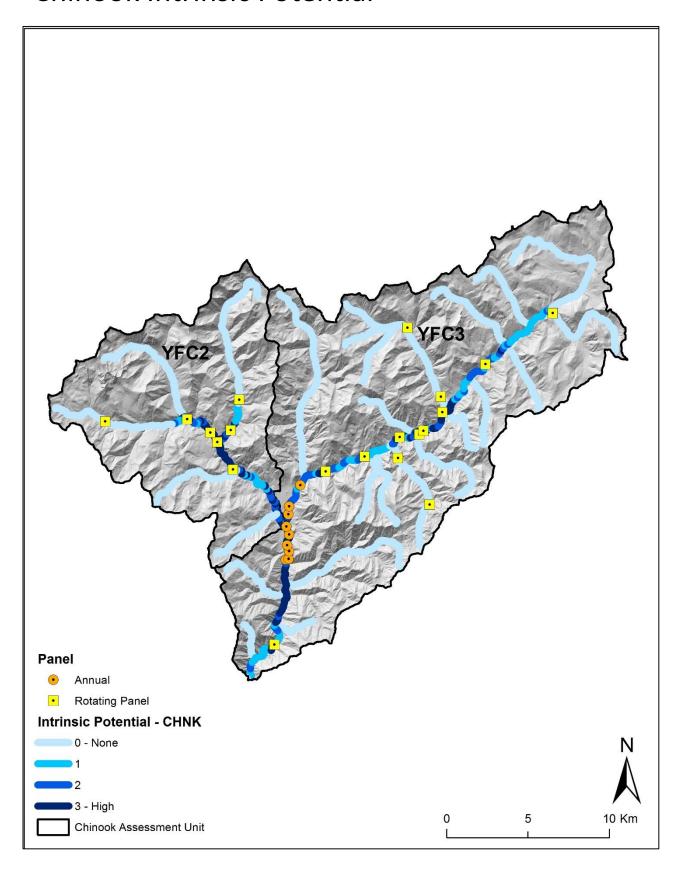
Yankee Fork: Summary of CHaMP Metrics and Modeled Products

- CHaMP metrics are directly measured at each CHaMP site according to probabilistic sampling design.
 Metric included in this summary are:
 - Sinuosity
 - Substrate < 2 mm
 - Substrate < 6 mm
- Modeled products are built from CHaMP data and additional mechanistic or empirical knowledge, assessed at each CHaMP Site
 - Habitat Suitability Index (HSI)
 - Net Rate of Energy Investment (NREI)
 - Quantile Regression Forest Capacity (QRF)
 - Riparian Condition Assessment (RCA)
 - Riparian Vegetation Conversion Type (RVCT)
 - Riparian Condition Departure (RCD)
 - Large Wood Recruitment Potential (LWD)
 - Stream Temperature Exceedance (TEMP)

Summary by Chinook Assessment Unit

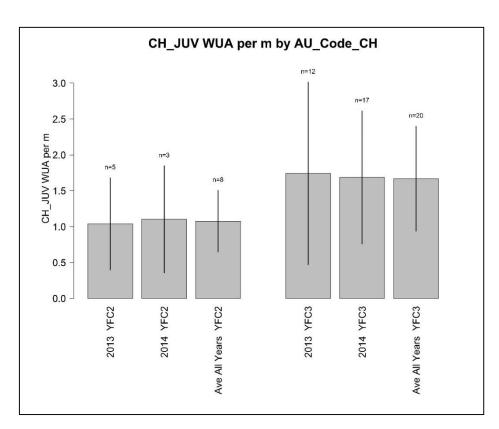
Yankee Fork: Summary of CHaMP Metrics and Modeled Products

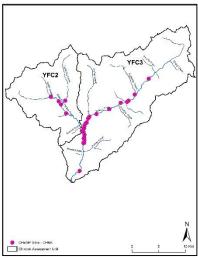
Chinook Intrinsic Potential



Chinook Juvenile Weighted Usable Area

- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable habitat area (m²) per meter of stream length for Juvenile Chinook

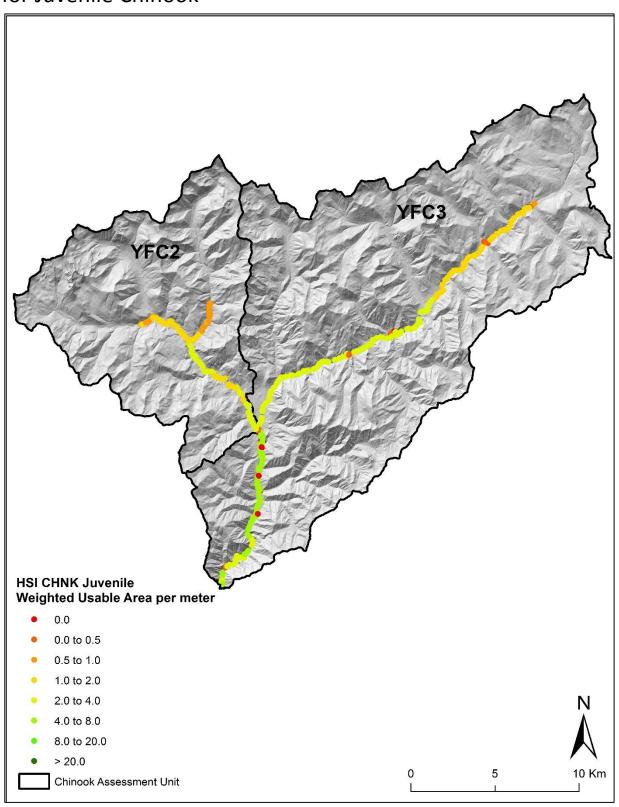




Sup Population	Visit Year	N	Mean	Std Dev
	2013	18	1.187	1.211
Yankee Fork	2014	20	1.463	1.173
	Average of All Years	29	1.292	1.179
	2013	5	1.039	0.747
YFC2	2014	3	1.102	0.556
	Average of All Years	8	1.076	0.698
	2013	12	1.742	1.492
YFC3	2014	17	1.686	1.38
	Average of All Years	20	1.668	1.381

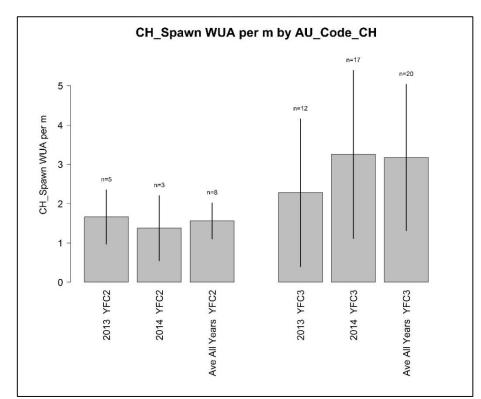
Chinook Juvenile Weighted Usable Area

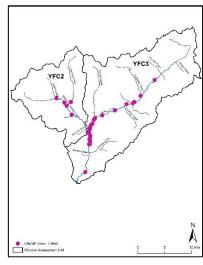
- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable habitat area (m²) per meter of stream length for Juvenile Chinook



Chinook Spawner Weighted Usable Area

- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable Spawning habitat area (m²) per meter of stream length for Chinook

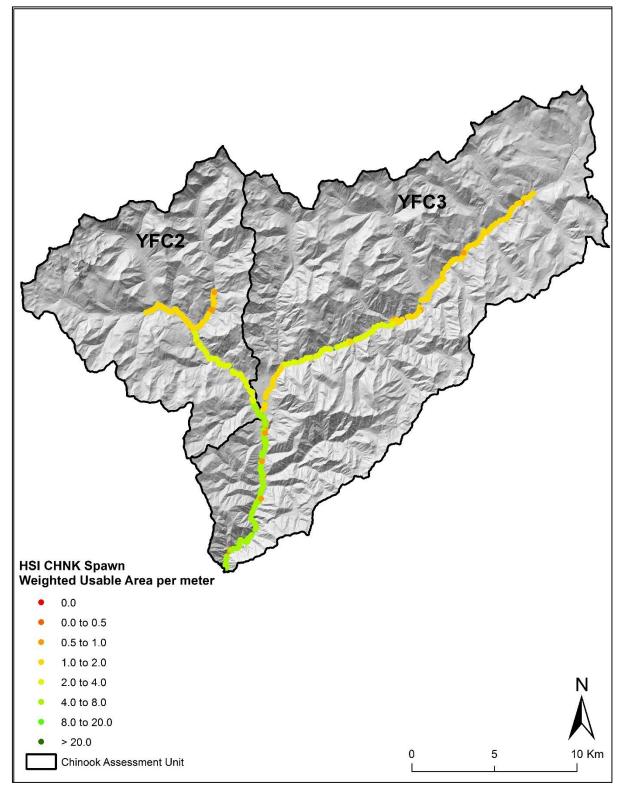




Sup Population	Visit Year	N	Mean	Std Dev
	2013	18	1.667	1.661
Yankee Fork	2014	20	2.536	2.991
	Average of All Years	29	2.26	2.831
	2013	5	1.662	0.846
YFC2	2014	3	1.376	0.621
	Average of All Years	8	1.561	0.776
	2013	12	2.278	2.154
YFC3	2014	17	3.253	3.59
	Average of All Years	20	3.176	3.596

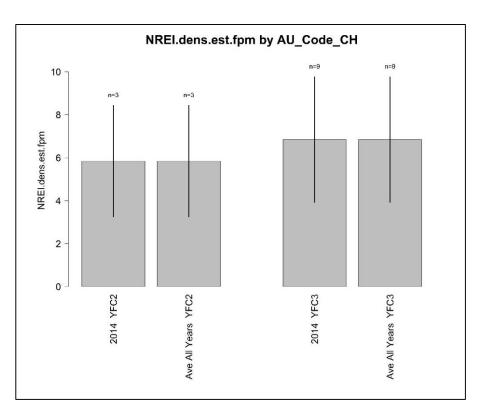
Chinook Spawner Weighted Usable Area

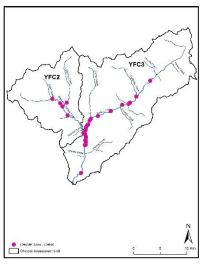
- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable Spawning habitat area (m²) per meter of stream length for Chinook



Juvenile Salmonid Capacity

- Source: Net Rate of Energy Intake (NREI) Model
- Definition: Carrying capacity (fish) per meter of stream length

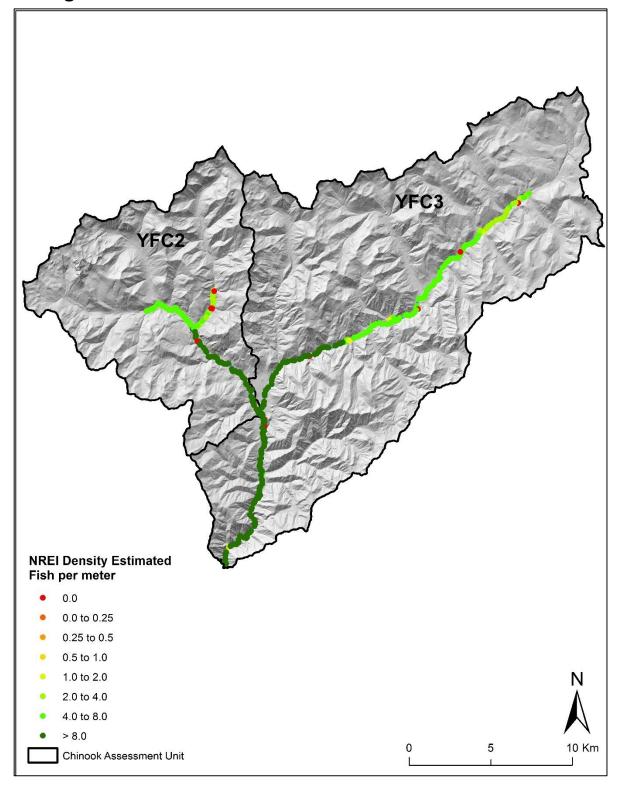




Sup Population	Visit Year	N	Mean	Std Dev
Yankee Fork	2014	12	6.429	3.264
	Average of All Years	12	6.429	3.264
YFC2	2014	3	5.844	1.825
	Average of All Years	3	5.844	1.825
YFC3	2014	9	6.843	3.929
1103	Average of All Years	9	6.843	3.929

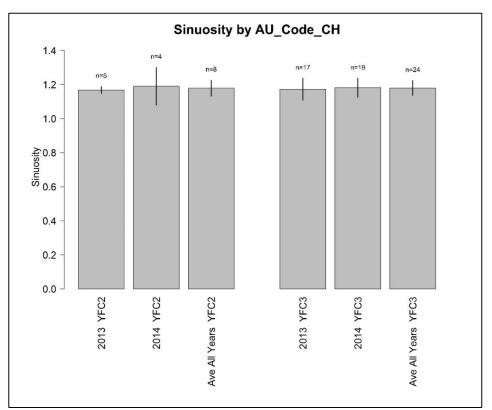
Juvenile Salmonid Capacity

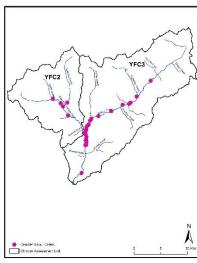
- Source: Net Rate of Energy Intake (NREI) Model
- Definition: Carrying capacity (fish) per meter of stream length



Sinuosity

- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Ratio of the thalweg length to the straight line distance between the start and end points of the thalweg.

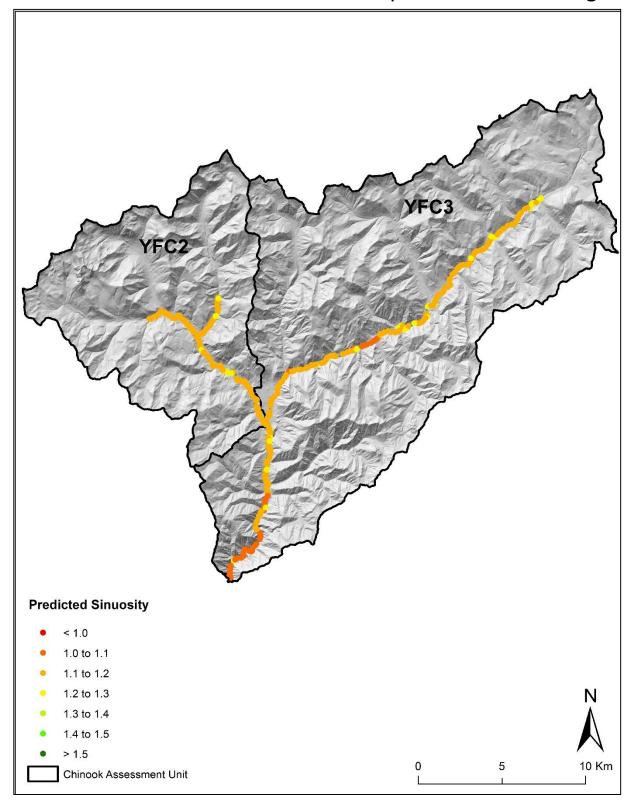




Sup Population	Visit Year	N	Mean	Std Dev
	2013	23	1.197	0.094
Yankee Fork	2014	23	1.184	0.092
	Average of All Years	33	1.192	0.093
	2013	5	1.168	0.027
YFC2	2014	4	1.19	0.102
	Average of All Years	8	1.178	0.073
	2013	17	1.172	0.106
YFC3	2014	19	1.181	0.087
	Average of All Years	24	1.18	0.095

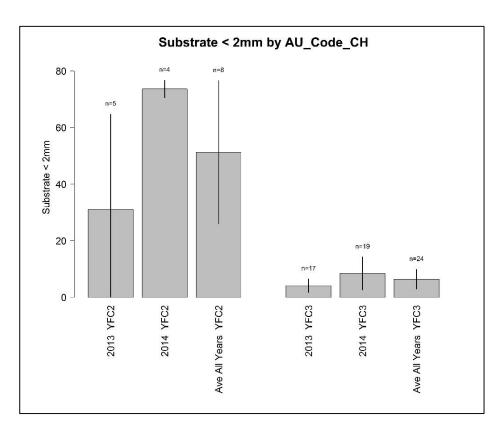
Sinuosity

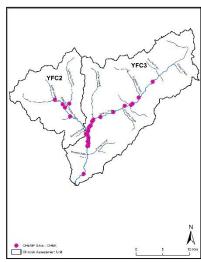
- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Ratio of the thalweg length to the straight line distance between the start and end points of the thalweg.



Substrate < 2 mm

- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <2 mm

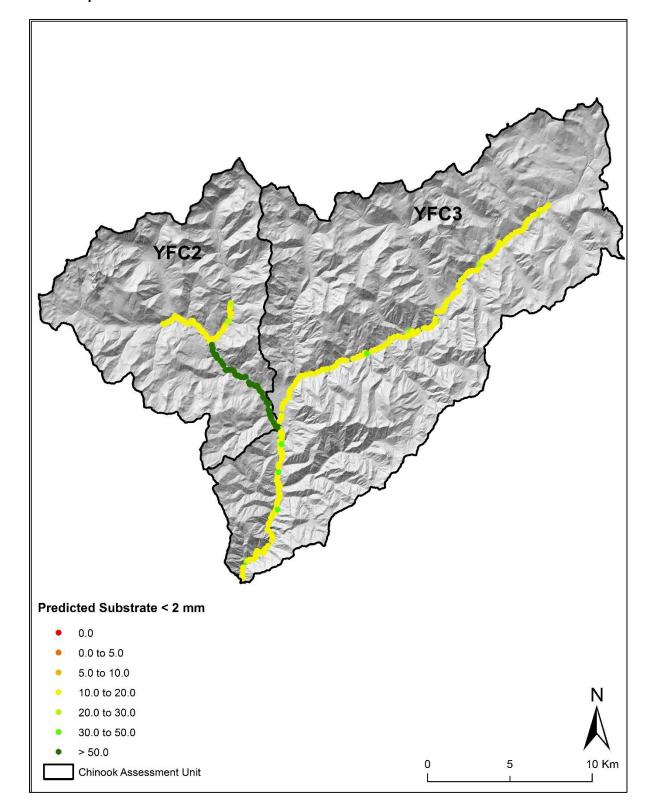




Sup Population	Visit Year	N	Mean	Std Dev
	2013	25	13.11	26.171
Yankee Fork	2014	25	27.925	31.835
	Average of All Years	35	20.377	29.971
	2013	5	31.104	36.593
YFC2	2014	4	73.654	3.15
	Average of All Years	8	51.313	34.457
	2013	17	4.116	9.23
YFC3	2014	19	8.49	12.765
	Average of All Years	24	6.423	10.387

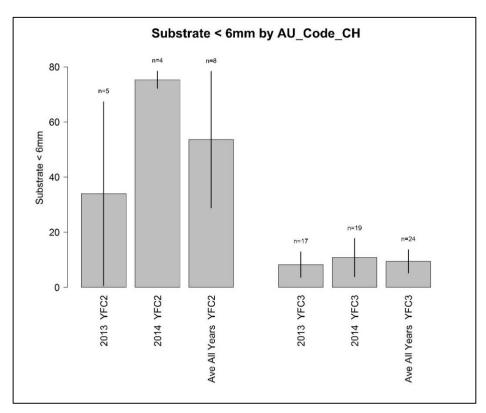
Substrate < 2 mm

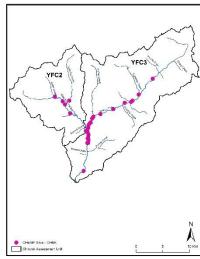
- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <2 mm



Substrate < 6 mm

- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <6 mm

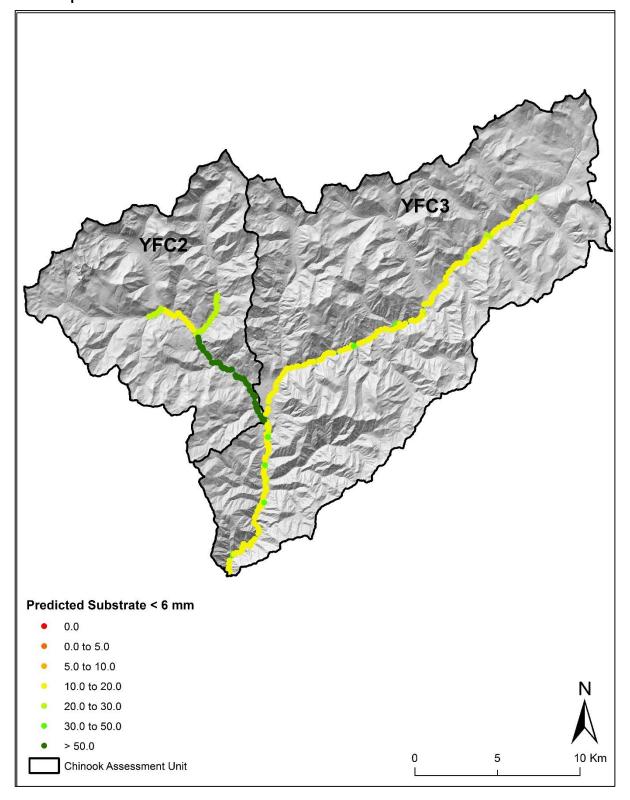




Sup Population	Visit Year	N	Mean	Std Dev
	2013	25	16.586	25.903
Yankee Fork	2014	25	30.038	31.806
	Average of All Years	35	23.162	29.687
	2013	5	33.935	35.997
YFC2	2014	4	75.329	3.226
	Average of All Years	8	53.591	33.743
	2013	17	8.266	10.001
YFC3	2014	19	10.791	13.552
	Average of All Years	24	9.466	11.163

Substrate < 6 mm

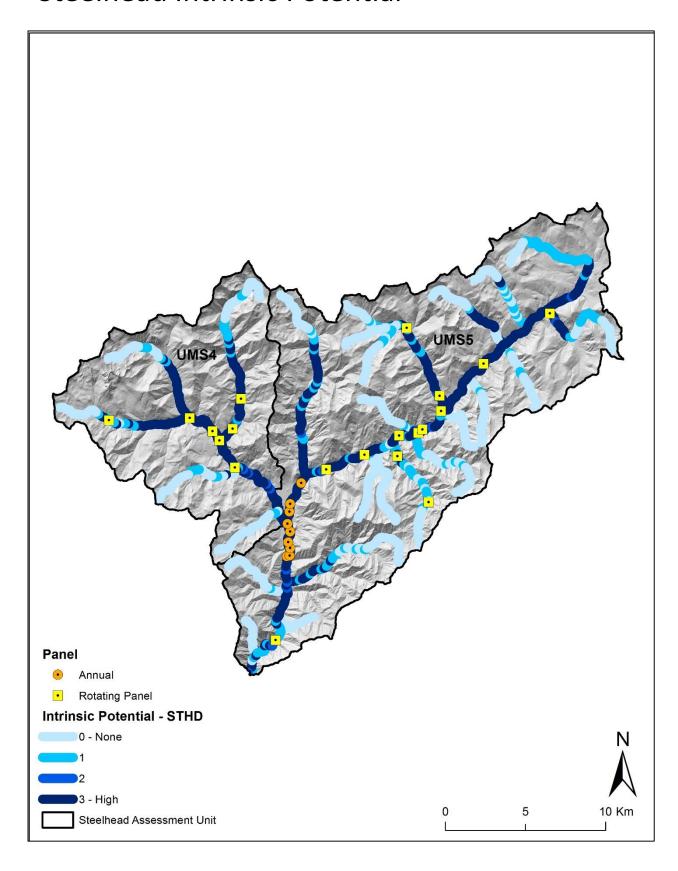
- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <6 mm



Summary by Steelhead Assessment Unit

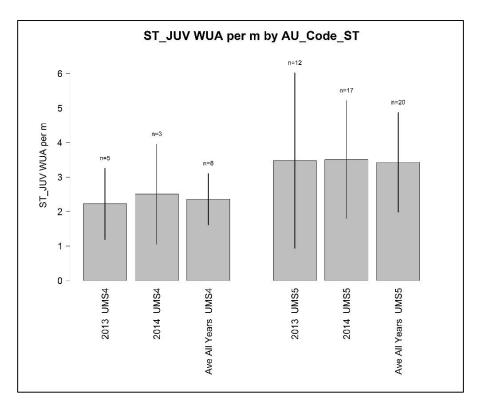
Yankee Fork: Summary of CHaMP Metrics and Modeled Products

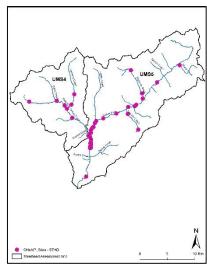
Steelhead Intrinsic Potential



Steelhead Juvenile Weighted Usable Area

- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable habitat area (m²) per meter of stream length for Juvenile Steelhead

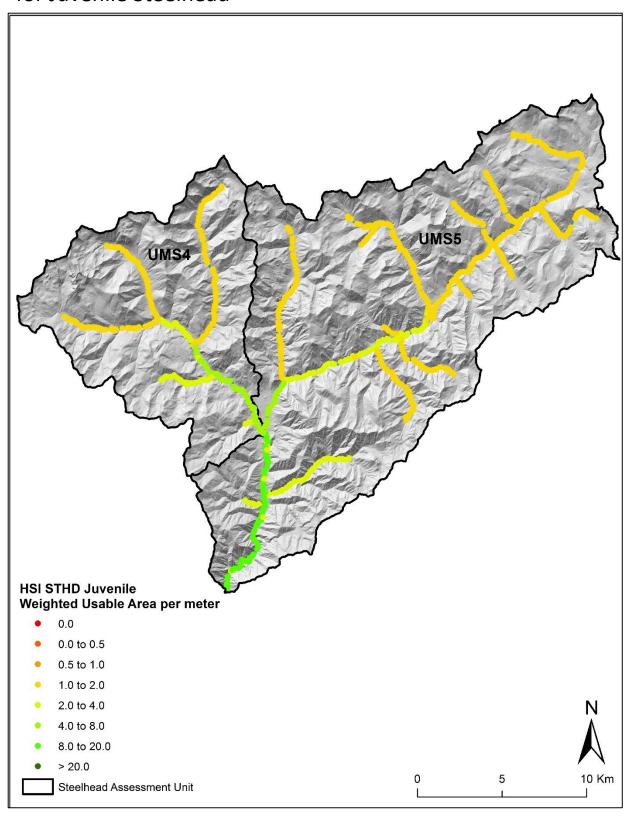




Sup Population	Visit Year	N	Mean	Std Dev
	2013	18	2.466	2.306
All.Sites	2014	20	3.126	2.154
	Average of All Years	29	2.73	2.222
	2013	5	2.219	1.168
UMS4	2014	3	2.507	1.094
	Average of All Years	8	2.357	1.208
	2013	12	3.476	2.974
UMS5	2014	17	3.508	2.527
	Average of All Years	20	3.427	2.639

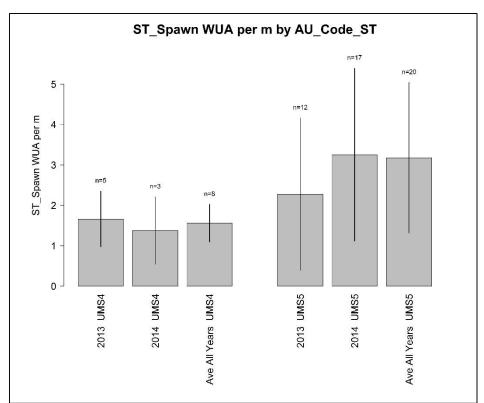
Steelhead Juvenile Weighted Usable Area

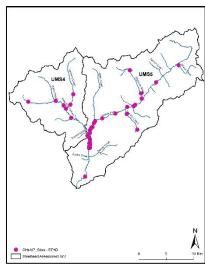
- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable habitat area (m²) per meter of stream length for Juvenile Steelhead



Steelhead Spawner Weighted Usable Area

- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable Spawning habitat area (m²) per meter of stream length for Steelhead

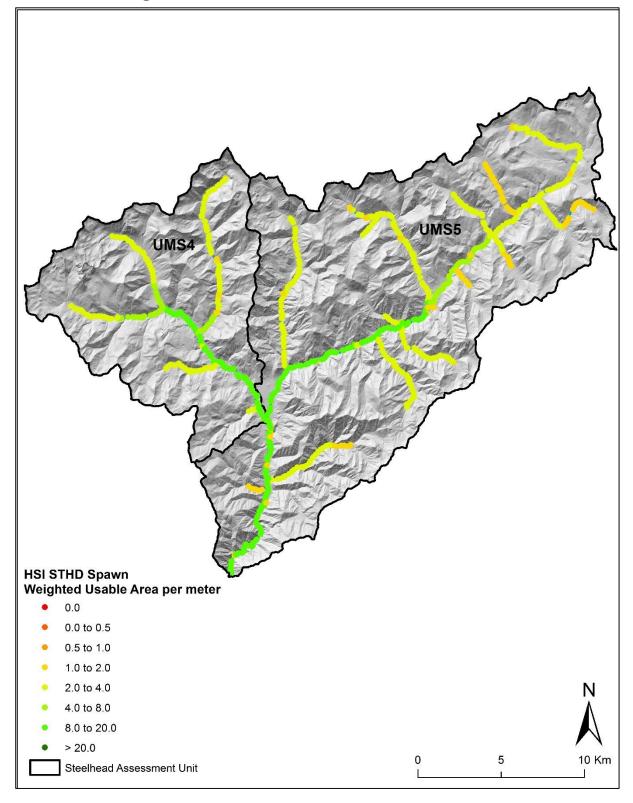




Sup Population	Visit Year	N	Mean	Std Dev
	2013	18	1.666	1.661
All.Sites	2014	20	2.535	2.992
	Average of All Years	29	2.26	2.831
	2013	5	1.661	0.846
UMS4	2014	3	1.375	0.621
	Average of All Years	8	1.56	0.775
	2013	12	2.277	2.153
UMS5	2014	17	3.252	3.591
	Average of All Years	20	3.176	3.597

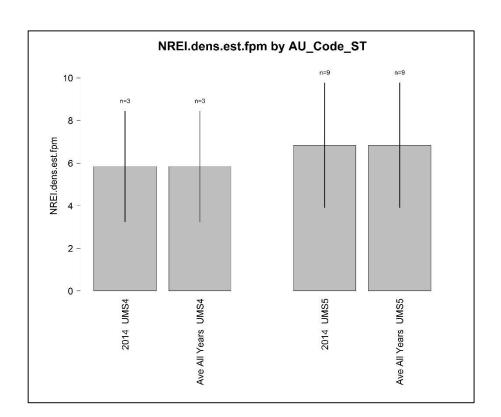
Steelhead Spawner Weighted Usable Area

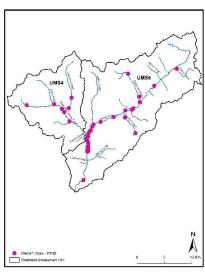
- Source: Habitat Suitability Index (HSI) Model
- Definition: Suitable Spawning habitat area (m²) per meter of stream length for Steelhead



Juvenile Salmonid Capacity

- Source: Net Rate of Energy Intake (NREI) Model
- Definition: Carrying capacity (fish) per meter of stream length

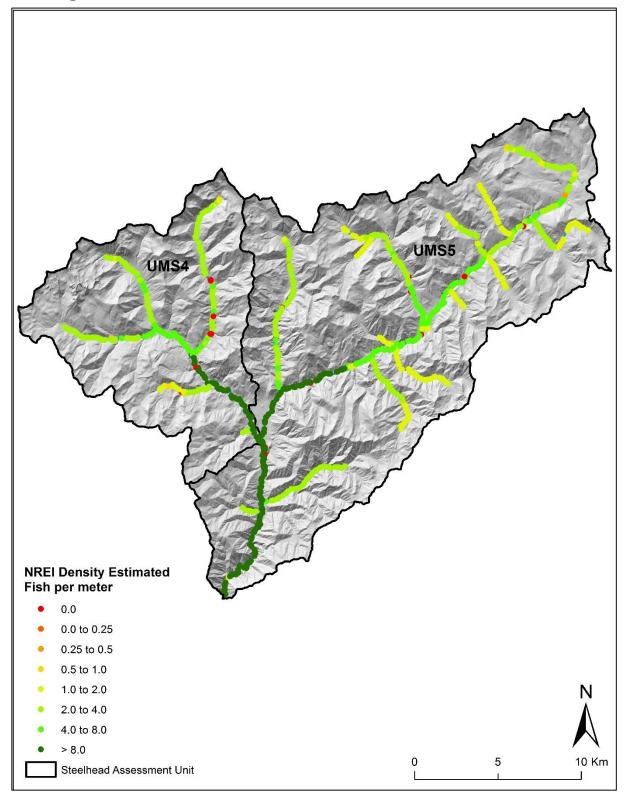




Sup Population	Visit Year	N	Mean	Std Dev
All Citor	2014	12	6.429	3.264
All.Sites	Average of All Years	12	6.429	3.264
UMS4	2014	3	5.844	1.825
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UMS5	2014	9	6.843	3.929
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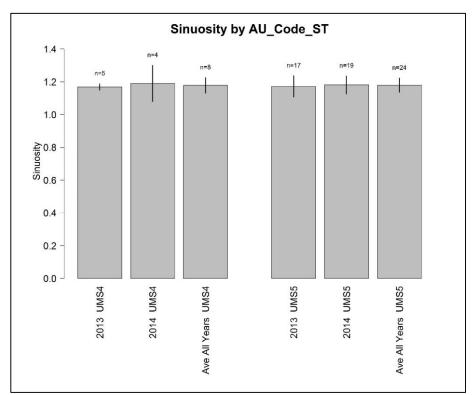
Juvenile Salmonid Capacity

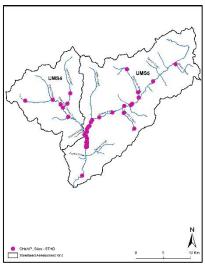
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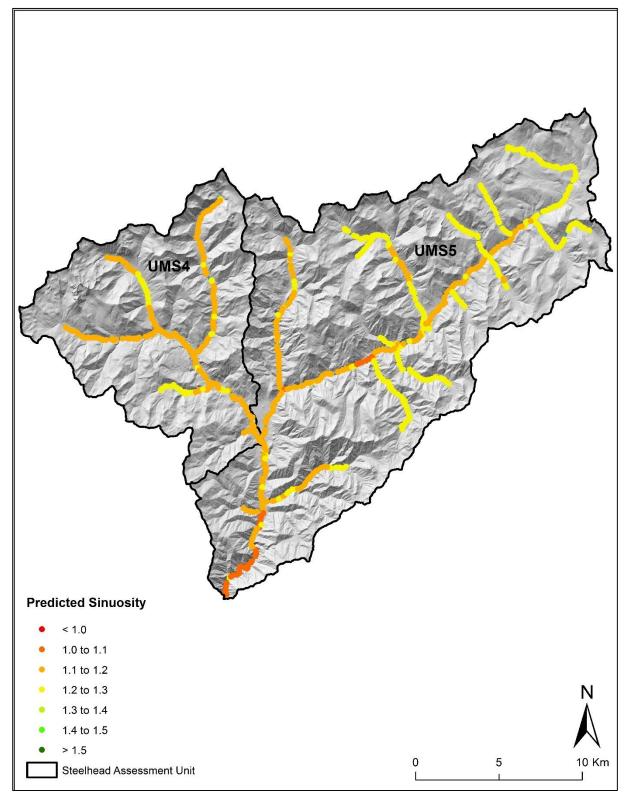




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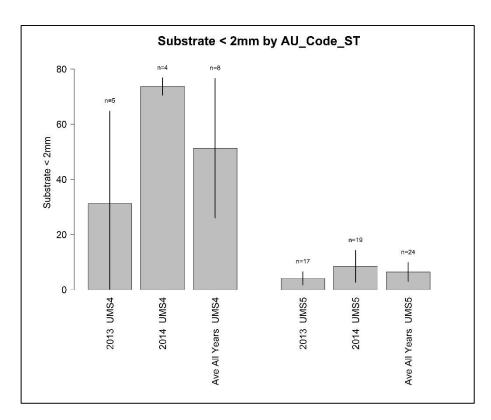
Sinuosity

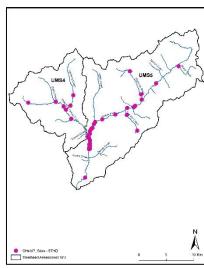
- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
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Substrate < 2mm

- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <2 mm

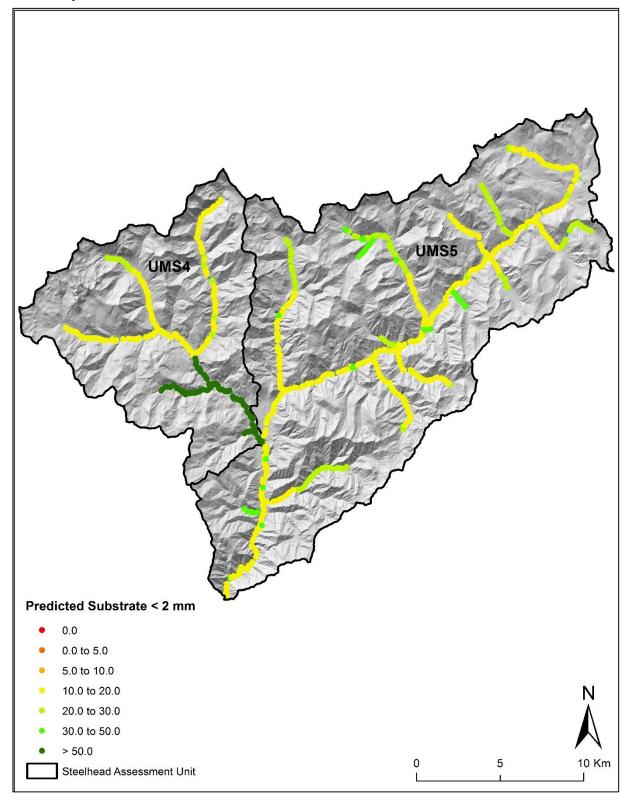




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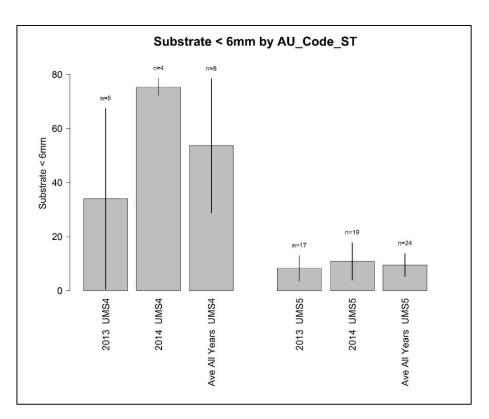
Substrate < 2mm

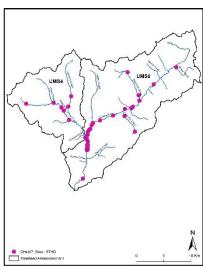
- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <2 mm



Substrate < 6 mm

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- Definition: Average percentage of pool tail substrates comprised of fine sediment <6 mm

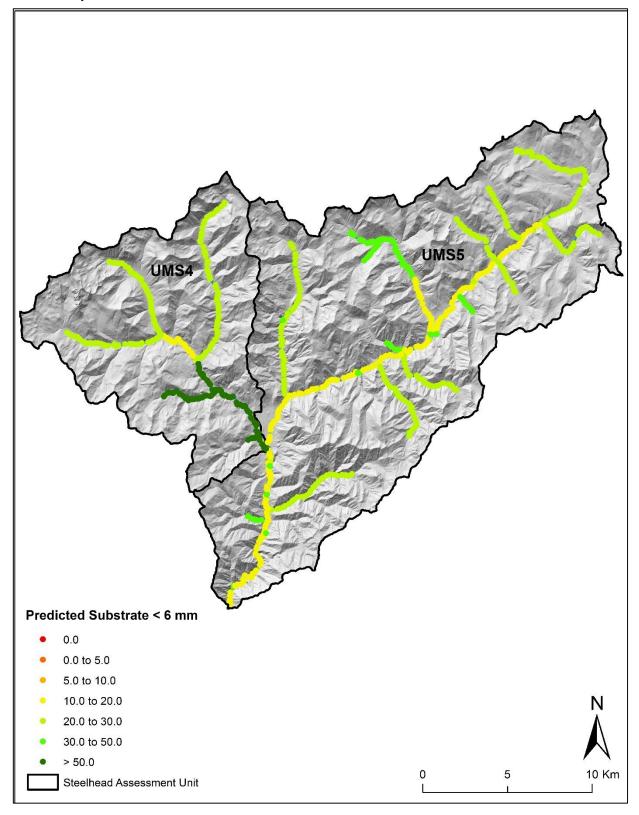


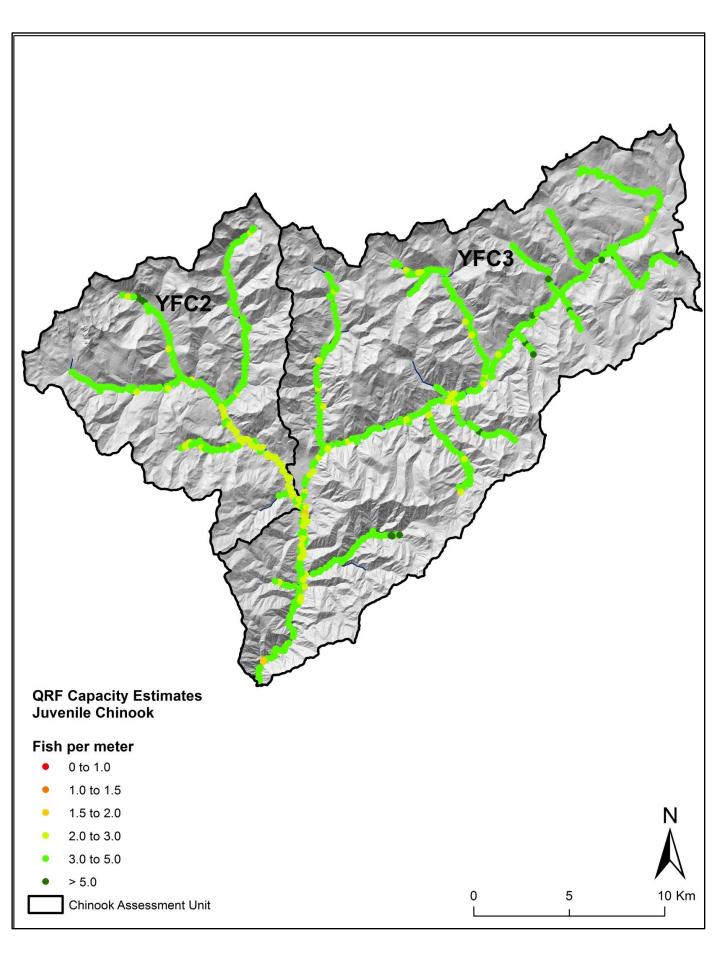


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	2013	17	8.266	10.001
UMS5	2014	19	10.791	13.552
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Substrate < 6 mm


- Source: CHaMP Metrics (<u>www.champmonitoring.org</u>)
- Definition: Average percentage of pool tail substrates comprised of fine sediment <6 mm





RIPARIAN CONDITION ASSESSMENT

Considering riparian departure, land use intensity & floodplain accessibility



RIPARIAN VEGETATION CONVERSION TYPE Causes for departure from historic SHERMAN PEAK Mayfield Peak Spring Basin Butte Little Basin POTATO MOUNTAIN RVCT - Riparian Vegetation Upland Encroachment Conversion Type Non-Riparian to Riparian 10% Historic to Existing Riparian Conversion Type No Change 81% Conifer Encroachment Conversion to Barren Conversion to Barren Conifer Encroachment No Change 80 140 km 100 Non-Riparian to Riparian Volume Upland Encroachment

Chinook and Steelhead bearing perennial streams

Steelhead bearing perennial streams


16 Km

SAWTOOTH


MOUNTAINS

RIPARIAN VEGETATION DEPARTURE

Estimate of current departure from historic within valley bottom

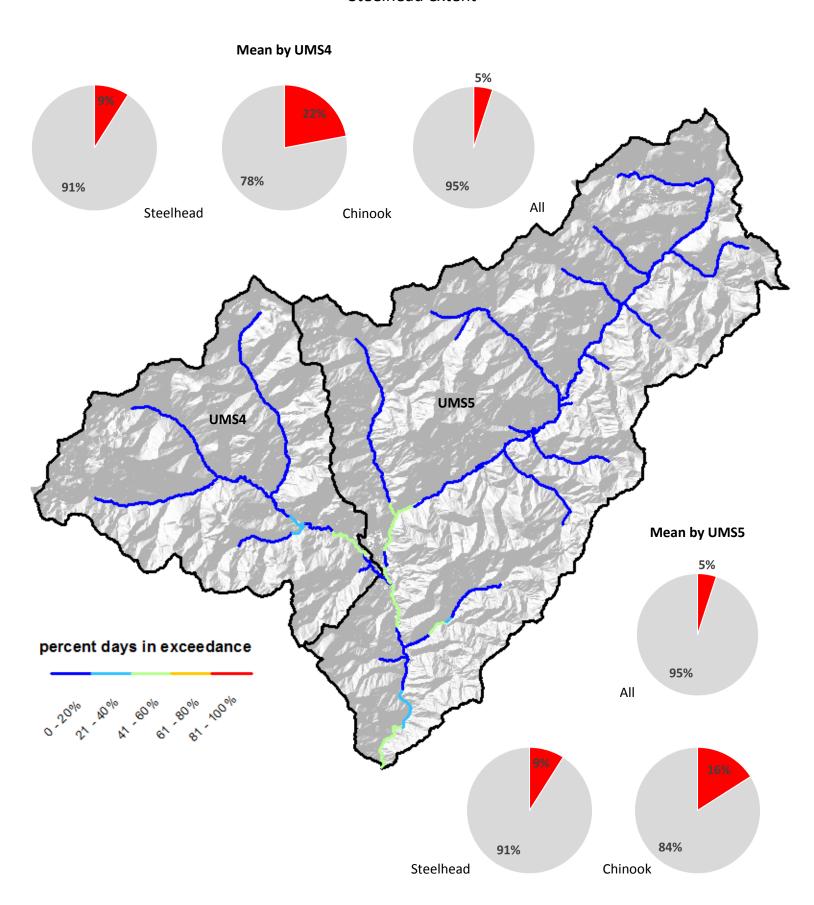


LARGE WOODY DEBRIS RECRUITMENT POTENTIAL



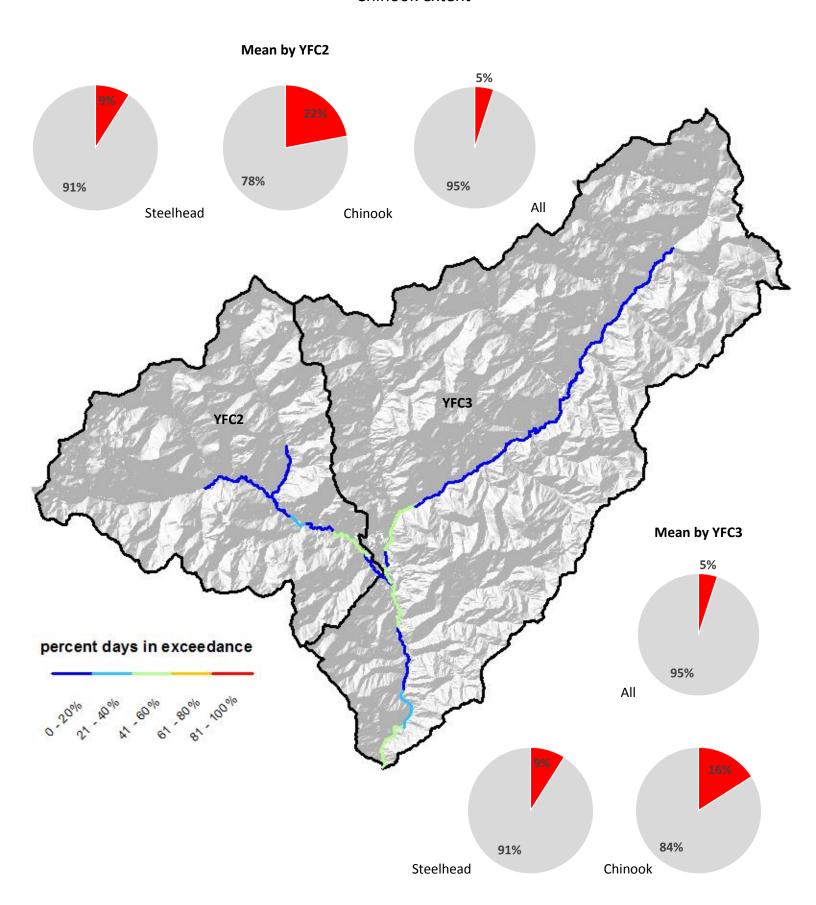
Yankee Fork 2013

Percent summer days (20 July – 31 August) in exceedance of 18°C maximum stream temperature Steelhead extent

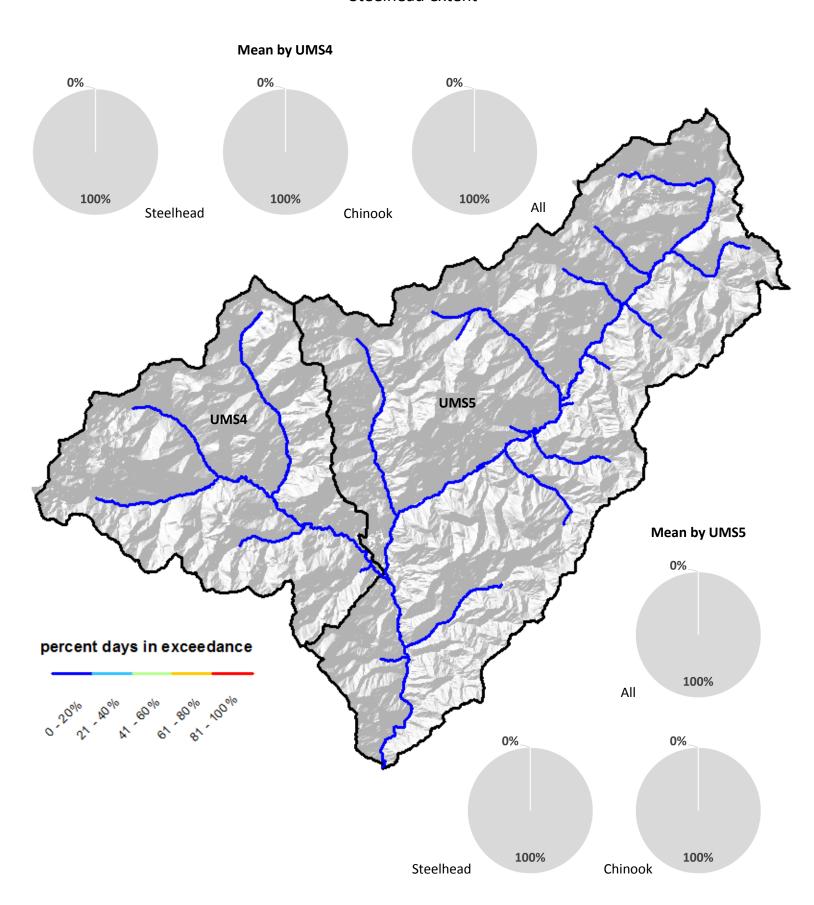


Yankee Fork 2013

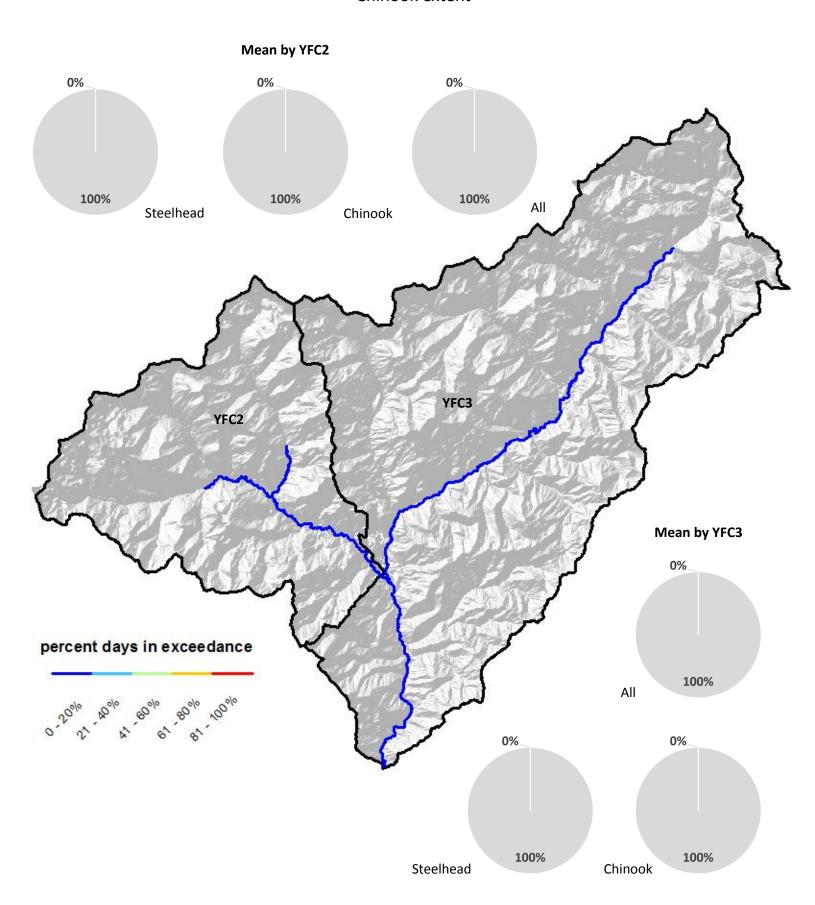
Percent summer days (20 July – 31 August) in exceedance of 18°C maximum stream temperature Chinook extent



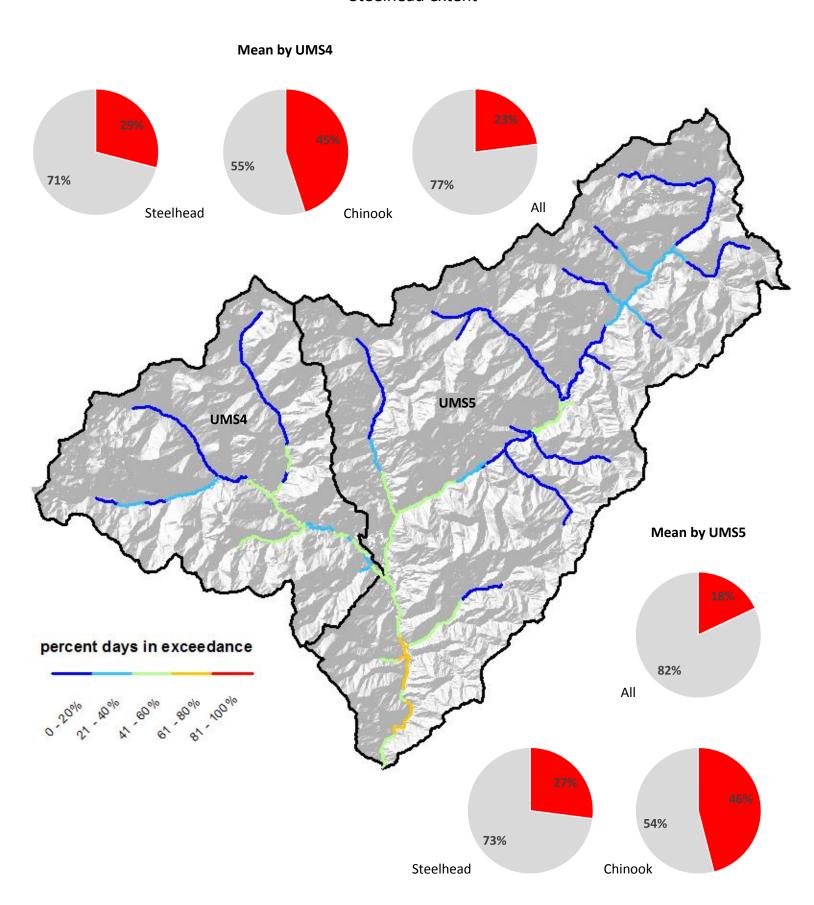
Percent summer days (20 July – 31 August) in exceedance of 20°C maximum stream temperature Steelhead extent



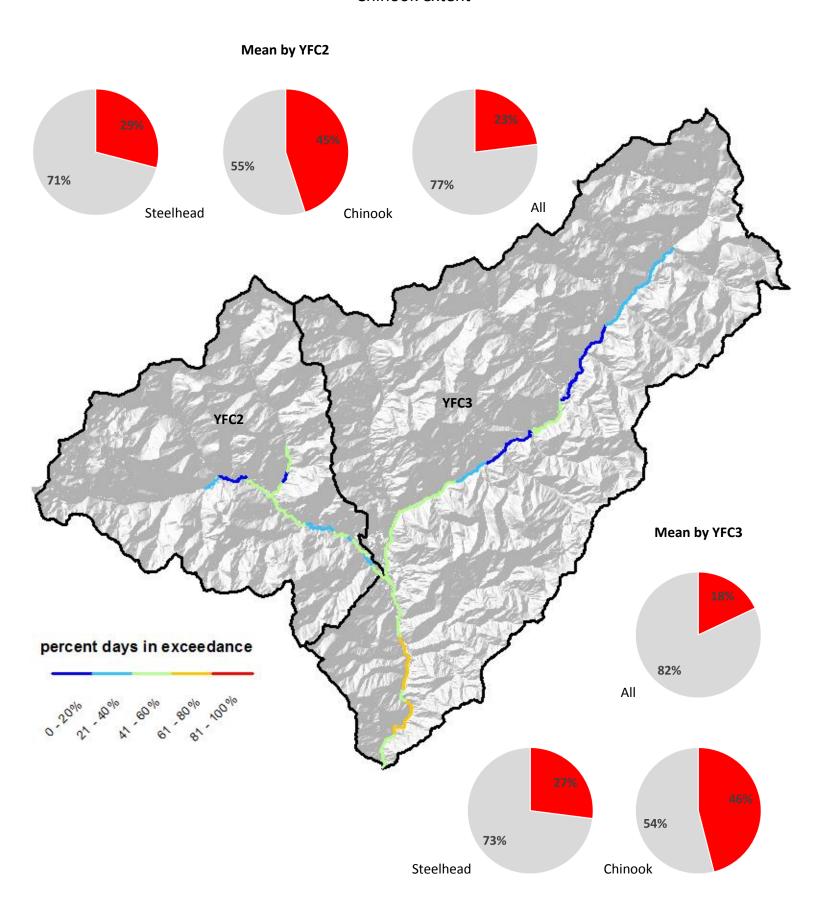
Percent summer days (20 July – 31 August) in exceedance of 20°C maximum stream temperature Chinook extent



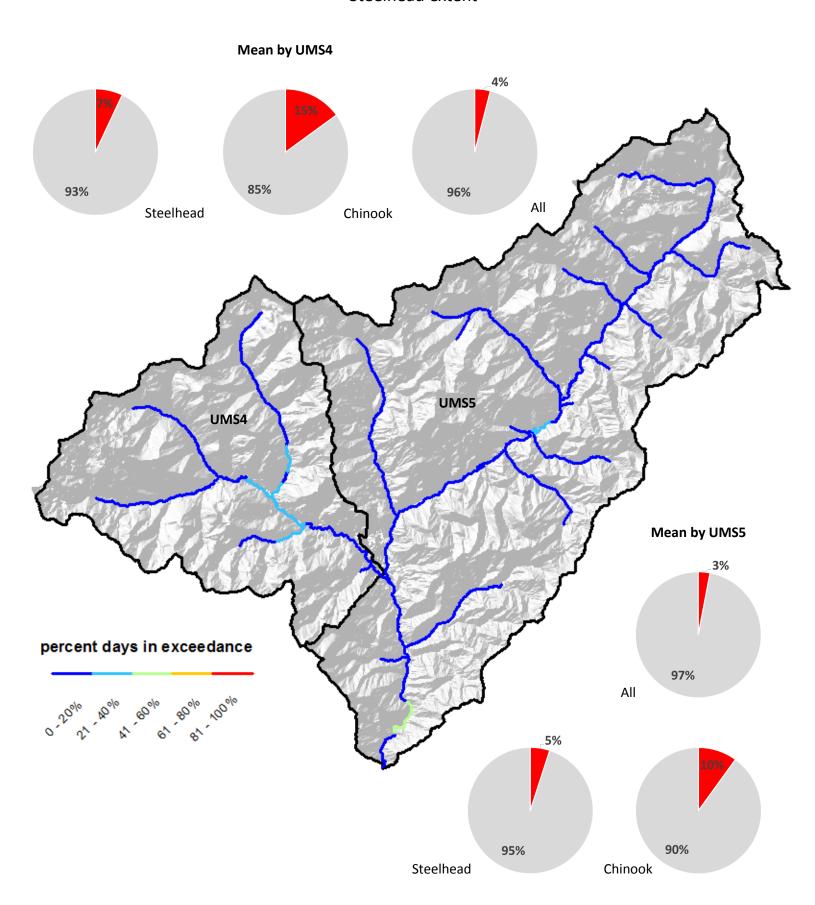
Percent summer days (20 July – 31 August) in exceedance of 18°C maximum stream temperature Steelhead extent



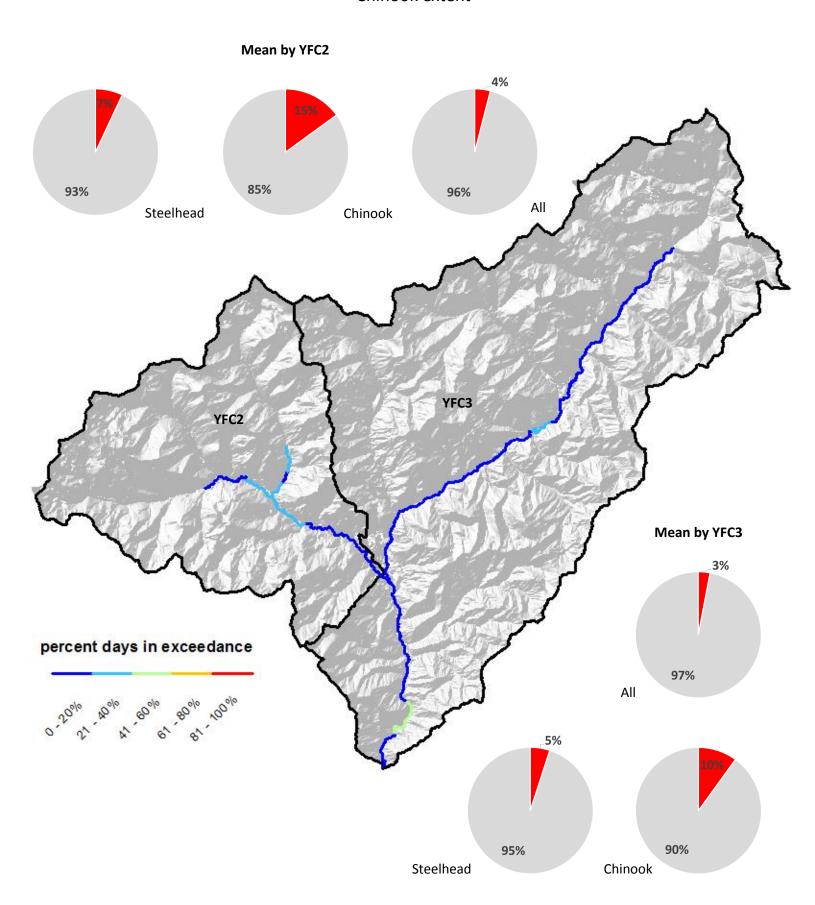
Percent summer days (20 July – 31 August) in exceedance of 18°C maximum stream temperature Chinook extent



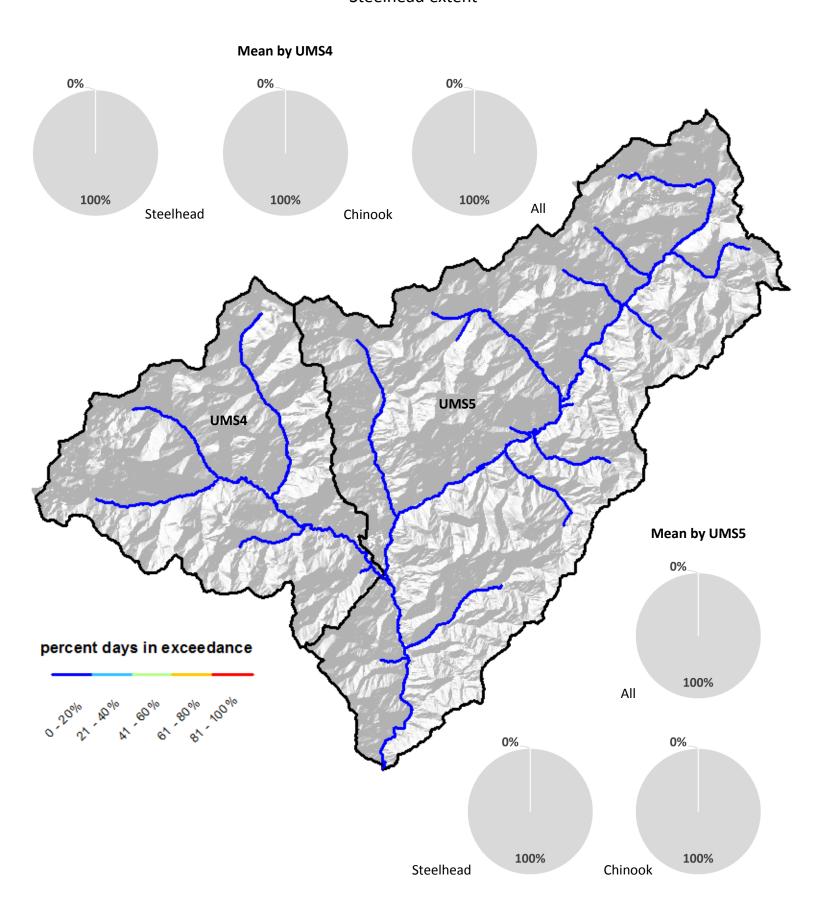
Percent summer days (20 July – 31 August) in exceedance of 20°C maximum stream temperature Steelhead extent



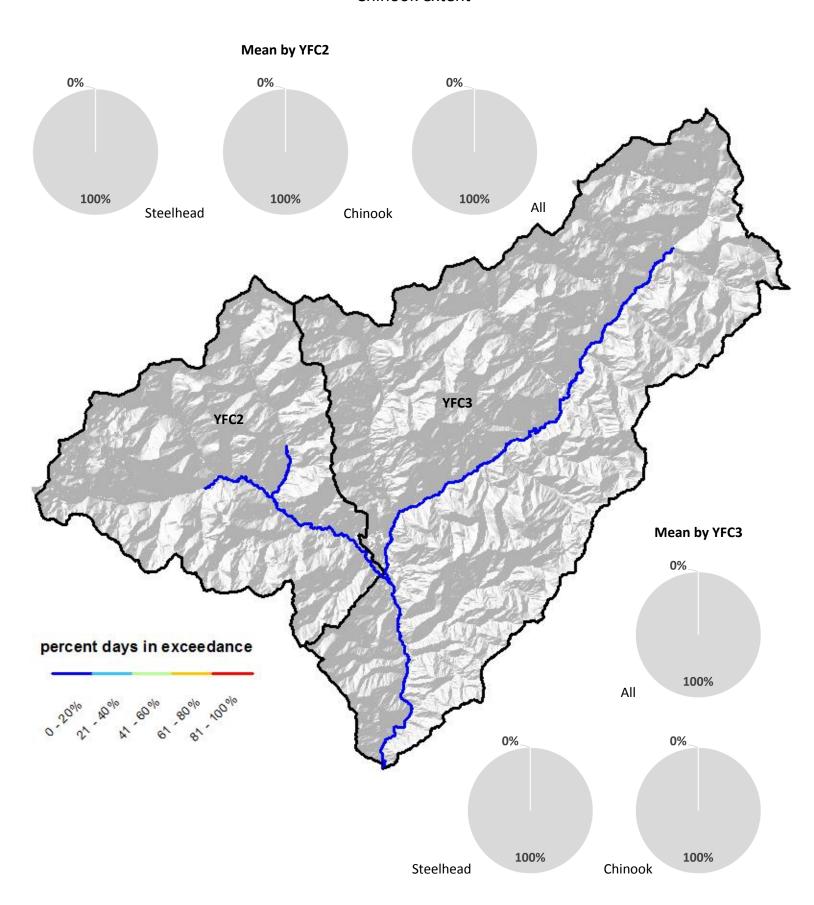
Percent summer days (20 July – 31 August) in exceedance of 20°C maximum stream temperature Chinook extent



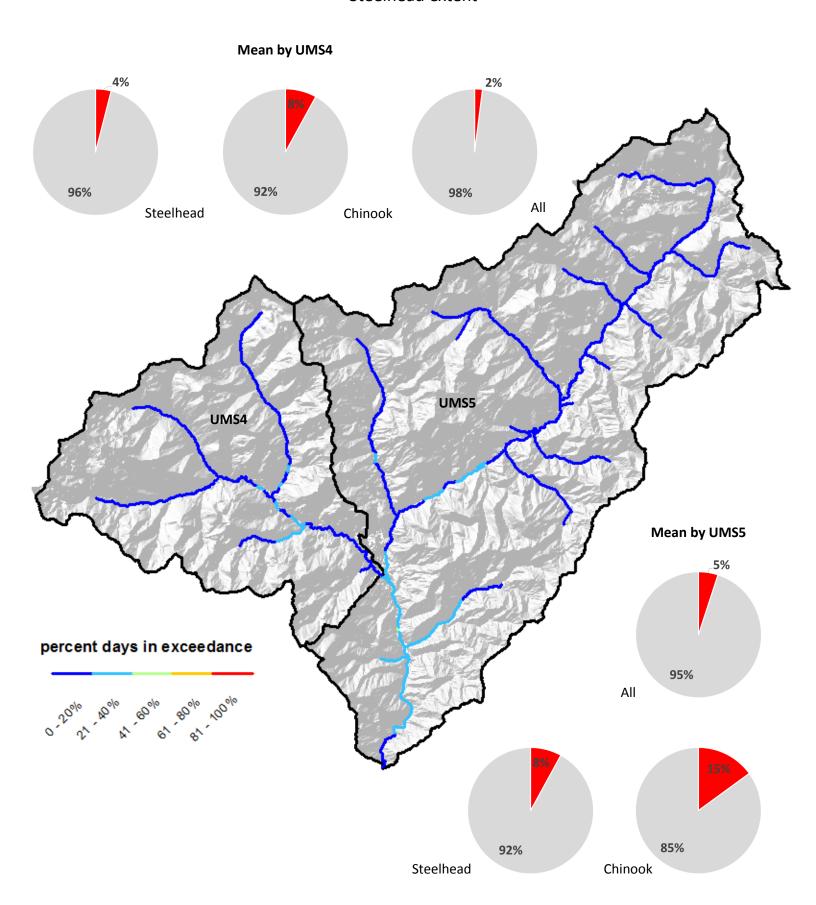
Percent summer days (20 July – 31 August) in exceedance of 22°C maximum stream temperature Steelhead extent



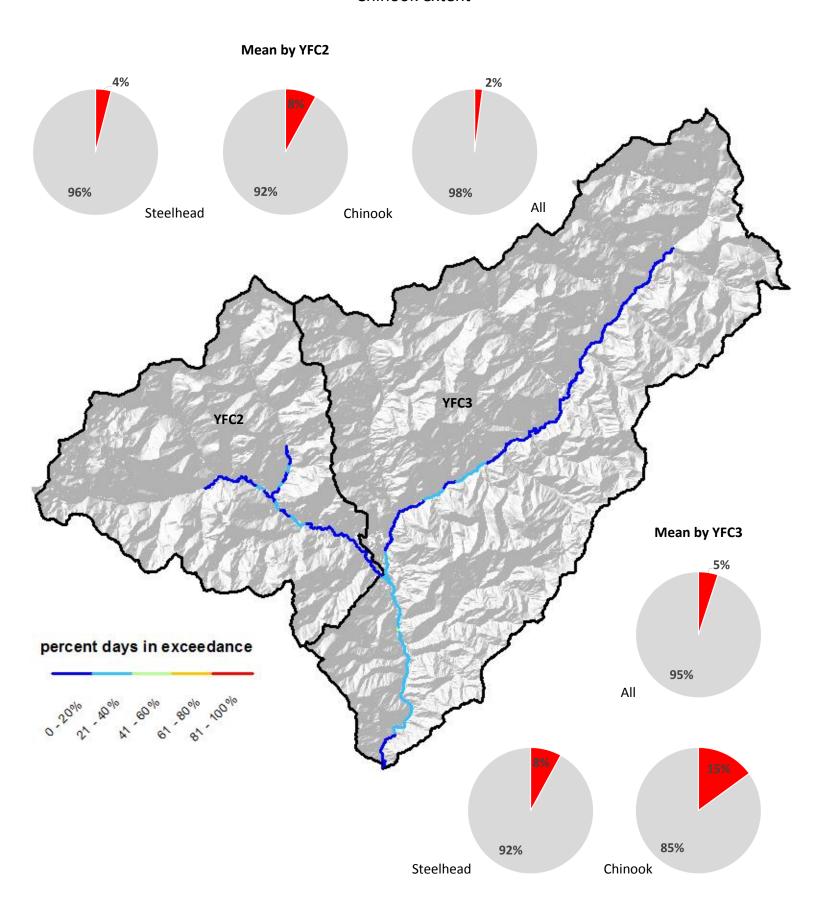
Percent summer days (20 July – 31 August) in exceedance of 22°C maximum stream temperature Chinook extent



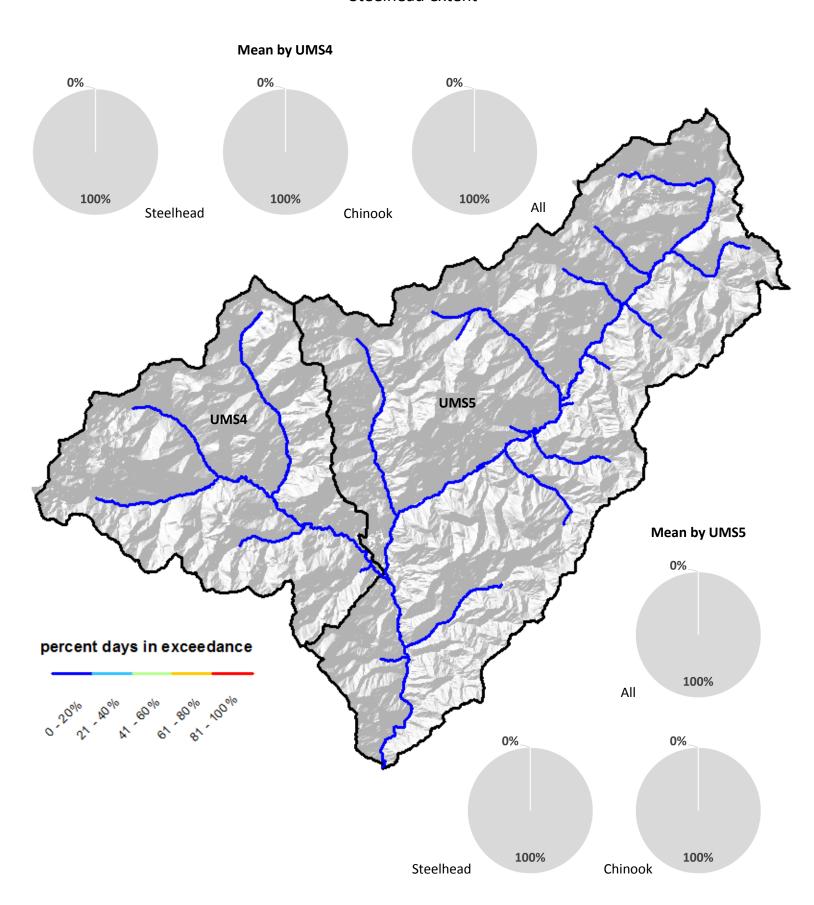
Percent summer days (20 July – 31 August) in exceedance of 18°C maximum stream temperature Steelhead extent



Percent summer days (20 July – 31 August) in exceedance of 18°C maximum stream temperature Chinook extent



Percent summer days (20 July – 31 August) in exceedance of 20°C maximum stream temperature Steelhead extent



Percent summer days (20 July – 31 August) in exceedance of 20°C maximum stream temperature Chinook extent

