numbers

Category	Description/location	2008 Spawners	Redd count	# wild
US Tributary	Spawners placed above Omak trap	41	N/A	10
US Tributary	Spawners below Omak trap	61	15	15
US Tributary	Spawners placed above Bonaparte trap	23	N/A	10
US Tributary	Spawners below Bonaparte trap	5	2	2
US Tributary	Spawners observed passing Zosel Dam	193	N/A	56
US Tributary	Spawners into Salmon Creek	Unknown	0	Unknown
US Tributary	Spawners into Wanacut Creek	0	0	0
US Tributary	Spawners into Loup Loup Creek	0	0	0
US Tributary	Spawners into Antoine	0	0	0
US Tributary	Spawners into Tonasket Creek	0	0	0
US Tributary	Spawners into Ninemile Creek	77	30	18
US Tributary	Spawners into Tunk Creek	2	1	0
US Tributary	Spawners into Wild Horse Spring Creek	0	0	0
Canada Tributary	Spawners placed above Inkaneep trap	22	N/A	17
Canada Tributary	Spawners below Inkaneep trap	N/D	N/D	N/D
Canada Tributary	Spawners into Vaseux Creek	N/D	N/D	N/D
Canada mainstem	Spawners into Canadian mainstem	N/D	N/D	N/D
Canada	Unknown or undefined distribution	94	N/D	38
US mainstem	Spawners into reach O1	10	5	1
US mainstem	Spawners into reach O2	99	48	12
US mainstem	Spawners into reach O3	17	8	2
US mainstem	Spawners into reach O4	111	55	14
US mainstem	Spawners into reach O5	39	19	5
US mainstem	Spawners into reach O6	0	0	0
US mainstem	Spawners into reach O7	513	249	64
US mainstem	Spawners into reach SI/S2	272	132	34
Subtotals	Adult escapement into mainstem	1061	516	132
Subtotals	Adult escapement into US tributaries	209	N/A	55
Subtotals	Adult escapement into Canada	116	N/D	38
Grand total		1,386		225

Steelhead Return Numbers

Summer steelhead spawner population trend data

Year	WDFW escapement estimate	OBMEP spawner survey estimate		
		Low	Mean	High
2005	1,322	1,147	1,315	1,482
2006	811	779	855	930
2007	1,258	1,234	1266*	1,280
2008	1,720	1,341	1,386	1,436

Wild summer steelhead spawner population trend data

Year	WDFW escapement estimate	OBMEP spawner survey estimate		
		Low	Mean	High
2005	N/A	143	164	185
2006	132	127	139	151
2007	116	148	152*	155
2008	233	213	225	266

Issues and items that make you go hmm.?

- ❑ High discharges from Zosel Dam during the low flow period made snorkel surveys difficult along the main-stem Okanogan river.
- ❑ Low spring discharges released from Zosel Dam continues to constrain spawning habitat for summer steelhead (Design work for a fix is underway).
- ❑ Uncertain how to best determine summer steelhead and Chinook spawning distributions in Canada?
- ❑ Lack of egg to fry survival data restricts lifecycle evaluations.

What's new for 2009?

- Installation of PIT tag arrays and video monitoring systems on Salmon, Ninemile & Antoine creeks.



Questions?

