

Parameter: Benthic Index of Biological Integrity

Project: All Projects

Watershed: All Watersheds

Scores and ratings are for the genus-level B-IBI for Puget Sound Lowland Streams, a multimetric index of ecological integrity based on population samples of benthic macroinvertebrates (underwater spineless creatures visible to the naked eye) taken in the fall. For more information, see <http://www.clallam.net/streamkeepers> and <http://www.salmonweb.org/salmonweb/bibi>

B-IBI score ratings and definitions:

50-46: *Healthy*—Supporting the full range of biological diversity expected for that site.

44-36: *Compromised*—Many of the most sensitive species no longer present. Impacts expected to one or more salmon life-stages.

34-28: *Impaired*—Notable loss of biodiversity and key species (mayflies, stoneflies, and caddis flies). Not likely to support self-sustaining salmon populations.

26-18: *Highly impaired*—Substantial loss of once-native life-forms, with taxa richness reduced by about half. Highly adverse conditions for salmon.

16-10: *Critically impaired*—Increasingly dominated by species adapted to disturbed environments.

Notes regarding "revised replicates" and QC ratings:

Samples ideally consist of three replicates, each with at least 250 specimens. If one or more replicates have < 250 specimens, some replicates may be combined or discarded, yielding "revised replicates." See "Level III Macroinvertebrate Analysis" on Streamkeepers' website.

For samples with 3 revised replicates, long-lived and intolerant taxa (first 2 rows) are cumulative counts of unique taxa among all 3 replicates. If there are <3 revised replicates, the first 2 rows are averages, and the criteria applied are different. See "Level III Macroinvertebrate Analysis" on Streamkeepers' website.

QC column: Blank entry denotes "Acceptable" data. "Questionable" means that QA procedures were not completely followed or documented, or specimen counts were below QA targets, but that program managers believe the data to be reasonably accurate nonetheless. Unacceptable data not reported.

Site/Date	Visit ID	QC	Revised replicate counts:			B-IBI score	Rating
Bagley 0.0			Bagley ~300' u/s of mouth				
10/7/2005	6123		* Replicate subsampled. 533*	505*	504*	42	Compromised
Bagley 0.1			Bagley ~300' u/s of mouth				
10/9/1999	337		Caution:1 or 2 original rep counts <250	927	409 --	34	Impaired
Bagley 0.7			Bagley d/s of Discovery Trail bridge				
10/11/2000	78		509	523	297	30	Impaired
10/13/2001	286		* Replicate subsampled. 556*	1273	626*	30	Impaired
10/15/2002	1129		* Replicate subsampled. 260	583*	595	32	Impaired
10/8/2003	3933		755	1063	700	38	Compromised
Bagley 1.2			Bagley d/s of Hwy 101				
10/9/1999	338		1197	991	507	36	Compromised
10/11/2000	79		718	446	489	34	Impaired
10/13/2001	287		653	1403	950	34	Impaired
Bagley 1.8			Bagley nr. S. Bagley Creek Rd				
10/9/1999	342		Caution:1 or 2 original rep counts <250	875	668 --	32	Impaired
10/11/2000	80		615	935	819	32	Impaired
Bagley 4.6			Bagley @ Merrill Estates				
10/14/2001	298		1027	1250	1545	42	Compromised
10/15/2002	1121		647	944	535	36	Compromised
Barnes 0.0			Barnes Creek mouth				
10/6/2001	1722		Caution:1 or 2 original rep counts <250	510	447 --	40	Compromised
9/21/2002	1614	?	454	250	458	34	Impaired
10/10/2003	4643		268	396	335	36	Compromised
Barnes 0.1			Barnes ~350' from mouth				
10/10/2005	6096		* Replicate subsampled. 504*	503*	505*	38	Compromised
Barnes 0.9			Barnes u/s of Marymere trail bridge				
10/11/2005	6091		* Replicate subsampled. 502*	509*	511*	42	Compromised
Bear (Salt) 0.0			Bear @ confluence w/Salt Cr.				
10/3/2005	6115		* Replicate subsampled. 520*	526*	506	42	Compromised

<i>Bear 0.1</i>		<i>Bear u/s of Hwy 101</i>						
9/19/2000	60	828	907	760	46		Healthy	
9/16/2001	314	945	1049	788	46		Healthy	
10/13/2002	1289	906	759	951	46		Healthy	
<i>Bear 2.5</i>		<i>Bear @ Misty Creek Lane</i>						
9/19/2000	61	1909	1573	2015	40		Compromised	
9/16/2001	303	2203	1223	2761	44		Compromised	
<i>Bear 5.1</i>		<i>Bear on West Twin Rd</i>						
9/20/2000	64	* Replicate subsampled. 613* 676* 845*			44		Compromised	
9/15/2001	316	1251	1330	2199	42		Compromised	
10/12/2002	1293	* Replicate subsampled. 1992 668* 703*			46		Healthy	
<i>Bear SF 0.2</i>		<i>Bear SF d/s of West Twin Rd</i>						
9/20/2000	63	* Replicate subsampled. 612* 588* 665*			46		Healthy	
9/15/2001	315	1804	1412	1268	48		Healthy	
10/12/2002	1290	866	1218	1293	48		Healthy	
<i>Bell 0.1</i>		<i>Bell ~320 ft. d/s of Schmuck Rd</i>						
10/10/1999	461	1487	854	1320	18		Highly impaired	
10/1/2000	44	255	437	482	16		Critically impaired	
9/30/2001	312 ?	551	354	463	12		Critically impaired	
10/11/2005	6127	* Replicate subsampled. 344 537* 460			10		Critically impaired	
<i>Bell 0.5</i>		<i>Bell @ Sequim treatment plant</i>						
10/10/1999	223	1521	564	1910	26		Highly impaired	
<i>Bell 0.8</i>		<i>Bell @ Spath DOT site</i>						
10/26/2002	1303	* Replicate subsampled. 563* 705 736*			16		Critically impaired	
10/17/2003	3948	5132	352	4534	12		Critically impaired	
<i>Bell 1.8</i>		<i>Bell u/s of Brown Rd</i>						
10/4/2000	45	682	1063	987	20		Highly impaired	
<i>Cassalery 0.5</i>		<i>Cassalery 300' d/s of Jamestown Rd</i>						
10/10/1999	462	325	488	346	22		Highly impaired	
9/22/2000	81	425	570	667	18		Highly impaired	
9/22/2001	305	Caution:1 or 2 original rep counts <250 455 -- --			24		Highly impaired	
<i>Cassalery 0.6</i>		<i>Cassalery @ Jamestown Rd.</i>						
10/1/2002	1312	Caution:1 or 2 original rep counts <250 500 345 --			18		Highly impaired	
<i>Cassalery 1.1</i>		<i>Cassalery u/s of Taylor Ranch Rd</i>						
9/25/1999	276	Caution:1 or 2 original rep counts <250 491 400 --			12		Critically impaired	
9/22/2000	82	440	2994	1121	20		Highly impaired	
10/1/2002	1314	278	448	501	18		Highly impaired	
<i>Cassalery 1.6</i>		<i>Cassalery @ Clary Lane</i>						
9/25/1999	277	Caution:1 or 2 original rep counts <250 479 618 --			20		Highly impaired	
10/13/2000	83	696	1243	1272	32		Impaired	
9/22/2001	306	Caution:1 or 2 original rep counts <250 944 -- --			16		Critically impaired	
10/1/2002	1313	Caution:1 or 2 original rep counts <250 619 523 --			14		Critically impaired	
<i>Clallam 2.4</i>		* Replicate subsampled. 543* 582* 577*					34	Impaired
10/5/2004	6215							
<i>Clallam 5.4</i>		* Replicate subsampled. 564* 569* 569*					42	Compromised
10/5/2004	6298							
<i>Deep 0.9</i>		* Replicate subsampled. 317 284 571*					42	Compromised
10/11/2004	6304							
<i>Deep 1.5</i>		* Replicate subsampled. 524 582* 388					44	Compromised
10/13/2004	6312							
<i>Dry 2.2</i>		<i>Dry Creek @ 2844 W. Edgewood Dr.</i>						
9/25/2005	6141	* Replicate subsampled. 515* 510* 514*			42		Compromised	
<i>Dungeness 0.7</i>		<i>Dungeness d/s of Schoolhouse Bridge</i>						
10/12/2004	4916	* Replicate subsampled. 1860 3009 1081*			36		Compromised	

<i>Dungeness 11.6</i>	<i>Dungeness d/s of USGS gage</i>								
10/14/2004	4915		323	288	664	34			Impaired
<i>Dungeness 15.7</i>	<i>Dungeness d/s of Gray Wolf</i>								
9/30/2005	6143		* Replicate subsampled. 504*	528*	511*	42			Compromised
<i>Dungeness 5.9</i>	<i>Dungeness @ RR bridge</i>								
9/27/2005	6116	Caution: 1 or 2 original rep counts <250	* Replicate subsampled.			412		505*	--
	42	Compromised							
<i>Dungeness 6.6a</i>	<i>Dungeness rb side-channel u/s of Hwy 101</i>								
10/14/2004	4917	Caution: 1 or 2 original rep counts <250	271	262	--	36			Compromised
<i>Dungeness 7.8</i>	<i>Dungeness @ #364 Meadows Development</i>								
9/27/2005	6131	? Caution: 1 or 2 original rep counts <250	635	531	--	40			Compromised
<i>E. Twin 1.2a</i>									
10/12/2004	6305	Caution: 1 or 2 original rep counts <250	* Replicate subsampled.			508		581	--*
	46	Healthy							
<i>E. Twin 1.9a</i>									
10/12/2004	6306		* Replicate subsampled. 635*	458	549*	42			Compromised
<i>Elk 1.9</i>	<i>Elk Cr. @ Stagecoach Pass (lower end of purchase)</i>								
10/16/2005	6051		* Replicate subsampled. 533*	479	503*	48			Healthy
<i>Ennis 0.1</i>	<i>Ennis @ PA treatment plant</i>								
9/19/2000	73	? Caution: 1 or 2 original rep counts <250	314	278	--	32			Impaired
9/16/2001	308	? Caution: 1 or 2 original rep counts <250	453	--	--	26			Highly impaired
10/4/2002	1365	? Caution: All 3 rep counts <250	109	46	61	32			Impaired
10/5/2003	3672	? Caution: All 3 rep counts <250	49	102	40	22			Highly impaired
<i>Ennis 1.4</i>	<i>Ennis @ Roosevelt MS</i>								
9/19/2000	74	Caution: 1 or 2 original rep counts <250	355	528	--	32			Impaired
9/16/2001	309	? Caution: All 3 rep counts <250	155	94	168	36			Compromised
10/3/2002	1320	? Caution: All 3 rep counts <250	78	190	172	32			Impaired
10/5/2003	3671	? Caution: All 3 rep counts <250	110	47	18	30			Impaired
10/17/2004	4929		842	513	410	38			Compromised
<i>Ennis 1.6</i>	<i>Ennis d/s of power lines</i>								
10/18/2004	4934	Caution: 1 or 2 original rep counts <250	507	867	--	32			Impaired
10/6/2005	6099	Caution: All 3 rep counts <250	115	84	212	32			Impaired
<i>Ennis 6.6</i>	<i>Ennis @ Heart of the Hills Campground off Loop A</i>								
10/21/2005	6092		* Replicate subsampled. 511*	528*	298	42			Compromised
<i>Gray Wolf 1.0</i>	<i>Gray Wolf @ bridge 1 mi. u/s of Dung Forks</i>								
10/10/2004	4923		892	886	1043	42			Compromised
<i>Hoko 18.0</i>									
10/7/2004	6310		* Replicate subsampled. 619*	577*	590*	40			Compromised
<i>Hoko 3.2a</i>									
10/4/2004	6302		* Replicate subsampled. 602*	337	521	28			Impaired
<i>Hoko 9.5</i>									
10/5/2004	6311		* Replicate subsampled. 594*	574*	624*	36			Compromised
<i>Jimmycomelately 0.1</i>	<i>JCL upstream of Old Blyn Hwy; old site pre 2004</i>								
9/30/2000	42	? Caution: 1 or 2 original rep counts <250	1450	--	--	34			Impaired
9/29/2001	313		561	2637	1658	40			Compromised
10/10/2002	1285		* Replicate subsampled. 557*	534*	551*	44			Compromised
10/5/2003	3669	?	971	1618	3082	36			Compromised
<i>Jimmycomelately 0.2</i>	<i>JCL u/s of Hwy 101; old site pre 2004</i>								
10/5/2000	43	Caution: 1 or 2 original rep counts <250	454	568	--	36			Compromised
10/10/2002	1286		* Replicate subsampled. 564*	542*	543*	38			Compromised
<i>Jimmycomelately 0.2a</i>	<i>JCL u/s of Hwy 101 - restored channel</i>								
9/25/2004	4898		596	257	289	16			Critically impaired
9/25/2005	6047	Caution: All 3 rep counts <250	121	65	41	16			Critically impaired

<i>Jimmycomelately 0.4 JCL d/s of E spur rd. @ end of Correa Rd.</i>							
10/22/2004	4952	<i>Caution: All 3 rep counts <250</i>	75	9	83	24	Highly impaired
9/25/2005	6134	<i>Caution: 1 or 2 original rep counts <250</i>	476	390	--	32	Impaired
<i>Jimmycomelately 0.6 JCL @ Corriea Rd</i>							
10/1/2001	307		466	285	290	36	Compromised
10/11/2002	1287		368	305	622	32	Impaired
10/5/2003	3670		688	1234	1680	48	Healthy
10/16/2004	4914		1262	1582	1267	44	Compromised
<i>Jimmycomelately 0.8 JCL @ Woods Rd</i>							
10/11/2002	1288		1025	1168	944	44	Compromised
10/3/2005	6130	<i>Caution: 1 or 2 original rep counts <250</i>	289	370	--	42	Compromised
<i>Johnson 0.0 Johnson u/s of Marina</i>							
10/9/1999	283		* Replicate subsampled. 487*	534	1186	40	Compromised
<i>Johnson 0.6 Johnson d/s of Hwy 101</i>							
10/9/1999	284		733	651	707	40	Compromised
<i>Lake 0.6 Lake u/s of Hwy 101</i>							
9/18/2000	58	? <i>Caution: All 3 rep counts <250</i>	14	30	28	16	Critically impaired
9/19/2001	317	<i>Caution: 1 or 2 original rep counts <250</i>	619	533	--	22	Highly impaired
<i>Lake trib @ LB 6.2 Lake (trib) u/s of Lake Pleasant</i>							
9/19/2000	120		1331	1046	1684	48	Healthy
9/15/2001	302		1785	2102	564	48	Healthy
10/13/2002	1296		536	980	339	46	Healthy
<i>Lees 0.1 Lees d/s of E. Hidden Way</i>							
10/7/2000	55		518	974	631	32	Impaired
9/21/2002	1310	<i>Caution: 1 or 2 original rep counts <250</i>	428	337	--	34	Impaired
<i>Lees 0.6 Lees d/s of Hwy 101</i>							
10/14/1999	220	<i>Caution: 1 or 2 original rep counts <250</i>	319	255	--	38	Compromised
10/11/2000	56	<i>Caution: 1 or 2 original rep counts <250</i>	388	1000	--	42	Compromised
10/6/2001	239		308	367	500	42	Compromised
9/20/2003	3663		1840	2287	2318	46	Healthy
<i>Lees 0.8 Lees d/s of Leighland Av</i>							
10/14/1999	221		609	703	639	36	Compromised
10/12/2000	57		* Replicate subsampled. 1650	1147*	949	40	Compromised
10/6/2001	240		2503	1559	2435	40	Compromised
9/21/2002	1311		635	966	635	36	Compromised
<i>Lyre 0.8a</i>							
10/11/2004	6309		* Replicate subsampled. 517*	568*	583*	34	Impaired
<i>Lyre 4.2</i>							
10/13/2004	6307		* Replicate subsampled. 448	585*	594*	30	Impaired
<i>Morse 0.3 Morse @ 4 Seasons Ranch</i>							
10/1/1999	259		694	913	1116	32	Impaired
9/15/2000	71		* Replicate subsampled. 716*	621*	5445	38	Compromised
9/15/2001	311		3176	671	880	28	Impaired
9/28/2002	1321		* Replicate subsampled. 627*	561*	628*	40	Compromised
10/4/2003	3941	? <i>Caution: All 3 rep counts <250</i>	119	126	85	34	Impaired
<i>Morse 1.1 Morse u/s of Discovery Trail bridge</i>							
10/13/1998	6017		640	306	264	32	Impaired
10/1/1999	280	<i>Caution: 1 or 2 original rep counts <250</i>	1455	525	--	36	Compromised
9/28/2002	1366		823	517	658	32	Impaired
<i>Morse 1.5 Morse @ N. end of 4 Seasons Park</i>							
10/11/2005	6093		* Replicate subsampled. 543*	515*	533*	38	Compromised
<i>Morse 1.8 Morse @ 4 Seasons Park</i>							
10/3/1999	281		437	402	342	34	Impaired
9/18/2000	72		2355	1036	1214	36	Compromised

9/15/2001	310	<i>Caution:1 or 2 original rep counts <250</i>	784	463	--	38	Compromised
<i>Morse 4.0</i>		<i>Morse @ power plant</i>					
10/11/2005	6094	<i>Caution:1 or 2 original rep counts <250</i>					
<i>Morse 5.6</i>		<i>Morse @ PUD bridge</i>					
10/16/2004	4928	* Replicate subsampled.	523*	510	--	36	Compromised
<i>Peabody 0.2</i>		<i>Peabody @ 2nd St</i>					
9/24/1998	6019	* Replicate subsampled.	3971	605*	546*	42	Compromised
10/17/1999	279		478	986	336	14	Critically impaired
<i>Peabody 0.5</i>		<i>Peabody u/s of Peabody St</i>					
9/24/1998	6020	<i>Caution:1 or 2 original rep counts <250</i>	465	--	--	14	Critically impaired
9/15/1999	225		384	593	814	16	Critically impaired
<i>Peabody 1.0</i>		<i>Peabody @ 9th St</i>					
9/28/1998	6021	<i>Caution:1 or 2 original rep counts <250</i>	359	413	--	10	Critically impaired
10/17/1999	278	<i>Caution:1 or 2 original rep counts <250</i>	426	472	--	18	Highly impaired
<i>Peabody 1.4</i>		<i>Peabody @ ONP Visitor Ctr</i>					
11/1/2000	39	<i>Caution:1 or 2 original rep counts <250</i>	577	656	--	48	Healthy
<i>Pysht 4.2</i>		<i>Caution: All 3 rep counts <250</i>					
10/6/2004	6317		221	203	161	32	Impaired
<i>Pysht 6.5</i>		* Replicate subsampled.					
10/6/2004	6313		586*	567*	567*	30	Impaired
<i>Pysht 9.5</i>		* Replicate subsampled.					
10/6/2004	6314		559*	563*	633*	44	Compromised
<i>Salt 1.5</i>		<i>Salt @ upper junction of Camp Hayden Rd & CHPark Rd</i>					
10/2/2002	1319		574	750	794	38	Compromised
10/3/2003	3930		1671	824	1359	38	Compromised
10/2/2004	4906		1790	1859	1024	36	Compromised
<i>Salt 4.2</i>		<i>Salt ~150' d/s of WDFW #19-0010</i>					
10/2/2002	1317	* Replicate subsampled.	600*	605*	718	40	Compromised
10/3/2003	3931		1915	2231	1589	48	Healthy
10/1/2004	4908		725	1776	1598	44	Compromised
<i>Salt 5.4</i>		<i>Salt @ end of Salt Creek Rd., d/s of WDFW #19-0014</i>					
10/2/2002	1318	* Replicate subsampled.	832	346	545*	38	Compromised
10/3/2005	6118	<i>Caution:1 or 2 original rep counts <250</i>					
<i>Salt 6.4</i>		* Replicate subsampled.					
10/3/2004	4905		547*	436	--	44	Compromised
<i>Sekiu 2.5</i>		<i>Salt 750 ft below 585 Wasankari Rd.</i>					
10/7/2004	6301	<i>Caution:1 or 2 original rep counts <250</i>	494	484	--	40	Compromised
<i>Sekiu 6.9</i>		* Replicate subsampled.					
10/6/2004	6303		556*	578*	569*	42	Compromised
<i>Siebert 0.6</i>		<i>Siebert @ 225 Gehrke Rd</i>					
10/16/2000	40		580	957	998	40	Compromised
9/27/2001	241		1311	580	2165	36	Compromised
10/7/2002	1122	* Replicate subsampled.	707	1107	561*	40	Compromised
10/8/2003	3942		1437	603	1199	42	Compromised
10/1/2004	4910		1193	783	1219	42	Compromised
10/7/2005	6121	* Replicate subsampled.	520*	512*	506*	38	Compromised
<i>Siebert 3.0</i>		<i>Siebert @ Miletich Lane</i>					
10/16/2000	41		982	639	845	42	Compromised
9/27/2001	243		980	1101	411	40	Compromised
10/7/2002	1123		703	1053	584	40	Compromised
10/15/2003	3943		1548	1385	759	44	Compromised

<i>Siebert 3.8</i>		<i>Siebert @ Conner Road</i>								
9/24/2001	244	584	726	444	42	Compromised				
10/17/2002	1128	919	861	1041	44	Compromised				
10/9/2003	3927	412	490	1282	46	Healthy				
<i>Siebert WF 2.3</i>		<i>Siebert WF just inside ONP</i>								
10/8/2002	1124	547	297	519	46	Healthy				
10/13/2005	6107	456	354	425	48	Healthy				
<i>Tumwater 0.1a</i>		<i>Tumwater @ 3rd St.</i>								
9/11/2004	4882	? <i>Caution: All 3 rep counts <250</i>			127	134	81	30	Impaired	
<i>Valley 0.4</i>		<i>Valley @ 6th St, u/s of final culvert 200ft</i>								
10/15/2000	48	1037	1732	2273	28	Impaired				
10/14/2001	246	1204	988	1171	38	Compromised				
10/6/2002	1315	611	306	561	38	Compromised				
<i>Valley 0.7</i>		<i>Valley @ 12th St</i>								
10/2/1999	343	<i>Caution: 1 or 2 original rep counts <250</i>			791	515	--	38	Compromised	
<i>Valley 1.0</i>		<i>Valley @ "flatbed" bridge @ 14th St</i>								
10/12/2003	3944	* <i>Replicate subsampled. 4126</i>			1081*	557*	44	Compromised		
10/10/2004	4922	* <i>Replicate subsampled. 846*</i>			827*	734*	42	Compromised		
10/9/2005	6137	* <i>Replicate subsampled. 514*</i>			514*	511*	40	Compromised		
<i>Valley 1.2</i>		<i>Valley d/s of Hwy 101</i>								
10/2/1999	344	318	1686	1403	44	Compromised				
<i>Valley 2.2</i>		<i>Valley d/s of E Valley mouth</i>								
10/19/2000	50	1507	854	1302	48	Healthy				
10/14/2001	249	738	986	498	44	Compromised				
10/5/2002	1316	* <i>Replicate subsampled. 339</i>			938	621*	44	Compromised		
<i>Valley 2.2a</i>		<i>Valley Creek u/s of confluence w/Mill Creek @main side trail</i>								
10/9/2005	6140	* <i>Replicate subsampled. 533*</i>			543*	543*	46	Healthy		
<i>W. Twin 0.3</i>		* <i>Replicate subsampled. 373</i>					531	622*	36	Compromised
10/13/2004	6299	* <i>Replicate subsampled. 590*</i>			352	441	44	Compromised		
<i>W. Twin 1.0</i>										
10/12/2004	6300									