APPENDIX D

MEMO August 10, 2005

To: File

From: Donna Darm, Assistant Regional Administrator, PRD

Subject: Critical Habitat Designation for Evolutionarily Significant Units (ESU) of West Coast Salmon and Steelhead – *Analysis of the Benefits of Designation versus the Economic Benefits of Exclusion*

This analysis was prepared to inform the agency's exercise of discretion under Section 4(b)(2) of the Endangered Species Act (ESA), which allows the Secretary to exclude any particular area from critical habitat designation if the benefits of exclusion outweigh the benefits of designation, so long as exclusion will not result in extinction of the listed species.

Background

On December 14, 2004 we published a *Federal Register* Notice proposing to exclude particular areas from critical habitat designation where the economic impacts of designation outweighed the conservation benefits of designation. We defined particular areas as the occupied streams within a watershed. The proposed exclusions based on economic impacts followed a cost-effectiveness approach in which we prioritized for exclusion those areas with a relatively low conservation value and high economic impact. To implement this approach, we first determined the relative conservation value of each particular area (high, medium, or low). In a separate effort we estimated the economic impact likely to result from section 7 consultations in each area. We selected dollar thresholds to determine those areas where the economic benefit of exclusion might outweigh the conservation benefit of designation, and used those thresholds to identify particular areas we considered eligible for exclusion. We then considered whether exclusion of any of the particular areas, alone or in combination, would significantly impede conservation. If we concluded that excluding an area would significantly impede conservation, we did not recommend it for exclusion and it was not proposed for exclusion based on economic impacts in the proposed rule. Although we received numerous comments on our estimate of economic impacts, we received very few comments on our cost-effectiveness framework, only one comment objecting to our use of relative (as opposed to absolute) conservation values as a basis for exclusion, and no comments on the dollar thresholds we selected.

For the final designation, we recommend retaining the cost-effectiveness approach to excluding areas based on economic impacts. We have adjusted the conservation ratings to take into account the fact that the benefit of designation depended not just on the conservation value of an area but the extent to which a section 7 consultation would protect that conservation value. This has resulted in an additional consideration of areas with both a low conservation rating and low section 7 "leverage." We recommend retaining the dollar thresholds we established for the proposed rule, with the addition of a

lower dollar threshold for the areas rated as having a low conservation value and low section 7 "leverage." For Idaho watersheds in the range of the Snake River steelhead ESU we recommend using a dollar threshold that is 40 percent of the threshold for other ESUs, based on the fact that the watersheds for the Idaho portion of this ESU contain on average only 40 percent as much area as watersheds within the range of the other ESUs. These thresholds are:

For considering exclusion of areas having a medium benefit of designation:
$300,000 ($120,000 for ID watersheds in the range of the Snake River steelhead ESU)

For considering exclusion of areas having a low benefit of designation:
$85,000 ($34,000 for ID watersheds in the range of the Snake River steelhead ESU)

For considering exclusion of areas having a very low benefit of designation:
$1000 ($400 for ID watersheds in the range of the Snake River steelhead ESU)

As before, we recommend that areas with a high conservation value not be considered for exclusion because excluding these areas would significantly impede conservation. The exception would be where an area has a high conservation value but low section 7 "leverage." In that case, we considered the area as being eligible for exclusion if the dollar impacts met the threshold we had established for a medium value area.

The tables and maps that follow illustrate the results of applying this approach. Where a table shows that an area was eligible for exclusion but not excluded, there is a footnote that explains our conclusion that excluding this area would significantly impede conservation.

Attachments:
(1) ESU 4(b)(2) Tables
(2) ESU Ratings Maps
(3) ESU Exclusion Maps

Table D.1. Puget Sound Chinook ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Puget Sound Chinook Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
STRAIT OF GEORGIA	1711000201	Bellingham Bay	L			$823,939		$9.65		Yes	--	Entire watershed	$823,939
STRAIT OF GEORGIA	1711000202	Samish River	L			$656,513		$30.78		Yes	--	Entire watershed	$656,513
STRAIT OF GEORGIA	1711000204	Birch Bay	L			$576,431		$35.95		Yes	--	Entire watershed	$576,431
NOOKSACK	1711000401	Upper North Fork Nooksack River	H			$313,057		$0.00		--	--	None	--
NOOKSACK	1711000402	Middle Fork Nooksack River	M			$80,861		$86.68		--	--	None	--
NOOKSACK	1711000403	South Fork Nooksack River	H			$217,491		$113.29		--	--	None	--
NOOKSACK	1711000404	Lower North Fork Nooksack River	H	H		$157,239	$12,992	$24.40	$2.53	--	--	None	--
NOOKSACK	1711000405	Nooksack River	H	H		$543,840	$152,176	$10.64	$2.35	--	--	None	--
UPPER SKAGIT	1711000504	Skagit River/Gorge Lake	H			$2,004,813		$0.00		--	--	None	--
UPPER SKAGIT	1711000505	Skagit River/Diobsud Creek	H	H		$179,692	$166,370	$8.27	$0.00	--	--	None	--
UPPER SKAGIT	1711000506	Cascade River	H			$192,029		$95.95		--	--	None	--
UPPER SKAGIT	1711000507	Skagit River/Illabot Creek	H	H		$327,016	$274,179	$63.32	$13.04	--	--	None	--
UPPER SKAGIT	1711000508	Baker River	M			$6,175,550		$302.96		Yes	--	Entire watershed	$6,175,550
SAUK	1711000601	Upper Sauk River	H			$463,072		$3,027.78		--	--	None	--
SAUK	1711000602	Upper Suiattle River	H			$39,650		$0.00		--	--	None	--
SAUK	1711000603	Lower Suiattle River	H	H		$338,598	$306,791	$32.35	$32.35	--	--	None	--
SAUK	1711000604	Lower Sauk River	H	H		$345,774	$320,489	$12.22	$10.25	--	--	None	--
LOWER SKAGIT	1711000701	Middle Skagit River/Finney Creek	H	H		$518,581	$392,004	$32.79	$27.51	--	--	None	--
LOWER SKAGIT	1711000702	Lower Skagit River/Nookachamps Creek	H	H		$792,891	$213,018	$15.30	$3.64	--	--	None	--
STILLAGUAMISH	1711000801	North Fork Stillaguamish River	H			$354,258		$12.93		--	--	None	--
STILLAGUAMISH	1711000802	South Fork Stillaguamish River	H			$561,207		$12.77		--	--	None	--
STILLAGUAMISH	1711000803	Lower Stillaguamish River	H	H		$357,076	$19,836	$13.00	$0.47	--	--	None	--
SKYKOMISH	1711000901	Tye and Beckler Rivers	H			$674,489		$717.11		--	--	None	--
SKYKOMISH	1711000902	Skykomish River Forks	H	H		$745,300	$637,915	$1.25	$0.00	--	--	None	--
SKYKOMISH	1711000903	Skykomish River/Wallace River	H	H		$270,222	$175,754	$10.33	$2.61	--	--	None	--
SKYKOMISH	1711000904	Sultan River	H			$2,786,500		$59.18		--	--	None	--
SKYKOMISH	1711000905	Skykomish River/Woods Creek	H	H		$265,669	$138,547	$5.21	$0.22	--	--	None	--
SNOQUALMIE	1711001003	Middle Fork Snoqualmie River	H			$3,422,570		$22.23		--	--	None	--
SNOQUALMIE	1711001004	Lower Snoqualmie River	H	H		$620,057	$331,488	$20.57	$10.86	--	--	None	--
SNOHOMISH	1711001101	Pilchuck River	M			$238,326		$4.10		--	--	None	--
SNOHOMISH	1711001102	Snohomish River	H	H		$1,407,337	$211,944	$7.67	$0.90	--	--	None	--
LAKE WASHINGTON	1711001201	Cedar River	H			$5,343,234		$16.50		--	--	None	--
LAKE WASHINGTON	1711001202	Lake Sammamish	M			$1,962,646		$19.65		Yes	--	Entire watershed	$1,962,646
LAKE WASHINGTON	1711001203	Lake Washington	M	H		$15,308,987	$377,381	$23.89	$0.34	--	Yes	Tributaries Only	$377,381
LAKE WASHINGTON	1711001204	Sammamish River	M	M		$2,065,625	$296,415	$5.29	$0.45	Yes	--	Entire watershed	$2,065,625
DUWAMISH	1711001301	Upper Green River	M			$449,922		$0.00		Yes	--	None[a]	--
DUWAMISH	1711001302	Middle Green River	H	H		$322,505	$252,300	$81.66	$49.13	--	--	None	--
DUWAMISH	1711001303	Lower Green River	H	H		$2,668,259	$731,700	$6.91	$1.65	--	--	None	--
PUYALLUP	1711001401	Upper White River	H			$458,897		$0.00		--	--	None	--
PUYALLUP	1711001402	Lower White River	H	H		$1,382,377	$289,740	$19.09	$2.98	--	--	None	--
PUYALLUP	1711001403	Carbon River	H			$312,187		$6.70		--	--	None	--
PUYALLUP	1711001404	Upper Puyallup River	H			$2,816,664		$23.44		--	--	None	--
PUYALLUP	1711001405	Lower Puyallup River	H	H		$989,494	$230,515	$3.39	$0.59	--	--	None	--
NISQUALLY	1711001502	Mashel/Ohop	H			$254,848		$31.79		--	--	None	--
NISQUALLY	1711001503	Lowland	H	H		$405,270	$205,439	$6.15	$3.23	--	--	None	--
DESCHUTES	1711001601	Prairie	L			$408,052		$131.81		Yes	--	Entire watershed	$408,052
DESCHUTES	1711001602	Prairie	L	L		$169,034	$71,071	$2.67	$1.12	Yes	--	Entire watershed	$169,034
SKOKOMISH	1711001701	Skokomish River	H			$996,783		$23.65		--	--	None	--
HOOD CANAL	1711001802	Lower West Hood Canal Frontal	L			$104,792		$18.41		Yes	--	Entire watershed	$104,792
HOOD CANAL	1711001803	Hamma Hamma River	M			$172,164		$35.79		--	--	None	--
HOOD CANAL	1711001804	Duckabush River	H			$54,104		$0.00		--	--	None	--
HOOD CANAL	1711001805	Dosewallips River	H			$84,596		$0.00		--	--	None	--
HOOD CANAL	1711001806	Big Quilcene River	L			$174,105		$27.44		Yes	--	Entire watershed	$174,105
HOOD CANAL	1711001808	West Kitsap	L			$285,269		$9.22		Yes	--	Entire watershed	$285,269
KITSAP	1711001900	Kennedy/Goldsborough	L			$595,781		$14.70		Yes	--	Entire watershed	$595,781
KITSAP	1711001901	Puget	L			$2,247,162		$9.00		Yes	--	Entire watershed	$2,247,162
KITSAP	1711001902	Prairie	L			$633,860		$8.08		Yes	--	Entire watershed	$633,860
KITSAP	1711001904	Puget Sound/East Passage	L			$1,797,474		$5.03		Yes	--	Entire watershed	$1,797,474
DUNGENESS/ELWHA	1711002003	Dungeness River	H			$254,992		$4.82		--	--	None	--
DUNGENESS/ELWHA	1711002004	Port Angeles Harbor	M			$504,227		$15.24		Yes	--	Entire watershed	$504,227
DUNGENESS/ELWHA	1711002007	Elwha River	H			$3,356,869		$21.61		--	--	None	--
	N01	Nearshore Marine Area	H			$1,537,426		$2,147.82		--	--	None	--

N02	Nearshore Marine Area	H		$1,621,739	$7,834.49	--	--	None	--
N03	Nearshore Marine Area	H		$1,446,564	$2,406.93	--	--	None	--
N04	Nearshore Marine Area	H		$1,445	$65.69	--	--	None	--
N05	Nearshore Marine Area	H		$783,945	$1,696.85	--	--	None	--
N06	Nearshore Marine Area	H		$830,025	$2,091.46	--	--	None	--
N07	Nearshore Marine Area	H		$873,801	$614.77	--	--	None	--
N08	Nearshore Marine Area	H		$1,572,958	$567.65	--	--	None	--
N09	Nearshore Marine Area	H		$995,980	$1,960.59	--	--	None	--
N10	Nearshore Marine Area	H		$13,625	$4,541.67	--	--	None	--
N11	Nearshore Marine Area	H		$253,070	$910.32	--	--	None	--
N12	Nearshore Marine Area	H		$610,418	$2,034.73	--	--	None	--
N13	Nearshore Marine Area	H		$247,970	$1,024.67	--	--	None	--
N14	Nearshore Marine Area	H		$3,355,422	$1,009.76	--	--	None	--
N15	Nearshore Marine Area	H		$940,534	$943.36	--	--	None	--
N16	Nearshore Marine Area	H		$340,625	$1,669.73	--	--	None	--
N17	Nearshore Marine Area	H		$112,823	$3,407.91	--	--	None	--
N18	Nearshore Marine Area	H		$1,452,160	$3,330.64	--	--	None	--
N19	Nearshore Marine Area	H		$835,624	$0.00	--	--	None	--

Maximum economic impact if all areas were designated as critical habitat	$90,856,381
Total reduction in economic impact of exclusions	$19,557,841
Total economic impact of areas designated for critical habitat	$71,298,540
Percent reduction in economic impact due to economic exclusions	21.5%
Percent reduction in miles designated as critical habitat due to economic exclusions	18.0%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that excluding this watershed would siginficantly impede conservation, noting the significant restoration efforts being made here by the Muckleshoot Tribe and others.

Table D.2. Lower Columbia River Chinook ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Lower Columbia River Chinook Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
MIDDLE COLUMBIA/HOOD	1707010506	East Fork Hood River	H			$546,239		$53.85		–	--	None	--
MIDDLE COLUMBIA/HOOD	1707010507	West Fork Hood River	H			$295,609		$22.18		--	–	None	--
MIDDLE COLUMBIA/HOOD	1707010508	Hood River	H	H		$1,394,000	$169,759	$8.37	$6.56	--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010509	White Salmon River	H			$2,141,761		$4.15		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010510	Little White Salmon River	M			$602,109		$340.63		Yes	–	Entire watershed	$602,109
MIDDLE COLUMBIA/HOOD	1707010511	Wind River	H			$779,775		$17.74		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek	M	H		$390,804	$377,204	$5.54	$4.03	--	Yes	Tributaries Only	$377,204
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek	H	H		$283,053	$277,613	$11.09	$9.53	--	--	None	--
LOWER COLUMBIA/SANDY	1708000101	Salmon River	H			$224,301		$8.84		–	--	None	--
LOWER COLUMBIA/SANDY	1708000102	Zigzag River	H			$174,579		$6.54		--	--	None	--
LOWER COLUMBIA/SANDY	1708000103	Upper Sandy River	H			$110,040		$0.00		–	--	None	--
LOWER COLUMBIA/SANDY	1708000104	Middle Sandy River	H	H		$160,788	$159,428	$9.72	$9.53	–	--	None	--
LOWER COLUMBIA/SANDY	1708000105	Bull Run River	H			$1,936,112		$421.12		–	--	None	--
LOWER COLUMBIA/SANDY	1708000106	Washougal River	M			$400,380		$8.27		Yes	–	None[a]	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries	H	H		$926,364	$430,448	$58.48	$3.20	--	--	None	--
LOWER COLUMBIA/SANDY	1708000108	Lower Sandy River	H	H		$231,889	$212,931	$3.79	$3.36	–	--	None	--
LOWER COLUMBIA/SANDY	1708000109	Salmon Creek	L			$3,932,625		$13.60		Yes	–	Entire watershed	$3,932,625
LEWIS	1708000205	East Fork Lewis River	H			$825,871		$16.71		--	--	None	--
LEWIS	1708000206	Lower Lewis River	H	H		$552,177	$147,692	$32.81	$0.29	--	--	None	--
LOWER COLUMBIA/CLATSKANIE	1708000301	Kalama River	M			$556,980		$65.81		Yes	--	None[b]	--
LOWER COLUMBIA/CLATSKANIE	1708000302	Beaver Creek/Columbia River	L			$119,088		$7.10		Yes	–	Entire watershed	$119,088
LOWER COLUMBIA/CLATSKANIE	1708000303	Clatskanie River	M	M		$34,162	$4,192	$11.42	$0.07	--	--	None	--
LOWER COLUMBIA/CLATSKANIE	1708000304	Germany/Abernathy	M			$2,130,210		$49.06		Yes	--	Entire watershed	$2,130,210
LOWER COLUMBIA/CLATSKANIE	1708000305	Skamokawa/Elochoman	H			$249,330		$121.68		–	--	None	–
LOWER COLUMBIA/CLATSKANIE	1708000306	Plympton Creek	H			$66,963		$55.48		--	–	None	--
UPPER COWLITZ	1708000401	Headwaters Cowlitz River	H			$177,224		$0.00		--	--	None	--
UPPER COWLITZ	1708000402	Upper Cowlitz River	H	H		$3,058,911	$362,857	$12.03	$0.00	--	--	None	--
UPPER COWLITZ	1708000403	Cowlitz Valley Frontal	H	H		$640,400	$587,865	$25.23	$9.03	–	--	None	–
UPPER COWLITZ	1708000404	Upper Cispus River	H			$691,534		$0.00		--	--	None	--
UPPER COWLITZ	1708000405	Lower Cispus River	H	H		$718,610	$677,735	$444.29	$0.00	--	--	None	--
COWLITZ	1708000501	Tilton River	M			$334,540		$13.48		Yes	--	Entire watershed	$334,540
COWLITZ	1708000502	Riffe Reservoir	H	H		$720,376	$231,547	$33.09	$32.75	--	--	None	--
COWLITZ	1708000503	Jackson Prairie	M	H		$596,687	$226,879	$82.09	$25.54	--	--	None	--
COWLITZ	1708000504	North Fork Toutle River	M	H		$368,903	$368,903	$21,205.00	$21,205.00	--	Yes	Tributaries Only	$368,903
COWLITZ	1708000505	Green River	H			$160,091		$0.00		–	--	None	--
COWLITZ	1708000506	South Fork Toutle River	H			$49,843		$1.82		--	–	None	--
COWLITZ	1708000507	East Willapa	M	H		$380,185	$234,415	$20.81	$9.61	--	--	None	--
COWLITZ	1708000508	Coweeman	H	H		$410,828	$37,198	$13.72	$1.24	–	--	None	--
LOWER COLUMBIA	1708000601	Youngs River	M			$734,900		$56.78		Yes	--	Entire watershed	$734,900
LOWER COLUMBIA	1708000602	Big Creek	H			$204,942		$19.07		--	–	None	--
GRAYS/ELOKOMAN	1708000603	Grays Bay	H			$68,187		$37.90		--	--	None	--
MIDDLE WILLAMETTE	1709000704	Abernethy Creek	L			$688,259		$3.83		Yes	–	Entire watershed	$688,259
CLACKAMAS	1709001105	Eagle Creek	L			$111,160		$8.32		Yes	--	Entire watershed	$111,160
CLACKAMAS	1709001106	Lower Clackamas River	H	H		$1,091,414	$375,602	$6.81	$6.28	--	--	None	--
LOWER WILLAMETTE	1709001201	Johnson Creek	M	H		$709,252	$324,816	$2.10	$0.86	--	Yes	None[c]	--
LOWER WILLAMETTE	1709001202	Scappoose Creek	M	H		$646,990	$183,619	$24.31	$5.34	--	--	None	--
LOWER WILLAMETTE	1709001203	Columbia Slough/Willamette River	H	H		$3,531,273	$796,673	$7.85	$1.36	--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.37		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$37,555,049
Total reduction in economic impact of exclusions	$9,398,998
Total economic impact of areas designated for critical habitat	$28,156,051
Percent reduction in economic impact due to economic exclusions	25.0%
Percent reduction in miles designated as critical habitat due to economic exclusions	21.2%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that excluding this watershed would significantly impede conservation, noting that the Lower Columbia Fish Recovery Board's interim recovery plan emphasizes achieving a high viability level for Washougal River fall chinook.

[b] CHART concluded that excluding this watershed would significantly impede conservation, noting that the Kalama River is important because it supports both fall- and spring-run fish, represents a substantial amount of the remaining spring-run habitat for this ESU, and is emphasized in the Lower Columbia River Fish Recovery Board's interim recovery plan.

[c] CHART concluded that excluding this watershed would significantly impede conservation, citing comments by City of Portland and noting that this watershed provides important refuge habitat for Clackamas River chinook as well as unique habitat conditions (especially year-round thermal conditions) that promote adaptations and ESU diversity in an urbanized watershed.

Table D.3. Upper Willamette River Chinook ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Upper Willamette River Chinook Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Unit/Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
MIDDLE FORK WILLAMETTE	1709000101	Upper Middle Fork Willamette River	H			$591,291		$0.00		--	--	None	--
MIDDLE FORK WILLAMETTE	1709000102	Hills Creek	M			$221,253		$0.00		--	--	None	--
MIDDLE FORK WILLAMETTE	1709000103	Salt Creek/Willamette River	H			$417,342		$0.00		--	--	None	--
MIDDLE FORK WILLAMETTE	1709000104	Salmon Creek	M			$529,883		$101.10		Yes	--	Entire watershed	$529,883
MIDDLE FORK WILLAMETTE	1709000105	Hills Creek Reservoir	M	H		$656,373	$655,013	$9.44	$8.87	--	Yes	None[a]	--
MIDDLE FORK WILLAMETTE	1709000106	North Fork Of Middle Fork Willamette River	H			$752,488		$1.96		--	--	None	--
MIDDLE FORK WILLAMETTE	1709000107	Middle Fork Willamette/Lookout Point	M	H		$378,088	$374,008	$2.68	$1.38	--	Yes	None[b]	--
MIDDLE FORK WILLAMETTE	1709000108	Little Fall Creek	M			$58,271		$3.79		--	--	None	--
MIDDLE FORK WILLAMETTE	1709000109	Fall Creek	H	H		$697,843	$697,843	$122.62	$122.62	--	--	None	--
MIDDLE FORK WILLAMETTE	1709000110	Lower Middle Fork Of Willamette River	M	H		$67,701	$63,621	$3.77	$3.40	--	--	None	--
COAST FORK WILLAMETTE	1709000201	Row River	L	L		$762,985	$760,264	$49.22	$48.15	Yes	--	Entire watershed	$762,985
COAST FORK WILLAMETTE	1709000202	Mosby Creek	L			$101,418		$15.37		Yes	--	Entire watershed	$101,418
COAST FORK WILLAMETTE	1709000203	Upper Coast Fork Willamette River	L			$289,515		$11.14		Yes	--	Entire watershed	$289,515
COAST FORK WILLAMETTE	1709000205	Lower Coast Fork Willamette River	L	L		$119,347	$77,478	$7.49	$4.18	Yes	--	Entire watershed	$119,347
UPPER WILLAMETTE	1709000301	Long Tom River	L			$501,323		$3.11		Yes	--	Entire watershed	$501,323
UPPER WILLAMETTE	1709000302	Muddy Creek	L	H		$780,805	$349,864	$4.28	$1.64	--	Yes	Tributaries Only	$349,864
UPPER WILLAMETTE	1709000303	Calapooia River	M			$129,334		$4.50		--	--	None	--
UPPER WILLAMETTE	1709000304	Oak Creek	L	H		$278,527	$92,048	$4.57	$1.36	--	Yes	Tributaries Only	$92,048
UPPER WILLAMETTE	1709000305	Marys River	M			$454,278		$9.65		Yes	--	None[c]	--
UPPER WILLAMETTE	1709000306	Luckiamute River	M			$212,536		$26.70		--	--	None	--
MCKENZIE	1709000401	Upper McKenzie River	H	H		$4,236,484	$917,231	$5.19	$0.00	--	--	None	--
MCKENZIE	1709000402	Horse Creek	H			$175,479		$0.00		--	--	None	--
MCKENZIE	1709000403	South Fork McKenzie River	H			$385,985		$0.00		--	--	None	--
MCKENZIE	1709000404	Blue River	M			$438,515		$702.16		Yes	--	Entire watershed	$438,515
MCKENZIE	1709000405	McKenzie River/Quartz Creek	H	H		$159,173	$159,173	$0.00	$0.00	--	--	None	--
MCKENZIE	1709000406	Mohawk River	M		Yes	$159,665		$2.58		Yes	--	Entire watershed	$159,665
MCKENZIE	1709000407	Lower McKenzie River	H	H		$504,472	$394,614	$7.37	$5.71	--	--	None	--
NORTH SANTIAM	1709000504	Middle North Santiam River	H	H		$49,115	$45,035	$7.00	$5.87	--	--	None	--
NORTH SANTIAM	1709000505	Little North Santiam River	H			$100,844		$0.38		--	--	None	--
NORTH SANTIAM	1709000506	Lower North Santiam River	M	H		$164,093	$73,392	$10.61	$5.45	--	--	None	--
SOUTH SANTIAM	1709000601	Hamilton Creek/South Santiam River	H	H		$154,030	$117,474	$3.72	$2.15	--	--	None	--
SOUTH SANTIAM	1709000602	Crabtree Creek	M			$116,554		$0.52		--	--	None	--
SOUTH SANTIAM	1709000603	Thomas Creek	M			$95,889		$4.16		--	--	None	--
SOUTH SANTIAM	1709000606	South Santiam River	H			$522,291		$52.31		--	--	None	--
SOUTH SANTIAM	1709000607	South Santiam River/Foster Reservoir	H	H		$1,454	$94	$2.30	$0.01	--	--	None	--
SOUTH SANTIAM	1709000608	Wiley Creek	M			$29,396		$20.95		--	--	None	--
MIDDLE WILLAMETTE	1709000701	Mill Creek/Willamette River	L	H		$760,980	$138,745	$14.83	$2.59	--	Yes	Tributaries Only	$138,745
MIDDLE WILLAMETTE	1709000702	Rickreall Creek	L	H		$351,297	$325,539	$9.15	$8.39	--	Yes	Tributaries Only	$325,539
MIDDLE WILLAMETTE	1709000703	Willamette River/Chehalem Creek	L	H		$565,087	$446,795	$2.91	$2.25	--	Yes	Tributaries Only	$446,795
MIDDLE WILLAMETTE	1709000704	Abernethy Creek	L	H		$692,059	$303,203	$3.88	$2.97	--	Yes	Tributaries Only	$303,203
YAMHILL	1709000804	Lower South Yamhill River	L			$101,440		$11.49		Yes	--	Entire watershed	$101,440
YAMHILL	1709000805	Salt Creek/South Yamhill River	L			$184,314		$41.54		Yes	--	Entire watershed	$184,314
YAMHILL	1709000806	North Yamhill River	L			$288,743		$21.45		Yes	--	Entire watershed	$288,743
YAMHILL	1709000807	Yamhill River	L	L		$184,908	$147,761	$5.68	$4.54	Yes	--	Entire watershed	$184,908
MOLALLA/PUDDING	1709000901	Abiqua Creek/Pudding River	M			$803,696		$15.25		Yes	--	Entire watershed	$803,696
MOLALLA/PUDDING	1709000902	Butte Creek/Pudding River	L	M		$123,358	$107,120	$13.62	$11.59	--	Yes	Tributaries Only	$107,120
MOLALLA/PUDDING	1709000903	Rock Creek/Pudding River	L			$117,533		$10.84		Yes	--	Entire watershed	$117,533
MOLALLA/PUDDING	1709000904	Senecal Creek/Mill Creek	L	M		$125,878	$113,638	$4.46	$4.03	--	Yes	Tributaries Only	$113,638
MOLALLA/PUDDING	1709000905	Upper Molalla River	M			$178,571		$2.61		--	--	None	--
MOLALLA/PUDDING	1709000906	Lower Molalla River	M	M		$124,477	$120,397	$5.96	$5.73	--	--	None	--
CLACKAMAS	1709001101	Collawash River	H			$436,173		$577.71		--	--	None	--
CLACKAMAS	1709001102	Upper Clackamas River	H			$557,445		$0.00		--	--	None	--
CLACKAMAS	1709001103	Oak Grove Fork Clackamas River	H			$1,195,914		$0.00		--	--	None	--
CLACKAMAS	1709001104	Middle Clackamas River	H	H		$2,927,818	$773,808	$7.85	$0.32	--	--	None	--
CLACKAMAS	1709001105	Eagle Creek	L			$111,160		$8.32		Yes	--	Entire watershed	$111,160
CLACKAMAS	1709001106	Lower Clackamas River	H	H		$1,089,401	$373,588	$6.77	$6.24	--	--	None	--
LOWER WILLAMETTE	1709001201	Johnson Creek		H		$384,436		$2.10		--	--	None	--
LOWER WILLAMETTE	1709001202	Scappoose Creek		H		$463,372		$24.21		--	--	None	--
LOWER WILLAMETTE	1709001203	Columbia Slough/Willamette River		H		$2,734,600		$7.84		--	--	None	--
Lower Columbia Corridor (Willamette to Ocean)				H		$2,395,331		$693.07		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$32,192,031
Total reduction in economic impact of exclusions	$6,571,397
Total economic impact of areas designated for critical habitat	$25,620,634
Percent reduction in economic impact due to economic exclusions	20.4%
Percent reduction in miles designated as critical habitat due to economic exclusions	18.0%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).
** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that exclusion would significantly impede conservation, noting that this watershed supports a local-origin, core population which may have been the largest in the entire subbasin. The primary reason this watershed was not assigned a High conservation value rating is due to reservoir inundation.

[b] CHART concluded that exclusion would significantly impede conservation, noting that this watershed supports a local-origin, core population which may have been the largest in the entire subbasin. Lost Creek represents the only unregulated stream with chinook spawning in this area. The primary reason this watershed was not assigned a High conservation value rating is due to reservoir inundation.

[c] CHART concluded that exclusion would significantly impede conservation, noting that the Mary's provides extensive rearing habitat (especially for overwintering) that is critical for maintaining and restoring ESU life history diversity.

Table D.4. Upper Columbia River spring-run Chinook ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Upper Columbia River spring-run Chinook Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Unit/Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
CHIEF JOSEPH	1702000505	Upper Columbia/Swamp Creek		H		$207,815		$79.76		--	--	None	--
METHOW	1702000801	Lost River	H			$33,730		$0.00		--	--	None	--
METHOW	1702000802	Upper Methow River	H	H		$394,100	$366,850	$289.89	$0.00	--	--	None	--
METHOW	1702000803	Upper Chewuch River	H			$133,299		$0.00		--	--	None	--
METHOW	1702000804	Lower Chewuch River	H	H		$669,495	$613,635	$200.08	$87.24	--	--	None	--
METHOW	1702000805	Twisp River	H			$355,035		$97.85		--	--	None	--
METHOW	1702000806	Middle Methow River	M	H		$1,087,555	$795,989	$190.05	$90.78	--	Yes	None[a]	--
METHOW	1702000807	Lower Methow River	M	H		$736,648	$616,023	$229.01	$134.41	--	Yes	Tributaries Only	$616,023
UPPER COLUMBIA/ENTIAT	1702001001	Entiat River	H			$1,552,636		$254.64		--	--	None	--
UPPER COLUMBIA/ENTIAT	1702001002	Lake Entiat	M	H		$2,948,332	$1,078,295	$41.40	$12.08	--	Yes	Tributaries Only	$1,078,295
UPPER COLUMBIA/ENTIAT	1702001003	Columbia River/Lynch Coulee		H		$205,095		$284.15		--	--	None	--
UPPER COLUMBIA/ENTIAT	1702001004	Columbia River/Sand Hollow		H		$97,455		$101.03		--	--	None	--
WENATCHEE	1702001101	White River	H			$487,740		$205.64		--	--	None	--
WENATCHEE	1702001102	Chiawa River	H			$511,418		$2.87		--	--	None	--
WENATCHEE	1702001103	Nason/Tumwater	H	H		$699,478	$606,405	$85.15	$8.29	--	--	None	--
WENATCHEE	1702001104	Icicle/Chumstick	M	H		$1,267,452	$707,952	$125.47	$30.00	--	Yes	Tributaries Only	$707,952
WENATCHEE	1702001105	Lower Wenatchee River	M	H		$1,087,805	$985,630	$31.29	$22.26	--	Yes	Tributaries Only	$985,630
UPPER COLUMBIA/PRIEST RAPIDS	1702001604	Yakima River/Hanson Creek		H		$136,970		$37.59		--	--	None	--
UPPER COLUMBIA/PRIEST RAPIDS	1702001605	Middle Columbia/Priest Rapids		H		$6,800		$40.31		--	--	None	--
UPPER COLUMBIA/PRIEST RAPIDS	1702001606	Columbia River/Zintel Canyon		H		$350,384		$6.58		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010101	Upper Lake Wallula		H		$943,445		$32.91		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010102	Lower Lake Wallula		H		$4,080		$31.64		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010106	Upper Lake Umatilla		H		$5,440		$3.20		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010109	Middle Lake Umatilla		H		$36,429		$11.96		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010114	Lower Lake Umatilla		H		$294,327		$571.54		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010501	Upper Middle Columbia/Hood		H		$320,406		$312.71		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010504	Middle Columbia/Mill Creek		H		$147,910		$11.42		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek		H		$13,600		$5.56		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek		H		$5,440		$11.09		--	--	None	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries		H		$495,915		$58.47		--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.32		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$17,631,565
Total reduction in economic impact of exclusions	$3,387,900
Total economic impact of areas designated for critical habitat	$14,243,665
Percent reduction in economic impact due to economic exclusions	19.2%
Percent reduction in miles designated as critical habitat due to economic exclusions	2.8%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that exclusion would significantly impede conservation, noting that spawning has been observed in this watershed once flows were restored to Wolf Creek. The lower reaches of Wolf Creek, Beaver Creek, and other tributaries in this watershed also provide important winter juvenile rearing habitat.

Table D.5. Hood Canal summer-run chum ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Hood Canal summer-run chum Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
SKOKOMISH	1711001701	Skokomish River	M			$994,719		$22.78		Yes	--	None[a]	--
HOOD CANAL	1711001802	Lower West Hood Canal Frontal	H			$104,792		$18.41		--	--	None	--
HOOD CANAL	1711001803	Hamma Hamma River	H			$172,164		$35.79		--	--	None	--
HOOD CANAL	1711001804	Duckabush River	H			$54,104		$0.00		--	--	None	--
HOOD CANAL	1711001805	Dosewallips River	H			$84,596		$0.00		--	--	None	--
HOOD CANAL	1711001806	Big Quilcene River	H			$174,105		$27.44		--	--	None	--
HOOD CANAL	1711001807	Upper West Hood Canal Frontal	M			$383,755		$106.31		Yes	--	None[b]	--
HOOD CANAL	1711001808	West Kitsap	H			$285,269		$9.22		--	--	None	--
PUGET SOUND	1711001908	Port Ludlow/Chimacum Creek	H			$334,373		$21.28		--	--	None	--
DUNGENESS/ELWHA	1711002001	Discovery Bay	H			$142,616		$17.64		--	--	None	--
DUNGENESS/ELWHA	1711002002	Sequim Bay	H			$88,138		$4.10		--	--	None	--
DUNGENESS/ELWHA	1711002003	Dungeness River	M			$255,018		$4.82		--	--	None	--
	N15	Nearshore Marine Area	H			$940,534		$943.36		--	--	None	--
	N16	Nearshore Marine Area	H			$340,625		$1,669.73		--	--	None	--
	N17	Nearshore Marine Area	H			$112,823		$3,407.91		--	--	None	--
	N18	Nearshore Marine Area	H			$1,452,160		$3,330.64		--	--	None	--
	N19	Nearshore Marine Area	H			$835,624		$0.00		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$6,755,415
Total reduction in economic impact of exclusions	$0
Total economic impact of areas designated for critical habitat	$6,755,415
Percent reduction in economic impact due to economic exclusions	0.0%
Percent reduction in miles designated as critical habitat due to economic exclusions	0.0%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).
** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] The CHART concluded that exclusion would significantly impede conservation, noting that the watershed has long term stability (e.g., lack of development as well as drought and flood protection from dam) that reinforce the TRT's ecological diversity and spatial diversity parameters.

[b] CHART concluded that exclusion would sigificantly impede conservation given that fish in the Little Quilcene River are part of a larger, essential population in this ESU.

Table D.6. Columbia River chum ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Columbia River chum Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
MIDDLE COLUMBIA/HOOD	1707010509	White Salmon River	H			$2,141,761		$4.15		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek	H	H		$390,804	$377,204	$5.54	$4.03	--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek	H	H		$283,053	$277,613	$11.09	$9.53	--	--	None	--
LOWER COLUMBIA/SANDY	1708000106	Washougal River	H			$400,380		$8.27		--	--	None	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries	H	H		$926,794	$430,879	$58.53	$3.25	--	--	None	--
LOWER COLUMBIA/SANDY	1708000109	Salmon Creek	H			$3,931,381		$13.59		--	--	None	--
LEWIS	1708000205	East Fork Lewis River	H			$826,368		$16.73		--	--	None	--
LEWIS	1708000206	Lower Lewis River	H	H		$551,837	$147,352	$32.78	$0.26	--	--	None	--
LOWER COLUMBIA/CLATSKANIE	1708000301	Kalama River	H			$552,741		$65.19		--	--	None	--
LOWER COLUMBIA/CLATSKANIE	1708000304	Germany/Abernathy	H			$2,129,272		$49.04		--	--	None	--
LOWER COLUMBIA/CLATSKANIE	1708000305	Skamokawa/Elochoman	H			$249,330		$121.68		--	--	None	--
COWLITZ	1708000503	Jackson Prairie	H			$598,334		$82.35		--	--	None	--
COWLITZ	1708000504	North Fork Toutle River	M	M		$368,903	$368,903	$21,205.00	$21,205.00	Yes	--	Entire watershed	$368,903
COWLITZ	1708000505	Green River	M		Yes	$160,091		$0.00		Yes	--	Entire watershed	$160,091
COWLITZ	1708000506	South Fork Toutle River	M			$49,791		$1.59		--	--	None	--
COWLITZ	1708000507	East Willapa	H	H		$379,096	$233,326	$20.73	$9.53	--	--	None	--
COWLITZ	1708000508	Coweeman	H	H		$411,464	$37,834	$13.74	$1.26	--	--	None	--
LOWER COLUMBIA	1708000602	Big Creek	H			$204,942		$19.07		--	--	None	--
GRAYS/ELOKOMAN	1708000603	Grays Bay	H			$62,848		$34.94		--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.37		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$17,014,521
Total reduction in economic impact of exclusions	$528,994
Total economic impact of areas designated for critical habitat	$16,485,527
Percent reduction in economic impact due to economic exclusions	3.1%
Percent reduction in miles designated as critical habitat due to economic exclusions	0.4%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).
** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

Table D.7. Ozette Lake sockeye ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Ozette Lake sockeye Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
HOH/QUILLAYUTE	1710010102	Ozette Lake	H			$2,723		$32.03		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$2,723
Total reduction in economic impact of exclusions	$0
Total economic impact of areas designated for critical habitat	$2,723
Percent reduction in economic impact due to economic exclusions	0.0%
Percent reduction in miles designated as critical habitat due to economic exclusions	0.0%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).
** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

Table D.8. Upper Columbia River steelhead ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Upper Columbia River steelhead Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
CHIEF JOSEPH	1702000503	Foster Creek	L		Yes	$79,438		$160.73		Yes	--	Entire Watershed	$79,438
CHIEF JOSEPH	1702000504	Jordan/Tumwater	L	L		$16,325	$14,965	$6.67	$6.12	--	--	None	--
CHIEF JOSEPH	1702000505	Upper Columbia/Swamp Creek		H		$207,815		$79.76		--	--	None	--
OKANOGAN	1702000601	Upper Okanogan River	M	H		$824,127	$702,142	$129.28	$106.87	--	Yes	None[a]	--
OKANOGAN	1702000602	Okanogan River/Bonaparte Creek	M	H		$506,102	$448,882	$96.60	$79.09	--	Yes	None[b]	--
OKANOGAN	1702000603	Salmon Creek	H			$572,165		$212.69		--	--	None	--
OKANOGAN	1702000604	Okanogan River/Omak Creek	H	H		$347,196	$302,240	$28.97	$25.12	--	--	None	--
OKANOGAN	1702000605	Lower Okanogan River	M	H		$482,270	$455,020	$140.08	$131.77	--	Yes	None[c]	--
SIMILKAMEEN	1702000704	Lower Silkameen River	H			$106,235		$204.14		--	--	None	--
METHOW	1702000801	Lost River	H			$33,730		$0.00		--	--	None	--
METHOW	1702000802	Upper Methow River	H	H		$394,209	$366,959	$289.89	$0.00	--	--	None	--
METHOW	1702000803	Upper Chewuch River	H			$133,299		$0.00		--	--	None	--
METHOW	1702000804	Lower Chewuch River	H	H		$657,082	$601,222	$176.68	$63.83	--	--	None	--
METHOW	1702000805	Twisp River	H			$356,459		$97.74		--	--	None	--
METHOW	1702000806	Middle Methow River	H	H		$1,148,704	$857,139	$210.51	$111.24	--	--	None	--
METHOW	1702000807	Lower Methow River	H	H		$752,694	$632,069	$240.26	$145.65	--	--	None	--
LAKE CHELAN	1702000903	Lower Chelan	M			$4,735,387		$5.26		Yes	--	Entire watershed	$4,735,387
UPPER COLUMBIA/ENTIAT	1702001001	Entiat River	H			$1,558,092		$259.45		--	--	None	--
UPPER COLUMBIA/ENTIAT	1702001002	Lake Entiat	M	H		$2,956,155	$1,086,119	$41.52	$12.20	--	Yes	Tributaries Only	$1,086,119
UPPER COLUMBIA/ENTIAT	1702001003	Columbia River/Lynch Coulee	H	H		$233,603	$28,508	$286.51	$8.98	--	--	None	--
UPPER COLUMBIA/ENTIAT	1702001004	Columbia River/Sand Hollow	H	H		$130,284	$32,829	$101.03	$0.35	--	--	None	--
WENATCHEE	1702001101	White River	H			$487,740		$205.64		--	--	None	--
WENATCHEE	1702001102	Chiawa River	H			$511,832		$2.87		--	--	None	--
WENATCHEE	1702001103	Nason/Tumwater	H	H		$704,110	$611,037	$89.46	$12.61	--	--	None	--
WENATCHEE	1702001104	Icicle/Chumstick	M	H		$1,302,049	$742,549	$131.38	$35.90	--	Yes	None[d]	--
WENATCHEE	1702001105	Lower Wenatchee River	H	H		$1,173,280	$1,071,104	$38.84	$29.82	--	--	None	--
MOSES COULEE	1702001204	RattleSnake Creek	L			$131,204		$165.59		Yes	--	Entire watershed	$131,204
LOWER CRAB	1702001509	Lower Crab Creek	M			$680,091		$80.34		Yes	--	None[e]	--
UPPER COLUMBIA/PRIEST RAPIDS	1702001604	Yakima River/Hanson Creek	H	H		$271,408	$134,438	$37.59	$13.32	--	--	None	--
UPPER COLUMBIA/PRIEST RAPIDS	1702001605	Middle Columbia/Priest Rapids	H	H		$32,679	$25,879	$40.31	$31.08	--	--	None	--
UPPER COLUMBIA/PRIEST RAPIDS	1702001606	Columbia River/Zintel Canyon	H	H		$520,628	$170,245	$6.58	$2.29	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010101	Upper Lake Wallula		H		$943,445		$32.91		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010102	Lower Lake Wallula		H		$4,080		$31.64		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010106	Upper Lake Umatilla		H		$5,440		$3.20		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010109	Middle Lake Umatilla		H		$36,429		$11.96		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010114	Lower Lake Umatilla		H		$294,327		$571.54		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010501	Upper Middle Columbia/Hood		H		$320,406		$312.71		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010504	Middle Columbia/Mill Creek		H		$147,910		$11.42		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek		H		$13,600		$5.56		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek		H		$5,440		$11.09		--	--	None	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries		H		$495,915		$58.47		--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.32		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$26,708,715
Total reduction in economic impact of exclusions	$6,032,148
Total economic impact of areas designated for critical habitat	$20,676,567
Percent reduction in economic impact due to economic exclusions	22.6%
Percent reduction in miles designated as critical habitat due to economic exclusions	0.5%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that exclusion would significantly impede conservation, noting that steelhead cannot rely on habitat in the mainstem Okanogan year-round due to degraded conditions. These degraded conditions make tributary habitats especially important to support juvenile rearing. This area of the Okanogan also provides important tributary rearing habitat for juveniles from all upstream areas.

[b] CHART concluded that exclusion would significantly impede conservation, noting that steelhead cannot rely on habitat in the mainstem Okanogan year-round due to degraded conditions. These degraded conditions make tributary habitats especially important to support juvenile rearing. This area of the Okanogan provides important tributary rearing habitat for juveniles from all upstream areas.

[c] CHART concluded that exclusion would significantly impede conservation, noting that the limited remaining tributary habitats (e.g., Loup Loup Creek) are crucial for this population especially in light of deteriorated mainstem conditions.

[d] CHART concluded that exclusion would significantly impede conservation, noting that Icicle Creek has good steelhead spawning habitat in the headwaters and is an important focus of current recovery efforts.

[e] CHART concluded that exclusion would significantly impede conservation, noting that this watershed contains 24 miles of spawning habitat with significant potential use for conservation and recovery. Steelhead in this area may also exhibit life-history traits uniquely adapted to high temperatures.

Table D.9. Snake River Basin steelhead ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Snake River Basin steelhead Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
UPPER COLUMBIA/PRIEST RAPIDS	1702001606	Columbia River/Zintel Canyon		H		$350,384		$6.07		--	--	None	--
HELLS CANYON	1706010101	Snake River/Granite Creek	H			$37,326		$22.41		--	--	None	--
HELLS CANYON	1706010102	Snake River/Getta Creek	H	H		$75,011	$75,011	$94.63	$94.63	--	--	None	--
HELLS CANYON	1706010104	Snake River/Divide Creek	H	H		$35,624	$35,624	$594.67	$594.67	--	--	None	--
IMNAHA RIVER	1706010201	Upper Imnaha River	H			$194,541		$330.30		--	--	None	--
IMNAHA RIVER	1706010202	Middle Imnaha River	H	H		$296,631	$296,631	$3.60	$3.60	--	--	None	--
IMNAHA RIVER	1706010203	Big Sheep Creek	H			$250,295		$0.00		--	--	None	--
IMNAHA RIVER	1706010204	Little Sheep Creek	H	H		$114,822	$114,822	$0.50	$0.50	--	--	None	--
IMNAHA RIVER	1706010205	Lower Imnaha River	H	H		$445,278	$445,278	$0.00	$0.00	--	--	None	--
LOWER SNAKE/ASOTIN	1706010301	Snake River/Rogersburg	H	H		$815,613	$158,813	$328,400.00	$0.00	--	--	None	--
LOWER SNAKE/ASOTIN	1706010302	Asotin River	H			$393,274		$2.63		--	--	None	--
LOWER SNAKE/ASOTIN	1706010303	Snake River/Captain John Creek	H	H		$1,238,209	$89,509	$39.25	$2.71	--	--	None	--
UPPER GRANDE RONDE RIVER	1706010401	Upper Grande Ronde River	H			$409,859		$0.00		--	--	None	--
UPPER GRANDE RONDE RIVER	1706010402	Meadow Creek	H			$408,086		$3,656.03		--	--	None	--
UPPER GRANDE RONDE RIVER	1706010403	Grande Ronde River/Beaver Creek	H	H		$232,379	$232,379	$203.89	$203.89	--	--	None	--
UPPER GRANDE RONDE RIVER	1706010404	Grande Ronde River/Five Points Creek	H	H		$149,887	$149,887	$4.78	$4.78	--	--	None	--
UPPER GRANDE RONDE RIVER	1706010405	Catherine Creek	H			$142,178		$9.60		--	--	None	--
UPPER GRANDE RONDE RIVER	1706010406	Ladd Creek	M	H		$78,425	$60,827	$2.90	$1.61	--	--	None	--
UPPER GRANDE RONDE RIVER	1706010407	Grande Ronde River/Mill Creek	M	H		$146,617	$136,015	$33.82	$33.82	--	--	None	--
UPPER GRANDE RONDE RIVER	1706010408	Phillips Creek/Willow Creek	H			$91,902		$19.44		--	--	None	--
UPPER GRANDE RONDE RIVER	1706010409	Grande Ronde River/Indian Creek	H	H		$144,147	$115,355	$54.17	$33.70	--	--	None	--
UPPER GRANDE RONDE RIVER	1706010410	Lookingglass Creek	H			$317,309		$867.89		--	--	None	--
UPPER GRANDE RONDE RIVER	1706010411	Grande Ronde River/Cabin Creek	H	H		$205,805	$169,376	$18.98	$2.49	--	--	None	--
WALLOWA RIVER	1706010501	Upper Wallowa River	H			$62,521		$4.65		--	--	None	--
WALLOWA RIVER	1706010502	Lostine River	H			$69,521		$123.73		--	--	None	--
WALLOWA RIVER	1706010503	Middle Wallowa River	M	H		$4,805	$3,445	$2.61	$1.61	--	--	None	--
WALLOWA RIVER	1706010504	Bear Creek	H			$55,985		$64.23		--	--	None	--
WALLOWA RIVER	1706010505	Minam River	H			$41,010		$0.00		--	--	None	--
WALLOWA RIVER	1706010506	Lower Wallowa River	H	H		$44,260	$42,900	$10.33	$4.81	--	--	None	--
LOWER GRANDE RONDE	1706010601	Grande Ronde River/Rondowa	H	H		$328,090	$328,090	$0.00	$0.00	--	--	None	--
LOWER GRANDE RONDE	1706010602	Grande Ronde River/Mud Creek	H	H		$261,899	$261,899	$215.07	$215.07	--	--	None	--
LOWER GRANDE RONDE	1706010603	Wenaha River	H			$150,555		$0.00		--	--	None	--
LOWER GRANDE RONDE	1706010604	Chesnimnus Creek	H			$240,500		$0.00		--	--	None	--
LOWER GRANDE RONDE	1706010605	Upper Joseph Creek	H	H		$243,223	$232,620	$0.00	$0.00	--	--	None	--
LOWER GRANDE RONDE	1706010606	Lower Joseph Creek	H	H		$192,245	$192,245	$0.00	$0.00	--	--	None	--
LOWER GRANDE RONDE	1706010607	Lower Grande Ronde River/Menatchee Creek	H	H		$147,740	$147,740	$51.20	$51.20	--	--	None	--
LOWER SNAKE/TUCANNON	1706010701	Alpowa Creek	M			$1,429		$7.27		--	--	None	--
LOWER SNAKE/TUCANNON	1706010702	Snake River/Steptoe Canyon	L	H	Yes	$466,958	$32	$41.53	$0.00	--	--	None	--
LOWER SNAKE/TUCANNON	1706010703	Deadman Creek	L			$9,995		$37.02		--	--	None	--
LOWER SNAKE/TUCANNON	1706010704	Flat Creek	L		Yes	$18,559		$91.42		Yes	--	Entire Watershed	$18,559
LOWER SNAKE/TUCANNON	1706010705	Pataha Creek	L		Yes	$75,486		$0.78		Yes	--	Entire Watershed	$75,486
LOWER SNAKE/TUCANNON	1706010706	Upper Tucannon River	H			$349,325		$93.99		--	--	None	--
LOWER SNAKE/TUCANNON	1706010707	Lower Tucannon River	H	H		$1,952	$592	$10.84	$3.29	--	--	None	--
LOWER SNAKE/TUCANNON	1706010708	Snake River/Penawawa Creek	M	H		$98,132	$15,022	$220.98	$5.11	--	--	None	--
PALOUSE RIVER	1706010808	Lower Palouse River	L		Yes	$1,360		$2.35		Yes	--	Entire Watershed	$1,360
LOWER SNAKE RIVER	1706011001	Snake River/Walker Creek		H		$95,375		$475.30		--	--	None	--
LOWER SNAKE RIVER	1706011003	Snake River/Mc Coy Creek		H		$122,625		$120.94		--	--	None	--
LOWER SNAKE RIVER	1706011004	Mouth Of Snake River		H		$16,238		$30.03		--	--	None	--
UPPER SALMON	1706020101	Salmon River/Challis	H	H		$298,802	$90,924	$226.05	$11.07	--	--	None	--
UPPER SALMON	1706020104	Salmon River/Bayhorse Creek	H	H		$134,718	$102,018	$172.10	$8.60	--	--	None	--
UPPER SALMON	1706020105	East Fork Salmon River/McDonald Creek	H	H		$290,222	$61,322	$2,092.35	$11.44	--	--	None	--
UPPER SALMON	1706020107	Road Creek	L			$31,062		$2,180.00		Yes	--	Entire Watershed	$31,062
UPPER SALMON	1706020108	Herd Creek	H			$170,268		$29,066.67		--	--	None	--
UPPER SALMON	1706020109	East Fork Salmon River/Big Boulder Creek	H	H		$139,283	$30,283	$9,909.09	$0.00	--	--	None	--
UPPER SALMON	1706020110	Upper East Fork Salmon River	H			$57,073		$0.00		--	--	None	--
UPPER SALMON	1706020111	Germania Creek	H			$7,754		$0.00		--	--	None	--
UPPER SALMON	1706020112	Salmon River/Kinnikinic Creek	M	H		$83,235	$50,535	$965.82	$239.15	--	--	None	--
UPPER SALMON	1706020113	Salmon River/Slate Creek	M	H		$352,219	$145,419	$3,218.27	$305.59	--	Yes	None[a]	--
UPPER SALMON	1706020114	Warm Springs Creek	H			$496,761		$49,260.00		--	--	None	--
UPPER SALMON	1706020115	Salmon River/Big Casino Creek	H	H		$210,187	$51,487	$6,617.67	$5.17	--	--	None	--
UPPER SALMON	1706020117	Salmon River/Fisher Creek	H	H		$114,575	$60,075	$2,278.74	$675.80	--	--	None	--
UPPER SALMON	1706020118	Salmon River/Fourth of July Creek	H	H		$83,005	$17,605	$0.00	$0.00	--	--	None	--
UPPER SALMON	1706020119	Upper Salmon River	H			$241,233		$5,883.23		--	--	None	--
UPPER SALMON	1706020120	Alturas Lake Creek	H			$132,186		$0.00		--	--	None	--
UPPER SALMON	1706020121	Redfish Lake Creek	H			$11,223		$0.00		--	--	None	--
UPPER SALMON	1706020122	Valley Creek/Iron Creek	H	H		$105,038	$43,840	$466.77	$20.07	--	--	None	--
UPPER SALMON	1706020123	Upper Valley Creek	H			$73,461		$0.00		--	--	None	--
UPPER SALMON	1706020124	Basin Creek	H			$67,294		$4,360.00		--	--	None	--

UPPER SALMON	1706020125	Yankee Fork/Jordan Creek	M	H		$436,720	$393,120	$0.00	$0.00	--	Yes	None[b]	--
UPPER SALMON	1706020126	West Fork Yankee Fork	H			$44,386		$0.00		--	--	None	--
UPPER SALMON	1706020127	Upper Yankee Fork	H			$40,193		$0.00		--	--	None	--
UPPER SALMON	1706020128	Squaw Creek	M			$285,761		$4,286.10		Yes	--	None[c]	--
UPPER SALMON	1706020129	Garden Creek	M			$112,490		$108.87		--	--	None	--
UPPER SALMON	1706020130	Challis Creek/Mill Creek	M			$52,523		$3.36		--	--	None	--
UPPER SALMON	1706020132	Morgan Creek	H			$113,134		$2,953.14		--	--	None	--
PAHSIMEROI	1706020201	Lower Pahsimeroi River	H	H		$105,463	$94,563	$133.35	$58.69	--	--	None	--
PAHSIMEROI	1706020202	Pahsimeroi River/Falls Creek	M	M		$138,762	$138,762	$119.08	$119.08	Yes	--	Entire Watershed	$138,762
PAHSIMEROI	1706020203	Paterson Creek	M			$45,221		$165.99		--	--	None	--
MIDDLE SALMON-PANTHER	1706020301	Salmon River/Colson Creek	H	H		$81,974	$27,474	$7,953.24	$167.52	--	--	None	--
MIDDLE SALMON-PANTHER	1706020302	Owl Creek	M			$40,623		$0.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020303	Salmon River/Pine Creek	H	H		$127,904	$106,104	$2,209.62	$29.62	--	--	None	--
MIDDLE SALMON-PANTHER	1706020304	Indian Creek	H			$105,366		$20,200.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020305	Salmon River/Moose Creek	H	H		$256,960	$126,160	$730.66	$42.24	--	--	None	--
MIDDLE SALMON-PANTHER	1706020306	North Fork Salmon River	H			$188,826		$7.97		--	--	None	--
MIDDLE SALMON-PANTHER	1706020307	Salmon River/Tower Creek	H	H		$47,632	$37,030	$3.70	$3.70	--	--	None	--
MIDDLE SALMON-PANTHER	1706020308	Carmen Creek	H			$70,083		$110.31		--	--	None	--
MIDDLE SALMON-PANTHER	1706020309	Salmon River/Jesse Creek	H	H		$114,300	$99,422	$18.96	$14.58	--	--	None	--
MIDDLE SALMON-PANTHER	1706020310	Salmon River/Williams Creek	M	H		$76,770	$76,770	$36.80	$36.80	--	--	None	--
MIDDLE SALMON-PANTHER	1706020311	Salmon River/Twelvemile Creek	H	H		$88,278	$77,675	$60.51	$60.51	--	--	None	--
MIDDLE SALMON-PANTHER	1706020312	Salmon River/Cow Creek	H	H		$120,289	$120,289	$56.12	$56.12	--	--	None	--
MIDDLE SALMON-PANTHER	1706020313	Hat Creek	M			$60,722		$0.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020314	Iron Creek	H			$61,331		$7,689.16		--	--	None	--
MIDDLE SALMON-PANTHER	1706020315	Upper Panther Creek	H			$55,326		$0.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020316	Moyer Creek	H			$35,203		$0.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020317	Panther Creek/Woodtick Creek	H	H		$81,200	$79,840	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-PANTHER	1706020318	Deep Creek	H			$30,344		$0.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020319	Napias Creek	M			$90,469		$21,205.00		Yes	--	Entire Watershed	$90,469
MIDDLE SALMON-PANTHER	1706020320	Panther Creek/Spring Creek	H	H		$36,041	$36,041	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-PANTHER	1706020321	Big Deer Creek	L			$22,890		$0.00		--	--	None	--
MIDDLE SALMON-PANTHER	1706020322	Panther Creek/Trail Creek	M	H		$135,274	$58,974	$16,290.32	$1,030.32	--	Yes	None[d]	--
MIDDLE SALMON-PANTHER	1706020323	Clear Creek	M			$2,445		$0.00		--	--	None	--
LEMHI	1706020401	Lemhi River/Bohannon Creek	H	H		$66,109	$66,109	$15.54	$15.54	--	--	None	--
LEMHI	1706020402	Lemhi River/Whimpey Creek	H	H		$180,779	$170,177	$255.28	$255.28	--	--	None	--
LEMHI	1706020403	Lemhi River/Kenney Creek	H	H		$56,421	$56,421	$1.54	$1.54	--	--	None	--
LEMHI	1706020404	Agency Creek	M			$35,170		$519.46		Yes	--	Entire Watershed	$35,170
LEMHI	1706020405	Lemhi River/McDevitt Creek	H	H		$38,190	$38,190	$11.65	$11.65	--	--	None	--
LEMHI	1706020406	Lemhi River/Yearian Creek	H	H		$66,286	$66,286	$248.53	$248.53	--	--	None	--
LEMHI	1706020407	Peterson Creek	H	H		$51,484	$51,484	$207.89	$207.89	--	--	None	--
LEMHI	1706020408	Big Eight Mile Creek	H	H		$61,028	$61,028	$2.48	$2.48	--	--	None	--
LEMHI	1706020409	Canyon Creek	H	H		$53,621	$53,621	$0.00	$0.00	--	--	None	--
LEMHI	1706020412	Texas Creek	H			$55,061		$0.00		--	--	None	--
LEMHI	1706020414	Hayden Creek	H			$108,414		$2.04		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020501	Lower Loon Creek	H	H		$17,129	$17,129	$0.00	$0.00	--	--	None	--
UPPER MIDDLE FORK SALMON	1706020502	Warm Springs	H			$10,160		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020503	Upper Loon Creek	H			$21,745		$27.23		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020504	Little Loon Creek	H			$1,953		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020505	Rapid River	H			$45,355		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020506	Marsh Creek	H			$101,392		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020507	Middle Fork Salmon River/Soldier Creek	H	H		$17,169	$17,169	$0.00	$0.00	--	--	None	--
UPPER MIDDLE FORK SALMON	1706020508	Bear Valley Creek	H			$114,760		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020509	Sulphur Creek	H			$22,927		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020510	Pistol Creek	H			$11,201		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020511	Indian Creek	H			$7,124		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020512	Upper Marble Creek	H			$7,045		$0.00		--	--	None	--
UPPER MIDDLE FORK SALMON	1706020513	Middle Fork Salmon River/Lower Marble Creek	H	H		$5,490	$5,490	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020601	Lower Middle Fork Salmon River	H	H		$6,956	$6,956	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020602	Wilson Creek	H			$1,726		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020603	Middle Fork Salmon River/Brush Creek	H	H		$3,994	$3,994	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020604	Yellow Jacket Creek	H			$88,239		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020605	Silver Creek	H			$86,355		$14,335.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020606	Upper Camas Creek	H			$51,065		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020607	West Fork Camas Creek	H			$2,447		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020608	Lower Camas Creek	H	H		$41,526	$19,726	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020609	Middle Fork Salmon River/Sheep Creek	H	H		$4,725	$4,725	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020610	Rush Creek	H			$14,903		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020611	Monumental Creek	H			$14,864		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020612	Big Creek/Little Marble Creek	H	H		$2,707	$2,707	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020613	Upper Big Creek	H			$80,898		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020614	Beaver Creek	H			$2,849		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020615	Big Ramey Creek	H			$1,508		$0.00		--	--	None	--
LOWER MIDDLE FORK SALMON	1706020616	Big Creek/Crooked Creek	H	H		$4,714	$4,714	$0.00	$0.00	--	--	None	--
LOWER MIDDLE FORK SALMON	1706020617	Lower Big Creek	H	H		$47,275	$3,675	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020701	Salmon River/Fall Creek	M	H		$67,940	$35,240	$16,350.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020702	Wind River	L			$17,909		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020703	Salmon River/California Creek	H	H		$56,551	$34,751	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020704	Sheep Creek	H			$6,030		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020705	Crooked Creek	H			$55,082		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020706	Salmon River/Rabbit Creek	M	H		$29,146	$29,146	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020707	Big Mallard Creek	L			$45,803		$0.00		Yes	--	Entire Watershed	$45,803

MIDDLE SALMON-CHAMBERLAIN	1706020708	Salmon River/Trout Creek	H	H		$62,780	$62,780	$6.72	$6.72	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020709	Bargamin Creek	H			$41,114		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020710	Salmon River/Rattlesnake Creek	M	H		$2,541	$2,541	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020711	Sabe Creek	H			$9,254		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020712	Salmon River/Hot Springs Creek	H	H		$2,821	$2,821	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020713	Salmon River/Disappointment Creek	H	H		$3,918	$3,918	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020714	Horse Creek	H			$25,282		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020715	Salmon River/Kitchen Creek	H	H		$21,439	$21,439	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020716	Cottonwood Creek	H			$2,726		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020717	Lower Chamberlain/McCalla Creek	H	H		$4,177	$4,177	$0.00	$0.00	--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020718	Upper Chamberlain Creek	H			$6,372		$0.00		--	--	None	--
MIDDLE SALMON-CHAMBERLAIN	1706020719	Warren Creek	H			$81,856		$340.01		--	--	None	--
SOUTH FORK SALMON	1706020801	Lower South Fork Salmon River	H	H		$75,378	$64,776	$0.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020802	South Fork Salmon River/Sheep Creek	H	H		$106,404	$106,404	$0.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020803	Lower East Fork South Fork Salmon River	H	H		$70,715	$60,112	$0.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020804	Upper East Fork South Fork Salmon River	H			$108,583		$419.23		--	--	None	--
SOUTH FORK SALMON	1706020805	Lower Johnson Creek	H	H		$83,337	$62,132	$79.08	$79.08	--	--	None	--
SOUTH FORK SALMON	1706020806	Burntlog Creek	H			$30,942		$0.00		--	--	None	--
SOUTH FORK SALMON	1706020807	Upper Johnson Creek	H			$114,688		$0.00		--	--	None	--
SOUTH FORK SALMON	1706020808	Upper South Fork Salmon River	H			$151,950		$0.00		--	--	None	--
SOUTH FORK SALMON	1706020809	South Fork Salmon River/Cabin Creek	H	H		$57,506	$57,506	$0.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020810	South Fork Salmon River/Blackmare Creek	H	H		$103,735	$81,935	$5,450.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020811	Buckhorn Creek	H			$39,215		$0.00		--	--	None	--
SOUTH FORK SALMON	1706020812	South Fork Salmon River/Fitsum Creek	H	H		$40,926	$40,926	$0.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020813	Lower Secesh River	H	H		$102,721	$92,119	$0.00	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020814	Middle Secesh River	H	H		$80,221	$69,321	$838.46	$0.00	--	--	None	--
SOUTH FORK SALMON	1706020815	Upper Secesh River	H			$38,022		$0.00		--	--	None	--
LOWER SALMON	1706020901	Salmon River/China Creek	H	H		$6,166	$6,166	$0.00	$0.00	--	--	None	--
LOWER SALMON	1706020902	Eagle Creek	H			$1,645		$0.00		--	--	None	--
LOWER SALMON	1706020903	Deer Creek	M			$88		$0.00		--	--	None	--
LOWER SALMON	1706020904	Salmon River/Cottonwood Creek	H	H		$2,756	$2,756	$0.00	$0.00	--	--	None	--
LOWER SALMON	1706020905	Salmon River/Deep Creek	H	H		$13,748	$3,145	$0.00	$0.00	--	--	None	--
LOWER SALMON	1706020906	Rock Creek	M			$13,313		$2.17		--	--	None	--
LOWER SALMON	1706020907	Salmon River/Hammer Creek	H	H		$60,440	$5,940	$545.00	$0.00	--	--	None	--
LOWER SALMON	1706020908	White Bird Creek	H			$63,925		$46.64		--	--	None	--
LOWER SALMON	1706020909	Salmon River/McKinzie Creek	H	H		$21,075	$21,075	$0.00	$0.00	--	--	None	--
LOWER SALMON	1706020910	Skookumchuck Creek	H			$19,011		$0.00		--	--	None	--
LOWER SALMON	1706020911	Slate Creek	H			$149,288		$1,705.84		--	--	None	--
LOWER SALMON	1706020912	Salmon River/John Day Creek	H	H		$193,644	$96,437	$213.03	$0.00	--	--	None	--
LOWER SALMON	1706020913	Salmon River/Lake Creek	H	H		$148,072	$82,969	$155.71	$0.00	--	--	None	--
LOWER SALMON	1706020914	Salmon River/Van Creek	M			$26,027		$0.00		--	--	None	--
LOWER SALMON	1706020915	French Creek	H			$47,712		$0.00		--	--	None	--
LOWER SALMON	1706020916	Partridge Creek	M			$54,829		$0.00		--	--	None	--
LOWER SALMON	1706020917	Rice Creek	M			$11,130		$1,178.06		Yes	--	Entire Watershed	$11,130
LITTLE SALMON	1706021001	Lower Little Salmon River	M	H		$303,889	$75,881	$366.73	$0.00	--	--	None	--
LITTLE SALMON	1706021002	Little Salmon River/Hard Creek	M	M		$146,252	$80,852	$894.15	$124.74	Yes	--	None[e]	--
LITTLE SALMON	1706021003	Hazard Creek	M			$33,169		$0.00		--	--	None	--
LITTLE SALMON	1706021006	Boulder Creek	H			$64,555		$454.17		--	--	None	--
LITTLE SALMON	1706021007	Rapid River	H			$94,905		$0.00		--	--	None	--
UPPER SELWAY	1706030101	Selway River/Pettibone Creek	H	H		$5,085	$5,085	$0.00	$0.00	--	--	None	--
UPPER SELWAY	1706030102	Bear Creek	H			$19,089		$0.00		--	--	None	--
UPPER SELWAY	1706030103	Selway River/Gardner Creek	H	H		$20,962	$20,962	$0.00	$0.00	--	--	None	--
UPPER SELWAY	1706030104	White Cap Creek	H			$6,190		$0.00		--	--	None	--
UPPER SELWAY	1706030105	Indian Creek	H			$2,680		$0.00		--	--	None	--
UPPER SELWAY	1706030106	Upper Selway River	H			$27,342		$0.00		--	--	None	--
UPPER SELWAY	1706030107	Little Clearwater River	H			$10,615		$0.00		--	--	None	--
UPPER SELWAY	1706030108	Running Creek	H			$41,560		$0.00		--	--	None	--
UPPER SELWAY	1706030109	Goat Creek	H			$1,455		$0.00		--	--	None	--
LOWER SELWAY	1706030201	Selway River/Goddard Creek	H	H		$89,066	$89,066	$0.00	$0.00	--	--	None	--
LOWER SELWAY	1706030202	Gedney Creek	H			$24,622		$0.00		--	--	None	--
LOWER SELWAY	1706030203	Selway River/Three Links Creek	H	H		$8,080	$8,080	$0.00	$0.00	--	--	None	--
LOWER SELWAY	1706030204	Upper Three Links Creek	H			$1,223		$0.00		--	--	None	--
LOWER SELWAY	1706030205	Rhoda Creek	H			$2,590		$0.00		--	--	None	--
LOWER SELWAY	1706030207	North Fork Moose Creek	H	H		$4,585	$4,585	$0.00	$0.00	--	--	None	--
LOWER SELWAY	1706030208	East Fork Moose Creek/Trout Creek	H	H		$5,133	$5,133	$0.00	$0.00	--	--	None	--
LOWER SELWAY	1706030209	Upper East Fork Moose Creek	H			$5,741		$0.00		--	--	None	--
LOWER SELWAY	1706030210	Marten Creek	H			$1,508		$0.00		--	--	None	--
LOWER SELWAY	1706030211	Upper Meadow Creek	H			$55,705		$0.00		--	--	None	--
LOWER SELWAY	1706030212	Middle Meadow Creek	H	H		$54,800	$54,800	$0.00	$0.00	--	--	None	--
LOWER SELWAY	1706030213	Lower Meadow Creek	H	H		$90,035	$90,035	$0.00	$0.00	--	--	None	--
LOWER SELWAY	1706030214	O'Hara Creek	H			$47,109		$0.00		--	--	None	--
LOCHSA	1706030301	Lower Lochsa River	H	H		$163,900	$147,559	$398.54	$0.00	--	--	None	--
LOCHSA	1706030302	Fish Creek	H			$70,333		$0.00		--	--	None	--
LOCHSA	1706030303	Lochsa River/Stanley Creek	H	H		$153,194	$98,694	$0.00	$0.00	--	--	None	--
LOCHSA	1706030304	Lochsa River/Squaw Creek	H	H		$138,697	$105,997	$860.53	$0.00	--	--	None	--
LOCHSA	1706030305	Lower Crooked Fork	H	H		$12,470	$12,470	$0.00	$0.00	--	--	None	--
LOCHSA	1706030306	Upper Crooked Fork	H			$58,526		$0.00		--	--	None	--
LOCHSA	1706030307	Brushy Fork	H			$115,399		$0.00		--	--	None	--
LOCHSA	1706030308	Lower White Sands Creek	H	H		$61,161	$39,361	$0.00	$0.00	--	--	None	--
LOCHSA	1706030309	Storm Creek	H			$7,132		$0.00		--	--	None	--
LOCHSA	1706030310	Upper White Sands Creek	H			$40,078		$0.00		--	--	None	--

LOCHSA	1706030311	Warm Springs Creek	H			$14,854		$0.00		--	--	None	--
LOCHSA	1706030312	Fish Lake Creek	H			$8,349		$0.00		--	--	None	--
LOCHSA	1706030313	Boulder Creek	H			$5,063		$0.00		--	--	None	--
LOCHSA	1706030314	Old Man Creek	H			$2,705		$0.00		--	--	None	--
MIDDLE FORK CLEARWATER	1706030401	Middle Fork Clearwater River/Maggie Creek	H	H		$66,681	$33,981	$40.37	$1.49	--	--	None	--
MIDDLE FORK CLEARWATER	1706030402	Clear Creek	H			$61,905		$1.15		--	--	None	--
SOUTH FORK CLEARWATER	1706030501	Lower South Fork Clearwater River	M	H		$99,776	$64,654	$15.20	$4.73	--	--	None	--
SOUTH FORK CLEARWATER	1706030502	South Fork Clearwater River/Meadow Creek	H	H		$58,467	$36,667	$21,800.00	$0.00	--	--	None	--
SOUTH FORK CLEARWATER	1706030503	South Fork Clearwater River/Peasley Creek	L	H		$64,621	$64,621	$0.00	$0.00	--	Yes	Tributaries Only	$64,621
SOUTH FORK CLEARWATER	1706030504	South Fork Clearwater River/Leggett Creek	M	H		$65,877	$65,877	$0.00	$0.00	--	--	None	--
SOUTH FORK CLEARWATER	1706030505	Newsome Creek	H			$73,494		$0.00		--	--	None	--
SOUTH FORK CLEARWATER	1706030506	American River	H			$74,376		$3.35		--	--	None	--
SOUTH FORK CLEARWATER	1706030507	Red River	H			$190,520		$2,076.19		--	--	None	--
SOUTH FORK CLEARWATER	1706030508	Crooked River	H			$61,074		$0.00		--	--	None	--
SOUTH FORK CLEARWATER	1706030509	Ten Mile Creek	H			$37,236		$0.00		--	--	None	--
SOUTH FORK CLEARWATER	1706030510	John's Creek	H			$43,237		$0.00		--	--	None	--
SOUTH FORK CLEARWATER	1706030511	Mill Creek	H			$31,729		$0.00		--	--	None	--
SOUTH FORK CLEARWATER	1706030512	Three Mile Creek	L			$57,788		$18.24		Yes	--	Entire Watershed	$57,788
SOUTH FORK CLEARWATER	1706030513	Cottonwood Creek	M			$8,718		$0.47		--	--	None	--
CLEARWATER	1706030601	Lower Clearwater River	L	H		$358,256	$137,760	$36.14	$13.38	--	Yes	Tributaries Only	$137,760
CLEARWATER	1706030602	Clearwater River/Lower Potlatch River	M	H		$16,207	$5,307	$36.98	$11.93	--	--	None	--
CLEARWATER	1706030603	Potlatch River/Middle Potlatch Creek	M	H		$68,418	$298	$36.98	$0.12	--	--	None	--
CLEARWATER	1706030604	Lower Big Bear Creek	M			$39,753		$23.99		--	--	None	--
CLEARWATER	1706030605	Upper Big Bear Creek	M			$8,351		$7.55		--	--	None	--
CLEARWATER	1706030606	Potlatch River/Pine Creek	H	H		$38,538	$5,838	$37.56	$5.50	--	--	None	--
CLEARWATER	1706030607	Upper Potlatch River	H			$48,904		$39.26		--	--	None	--
CLEARWATER	1706030608	Clearwater River/Bedrock Creek	H	H		$26,817	$5,017	$44.77	$8.38	--	--	None	--
CLEARWATER	1706030609	Clearwater River/Jack's Creek	H	H		$65,800	$400	$178.81	$1.09	--	--	None	--
CLEARWATER	1706030610	Big Canyon Creek	H			$68,074		$108.57		--	--	None	--
CLEARWATER	1706030611	Little Canyon Creek	H			$14,979		$18.89		--	--	None	--
CLEARWATER	1706030612	Clearwater River/Lower Orofino Creek	L	H		$112,712	$30,972	$19.47	$3.59	--	--	None	--
CLEARWATER	1706030613	Upper Orofino Creek	L		Yes	$47,651		$18.12		Yes	--	Entire Watershed	$47,651
CLEARWATER	1706030614	Jim Ford Creek	M			$122,944		$92.49		Yes	--	None[f]	--
CLEARWATER	1706030615	Lower Lolo Creek	H	H		$29,971	$8,171	$91.98	$0.00	--	--	None	--
CLEARWATER	1706030616	Middle Lolo Creek	H	H		$19,695	$19,695	$0.00	$0.00	--	--	None	--
CLEARWATER	1706030617	Musselshell Creek	H			$50,335		$2,972.73		--	--	None	--
CLEARWATER	1706030618	Upper Lolo Creek	H			$376,953		$0.00		--	--	None	--
CLEARWATER	1706030619	Eldorado Creek	H			$35,477		$0.00		--	--	None	--
CLEARWATER	1706030620	Clearwater River/Fivemile Creek	M	H		$88,456	$12,156	$172.64	$0.02	--	--	None	--
CLEARWATER	1706030621	Clearwater River/Sixmile Creek	M	H		$24,062	$2,262	$69.14	$6.50	--	--	None	--
CLEARWATER	1706030622	Clearwater River/Tom Taha Creek	M	H		$51,727	$19,027	$20.41	$3.43	--	--	None	--
CLEARWATER	1706030623	Lower Lawyer Creek	H	H		$6,937	$2,857	$4.75	$1.96	--	--	None	--
CLEARWATER	1706030624	Middle Lawyer Creek	H			$281		$1.02		--	--	None	--
CLEARWATER	1706030627	Cottonwood Creek	M			$2,453		$7.34		--	--	None	--
CLEARWATER	1706030628	Upper Lapwai Creek	H			$64,746		$52.00		--	--	None	--
CLEARWATER	1706030629	Mission Creek	H			$43,699		$179.83		--	--	None	--
CLEARWATER	1706030630	Upper Sweetwater Creek	M			$116,925		$1,025.66		Yes	--	None[g]	--
CLEARWATER	1706030631	Lower Sweetwater Creek	H	H		$33,025	$5,785	$16.75	$2.93	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010101	Upper Lake Wallula		H		$943,445		$32.91		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010102	Lower Lake Wallula		H		$4,080		$31.64		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010106	Upper Lake Umatilla		H		$5,440		$3.20		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010109	Middle Lake Umatilla		H		$36,429		$11.96		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010114	Lower Lake Umatilla		H		$294,327		$571.54		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010501	Upper Middle Columbia/Hood		H		$320,406		$312.71		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010504	Middle Columbia/Mill Creek		H		$147,910		$11.42		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek		H		$13,600		$5.56		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek		H		$5,440		$11.09		--	--	None	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries		H		$495,915		$58.47		--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.32		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$29,930,383
Total reduction in economic impact of exclusions	$755,621
Total economic impact of areas designated for critical habitat	$29,174,762
Percent reduction in economic impact due to economic exclusions	2.5%
Percent reduction in miles designated as critical habitat due to economic exclusions	1.6%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 (or >$400 if an ID HUC5) in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that exclusion would significantly impede conservation, noting that Thompson Creek is a very large stream with a good amount of steelhead habitat. The mine that caused much of the habitat degradation is in remediation. Slate Creek is also a large stream and very important as a thermal refugium.

[b] CHART concluded that exclusion would significantly impede conservation, noting that, notwithstanding considerable past degradation from mining (e.g., the Hecla-Grouse Creek Mine in upper Jordan Creek is in remediation), the Yankee Fork supports good steelhead production and there are several miles of rearing habitat. Tributaries provide important thermal refugia and the area is also the site of numerous restoration efforts by the Shoshone-Bannock Tribes.

[c] CHART concluded that exclusion would significantly impede conservation, noting that Squaw Creek is a very large stream with a good amount of steelhead habitat and is very important for thermal refugia. The Thompson Creek mine that caused much of the habitat degradation is in remediation.

[d] CHART concluded that exclusion would significantly impede conservation, noting relatively extensive tributary habitat for this population and substantial restoration activities underway (e.g., streamside incubators established in two tributaries).

[e] CHART concluded that exclusion would significantly impede conservation, noting that habitat is limiting in the Little Salmon River and this watershed maintains connectivity of rearing and migration habitats for both upstream and downstream watersheds and is a major source of cold water for the Little Salmon River basin.

[f] CHART concluded that exclusion would significantly impede conservation, noting good habitat quality and that substantial restoration activities are underway here (e.g., by Nez Perce Tribe).

[g] CHART concluded that exclusion would significantly impede conservation, noting that Sweetwater Creek provides the best spawning and rearing habitat in Lapwai Creek for A-run steelhead. Also, Lapwai Creek is one of the few remaining watersheds still producing A-run steelhead.

Table D.10. Middle Columbia River steelhead ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Middle Columbia River steelhead Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
UPPER COLUMBIA/PRIEST RAPIDS	1702001606	Columbia River/Zintel Canyon	H	H		$482,934	$132,550	$6.07	$1.78	--	--	None	--
UPPER YAKIMA	1703000101	Upper Yakima River	H			$2,193,263		$491.62		--	--	None	--
UPPER YAKIMA	1703000102	Tenaway River	H	H		$661,644	$513,049	$38.92	$7.70	--	--	None	--
UPPER YAKIMA	1703000103	Middle Upper Yakima River	H	H		$1,546,952	$878,624	$26.38	$1.59	--	--	None	--
UPPER YAKIMA	1703000104	Umtanum/Wenas	M	H		$528,913	$265,842	$24.52	$10.47	--	--	None	--
NACHES	1703000201	Little Naches River	H			$723,850		$6,236.76		--	--	None	--
NACHES	1703000202	Naches River/RattleSnake Creek	H	H		$613,666	$612,306	$11.61	$10.30	--	--	None	--
NACHES	1703000203	Naches River/Tieton River	H	H		$2,294,456	$1,320,788	$82.50	$37.02	--	--	None	--
LOWER YAKIMA	1703000301	Ahtanum Creek	H			$489,174		$13.19		--	--	None	--
LOWER YAKIMA	1703000302	Upper Lower Yakima River	M	H		$447,809	$123,450	$5.11	$0.77	--	--	None	--
LOWER YAKIMA	1703000303	Upper Toppenish Creek	H			$232,500		$81.04		--	--	None	--
LOWER YAKIMA	1703000304	Lower Toppenish Creek	M	H		$170,815	$79,847	$3.53	$1.40	--	--	None	--
LOWER YAKIMA	1703000305	Satus Creek	H			$24,516		$0.00		--	--	None	--
LOWER YAKIMA	1703000306	Yakima River/Spring Creek	M	H		$550,458	$370,206	$9.14	$5.95	--	Yes	None[a]	--
LOWER YAKIMA	1703000307	Yakima River/Cold Creek	H	H		$164,971	$87,628	$3.29	$1.38	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010101	Upper Lake Wallula	H	H		$1,066,806	$123,361	$32.91	$1.23	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010102	Lower Lake Wallula	H	H		$134,592	$130,512	$31.64	$30.57	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010105	Glade Creek	M		Yes	$6,860		$7.45		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010106	Upper Lake Umatilla	H	H		$24,454	$19,014	$3.20	$2.44	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010109	Middle Lake Umatilla	H	H		$54,201	$17,773	$11.96	$2.70	--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010110	Alder Creek	M		Yes	$2,999		$0.00		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010111	Pine Creek	M		Yes	$2,237		$0.00		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010112	Wood Gulch	H			$65,485		$1,023.20		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010113	Rock Creek	H		Yes	$22,648		$3.04		--	--	None	--
MIDDLE COLUMBIA/LAKE WALLULA	1707010114	Lower Lake Umatilla	H	H		$475,646	$181,319	$571.54	$196.12	--	--	None	--
WALLA WALLA	1707010201	Upper Walla Walla River	H			$278,666		$2.08		--	--	None	--
WALLA WALLA	1707010202	Mill Creek	H			$984,474		$32.52		--	--	None	--
WALLA WALLA	1707010203	Upper Touchet River	H			$251,635		$16.75		--	--	None	--
WALLA WALLA	1707010204	Middle Touchet River	H	H		$60,114	$45,129	$20.20	$13.42	--	--	None	--
WALLA WALLA	1707010207	Lower Touchet River	H	H		$89,691	$89,691	$145.60	$145.60	--	--	None	--
WALLA WALLA	1707010208	Cottonwood Creek	M	H		$1,533,312	$1,491,077	$55.36	$53.82	--	Yes	None[b]	--
WALLA WALLA	1707010209	Pine Creek	L			$181,804		$52.47		Yes	--	Entire watershed	$181,804
WALLA WALLA	1707010210	Dry Creek	M			$100,483		$109.51		--	--	None	--
WALLA WALLA	1707010211	Lower Walla Walla River	M	H		$1,605,313	$1,301,355	$400.05	$323.27	--	Yes	Tributaries Only	$1,301,355
UMATILLA	1707010301	Upper Umatilla River	H			$336,966		$0.00		--	--	None	--
UMATILLA	1707010302	Meacham Creek	H			$506,962		$17.44		--	--	None	--
UMATILLA	1707010303	Umatilla River/Mission Creek	M	H		$102,206	$28,038	$5.49	$1.11	--	--	None	--
UMATILLA	1707010304	Wildhorse Creek	L			$586,046		$245.21		Yes	--	Entire watershed	$586,046
UMATILLA	1707010305	Mckay Creek	H			$148,046		$24.82		--	--	None	--
UMATILLA	1707010306	Birch Creek	H			$710,044		$273.87		--	--	None	--
UMATILLA	1707010307	Umatilla River/Alkali Canyon		H		$1,360		$1.07		--	--	None	--
UMATILLA	1707010308	Stage Gulch	L		Yes	$36,697		$9.84		Yes	--	Entire watershed	$36,697
UMATILLA	1707010310	Lower Butter Creek	L		Yes	$18,822		$1.81		Yes	--	Entire watershed	$18,822
UMATILLA	1707010313	Lower Umatilla River	H	H		$117,826	$49,116	$3.36	$0.66	--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010501	Upper Middle Columbia/Hood	L	H		$377,011	$56,605	$313.60	$11.35	--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010502	Fifteenmile Creek	H	H		$150,226	$111,127	$48.66	$13.40	--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010503	Fivemile Creek	H			$147,388		$85.68		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010504	Middle Columbia/Mill Creek	H			$631,437		$11.69		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010505	Mosier Creek	M			$69,105		$17.12		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010509	White Salmon River	M			$2,141,786		$4.16		Yes	--	None[c]	--
MIDDLE COLUMBIA/HOOD	1707010510	Little White Salmon River	M			$602,109		$340.63		Yes	--	Entire watershed	$602,109
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek	M	H		$421,595	$407,994	$8.95	$7.44	--	Yes	Tributaries Only	$407,994
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek		H		$5,440		$11.09		--	--	None	--
KLICKITAT	1707010601	Upper Klickitat River	H		Yes	$7,881		$0.00		--	--	None	--
KLICKITAT	1707010602	Middle Klickitat River	H	H		$1,492	$1,492	$0.00	$0.00	--	--	None	--
KLICKITAT	1707010603	Little Klickitat River	H			$313,760		$50.05		--	--	None	--
KLICKITAT	1707010604	Lower Klickitat River	H	H		$277,689	$38,389	$118.18	$5.57	--	--	None	--
UPPER JOHN DAY	1707020103	Middle South Fork John Day	H			$353,630		$0.00		--	--	None	--
UPPER JOHN DAY	1707020104	Murderers Creek	H			$267,195		$0.00		--	--	None	--
UPPER JOHN DAY	1707020105	Lower South Fork John Day	H	H		$269,461	$268,101	$6.73	$0.00	--	--	None	--
UPPER JOHN DAY	1707020106	Upper John Day River	H			$227,650		$0.00		--	--	None	--
UPPER JOHN DAY	1707020107	Canyon Creek	H			$165,130		$6.74		--	--	None	--
UPPER JOHN DAY	1707020108	Strawberry Creek	H	H		$153,381	$152,021	$13.82	$13.25	--	--	None	--
UPPER JOHN DAY	1707020109	Beech Creek	H			$170,205		$0.00		--	--	None	--
UPPER JOHN DAY	1707020110	Laycock Creek	H	H		$144,105	$140,024	$9.38	$6.82	--	--	None	--
UPPER JOHN DAY	1707020111	Fields Creek	M	H		$127,031	$127,031	$15.81	$15.81	--	--	None	--
UPPER JOHN DAY	1707020112	Upper Middle John Day	H	H		$219,721	$219,721	$0.00	$0.00	--	--	None	--
UPPER JOHN DAY	1707020113	Mountain Creek	H			$484,899		$13,341.22		--	--	None	--
UPPER JOHN DAY	1707020114	Rock Creek	H	H		$199,405	$199,405	$10,602.50	$10,602.50	--	--	None	--

UPPER JOHN DAY	1707020115	John Day River/Johnson Creek	H	H		$196,853	$196,853	$63.02	$63.02	--	--	None	--
NORTH FORK JOHN DAY	1707020201	Upper North Fork John Day River	H			$133,837		$0.00		--	--	None	--
NORTH FORK JOHN DAY	1707020202	Granite Creek	H			$315,962		$0.00		--	--	None	--
NORTH FORK JOHN DAY	1707020203	North Fork John Day River/Big Creek	H	H		$296,324	$296,324	$0.00	$0.00	--	--	None	--
NORTH FORK JOHN DAY	1707020204	Desolation Creek	H			$413,043		$0.00		--	--	None	--
NORTH FORK JOHN DAY	1707020205	Upper Camas Creek	H			$527,516		$0.00		--	--	None	--
NORTH FORK JOHN DAY	1707020206	Lower Camas Creek	H	H		$461,954	$428,245	$192.09	$74.22	--	--	None	--
NORTH FORK JOHN DAY	1707020207	North Fork John Day River/Potamus Creek	H	H		$684,850	$684,850	$143.28	$143.28	--	--	None	--
NORTH FORK JOHN DAY	1707020208	Wall Creek	H			$644,782		$1,023.93		--	--	None	--
NORTH FORK JOHN DAY	1707020209	Cottonwood Creek	H			$141,541		$0.00		--	--	None	--
NORTH FORK JOHN DAY	1707020210	Lower North Fork John Day River	M	H		$125,181	$125,181	$64.65	$64.65	--	--	None	--
MIDDLE FORK JOHN DAY	1707020301	Upper Middle Fork John Day River	H			$284,105		$543.75		--	--	None	--
MIDDLE FORK JOHN DAY	1707020302	Camp Creek	H	H		$448,206	$448,206	$0.00	$0.00	--	--	None	--
MIDDLE FORK JOHN DAY	1707020303	Big Creek	H	H		$282,750	$282,750	$0.00	$0.00	--	--	None	--
MIDDLE FORK JOHN DAY	1707020304	Long Creek	H			$129,396		$63.68		--	--	None	--
MIDDLE FORK JOHN DAY	1707020305	Lower Middle Fork John Day River	L	H	Yes	$7,372	$7,372	$0.00	$0.00	--	Yes	Tributaries Only	$7,372
LOWER JOHN DAY	1707020401	Lower John Day River/Kahler Creek	H	H		$268,260	$245,100	$86.25	$27.62	--	--	None	--
LOWER JOHN DAY	1707020402	Lower John Day River/Service Creek	H	H		$75,183	$75,183	$82.72	$82.72	--	--	None	--
LOWER JOHN DAY	1707020403	Bridge Creek	H			$244,394		$67.96		--	--	None	--
LOWER JOHN DAY	1707020404	Lower John Day River/Muddy Creek	H	H		$179,501	$179,501	$256.51	$256.51	--	--	None	--
LOWER JOHN DAY	1707020405	Lower John Day River/Clarno	L	H		$103,072	$103,072	$0.13	$0.13	--	Yes	Tributaries Only	$103,072
LOWER JOHN DAY	1707020406	Butte Creek	M			$7,668		$0.78		--	--	None	--
LOWER JOHN DAY	1707020407	Pine Hollow	H			$55,891		$0.00		--	--	None	--
LOWER JOHN DAY	1707020408	Thirtymile Creek	M			$57,661		$11.59		--	--	None	--
LOWER JOHN DAY	1707020409	Lower John Day River/Ferry Canyon	M	H		$32,979	$32,979	$0.25	$0.25	--	--	None	--
LOWER JOHN DAY	1707020410	Lower John Day River/Scott Canyon	M	H		$113,837	$113,837	$261.75	$261.75	--	--	None	--
LOWER JOHN DAY	1707020411	Upper Rock Creek	H			$1,109,583		$10,997.80		--	--	None	--
LOWER JOHN DAY	1707020412	Lower Rock Creek	M	H		$129,705	$20,705	$726.77	$0.11	--	--	None	--
LOWER JOHN DAY	1707020413	Grass Valley Canyon	M			$14,000		$12.98		--	--	None	--
LOWER JOHN DAY	1707020414	Lower John Day River/McDonald Ferry		H		$0		$5.05		--	--	None	--
LOWER DESCHUTES	1707030603	Upper Deschutes River	H	H		$1,571,152	$44,086	$0.41	$0.00	--	--	None	--
LOWER DESCHUTES	1707030604	Mill Creek	H	H		$18,009	$18,009	$0.00	$0.00	--	--	None	--
LOWER DESCHUTES	1707030605	Beaver Creek	H			$8,911		$0.00		--	--	None	--
LOWER DESCHUTES	1707030606	Warm Springs River	H	H		$58,715	$58,715	$0.00	$0.00	--	--	None	--
LOWER DESCHUTES	1707030607	Middle Deschutes River	H	H		$348,895	$347,535	$1.84	$0.21	--	--	None	--
LOWER DESCHUTES	1707030608	Bakeoven Creek	H			$20,773		$0.10		--	--	None	--
LOWER DESCHUTES	1707030610	White River	L			$919,625		$308.00		Yes	--	Entire watershed	$919,625
LOWER DESCHUTES	1707030611	Buck Hollow Creek	H			$106,928		$889.14		--	--	None	--
LOWER DESCHUTES	1707030612	Lower Deschutes River	H	H		$323,013	$323,013	$3.06	$3.06	--	--	None	--
TROUT	1707030701	Upper Trout Creek	H			$177,347		$135.93		--	--	None	--
TROUT	1707030702	Antelope Creek	M			$49,560		$0.00		--	--	None	--
TROUT	1707030704	Mud Springs Creek	L		Yes	$113,141		$0.00		Yes	--	Entire watershed	$113,141
TROUT	1707030705	Lower Trout Creek	H	H		$52,448	$52,448	$0.14	$0.14	--	--	None	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries		H		$495,915		$58.47		--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.32		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$42,706,217
Total reduction in economic impact of exclusions	$4,278,037
Total economic impact of areas designated for critical habitat	$38,428,180
Percent reduction in economic impact due to economic exclusions	10.0%
Percent reduction in miles designated as critical habitat due to economic exclusions	1.9%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that exclusion would significantly impede conservation, noting that the tributaries in this watershed provide important thermal refugia for juveniles.

[b] CHART concluded that exclusion would significantly impede conservation, noting that tributaries in this watershed contain important rearing and migration habitat for upstream areas (e.g., Yellowjacket Creek) and active restoration efforts are ongoing.

[c] CHART concluded that exclusion would significantly impede conservation, noting that the White Salmon River is an important focus of restoration efforts.

Table D.11. Lower Columbia River steelhead ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Lower Columbia River steelhead Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
MIDDLE COLUMBIA/HOOD	1707010506	East Fork Hood River	H			$657,599		$94.03		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010507	West Fork Hood River	H			$295,670		$22.42		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010508	Hood River	H			$1,447,922		$12.59		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010511	Wind River	H			$779,775		$17.74		--	--	None	--
MIDDLE COLUMBIA/HOOD	1707010512	Middle Columbia/Grays Creek	L	H		$390,804	$377,204	$5.54	$4.03	--	Yes	Tributaries Only	$377,204
MIDDLE COLUMBIA/HOOD	1707010513	Middle Columbia/Eagle Creek	M	H		$283,053	$277,613	$11.09	$9.53	--	--	None	--
LOWER COLUMBIA/SANDY	1708000101	Salmon River	H			$224,301		$8.84		--	--	None	--
LOWER COLUMBIA/SANDY	1708000102	Zigzag River	H			$174,579		$6.54		--	--	None	--
LOWER COLUMBIA/SANDY	1708000103	Upper Sandy River	H			$110,088		$0.13		--	--	None	--
LOWER COLUMBIA/SANDY	1708000104	Middle Sandy River	M	H		$160,954	$159,594	$9.74	$9.55	--	--	None	--
LOWER COLUMBIA/SANDY	1708000105	Bull Run River	M			$1,936,112		$421.12		Yes	--	Entire watershed	$1,936,112
LOWER COLUMBIA/SANDY	1708000106	Washougal River	H			$400,704		$8.28		--	--	None	--
LOWER COLUMBIA/SANDY	1708000107	Columbia Gorge Tributaries	M	H		$926,803	$430,888	$58.53	$3.25	--	Yes	None[a]	--
LOWER COLUMBIA/SANDY	1708000108	Lower Sandy River	M			$232,809		$3.81		--	--	None	--
LOWER COLUMBIA/SANDY	1708000109	Salmon Creek	M			$3,941,426		$13.63		Yes	--	Entire watershed	$3,941,426
LEWIS	1708000205	East Fork Lewis River	H			$827,323		$16.77		--	--	None	--
LEWIS	1708000206	Lower Lewis River	H	H		$564,609	$160,125	$33.88	$1.37	--	--	None	--
LOWER COLUMBIA/CLATSKANIE	1708000301	Kalama River	H			$561,959		$66.53		--	--	None	--
UPPER COWLITZ	1708000401	Headwaters Cowlitz River	H			$177,224		$0.00		--	--	None	--
UPPER COWLITZ	1708000402	Upper Cowlitz River	H	H		$3,058,911	$362,857	$12.03	$0.00	--	--	None	--
UPPER COWLITZ	1708000403	Cowlitz Valley Frontal	H	H		$642,966	$590,431	$26.56	$10.36	--	--	None	--
UPPER COWLITZ	1708000404	Upper Cispus River	H			$691,534		$0.00		--	--	None	--
UPPER COWLITZ	1708000405	Lower Cispus River	H	H		$718,610	$677,735	$444.29	$0.00	--	--	None	--
COWLITZ	1708000501	Tilton River	M			$337,753		$14.85		Yes	--	Entire watershed	$337,753
COWLITZ	1708000502	Riffe Reservoir	H	H		$720,376	$231,547	$33.09	$32.75	--	--	None	--
COWLITZ	1708000503	Jackson Prairie	M	H		$599,003	$229,196	$82.46	$25.91	--	--	None	--
COWLITZ	1708000504	North Fork Toutle River	M	H		$368,903	$368,903	$21,205.00	$21,205.00	--	Yes	None[b]	--
COWLITZ	1708000505	Green River	H			$160,091		$0.00		--	--	None	--
COWLITZ	1708000506	South Fork Toutle River	M			$49,953		$2.31		--	--	None	--
COWLITZ	1708000507	East Willapa	H	H		$381,515	$235,745	$20.91	$9.71	--	--	None	--
COWLITZ	1708000508	Coweeman	M	H		$411,955	$38,325	$13.76	$1.28	--	--	None	--
MIDDLE WILLAMETTE	1709000704	Abernethy Creek	L			$692,616		$3.88		Yes	--	Entire watershed	$692,616
CLACKAMAS	1709001101	Collawash River	H			$436,173		$577.71		--	--	None	--
CLACKAMAS	1709001102	Upper Clackamas River	H			$557,445		$0.00		--	--	None	--
CLACKAMAS	1709001103	Oak Grove Fork Clackamas River	H			$1,195,914		$0.00		--	--	None	--
CLACKAMAS	1709001104	Middle Clackamas River	H	H		$2,927,818	$773,808	$7.85	$0.32	--	--	None	--
CLACKAMAS	1709001105	Eagle Creek	H			$115,797		$9.31		--	--	None	--
CLACKAMAS	1709001106	Lower Clackamas River	H	H		$1,125,579	$409,767	$7.47	$6.94	--	--	None	--
LOWER WILLAMETTE	1709001201	Johnson Creek	H	H		$714,163	$329,726	$2.12	$0.88	--	--	None	--
LOWER WILLAMETTE	1709001202	Scappoose Creek	H	H		$644,333	$180,961	$24.20	$5.23	--	--	None	--
LOWER WILLAMETTE	1709001203	Columbia Slough/Willamette River	H	H		$3,531,273	$796,674	$7.85	$1.36	--	--	None	--
Lower Columbia Corridor (Sandy/Washougal to Ocean)				H		$2,395,331		$693.37		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$36,571,726
Total reduction in economic impact of exclusions	$7,285,111
Total economic impact of areas designated for critical habitat	$29,286,615
Percent reduction in economic impact due to economic exclusions	19.9%
Percent reduction in miles designated as critical habitat due to economic exclusions	8.8%

Footnotes:

* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

[a] CHART concluded that excluding this watershed would significantly impede conservation, noting that the Lower Columbia Fish Recovery Board's interim recovery plan emphasizes achieving a high viability level for lower Gorge tributaries.

[b] CHART concluded that exclusion would significantly impede conservation, noting that this is one of only two watersheds supporting a TRT core winter-run population.

Table D.12. Upper Willamette River steelhead ESU. Conservation-value ratings, economic impacts, and exclusions for fifth-field watersheds occupied by the Upper Willamette steelhead Evolutionarily Significant Unit (ESU). The conservation value rating for a watershed reflects the benefit of designation for the entire watershed, or in cases where the watershed includes a connectivity corridor serving other occupied watersheds, the rating reflects the benefit of designating the tributaries only. The rating for the connectivity corridor reflects the conservation benefit of designating rearing and migration habitat. Economic impacts are reported as the total annual cost of Endangered Species Act section 7 consultations (in U.S. dollars ($) per year), and as the per capita annual cost of consultations (in U.S. dollars ($) per year per person). The economic impact of tributaries represents the annual total cost for a watershed less the cost associated with the connectivity corridor(s). Local economic impacts reflect the costs associated with activities geographically confined in scope, and unlikely to have regional impacts or impacts beyond the subject watershed.

Occupied Areas			Conservation Value Ratings			Annual Total, Tributary-only, and Local per capita Economic Impacts				ESA Section 4(b)(2) Consideration of Watersheds for Exclusion from Designation as Critical Habitat			
Subbasin Name	Watershed Identification Code	Watershed Name	Benefit of designating watershed	Benefit of designating connectivity corridor *	Low Leverage**	Annual Total Impact	Annual Tributary Impact	Annual Local Impact per capita	Annual Local Tributary Impact per capita	Entire Watershed Eligible for Exclusion	Tributaries-only Eligible for Exclusion	Area Excluded	Reduction in Economic Impact from Exclusions
UPPER WILLAMETTE	1709000303	Calapooia River	H			$129,074		$4.45		--	--	None	--
UPPER WILLAMETTE	1709000304	Oak Creek	M	H		$278,385	$91,907	$4.57	$1.35	--	--	None	--
UPPER WILLAMETTE	1709000306	Luckiamute River	M			$347,110		$48.80		Yes	--	None[a]	--
NORTH SANTIAM	1709000504	Middle North Santiam River	H			$49,207		$7.03		--	--	None	--
NORTH SANTIAM	1709000505	Little North Santiam River	H			$100,774		$0.26		--	--	None	--
NORTH SANTIAM	1709000506	Lower North Santiam River	H	H		$162,380	$71,678	$10.49	$5.32	--	--	None	--
SOUTH SANTIAM	1709000601	Hamilton Creek/South Santiam River	H	H		$153,045	$116,489	$3.67	$2.11	--	--	None	--
SOUTH SANTIAM	1709000602	Crabtree Creek	H			$116,475		$0.50		--	--	None	--
SOUTH SANTIAM	1709000603	Thomas Creek	H			$95,770		$4.12		--	--	None	--
SOUTH SANTIAM	1709000606	South Santiam River	H			$522,291		$52.31		--	--	None	--
SOUTH SANTIAM	1709000607	South Santiam River/Foster Reservoir	H	H		$1,454	$94	$2.30	$0.01	--	--	None	--
SOUTH SANTIAM	1709000608	Wiley Creek	H			$29,396		$20.95		--	--	None	--
MIDDLE WILLAMETTE	1709000701	Mill Creek/Willamette River	L	H		$761,210	$138,975	$14.83	$2.59	--	Yes	Tributaries Only	$138,975
MIDDLE WILLAMETTE	1709000702	Rickreall Creek	L	H		$352,462	$326,704	$9.19	$8.43	--	Yes	Tributaries Only	$326,704
MIDDLE WILLAMETTE	1709000703	Willamette River/Chehalem Creek	L	H		$573,308	$455,016	$2.96	$2.29	--	Yes	Tributaries Only	$455,016
MIDDLE WILLAMETTE	1709000704	Abernethy Creek	L	H		$692,050	$303,194	$3.88	$2.97	--	Yes	Tributaries Only	$303,194
YAMHILL	1709000801	Upper South Yamhill River	M			$107,719		$13.57		--	--	None	--
YAMHILL	1709000802	Willamina Creek	L			$111,650		$6.30		Yes	--	Entire watershed	$111,650
YAMHILL	1709000803	Mill Creek/South Yamhill River	L			$109,342		$36.59		Yes	--	Entire watershed	$109,342
YAMHILL	1709000804	Lower South Yamhill River	L	M	Yes	$112,193	$70,374	$12.79	$7.74	--	Yes	Tributaries Only	$70,374
YAMHILL	1709000805	Salt Creek/South Yamhill River	L			$185,674		$41.85		Yes	--	Entire watershed	$185,674
YAMHILL	1709000806	North Yamhill River	L			$305,196		$23.07		Yes	--	Entire watershed	$305,196
YAMHILL	1709000807	Yamhill River	L	M		$185,187	$148,039	$5.69	$4.55	--	Yes	Tributaries Only	$148,039
MOLALLA/PUDDING	1709000901	Abiqua Creek/Pudding River	M			$804,679		$15.27		Yes	--	None[b]	--
MOLALLA/PUDDING	1709000902	Butte Creek/Pudding River	L	M		$122,817	$106,580	$13.55	$11.53	--	Yes	Tributaries Only	$106,580
MOLALLA/PUDDING	1709000903	Rock Creek/Pudding River	L			$121,044		$11.17		Yes	--	Entire watershed	$121,044
MOLALLA/PUDDING	1709000904	Senecal Creek/Mill Creek	L	M		$127,262	$115,022	$4.51	$4.08	--	Yes	Tributaries Only	$115,022
MOLALLA/PUDDING	1709000905	Upper Molalla River	H			$178,571		$2.61		--	--	None	--
MOLALLA/PUDDING	1709000906	Lower Molalla River	M	H		$127,451	$123,371	$6.12	$5.89	--	--	None	--
TUALATIN	1709001001	Dairy Creek	L			$324,929		$6.22		Yes	--	Entire watershed	$324,929
TUALATIN	1709001002	Gales Creek	M	M		$207,193	$190,955	$9.70	$8.88	--	--	None	--
TUALATIN	1709001003	Scoggins Creek	L			$301,216		$50.18		Yes	--	Entire watershed	$301,216
TUALATIN	1709001004	Rock Creek/Tualatin River	L	M		$598,918	$546,237	$2.06	$1.89	Yes	--	Entire watershed	$598,918
TUALATIN	1709001005	Lower Tualatin River	L	M		$766,806	$386,872	$3.78	$1.80	Yes	--	Entire watershed	$766,806
LOWER WILLAMETTE	1709001201	Johnson Creek		H		$384,436		$2.10		--	--	None	--
LOWER WILLAMETTE	1709001202	Scappoose Creek		H		$463,372		$24.20		--	--	None	--
LOWER WILLAMETTE	1709001203	Columbia Slough/Willamette River		H		$2,734,600		$7.84		--	--	None	--
Lower Columbia Corridor (Willamette to Ocean)				H		$2,395,331		$693.07		--	--	None	--

Maximum Economic Impact if all areas were designated as critical habitat	$15,139,977
Total reduction in economic impact of exclusions	$4,488,679
Total economic impact of areas designated for critical habitat	$10,651,298
Percent reduction in economic impact due to economic exclusions	29.6%
Percent reduction in miles designated as critical habitat due to economic exclusions	29.9%

Footnotes:

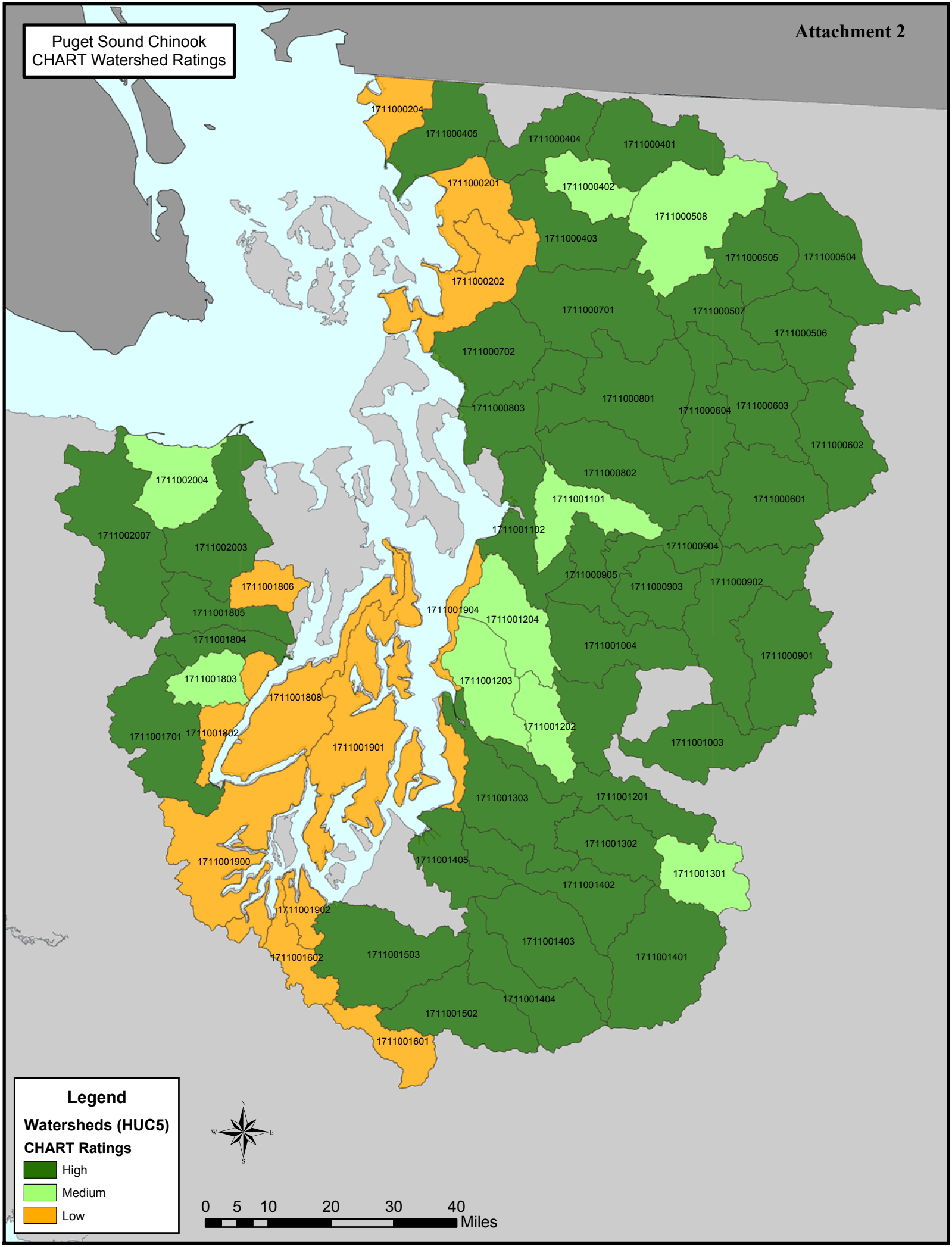
* Blanks for the conservation value of connectivity corridors indicate that a watershed does not include a rearing and migration corridor serving occupied watersheds upstream (i.e., there are no occupied upstream watersheds).

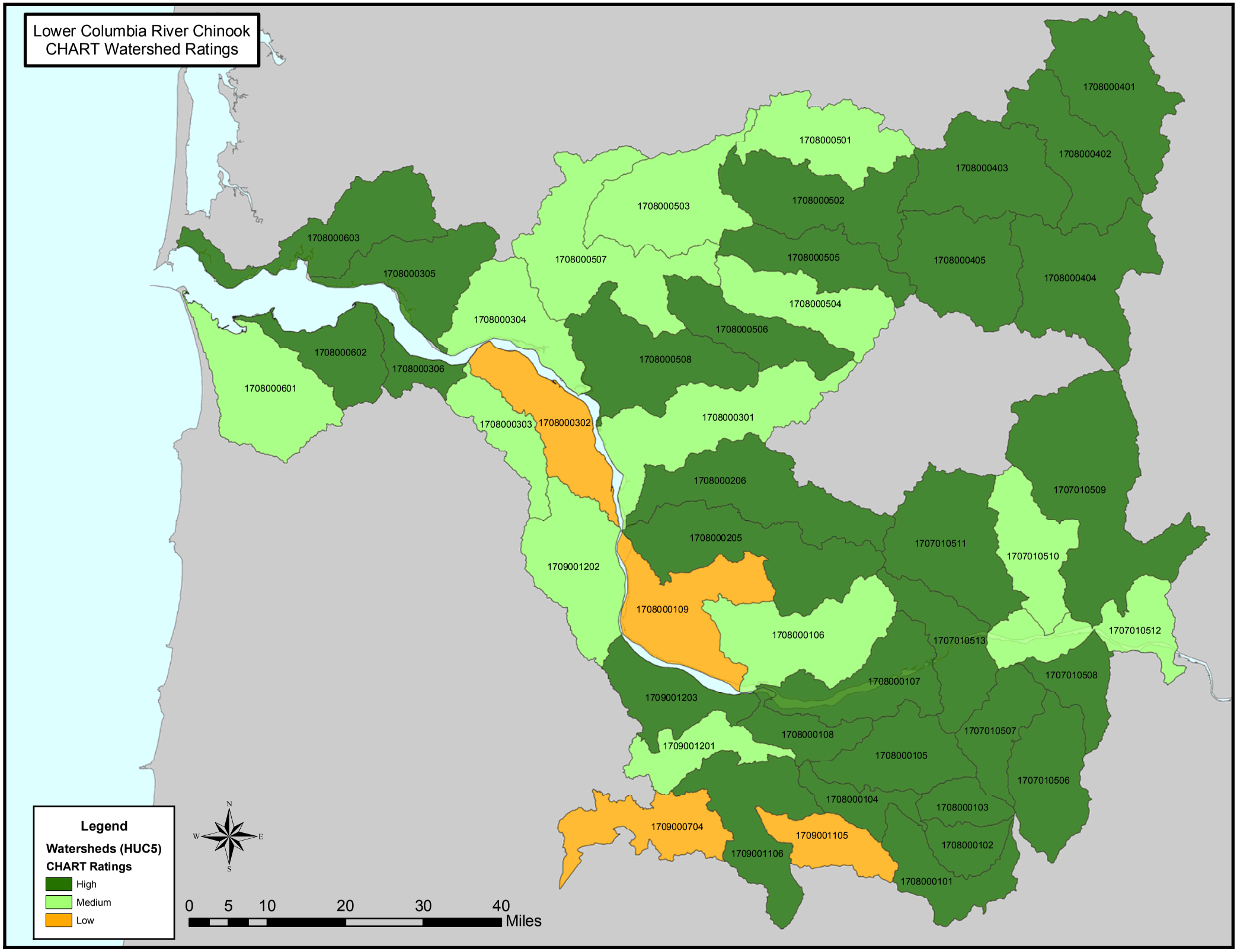
** Watersheds identified as "low leverage" (see report text for a description) were excluded from designation if the CHART determined that exclusion would not significantly impede conservation and the watershed was either (1) a low conservation value >$1,000 in total annual impact, or (2) a high or medium conservation value that exceeded the economic threshold associated with the next lower conservation value rating (e.g., a medium conservation value watershed with low leverage was treated as a low conservation value in this economic exclusion exercise).

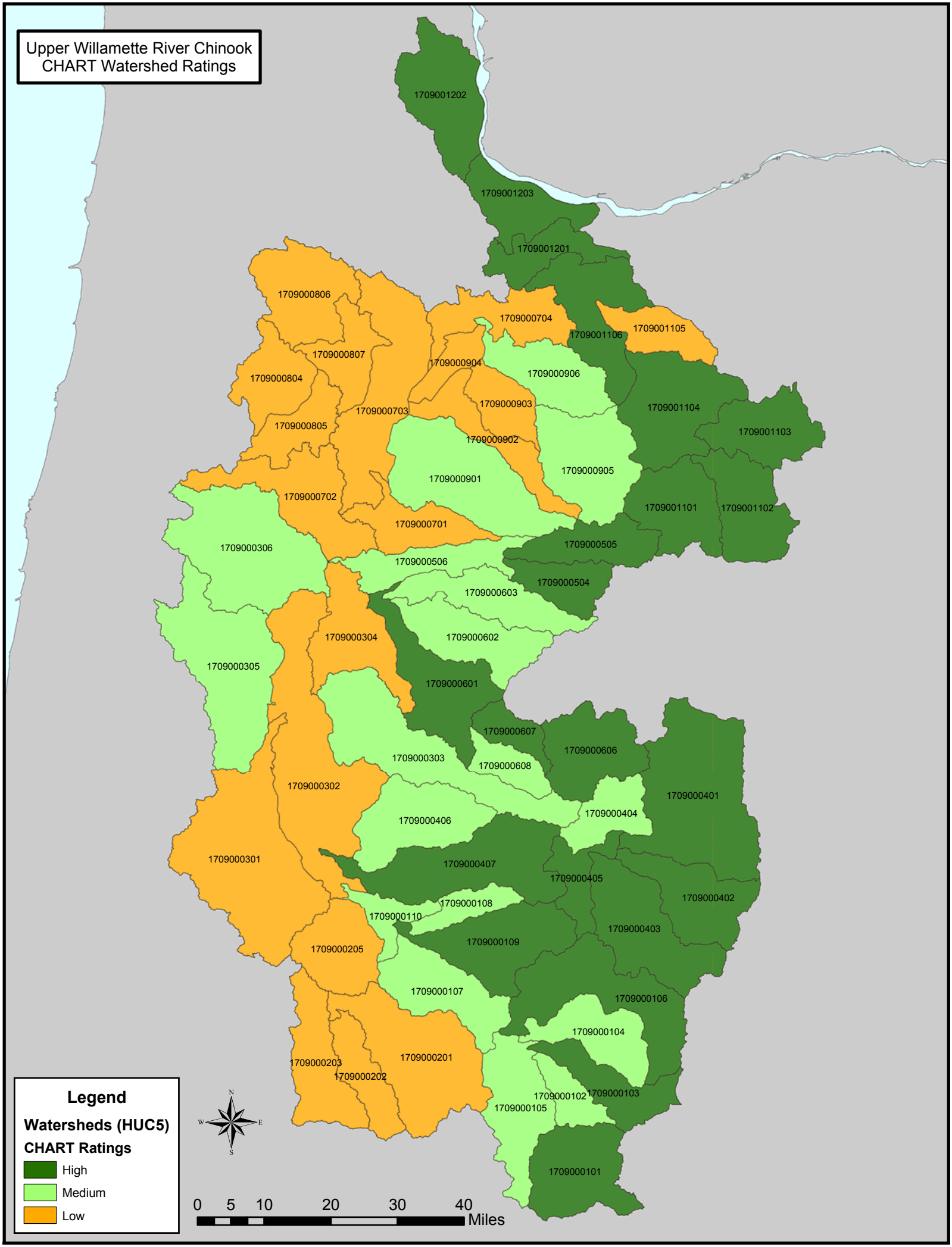
[a] CHART concluded that exclusion would significantly impede conservation, noting that the relatively widespread habitat in the Luckiamute River may help buffer extinction risks should a catastrophic event harm the Cascade (eastside) tributary populations.

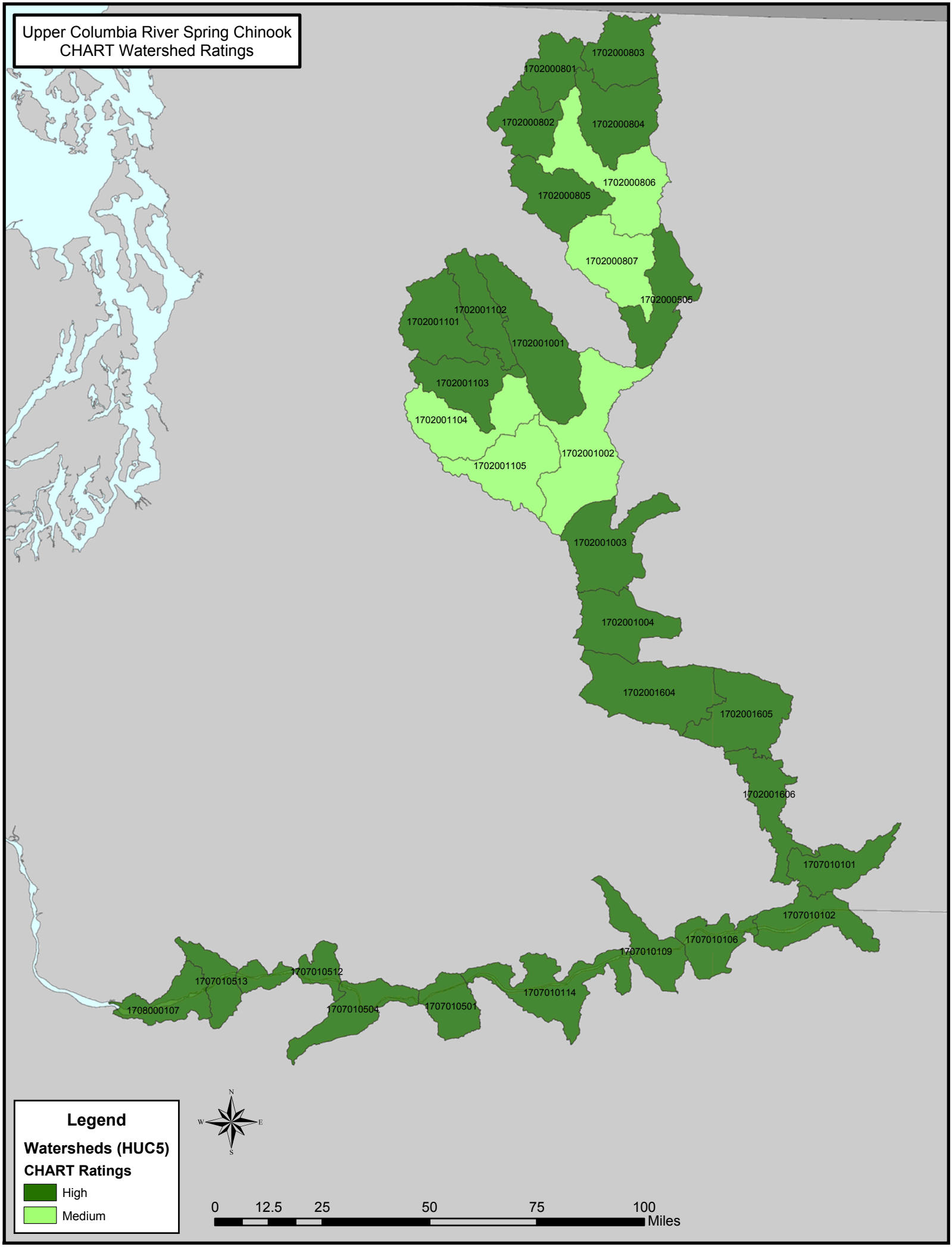
[b] CHART concluded that exclusion would significantly impede conservation, noting that a recent watershed assessment underscores that this watershed contains the largest steelhead run and best spawning and rearing habitat in the Pudding River subbasin.

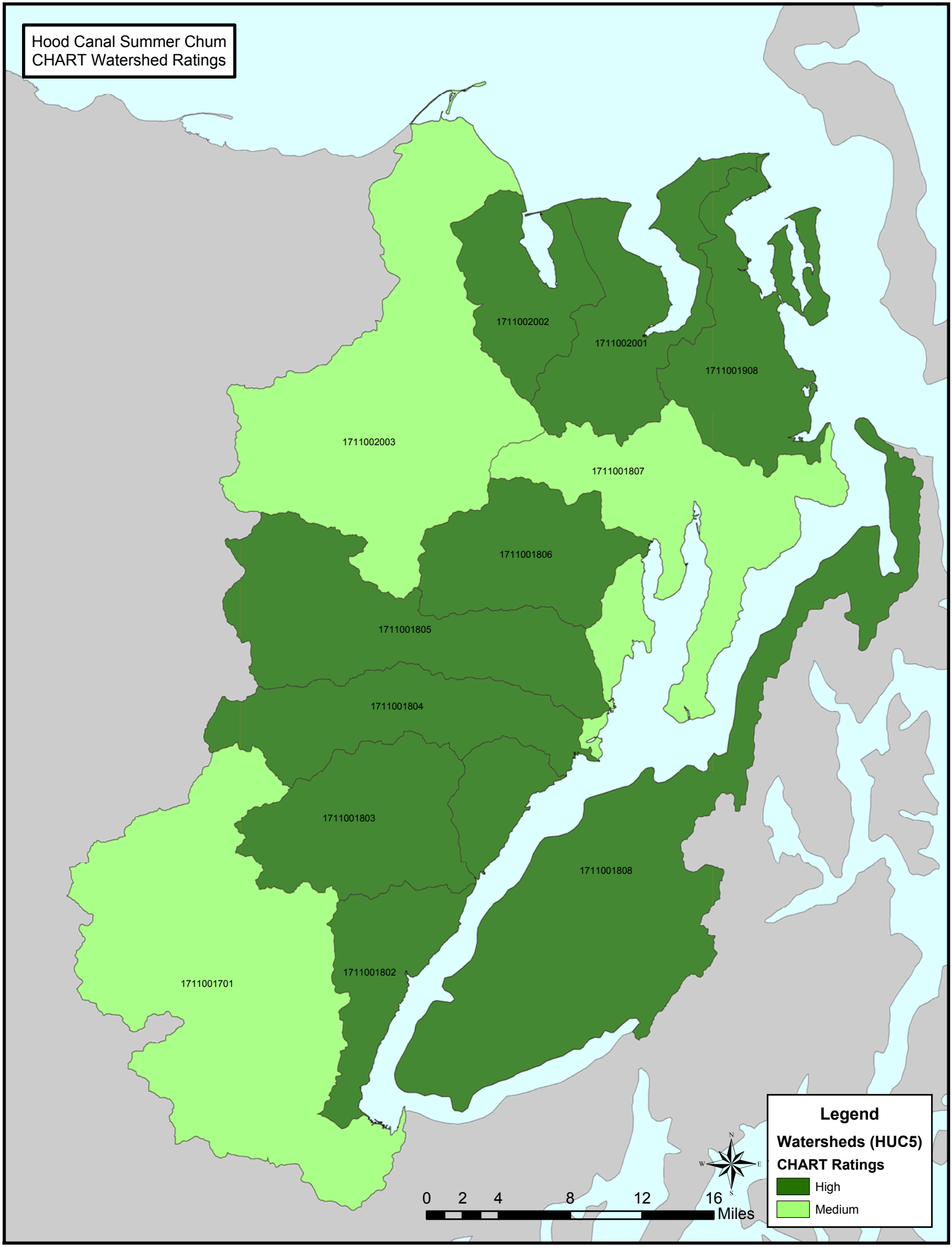
Attachment 2

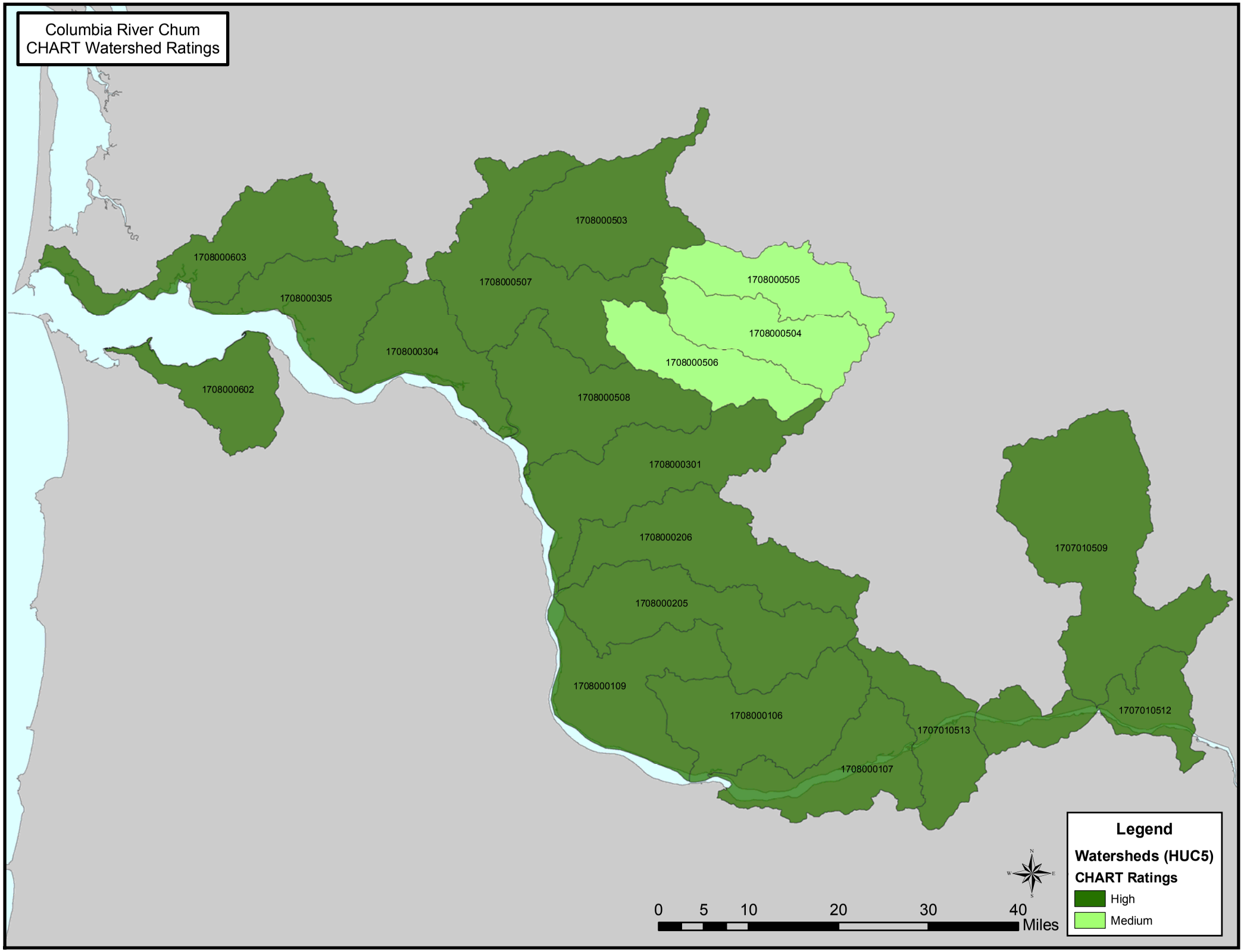


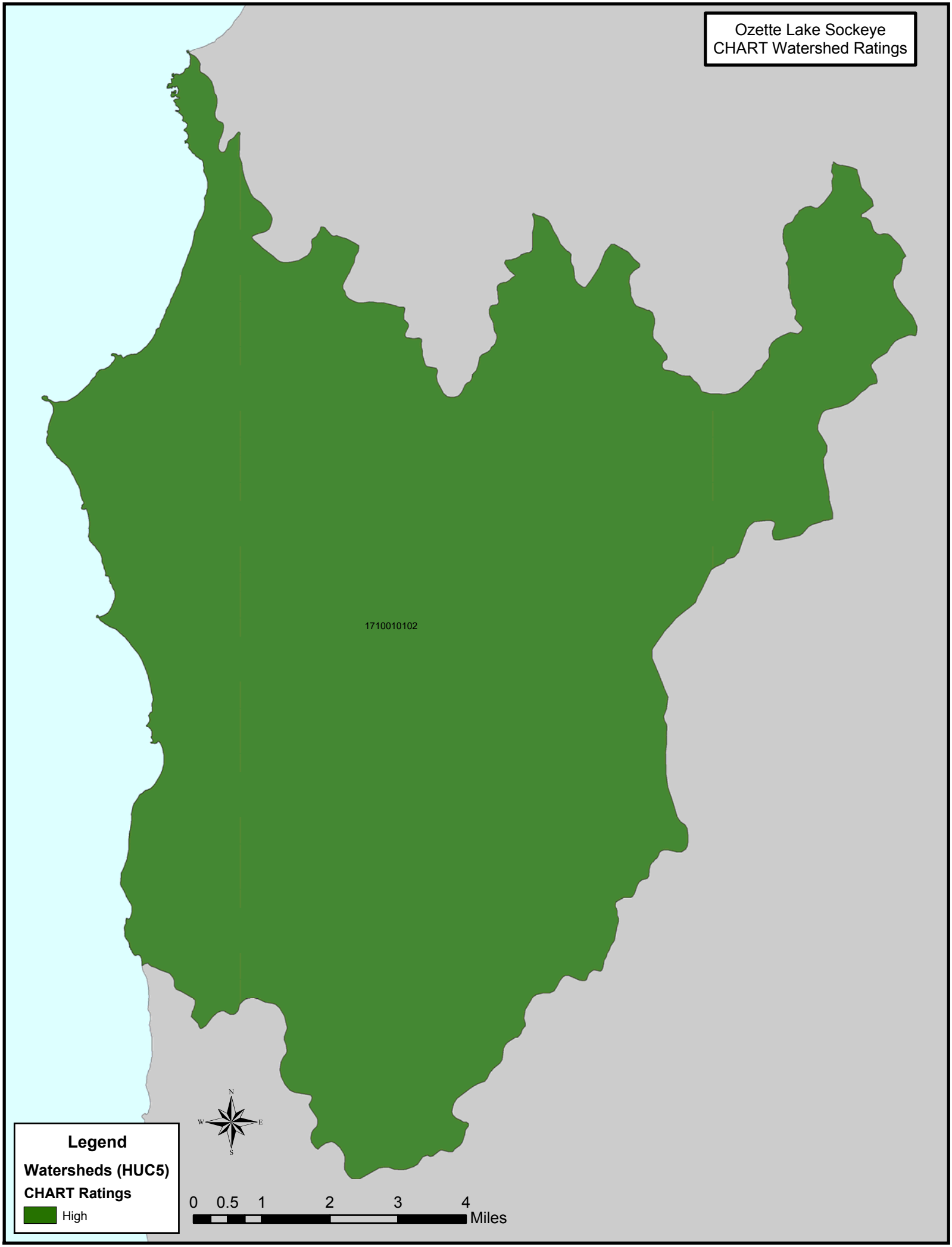

Lower Columbia River Chinook
CHART Watershed Ratings
1708000401
1708000402
1708000403
1708000501
1708000502
1708000503
1708000603
1708000305
1708000507
1708000505
1708000405
1708000404
1708000504
1708000304
1708000506
1708000602
1708000306
1708000508
1708000601
1708000303
1708000302
1708000301
1708000206
1707010509
1708000205
1707010511
1707010510
1709001202
1708000109
1708000106
1707010513
1707010512
1707010508
1708000107
1709001203
1708000108
1707010507
1709001201
1708000105
1707010506
1708000104
1708000103
1709000704
1709001105
1708000102
1709001106
1708000101
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
N
W
E
S
0
5
10
20
30
40
Miles

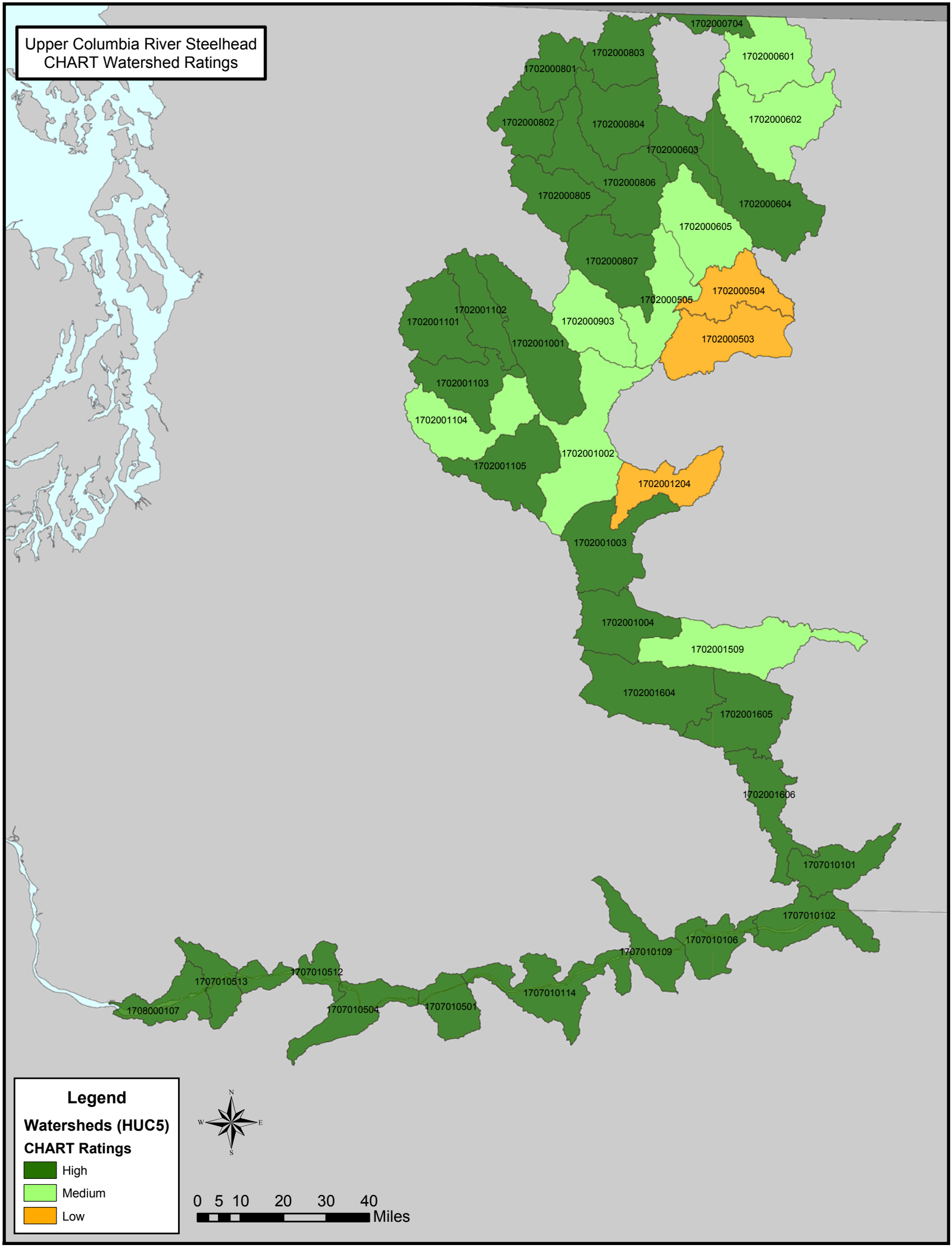

Upper Willamette River Chinook
CHART Watershed Ratings
1709001202
1709001203
1709001201
1709000806
1709000704
1709001106
1709001105
1709000807
1709000904
1709000906
1709000804
1709000903
1709001104
1709000703
1709000805
1709001103
1709000902
1709000905
1709000901
1709000702
1709001101
1709001102
1709000701
1709000505
1709000306
1709000506
1709000504
1709000603
1709000304
1709000602
1709000305
1709000601
1709000607
1709000606
1709000303
1709000608
1709000302
1709000401
1709000404
1709000406
1709000301
1709000407
1709000405
1709000402
1709000108
1709000110
1709000403
1709000109
1709000205
1709000107
1709000106
1709000104
1709000203
1709000201
1709000202
1709000102
1709000103
1709000105
1709000101
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
N
W
E
S
0 5 10 20 30 40
Miles

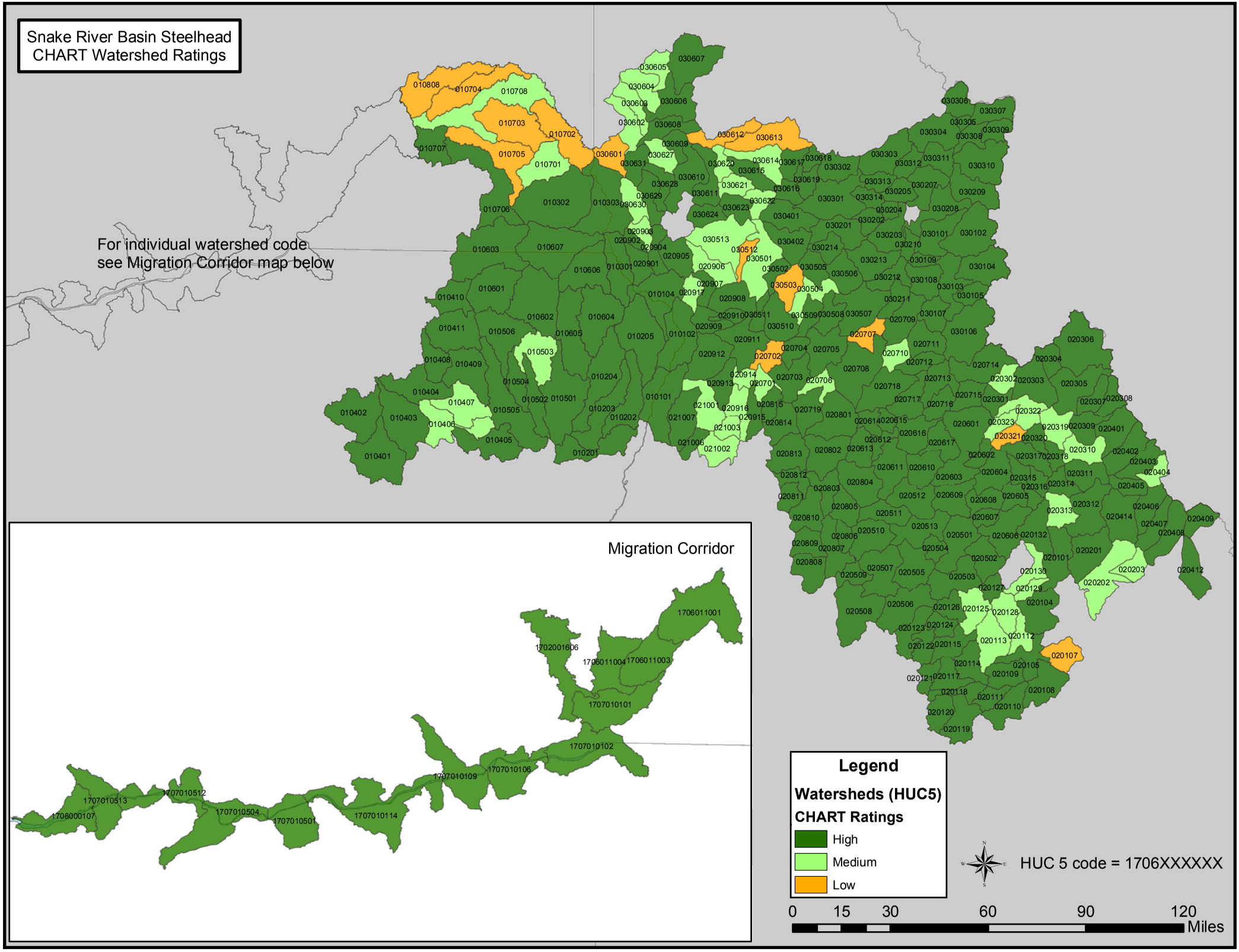

Upper Columbia River Spring Chinook
CHART Watershed Ratings
1702000803
1702000801
1702000802
1702000804
1702000806
1702000805
1702000807
1702000505
1702001102
1702001101
1702001001
1702001103
1702001104
1702001002
1702001105
1702001003
1702001004
1702001604
1702001605
1702001606
1707010101
1707010102
1707010106
1707010109
1707010114
1707010512
1707010513
1707010504
1707010501
1708000107
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
N
W
E
S
0
12.5
25
50
75
100
Miles

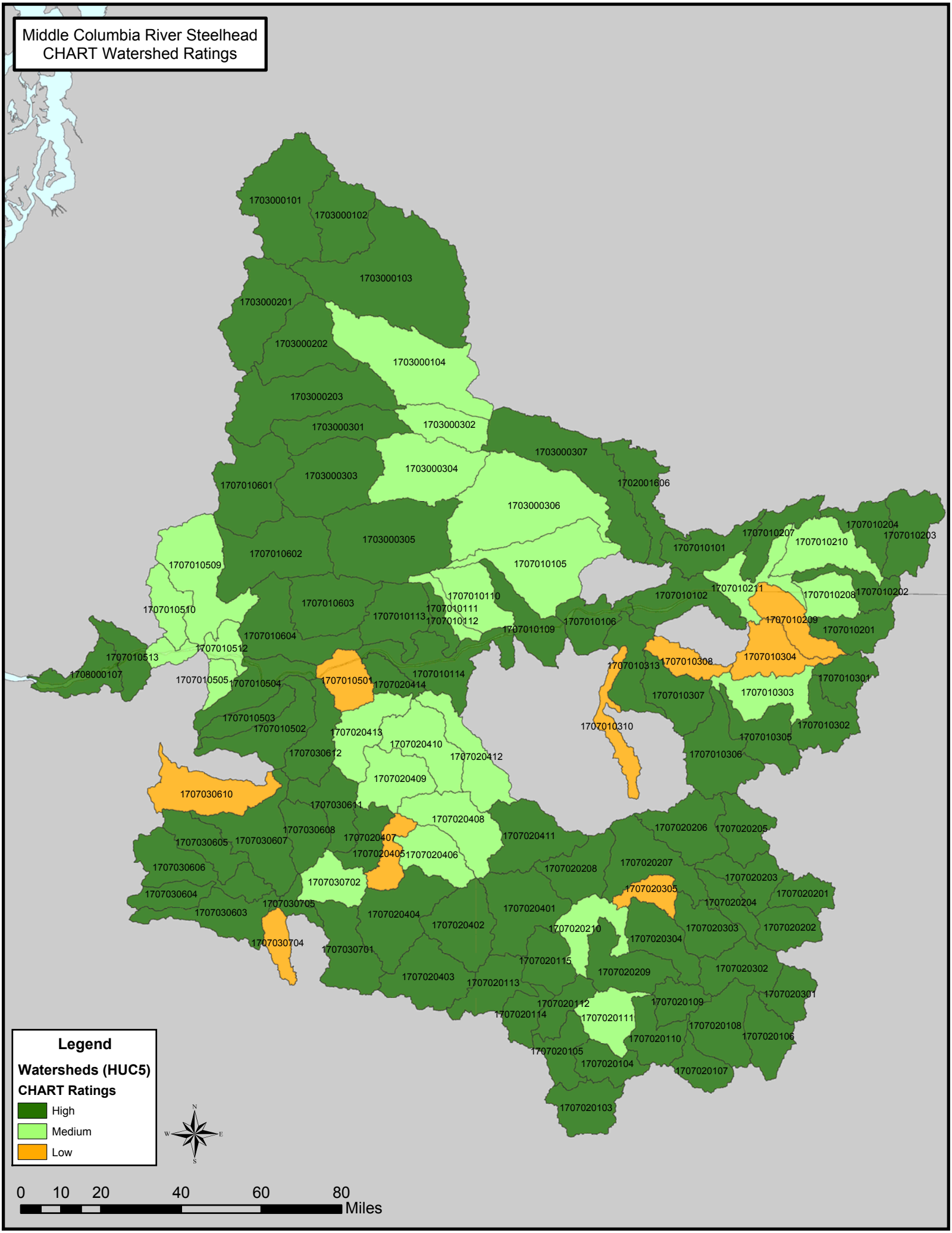

Hood Canal Summer Chum
CHART Watershed Ratings
1711002002
1711002001
1711001908
1711002003
1711001807
1711001806
1711001805
1711001804
1711001803
1711001808
1711001802
1711001701
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
0 2 4 8 12 16
Miles
N
W
E
S

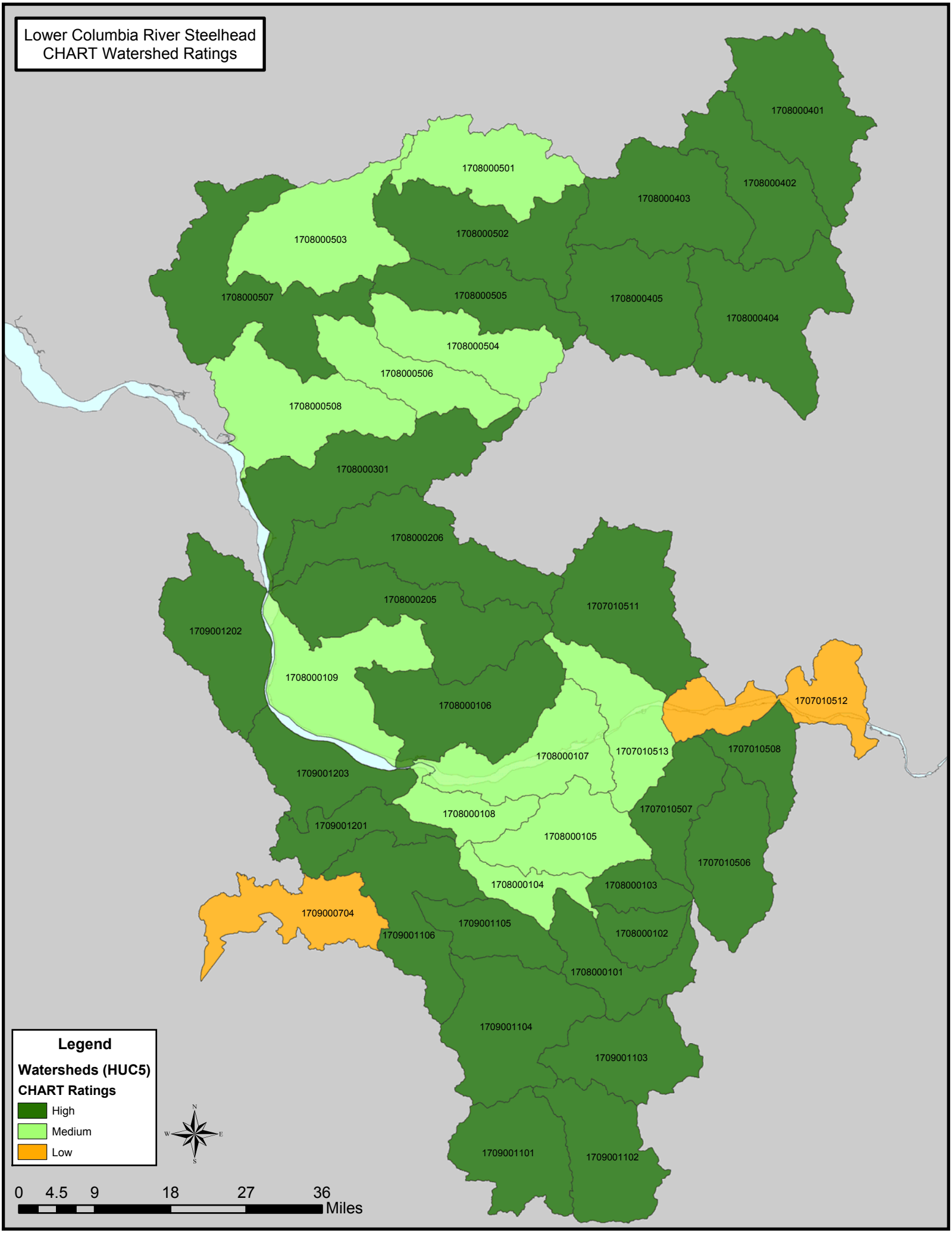

Columbia River Chum
CHART Watershed Ratings
1708000503
1708000603
1708000507
1708000505
1708000305
1708000504
1708000304
1708000506
1708000602
1708000508
1708000301
1708000206
1707010509
1708000205
1708000109
1708000106
1707010512
1707010513
1708000107
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
0
5
10
20
30
40
Miles

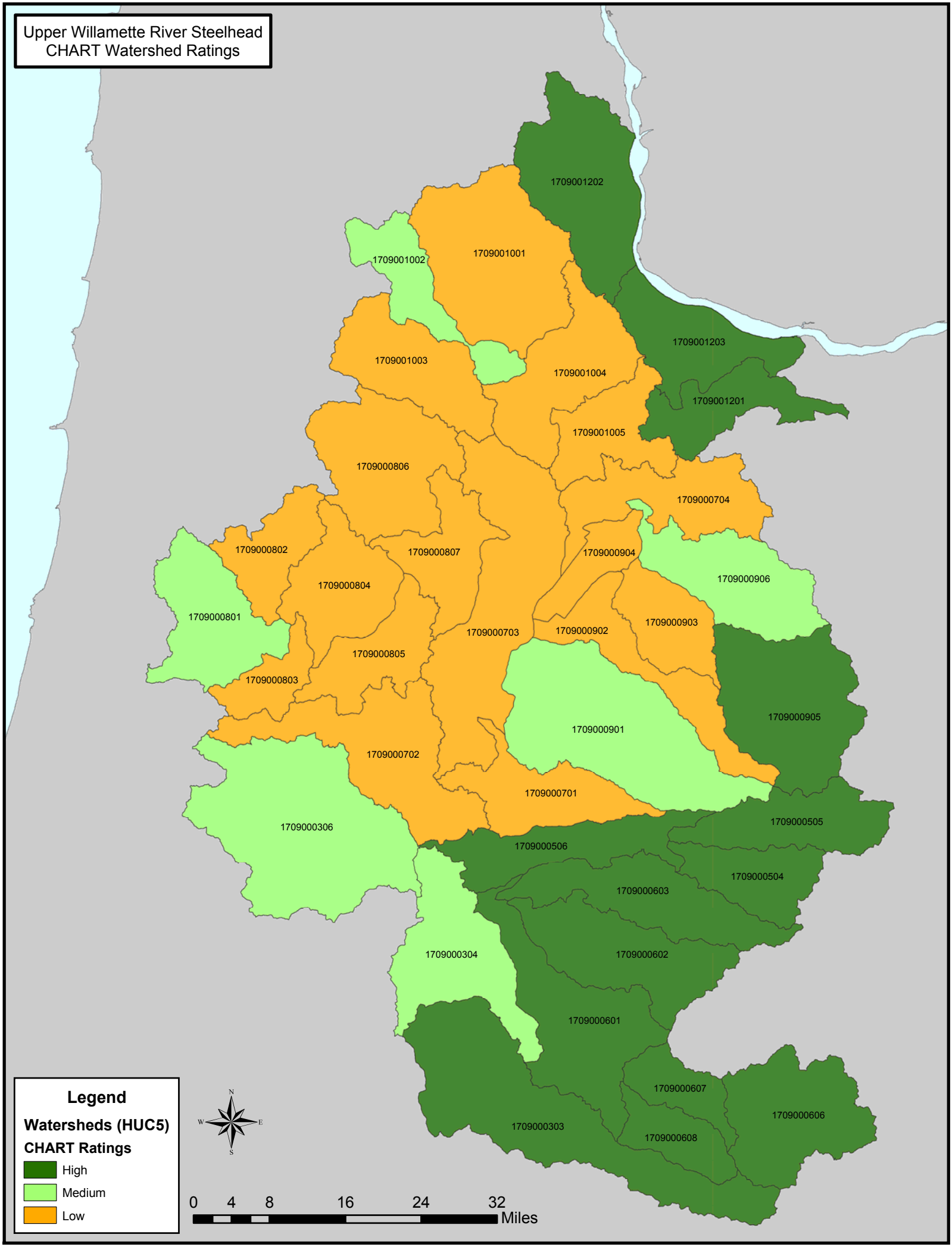

Ozette Lake Sockeye
CHART Watershed Ratings
1710010102
N
W
E
S
Legend
Watersheds (HUC5)
CHART Ratings
High
0 0.5 1 2 3 4
Miles

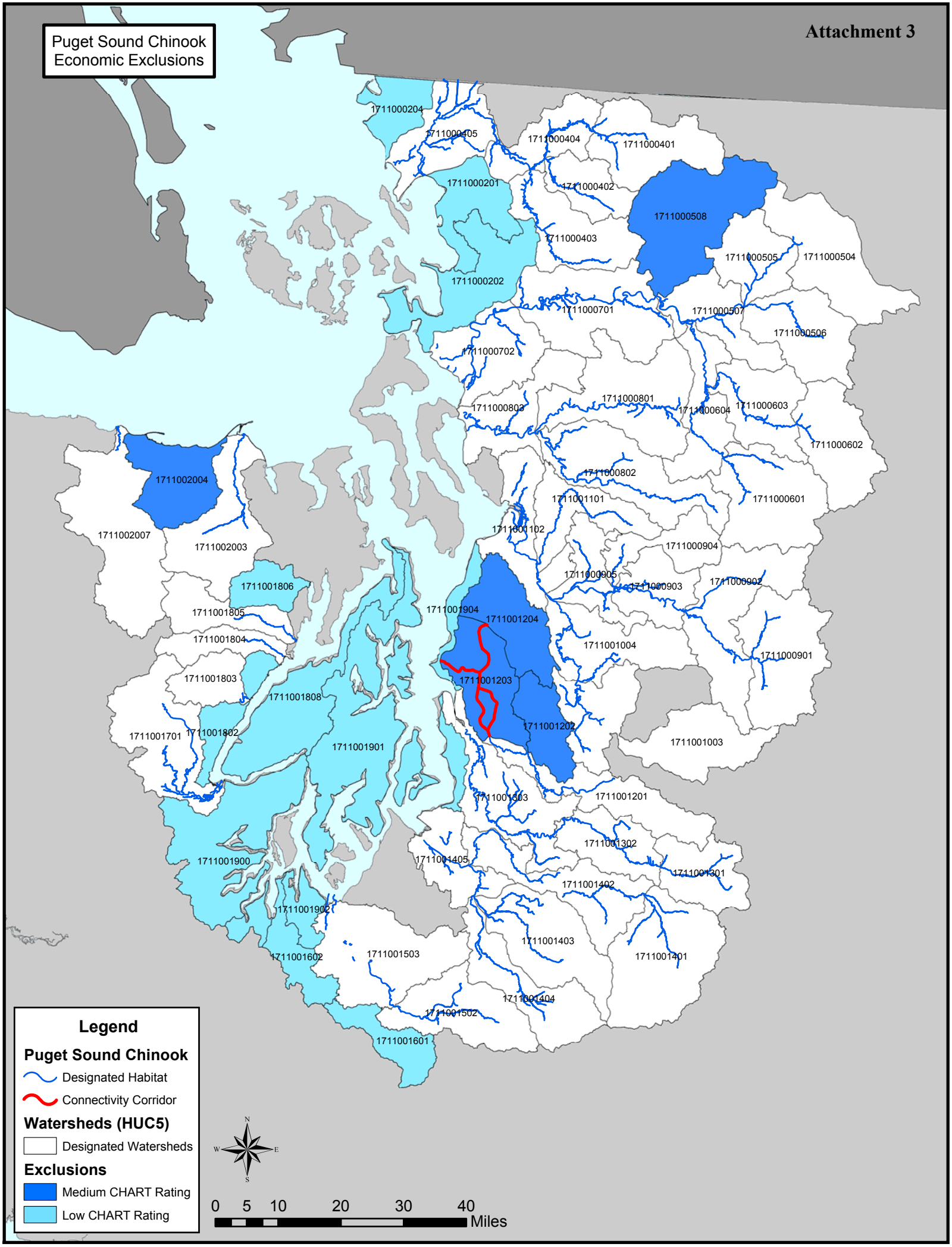

Upper Columbia River Steelhead
CHART Watershed Ratings
1702000704
1702000803
1702000601
1702000801
1702000802
1702000804
1702000602
1702000603
1702000806
1702000805
1702000604
1702000605
1702000807
1702000504
1702000505
1702001102
1702000903
1702001101
1702000503
1702001001
1702001103
1702001104
1702001002
1702001105
1702001204
1702001003
1702001004
1702001509
1702001604
1702001605
1702001606
1707010101
1707010102
1707010106
1707010109
1707010512
1707010513
1707010114
1708000107
1707010504
1707010501
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
N
W
E
S
0 5 10 20 30 40
Miles

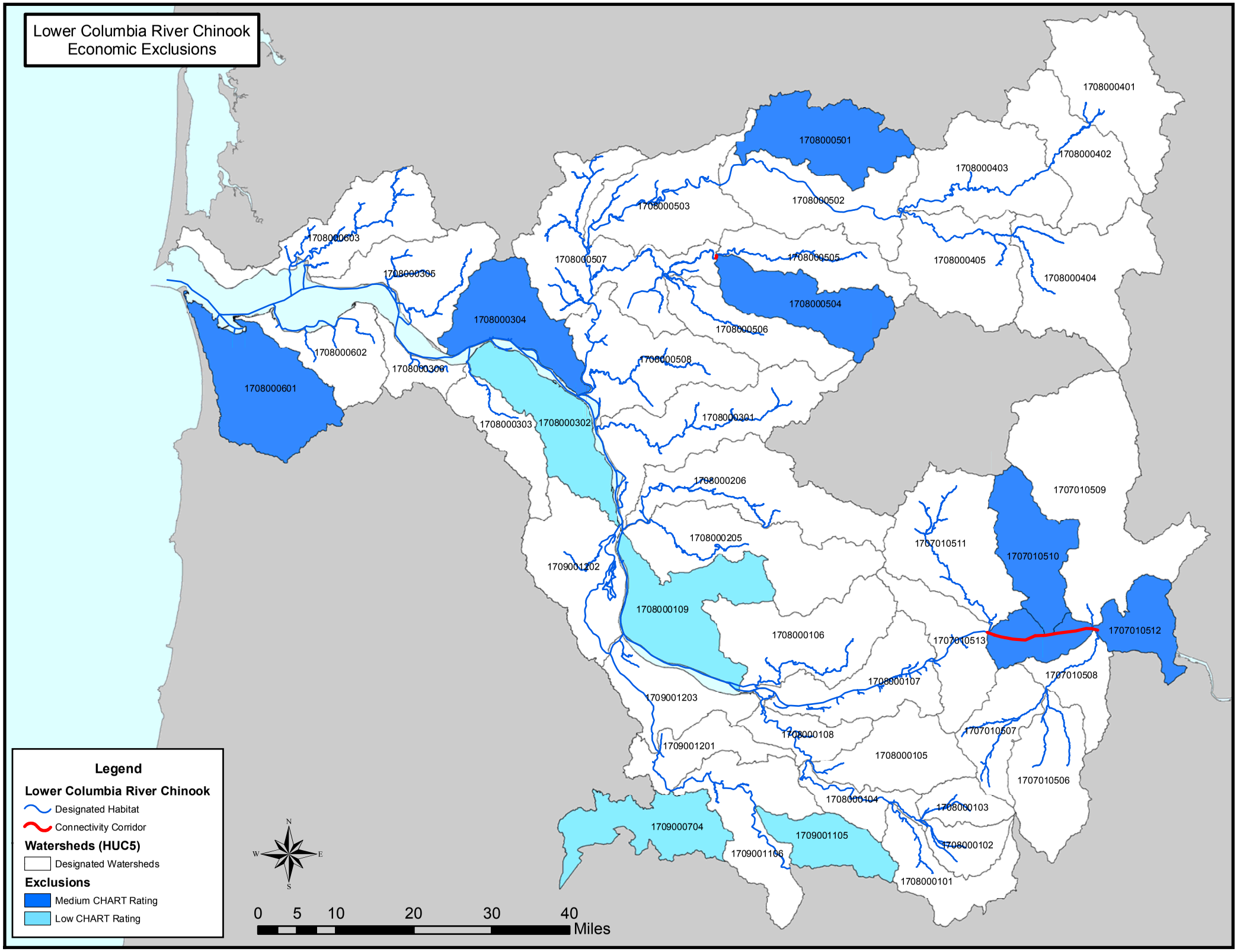

Snake River Basin Steelhead
CHART Watershed Ratings
For individual watershed code
see Migration Corridor map below
Migration Corridor
1706011001
1702001606
1706011004
1706011003
1707010101
1707010102
1707010109
1707010106
1707010513
1707010512
1708000107
1707010504
1707010501
1707010114
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
HUC 5 code = 1706XXXXXX
0
15
30
60
90
120
Miles

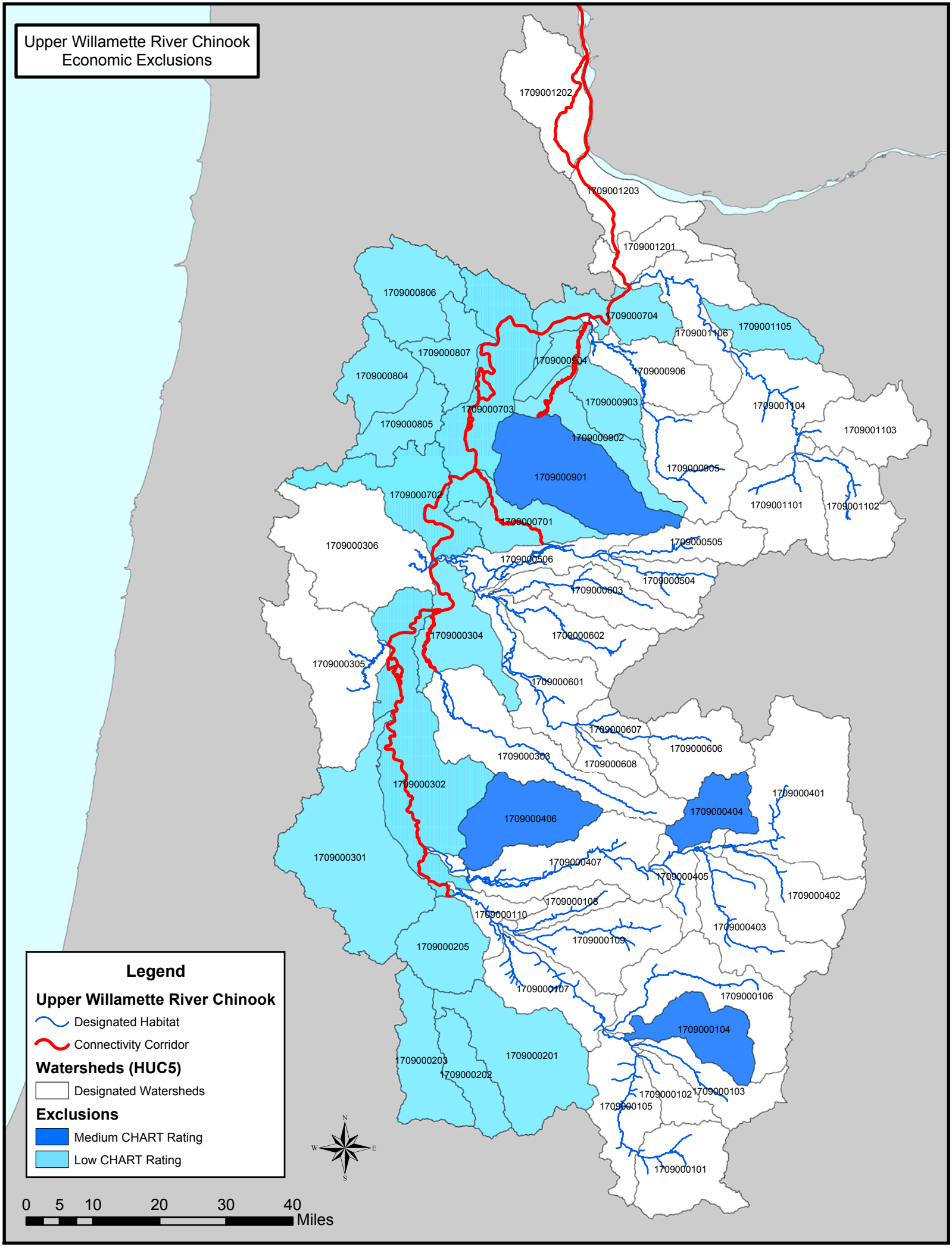

Middle Columbia River Steelhead
CHART Watershed Ratings
1703000101
1703000102
1703000103
1703000201
1703000202
1703000104
1703000203
1703000301
1703000302
1703000307
1703000304
1703000303
1707010601
1702001606
1703000306
1703000305
1707010204
1707010203
1707010207
1707010210
1707010101
1707010602
1707010509
1707010105
1707010211
1707010208
1707010202
1707010102
1707010603
1707010110
1707010111
1707010510
1707010113
1707010112
1707010106
1707010209
1707010201
1707010109
1707010604
1707010512
1707010513
1707010313
1707010308
1707010304
1708000107
1707010505
1707010504
1707010501
1707010114
1707020414
1707010301
1707010307
1707010303
1707010503
1707010502
1707010310
1707010302
1707020413
1707010305
1707020410
1707030612
1707020412
1707010306
1707020409
1707030610
1707030611
1707020408
1707020206
1707020205
1707030608
1707020407
1707020411
1707030605
1707030607
1707020405
1707020406
1707020207
1707030606
1707020208
1707020203
1707030702
1707020305
1707020201
1707030604
1707020204
1707030705
1707020401
1707030603
1707020404
1707020402
1707020303
1707020202
1707020210
1707020304
1707030704
1707030701
1707020115
1707020209
1707020302
1707020403
1707020113
1707020301
1707020112
1707020109
1707020114
1707020111
1707020108
1707020110
1707020106
1707020105
1707020104
1707020107
1707020103
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
N
W
E
S
0
10
20
40
60
80
Miles

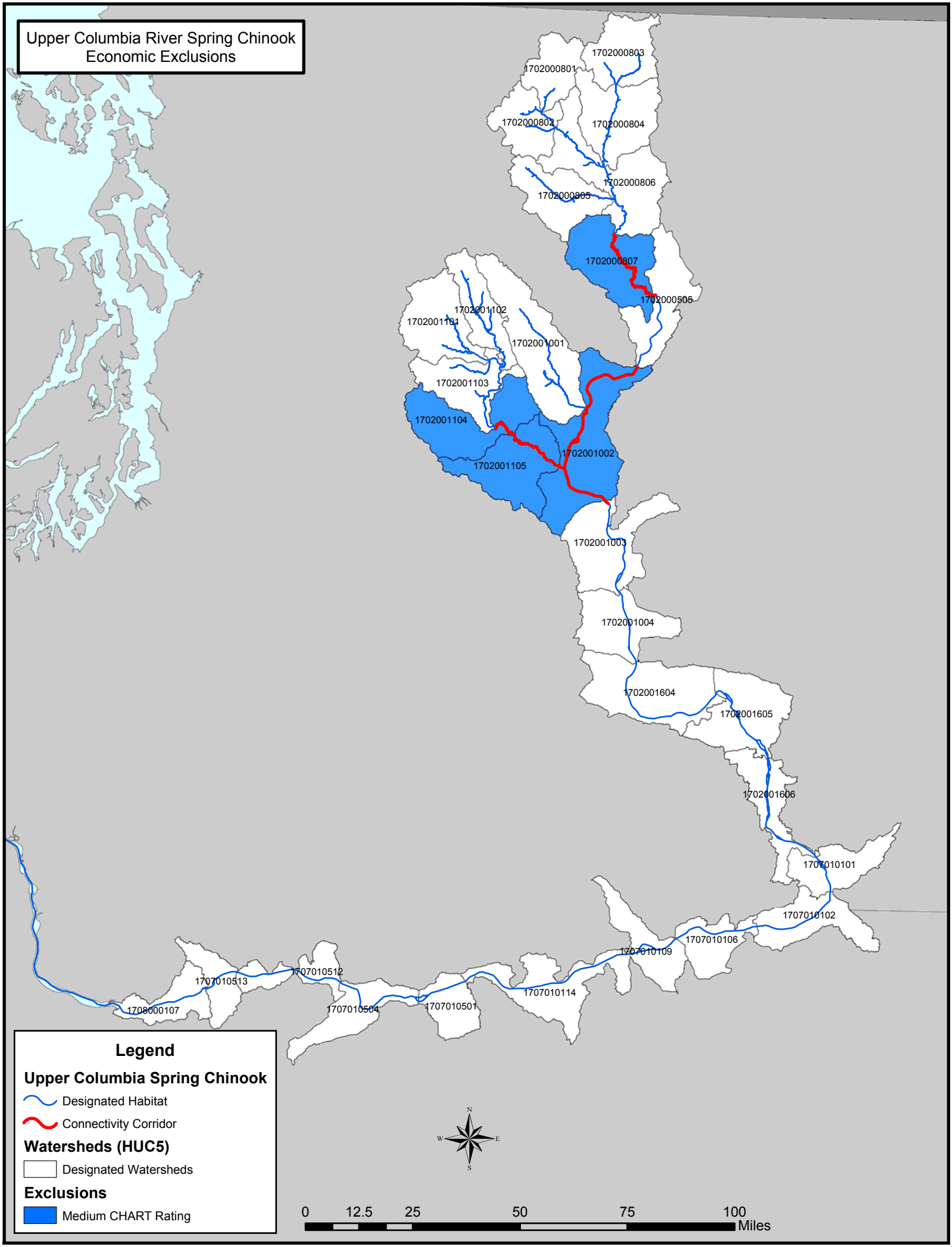

Lower Columbia River Steelhead
CHART Watershed Ratings
1708000401
1708000501
1708000402
1708000403
1708000503
1708000502
1708000507
1708000505
1708000405
1708000404
1708000504
1708000506
1708000508
1708000301
1708000206
1708000205
1707010511
1709001202
1708000109
1708000106
1707010512
1708000107
1707010513
1707010508
1709001203
1708000108
1707010507
1709001201
1708000105
1707010506
1708000104
1708000103
1709000704
1709001105
1709001106
1708000102
1708000101
1709001104
1709001103
1709001101
1709001102
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
N
W
E
S
0
4.5
9
18
27
36
Miles

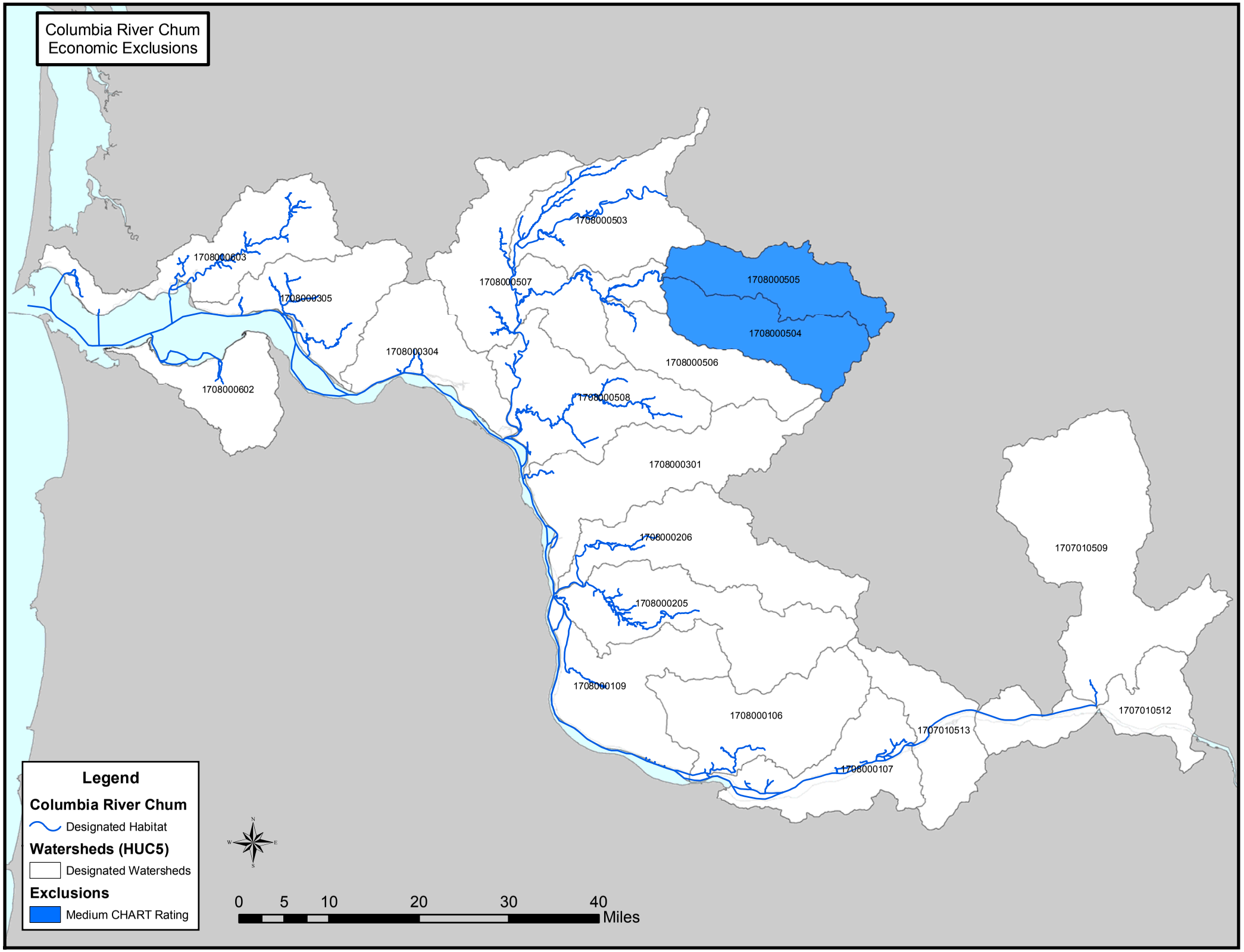

Upper Willamette River Steelhead
CHART Watershed Ratings
1709001202
1709001002
1709001001
1709001203
1709001003
1709001004
1709001201
1709001005
1709000806
1709000704
1709000802
1709000807
1709000904
1709000906
1709000804
1709000801
1709000903
1709000703
1709000902
1709000805
1709000803
1709000905
1709000901
1709000702
1709000701
1709000505
1709000306
1709000506
1709000504
1709000603
1709000304
1709000602
1709000601
1709000607
1709000606
1709000303
1709000608
Legend
Watersheds (HUC5)
CHART Ratings
High
Medium
Low
N
W
E
S
0
4
8
16
24
32
Miles

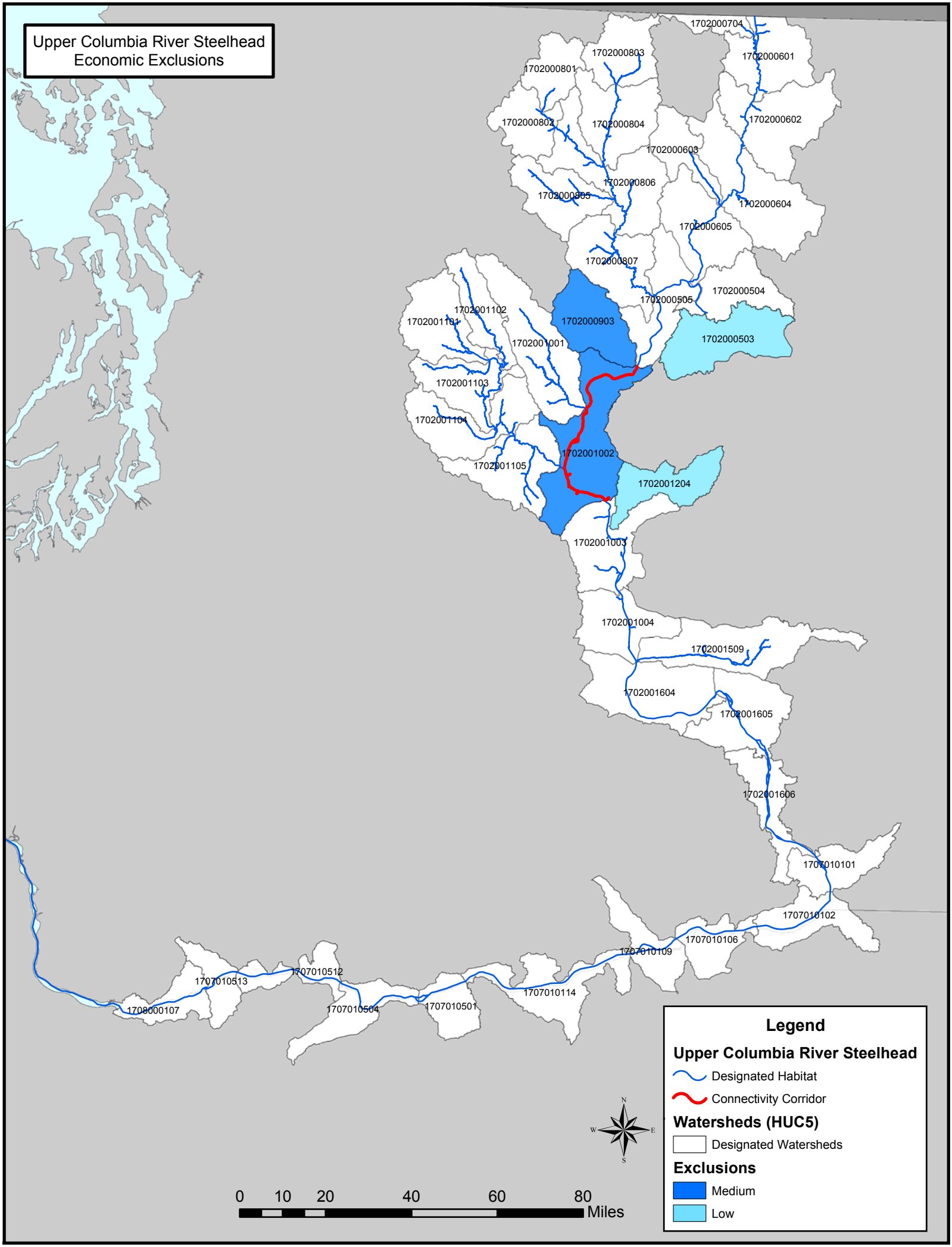

Puget Sound Chinook
Economic Exclusions
Attachment 3
1711000204
1711000405
1711000404
1711000401
1711000201
1711000402
1711000508
1711000403
1711000505
1711000504
1711000202
1711000701
1711000507
1711000506
1711000702
1711000801
1711000803
1711000604
1711000603
1711000602
1711002004
1711000802
1711000601
1711001101
1711002007
1711001102
1711002003
1711000904
1711000905
1711000903
1711000902
1711001806
1711001904
1711001805
1711001204
1711001804
1711001004
1711000901
1711001803
1711001203
1711001808
1711001202
1711001701
1711001802
1711001003
1711001901
1711001503
1711001201
1711001302
1711001900
1711001405
1711001301
1711001402
1711001902
1711001403
1711001401
1711001602
1711001503
1711001404
1711001502
1711001601
Legend
Puget Sound Chinook
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
Low CHART Rating
N
W
E
S
0 5 10 20 30 40
Miles

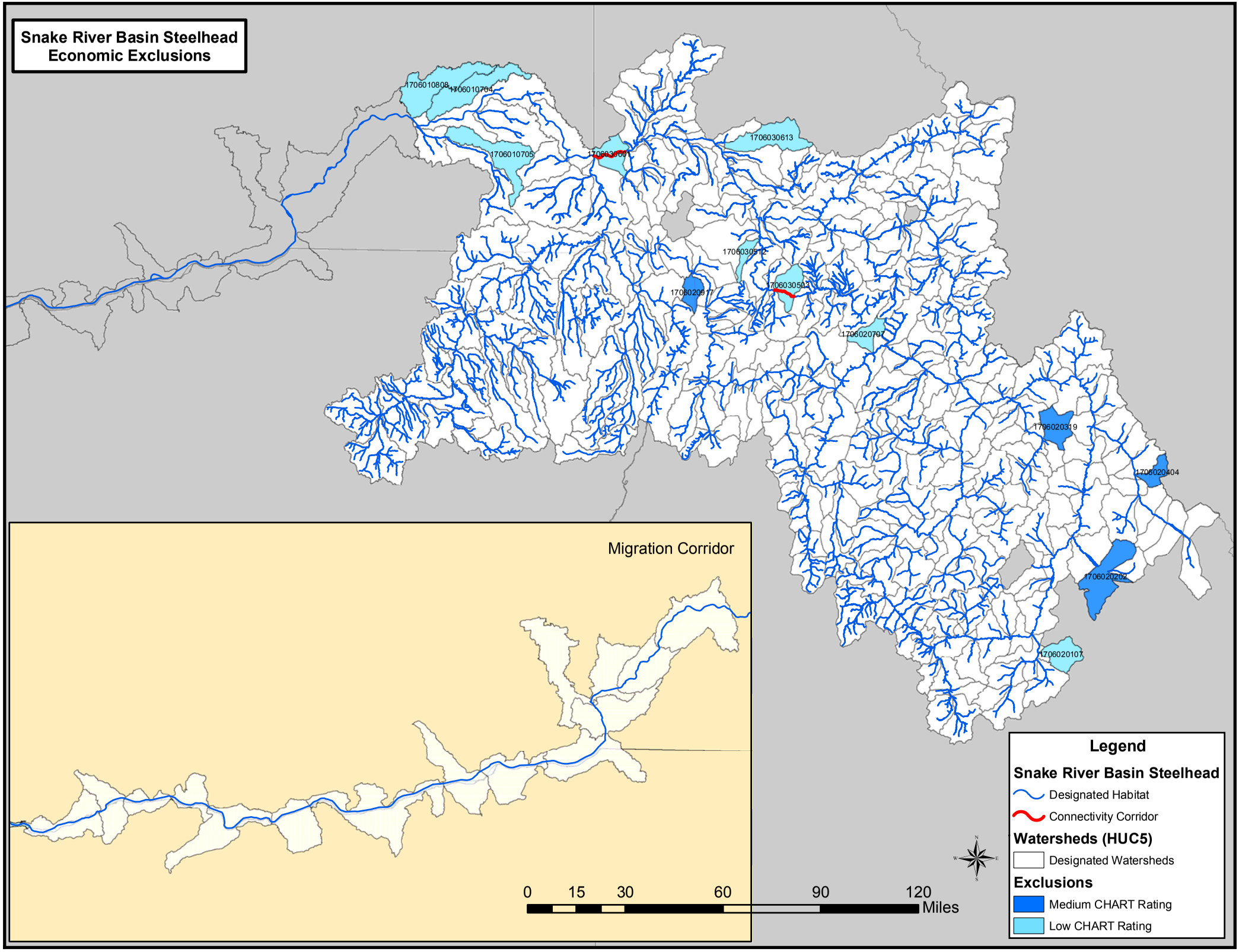

Lower Columbia River Chinook
Economic Exclusions
1708000401
1708000501
1708000402
1708000403
1708000502
1708000503
1708000603
1708000507
1708000505
1708000405
1708000404
1708000305
1708000504
1708000304
1708000506
1708000602
1708000508
1708000306
1708000601
1708000303
1708000302
1708000301
1708000206
1707010509
1708000205
1707010511
1707010510
1709001202
1708000109
1708000106
1707010513
1707010512
1707010508
1708000107
1709001203
1708000108
1707010507
1709001201
1708000105
1707010506
1708000104
1708000103
1709000704
1709001105
1708000102
1709001106
1708000101
Legend
Lower Columbia River Chinook
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
Low CHART Rating
N
W
E
S
0
5
10
20
30
40
Miles

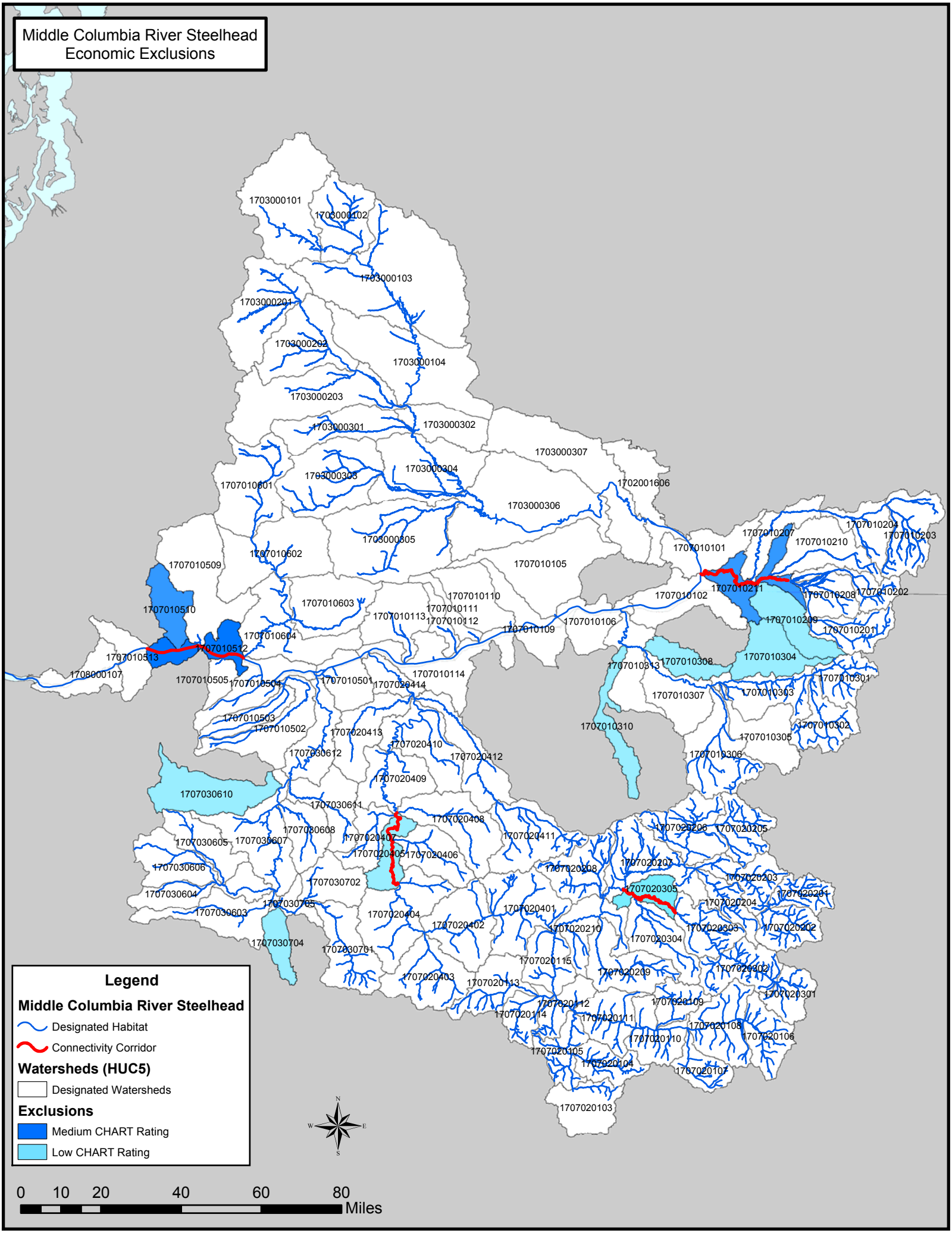

Upper Willamette River Chinook
Economic Exclusions
1709001202
1709001203
1709001201
1709000806
1709000704
1709001106
1709001105
1709000807
1709000904
1709000906
1709000804
1709000903
1709001104
1709000703
1709000805
1709000902
1709001103
1709000905
1709000901
1709000702
1709001101
1709001102
1709000701
1709000306
1709000505
1709000506
1709000504
1709000603
1709000304
1709000602
1709000305
1709000601
1709000607
1709000606
1709000303
1709000608
1709000302
1709000401
1709000404
1709000406
1709000301
1709000407
1709000405
1709000402
1709000108
1709000110
1709000403
1709000205
1709000109
1709000107
1709000106
1709000104
1709000203
1709000201
1709000202
1709000102
1709000103
1709000105
1709000101
Legend
Upper Willamette River Chinook
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
Low CHART Rating
N
W
E
S
0 5 10 20 30 40
Miles

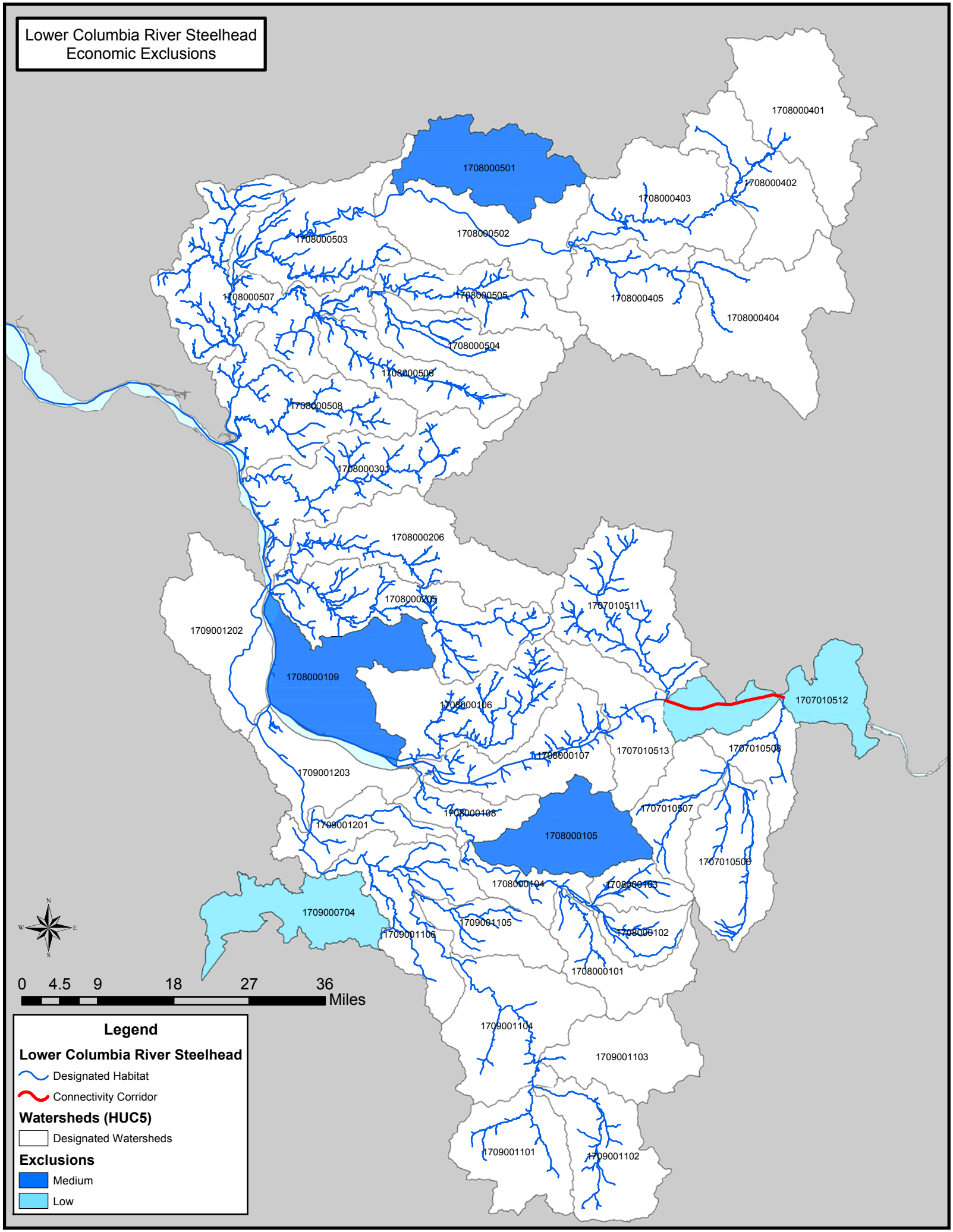

Upper Columbia River Spring Chinook
Economic Exclusions
1702000803
1702000801
1702000802
1702000804
1702000806
1702000805
1702000807
1702000505
1702001102
1702001101
1702001001
1702001103
1702001104
1702001002
1702001105
1702001003
1702001004
1702001604
1702001605
1702001606
1707010101
1707010102
1707010106
1707010109
1707010114
1707010501
1707010504
1707010512
1707010513
1708000107
Legend
Upper Columbia Spring Chinook
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
N
W
E
S
0
12.5
25
50
75
100
Miles

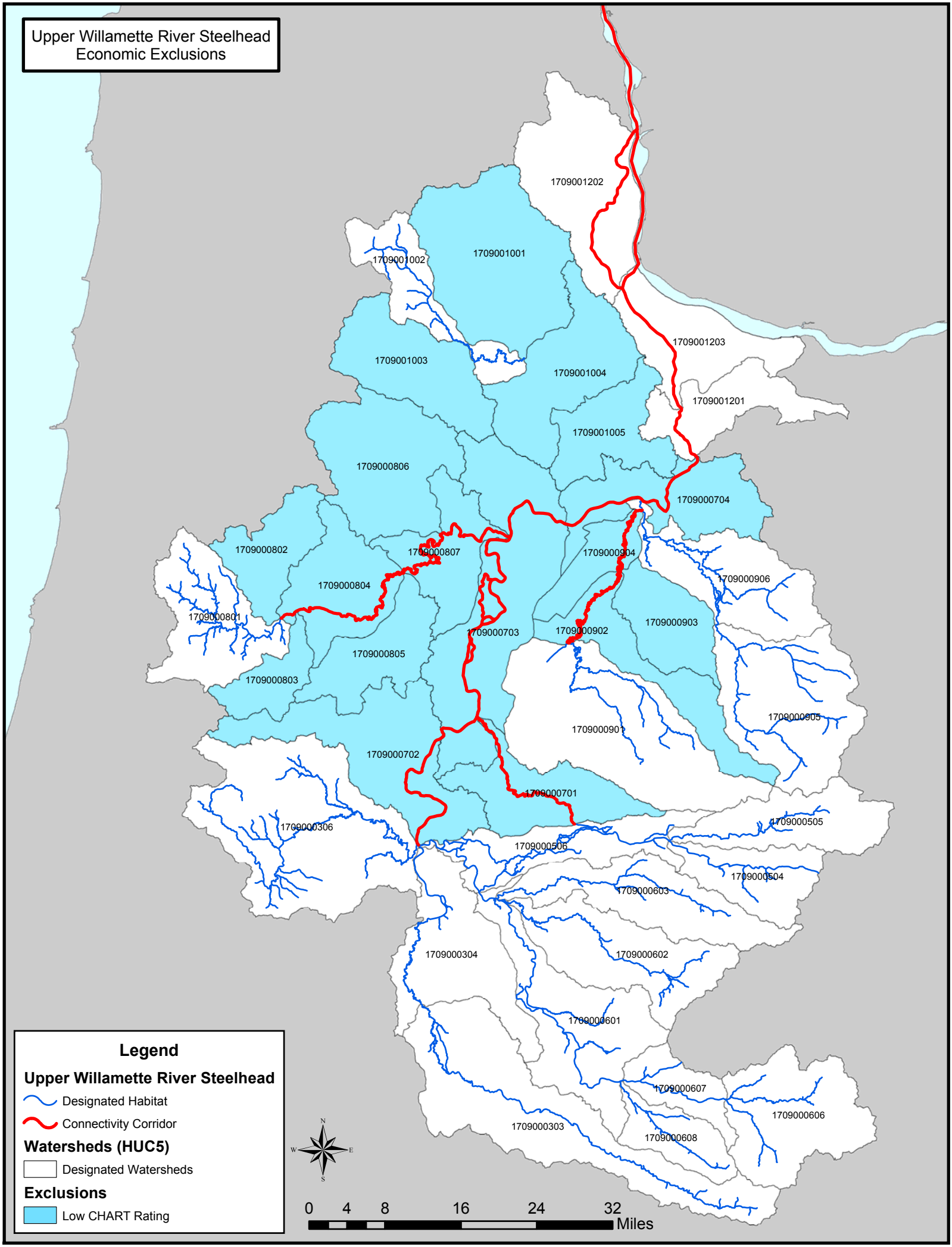

Columbia River Chum
Economic Exclusions
1708000503
1708000603
1708000507
1708000505
1708000305
1708000504
1708000304
1708000506
1708000602
1708000508
1708000301
1708000206
1707010509
1708000205
1708000109
1708000106
1707010512
1707010513
1708000107
Legend
Columbia River Chum
Designated Habitat
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
N
W
E
S
0
5
10
20
30
40
Miles


Upper Columbia River Steelhead
Economic Exclusions
1702000704
1702000803
1702000601
1702000801
1702000802
1702000804
1702000602
1702000603
1702000806
1702000805
1702000604
1702000605
1702000807
1702000504
1702000505
1702001102
1702001101
1702000903
1702000503
1702001001
1702001103
1702001104
1702001002
1702001105
1702001204
1702001003
1702001004
1702001509
1702001604
1702001605
1702001606
1707010101
1707010102
1707010106
1707010109
1707010114
1707010512
1707010513
1707010504
1707010501
1708000107
Legend
Upper Columbia River Steelhead
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium
Low
N
W
E
S
0
10
20
40
60
80
Miles


Snake River Basin Steelhead
Economic Exclusions
1706010808
1706010704
1706010705
1706030601
1706030613
1706030512
1706020917
1706030503
1706020707
1706020319
1706020404
1706020202
1706020107
Migration Corridor
0
15
30
60
90
120
Miles
Legend
Snake River Basin Steelhead
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
Low CHART Rating


Middle Columbia River Steelhead
Economic Exclusions
1703000101
1703000102
1703000103
1703000201
1703000202
1703000104
1703000203
1703000301
1703000302
1703000307
1703000303
1703000304
1707010601
1702001606
1703000306
1703000305
1707010204
1707010203
1707010207
1707010210
1707010101
1707010502
1707010509
1707010105
1707010211
1707010208
1707010202
1707010603
1707010110
1707010111
1707010102
1707010510
1707010113
1707010112
1707010209
1707010106
1707010109
1707010201
1707010604
1707010512
1707010513
1707010304
1707010308
1707010313
1708000107
1707010505
1707010504
1707010501
1707020414
1707010114
1707010301
1707010303
1707010307
1707010503
1707010502
1707010310
1707010302
1707020413
1707010305
1707020410
1707020412
1707010306
1707030612
1707020409
1707030610
1707030611
1707020408
1707020206
1707020205
1707030608
1707020407
1707020411
1707030605
1707030607
1707020405
1707020406
1707020208
1707020207
1707030606
1707030702
1707020203
1707020305
1707020201
1707030604
1707030705
1707020204
1707020401
1707030603
1707020404
1707020402
1707020210
1707020303
1707020202
1707020304
1707030704
1707030701
1707020115
1707020209
1707020302
1707020403
1707020113
1707020301
1707020112
1707020109
1707020114
1707020111
1707020108
1707020110
1707020106
1707020105
1707020104
1707020107
1707020103
Legend
Middle Columbia River Steelhead
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium CHART Rating
Low CHART Rating
N
W
E
S
0
10
20
40
60
80
Miles


Lower Columbia River Steelhead
Economic Exclusions
1708000401
1708000501
1708000402
1708000403
1708000502
1708000503
1708000507
1708000505
1708000405
1708000404
1708000504
1708000506
1708000508
1708000301
1708000206
1708000205
1707010511
1709001202
1708000109
1707010512
1708000106
1707010513
1707010508
1708000107
1709001203
1708000108
1707010507
1709001201
1708000105
1707010506
1708000104
1708000103
1709000704
1709001105
1709001106
1708000102
1708000101
1709001104
1709001103
1709001101
1709001102
0 4.5 9 18 27 36
Miles
Legend
Lower Columbia River Steelhead
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Medium
Low


Upper Willamette River Steelhead
Economic Exclusions
1709001202
1709001002
1709001001
1709001203
1709001003
1709001004
1709001201
1709001005
1709000806
1709000704
1709000802
1709000807
1709000904
1709000906
1709000804
1709000801
1709000903
1709000703
1709000902
1709000805
1709000803
1709000905
1709000901
1709000702
1709000701
1709000306
1709000505
1709000506
1709000504
1709000603
1709000304
1709000602
1709000601
1709000607
1709000606
1709000303
1709000608
Legend
Upper Willamette River Steelhead
Designated Habitat
Connectivity Corridor
Watersheds (HUC5)
Designated Watersheds
Exclusions
Low CHART Rating
N
W
E
S
0
4
8
16
24
32
Miles