NOTES:
This workbook contains **habitat functions** data downloaded directly from the Taurus database. Functions include those documented during the **Look Forward** process covering the **2016-2018** work window for steelhead.

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	LF Weight	Low Bookend	Original 2018 Estimate	Updated 2018 Estimate	High 2018 Bookend	Original 2033 Estimate	High 2033 Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River Steelhead	East Fork Salmon River	EFS1	Bayhorse Creek	1.1: Habitat Quantity: Anthropogenic Barriers	20.00%	100	70	100		70	100	low bookend raised from 20, 8/9/12	bayhorse ck 2 and 4 diversion were consolidated in 2011; doesn't include bayhorse 1 2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS1	Bayhorse Creek	2.3: Injury and Mortality: Mechanical Injury	20.00%	57.5	57.5	57.5		20	100		2016: no actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS1	Bayhorse Creek	4.1: Riparian Condition: Riparian Vegetation	20.00%	90	90	90		90	92		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS1	Bayhorse Creek	7.2: Sediment Conditions: Increased Sediment Quantity	20.00%	45	45	45		45	50		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS1	Bayhorse Creek	9.2: Water Quantity: Decreased Water Quantity	20.00%	47.9	47.9	75.8		20	71		2016: Flow project from the Look Back extending into the 2016-2018 period was carried forward and added to Look Forward improvement calculations. Therefore, average of 2.2 cfs/year relative to 8 cfs across the assessment unit(Morgan Case IDWR) = 27.9% improvement
Snake River Steelhead	East Fork Salmon River	EFS2	Challis Creek	1.1: Habitat Quantity: Anthropogenic Barriers	20.00%	80	80	80		85	100		Actions high up in stream benefit steelhead not Chinook 2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS2	Challis Creek	4.1: Riparian Condition: Riparian Vegetation	10.00%	60	60	60		60.5	70		Some improvement from project addressing Decreased Water Quantity LF 2016: No actions, therefore no change to low bookend

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Snake River Steelhead	East Fork Salmon River	EFS2	Challis Creek	7.2: Sediment Conditions: Increased Sediment Quantity	20.00%	40	40	40		40	45		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS2	Challis Creek	8.1: Water Quality: Temperature	10.00%	50	50	50		50.1	65		2016: no actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS2	Challis Creek	9.2: Water Quantity: Decreased Water Quantity	40.00%	32	32	32		33	50		2016: no actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS3	EF Salmon River	1.1: Habitat Quantity: Anthropogenic Barriers	10.00%	93	93	93		94	100		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS3	EF Salmon River	2.3: Injury and Mortality: Mechanical Injury	10.00%	70	70	70		70	90		Not enough info on Weir project to assess improvements at 8/9/12 workshop 2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS3	EF Salmon River	4.1: Riparian Condition: Riparian Vegetation	25.00%	60.6	60.6	60.6		60	90		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS3	EF Salmon River	6.1: Channel Structure and Form: Bed and Channel Form	25.00%	50	50	50		52	65		need alternative to push up dams in high velocity/bedload environment several other treatments needed 2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS3	EF Salmon River	7.2: Sediment Conditions: Increased Sediment Quantity	15.00%	71	71	71		71	80		2016: No actions, therefore no change to low bookend

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Snake River Steelhead	East Fork Salmon River	EFS3	EF Salmon River	9.2: Water Quantity: Decreased Water Quantity	15.00%	60	60	60		61	80	low bookend changed from 40, 8/9/12	2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS4	EF Salmon Tributaries	1.1: Habitat Quantity: Anthropogenic Barriers	0.00%						0		
Snake River Steelhead	East Fork Salmon River	EFS4	EF Salmon Tributaries	2.3: Injury and Mortality: Mechanical Injury	20.00%	70	70	70		75	90		3 diversions on Road Ck reamining; 2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS4	EF Salmon Tributaries	9.2: Water Quantity: Decreased Water Quantity	80.00%	30	30	30		30	60		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS5	Garden Creek	1.1: Habitat Quantity: Anthropogenic Barriers	20.00%	34.8	34.8	43.1		30	60		2016: 2 miles opened upstream, but prorated to account for life stage = 1 mile treated relative to 12 steelhead bearing miles in assessment unit = 8.3% uplift
Snake River Steelhead	East Fork Salmon River	EFS5	Garden Creek	2.3: Injury and Mortality: Mechanical Injury	10.00%	62	62	62		20	60		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS5	Garden Creek	4.1: Riparian Condition: Riparian Vegetation	20.00%	35	35	35		35	50		2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS5	Garden Creek	7.2: Sediment Conditions: Increased Sediment Quantity	10.00%	60	60	60		60	75		2016: No actions, therefore, no change to low bookend

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Snake River Steelhead	East Fork Salmon River	EFS5	Garden Creek	9.2: Water Quantity: Decreased Water Quantity	40.00%	26.1	26.1	26.1		25	50		Garden Ck. project to add abt 3 cfs 2016: No actions, therefore no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS6	Herd Creek	1.1: Habitat Quantity: Anthropogenic Barriers	10.00%	71	71	71		75	80	high bookend reflects natural barriers that block access to entire AU	2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS6	Herd Creek	4.1: Riparian Condition: Riparian Vegetation	40.00%	60	60	60		60	80		2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS6	Herd Creek	7.2: Sediment Conditions: Increased Sediment Quantity	30.00%	70	70	70		70	80		2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS6	Herd Creek	9.2: Water Quantity: Decreased Water Quantity	20.00%	65	65	65		70	80		8 cfs potential HC-3 pipeline from Lake Ck 2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS7	Mainstem Salmon River	4.1: Riparian Condition: Riparian Vegetation	15.00%	27.02	27.02	27.02		25	35		Remember to update 2015 look-back w/any 12-mi reach easements/projects implemented after 2012 2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS7	Mainstem Salmon River	5.2: Peripheral and Transitional Habitats: Floodplain Condition	30.00%	60	60	60		60	80		Remember to update 2015 look-back w/any 12-mi reach easements/projects implemented after 2012 2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS7	Mainstem Salmon River	6.1: Channel Structure and Form: Bed and Channel Form	30.00%	60	60	60		60	80		Remember to update 2015 look-back w/any 12-mi reach easements/projects implemented after 2012 2016: No actions, therefore, no change to low bookend

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	LF Weight	Low Bookend	Original 2018 Estimate	Updated 2018 Estimate	High 2018 Bookend	Original 2033 Estimate	High 2033 Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River Steelhead	East Fork Salmon River	EFS7	Mainstem Salmon River	7.2: Sediment Conditions: Increased Sediment Quantity	10.00%	50	50	50		50	85		Remember to update 2015 look-back w/any 12-mi reach easements/projects implemented after 2012 2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS7	Mainstem Salmon River	8.1: Water Quality: Temperature	15.00%	50	50	50		50	60		Remember to update 2015 look-back w/any 12-mi reach easements/projects implemented after 2012 2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS8	Morgan Creek	2.3: Injury and Mortality: Mechanical Injury	20.00%	50	50	50		50	80		2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS8	Morgan Creek	4.1: Riparian Condition: Riparian Vegetation	20.00%	60	60	60		60	75		2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS8	Morgan Creek	7.2: Sediment Conditions: Increased Sediment Quantity	10.00%	20	20	20		20	25		2016: No actions, therefore, no change to low bookend
Snake River Steelhead	East Fork Salmon River	EFS8	Morgan Creek	8.1: Water Quality: Temperature	10.00%	61.8	61.8	64.1		60	70		2016: the expert panel assumes temperature is a function of flow and riparian condition (shading potential), therefore they assume the benefit of actions for this limiting factor is the combination of the benefits of riparian condition (LF 4.1=0) and flow (LF 9.2=2.3). Thus 0+2.3=2.3%

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Snake River Steelhead	East Fork Salmon River	EFS8	Morgan Creek	9.2: Water Quantity: Decreased Water Quantity	40.00%	36.8	36.8	39.1		35	85		2016: Leases extending through 2018 were carried forward and applied to look forward benefits. One flow agreement for 2 cfs/year was averaged across 3 years (1.3 cfs) and made relative to the summation of diversions in the assessment unit (Morgan Case; 57 cfs) = 2.3% improvement
Snake River Steelhead	East Fork Salmon River	EFS9	Salmon River Tributaries	9.2: Water Quantity: Decreased Water Quantity	100.00%	32.2	32.2	32.2		30	60		2016: No actions, therefore no change to low bookend
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	1.1: Habitat Quantity: Anthropogenic Barriers	1.00%	85	85	85		85.25	90	stranding changed from 51/60, 8/8/12	evaluated only on L-1 project PLUS l-63, L-54, and L58a (described under LF 9.2) 2016: No actions, therefore no change to low bookend
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	2.3: Injury and Mortality: Mechanical Injury	2.00%	91.25	91.25	91.25		91	95		Assumes 10 screen replacements are maintaining current function, not improving. Other screen projects are improving. Remaining screens include Basin Ck., some additional Backdoor issues 2016: No actions, therefore no change to low bookend.
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	4.1: Riparian Condition: Riparian Vegetation	15.00%	35.1	35.1	35.3		38	40		2016: Prorated for realized improvements by 2018, 0.3 stream miles were treated. Relative to the 107.8 steelhead bearing stream miles in the assessment unit (StreamNET?), there was a 0.2% imrpovement

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Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	5.2: Peripheral and Transitional Habitats: Floodplain Condition	10.00%	20.7	20.7	22.5		21	30		Estimate 3.22 miles side channel enhancement. 2016: Prorated for realized improvements by 2018, 1.9 stream miles were treated (5 projects). Relative to the 107.8 steelhead bearing stream miles in the assessment unit (StreamNET?), there was a 1.8% improvement
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	6.1: Channel Structure and Form: Bed and Channel Form	13.00%	40.8	40.8	43		42	60		Riparian & floodplain LF projects also contribute. 2016: Prorated to reflect realized improvement by 2018, 2.41 stream miles were treated (8 projects). Relative to the 107.8 steelhead bearing stream miles in the assessment unit, there was a 2.2% improvement.
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	6.2: Channel Structure and Form: Instream Structural Complexity	16.00%	23	23	25.3					2016: Prorated to reflect realized improvement by 2018, 2.48 stream miles were treated (9 projects). Relative to the 107.8 steelhead bearing stream miles in the assessment unit, there was a 2.3% improvement.
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	7.2: Sediment Conditions: Increased Sediment Quantity	8.00%	30.8	30.5	31		31	35		Projects addressing other LF;'s in this AU considered for this estimate. 2016: Prorated to reflect realized improvement by 2018, 0.21269 stream miles were treated (8 projects). Relative to the 107.8 steelhead bearing stream miles in the assessment unit, there was a 0.2% improvement.

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Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	8.1: Water Quality: Temperature	10.00%	35.6	35.6	47.8		30	45		Projects addressing other LF's in this AU considered for this estimate 2016: Due to the difficulty measuring temperature improvements, the Expert Panel assumes the additive benefits of riparian condition = shading, and flow = water depth and movement is a reasonable proxy. Therefore improvements to riparian condition = 0.2% and improvements to flow = 12.0 % = 12.2%
Snake River Steelhead	Lemhi River	LRS2	Mainstem Salmon and Lemhi Rivers and Hayden Creek	9.2: Water Quantity: Decreased Water Quantity	25.00%	31.1	31.1	43.1		24.5	30		Upstream flow projects (LRS1) also considered for this estimate. 2016: Sixteen leases (in cfs) including those from upstream assessment unit and carry over leases considered in look back but benefits not considered for the 2016-2018 timeframe were averaged through time and considered relative to flow in the assessment unit. Therefore 90.2 cfs/750 cfs=12.0%
Snake River Steelhead	Pahsimeroi River	PRS2	Salmon River and Tributaries	1.1: Habitat Quantity: Anthropogenic Barriers	20.00%	80.5	80.5	80.5		70	100		Includes McKim Warm Springs, and Poison Ck barriers Upwards of 12 more barriers remaining 2016: No actions, therefore no change to low bookend
Snake River Steelhead	Pahsimeroi River	PRS2	Salmon River and Tributaries	2.3: Injury and Mortality: Mechanical Injury	20.00%	46.1	46.1	46.1		55	100		2 McKim fish screens about 12 more to be screened 2016: No actions, therefore no change to low bookend
Snake River Steelhead	Pahsimeroi River	PRS2	Salmon River and Tributaries	4.1: Riparian Condition: Riparian Vegetation	20.00%	70.6	70.6	70.6		70	80		2016: No actions, therefore no change to low bookend

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Snake River Steelhead	Pahsimeroi River	PRS2	Salmon River and Tributaries	8.1: Water Quality: Temperature	10.00%	35.6	35.6	37.5		33	33		2016: Recognizing that improvements in temperature will be a function of shading (=riparian condition) and water depth and velocity (=flow), the expert panel chose to use the additive improvements from those two limiting factors as a proxy for temperature improvements. Therefore, Limiting Factor 4.1 (riparian condition) =0% improvement + Limiting Factor 9.2 (water quantity) = 1.9% = 1.9%
Snake River Steelhead	Pahsimeroi River	PRS2	Salmon River and Tributaries	9.2: Water Quantity: Decreased Water Quantity	30.00%	67	67	68.9		65	75		2016: Leases from Lookback were brought forward to account for improvements during 2016-2018. Average of leases over 3 years=9.4 cfs relative to 497 cfs across the assessment unit = 1.9%
Snake River Steelhead	Salmon River upper mainstem	UMS2	Mainstem Upper Salmon River	4.1: Riparian Condition: Riparian Vegetation	25.00%	40.5	40.5	40.5	40.1		70		2016: No actions, therefore no change to low bookend
Snake River Steelhead	Salmon River upper mainstem	UMS2	Mainstem Upper Salmon River	7.2: Sediment Conditions: Increased Sediment Quantity	25.00%	51.5	51.5	51.5	51		75		2016: No actions, therefore no change to low bookend
Snake River Steelhead	Salmon River upper mainstem	UMS2	Mainstem Upper Salmon River	8.1: Water Quality: Temperature	25.00%	62	62	70.5	51		80		2016: Expert Panel acknowledges the influence of riparian condition and flow on temperature, thus, they use the additive benefits of the two as a proxy for temperature improvements. There were no riparian condition projects during this period, but flow improvement = 8.5. Thus 0+8.5=8.5%

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Snake River Steelhead	Salmon River upper mainstem	UMS2	Mainstem Upper Salmon River	9.2: Water Quantity: Decreased Water Quantity	25.00%	90.5	90.5	99	80		90		2016: Two leases averaging 17.9 cfs relative to 210 cfs in the assessment unit = 8.5% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS3	Upper Salmon River Tributaries	1.1: Habitat Quantity: Anthropogenic Barriers	10.00%	60.4	60.4	61.8	60		100		2016: Three projects prorated to reflect realized change in 2018 total 2.685 stream miles, relative to 189.5 (streamnet steelhead miles plus 5 miles for intrinsic potential on iron creek) = 1.4% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS3	Upper Salmon River Tributaries	2.3: Injury and Mortality: Mechanical Injury	10.00%	79	79	80.6	75		100		2016: Three screen projects. One will have no benefit to 2018. 6 cfs relative to 386 cfs across the assessment unit = 1.6% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS3	Upper Salmon River Tributaries	4.1: Riparian Condition: Riparian Vegetation	20.00%	40.1	40.5	40.8	41		70		2016: Four projects, prorated to reflect realized stream miles improved = 1.32. Relative to 189.5 steelhead bearing stream miles in the assessment unit (from StreamNet, plus 5 miles of intrinsic potential on iron creek) = 0.7% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS3	Upper Salmon River Tributaries	7.2: Sediment Conditions: Increased Sediment Quantity	15.00%	50.1	50.1	50.5	50.2		60		2016: Three projects, prorated to reflect stream miles effectively treated by 2018, = 0.68 stream miles. Relative to 189.5 steelhead bearing stream miles in the assessment unit (StreamNet plus 5 intrinsic potential miles on iron creek), there is a 0.4% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS3	Upper Salmon River Tributaries	8.1: Water Quality: Temperature	10.00%	36.8	36.8	44.5	32		55		2016:Expert Panel assumes additive benefits from riparian condition improvements and flow improvements are a good proxy for temperature improvements. Therefore 0.7+7.0=7.7% improvement

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Snake River Steelhead	Salmon River upper mainstem	UMS3	Upper Salmon River Tributaries	9.2: Water Quantity: Decreased Water Quantity	35.00%	28.7	30	35.7	30		75		2016: Three leases were averaged over years of their acquisition. Includes leases from look back that were not accounted for during 2016-2018. Average of leased water = 26.9 cfs relative to 386 cfs across the assessment unit = 7.0% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS4	West Fork Yankee Fork	5.2: Peripheral and Transitional Habitats: Floodplain Condition	40.00%	97	97	97.5		98	98	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend; Most of Ass Unit is "wilderness" with very little area disturbed that can be restored	2016: One project treated 0.1 miles, but was prorated to reflect realized improvements by 2018 (0.09 stream miles). Relative to the 20 steelhead bearing stream miles in the assessment unit (Intrinsic Potential; NOAA), there will be a 0.5% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS4	West Fork Yankee Fork	6.1: Channel Structure and Form: Bed and Channel Form	40.00%	97	97	97.5		98	98	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend; Most of Ass Unit is "wilderness" with very little area disturbed that can be restored	2016: One project treated 0.1 miles, but was prorated to reflect realized improvements by 2018 (0.09 stream miles). Relative to the 20 steelhead bearing stream miles in the assessment unit (Intrinsic Potential; NOAA), there will be a 0.5% improvement

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Snake River Steelhead	Salmon River upper mainstem	UMS4	West Fork Yankee Fork	6.2: Channel Structure and Form: Instream Structural Complexity	20.00%	97	97	97.5		98	98	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend; Most of Ass Unit is "wilderness" with very little area disturbed that can be restored	2016: One project treated 0.1 miles, but was prorated to reflect realized improvements by 2018 (0.09 stream miles). Relative to the 20 steelhead bearing stream miles in the assessment unit (Intrinsic Potential; NOAA), there will be a 0.5% improvement
Snake River Steelhead	Salmon River upper mainstem	UMS5	Yankee Fork	1.1: Habitat Quantity: Anthropogenic Barriers	5.00%	85	85	85		95	100	Currently, tribs w/ barriers include Cearley, Jordan and Ramey, Silver and Jerrys Creeks. Improving these get to 95%.	2016: Not discussed by expert panel so presume no actions
Snake River Steelhead	Salmon River upper mainstem	UMS5	Yankee Fork	4.2: Riparian Condition: LWD Recruitment	20.00%	40.1	40.1	41.4		55	65	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Switched Riparian condition for LWD Recruitment; Historical info suggest that riparian habitat was was not extensive in the mainstem Yankee Fork. Adjusted low bookend down to 35	2016: 0.386 stream miles of effective treatment across 30 steelhead bearing stream miles in the assessment unit (StreamNet) = 1.3% improvement

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Snake River Steelhead	Salmon River upper mainstem	UMS5	Yankee Fork	5.2: Peripheral and Transitional Habitats: Floodplain Condition	25.00%	72.1	72.1	76.1		65	80	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend from 20 to 50 percent because 2/3 of historic Chinook production comes from areas outside of dredge reach and there are still some impacts that occur in non dredged areas. Recognizing Jordan Ck. Impacts	2016: Three projects effectively improved 1.205 stream miles relative to 30 steelhead bearing stream miles in the assessment unit = 4.0% improvement

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Snake River Steelhead	Salmon River upper mainstem	UMS5	Yankee Fork	6.1: Channel Structure and Form: Bed and Channel Form	20.00%	76.2	76.2	80.5		65	80	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend from 20 to 50 percent because 2/3 of historic Chinook production comes from areas outside of dredge reach and there are still some impacts that occur in non dredged areas. Recognizing Jordan Ck. Impacts	2016:Three projects effectively improved 1.28 stream miles relative to 30 steelhead bearing stream miles in the assessment unit = 4.3% improvement

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Snake River Steelhead	Salmon River upper mainstem	UMS5	Yankee Fork	6.2: Channel Structure and Form: Instream Structural Complexity	25.00%	77.5	77.5	83.5		70	85	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend from 20 to 50 percent because 2/3 of historic Chinook production comes from areas outside of dredge reach and there are still some impacts that occur in non dredged areas. Recognizing Jordan Ck. Impacts	2016:Three projects effectively improved 1.79 stream miles relative to 30 steelhead bearing stream miles in the assessment unit = 6.0% improvement

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	LF Weight	Low Bookend	Original 2018 Estimate	Updated 2018 Estimate	High 2018 Bookend	Original 2033 Estimate	High 2033 Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River Steelhead	Salmon River upper mainstem	UMS5	Yankee Fork	7.1: Sediment Conditions: Decreased Sediment Quantity	5.00%	72.2	72.2	77.4		60	70	Expanded Expert Panel including the YF ID Team made up this round as compared to a small subset in Fall 2011 (conversion to standardized Limiting Factors) and Sp/Summer 2012 ExPanel meetings. Changed low bookend from 20 to 50 percent because 2/3 of historic Chinook production comes from areas outside of dredge reach and there are still some impacts that occur in non dredged areas. Recognizing Jordan Ck. Impacts; Changed LF 7.2 to 7.1 due to much better description of conditions and how LF applies - lack of sediment that provides good	2016:Four projects effectively improved 1.5575 stream miles relative to 30 steelhead bearing stream miles in the assessment unit = 5.2% improvement