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 Chinook.

				2012 Standardized		Low	Original	Updated	Ligh 2019	Original	Ligh 2022		
ESU	Population	Code	Assessment Unit	Limiting Factor	LF Weight	Bookend	Estimate	Estimate	Bookend	Estimate	Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River	Asotin Creek	ACC1	Asotin Creek	1.1: Habitat Quantity:	5.00%	95	95	95	97	Lotinute	100	Progress towards 2018 bookend = 98%; Only	Population extirpated. Uplift not considered. Comment entered RM
Spring/Summer				Anthropogenic Barriers								known barrier is curently Headgate Dam; WWCC	7/6/2016.
Chinook												barrier assessment revealed no other barriers;	
					4.5.000/							2011 level of certainty = 1.	
Shake River	Asotin Creek	ACC1	Asotin Creek	4.1: Riparian Condition:	15.00%	65	65	65	/4		93	Progress towards 2018 bookend = 88%:	Population extirpated. Uplift not considered. Comment entered
Spring/Summer				Riparian vegetation								windshield survey suggests riparin is improving in	RM 7/6/2016.
Спіпоок												size and maturity and as it matures will move	
Snake River	Asotin Creek	ACC1	Asotin Creek	5.2: Peripheral and	30.00%	56	56	56	66		77	Progress towards 2018 bookend = 85%: Limited	Population extirpated. Uplift not considered. Comment entered
Spring/Summer				Transitional Habitats:								LiDAR/geomorphic assessment from the IMW on	RM 7/6/2016.
Chinook				Floodplain Condition								upper reaches is all we currently have data for;	
												2011 level of certainty = 4.	
Snake River	Asotin Creek	ACC1	Asotin Creek	6.1: Channel Structure	0.00%							The expert panel discussed the status of the	Population extirpated. Uplift not considered. Comment entered
Spring/Summer				and Form: Bed and								population that NOAA determined is functionally	RM 7/6/2016.
Chinook				Channel Form								extirpated. The panel requested input from the co	-
												managers regarding population status and prior to	
												any further deliberation over limiting factors. The	
												population status was the reason the 2012 panel	
												did not examine or weight limiting factors	
												consistently. Looking forward, per M. Daniels, E.	
												Taylor and H. McRoberts (Nez Perce) (1/26/2016)	
												agreed the population is functionally extirpated	
												and uplift would not be estimated for this process.	
												Comments entered RM 7/6/2016.	
Snake River	Asotin Creek	ACC1	Asotin Creek	6.2: Channel Structure	30.00%	40	40	40	55		70	Progress towards 2018 bookend = 73%; Limited	Population extirpated. Uplift not considered. Comment entered RM
Spring/Summer				and Form: Instream								LIDAR/geomorphic assessment from the IMW on	//6/2016.
Спіпоок				Structural Complexity								upper reaches is all we currently have data for ;	
Snake River	Asotin Creek	ACC1	Asotin Creek	7 2: Sediment	3 00%	70	70	70	75		80	2011 level of certainty = 3. Progress towards 2018 bookend = 93%: 2011 level	Population extirnated Unlift not considered Comment entered
Shake River	ASOLITICIEEK	ACCI	ASULIT CLEEK	Conditions: Increased	3.00%	/0	/0	/0	/5		80	of certainty = Λ	RM 7/6/2016
Chinook				Sediment Quantity								or certainty – 4.	NW 7072010.
Snake River	Asotin Creek	ACC1	Asotin Creek	8.1: Water Quality:	10.00%	34	34	34	50		60	Progress towards 2018 bookend = 68%; 16C is the	Population extirpated. Uplift not considered. Comment entered RM
Spring/Summer				Temperature								summer standard for PFC; 42 out of 122 days (34%	7/6/2016.
Chinook												of the days) were less than 16c (122 day summer	
												rearing period June-Sept) just above George Creek	;
												2011 level of certainty = 1.	
Snake River	Asotin Creek	ACC1	Asotin Creek	8.4: Water Quality:	2.00%	57	57	57	75		80	Progress towards 2018 bookend = 76%; 2011 level	Population extirpated. Uplift not considered. Comment entered RM
Spring/Summer				Turbidity								of certainty = 3.	7/6/2016.
Chinook Spake River	Asotin Creek	ACC1	Asotin Creek	9.2: Water Quantity:	5 00%	50	50	50	80		85	Progress towards 2018 bookend - 62%, 90% of	Population extirnated Liplift not considered. Comment entered RM
Spring/Summer	ASOLIII CIEEK	ACCI	ASULIT CLEEK	Decreased Water	5.00%	50	50	50	80		00	WALL at Mouth is available at 55 cfs in August:	7/6/2016
Chinook				Quantity								minimum instantaneous flow in Aug 2011 was 27	//0/2010.
CHIHOOK				Quantity								CES (above George Creek) or 50% of 55 CES.	
												uncertainty about IFIM accuracy and few cfs	
												currently diverted means unlikely to reach	
												bookend; 2011 level of certainty = 1.	
L	1	1		I	1	1		1	1		1		1

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
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	1.1: Habitat Quantity: Anthropogenic Barriers	5.00%	91	91	95.6	95	90	95	The expert panel agreed not to treat Chinook t same as steelhead going forward. Although the actions that will be evaluated are the same the uplift will be determined relative to the denominator for each. The panel focused on improvements at the Tucannon Weir and revisi their conclusions on past structures (i.e. Tumal Culvert). Comments entered 7/20/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	10.4: Population Level Effects: Life History Changes	0.00%	25	25	25	70	25	90	This limiting factor was included as a placehold Straying/by-passing Tucannon River due to unknown but presumed reservoir affects or wa quality/quantity in the Tucannon. 25%-50% of natural origin spring Chinook are by-passing the Tucannon River and ascending the Snake River.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	2.3: Injury and Mortality: Mechanical Injury	0.00%	96	96	96	97	96	98	During the 2016 look forward the expert panel weighted this limiting factor to "0". Comment entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	3.1: Food: Altered Primary Productivity	0.00%	20	20	20				Panel added limiting factor 3.1 based in concer that primary productivity is limiting fish. Howe there are limited data to ascertain just how limiting this factor is at this time and so a weigl 0% was assigned. A focus on the lack of carcas and supply of ocean-derived nutrients was attributed to limitations of primary productivity Comments entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	4.1: Riparian Condition: Riparian Vegetation	20.00%	55	55	55.03	55	75	75	The panel discussed limiting factor weights related to the state of the watershed and how the limit factors are "used" to evaluate the condition of habitat for fish. Of the 14 limiting factors discussed, 5 to 6 are key, among them comple (including riparian large woody debris/recruitment) and channel confinement. Limiting factors selected in part based on what measurable can be affected within the evaluati period. Comments entered RM 7/6/2016.

	Estimates Comments
k the the n visited nalum	Kris B. and John S. previously reviewed data sources and look back information and consolidated that into one workbook that they offered to the Tech Team and Nez Perce Tribe for review prior to the look forward panel. This spreadsheet includes denominators and was shown to the panel by projecting on a third screen. This is referred to as the EP sheet, which is different from the calculation table compiled by Cardno during the panel session. Actions included in the EP sheet are likely to occur based on funding and feasibility. The EP sheet also includes new denominators, which were assembled from local knowledge and differ from Streamnet. The panel considered changing the Chinook AU weights, but chose to leave them as-is for the time being unless otherwise noted. The PA-13 actions was removed from the 2018 period. The calculation spreadsheet contains Tucannon Hatchery Diversion, which opened 26.07 miles. Denominator was set at 56.52 miles. Panel prorated improvement to 10% because it was only a barrier to juveniles at certain flows and is now reconfigured for better passage, yielding a 4.6% uplift. Comments entered RM 8/31/2016.
older. water of the the ver.	No actions applicable to this limiting factor were expected within the 2013-2018 period in this assessment unit. Therefore no change in percent function was expected. Comment entered RM 7/6/2016.
nel re- nt	No actions applicable to this limiting factor are expected within 2013-2018 period in this assessment unit. No change in function
cerns wever, eight of casses vity.	Nutrient enhancement (Tucannon Hatchery Diversion): treated 11 of 56 miles with carcass placement. Food web effects are difficult to quantify. And although the panel prorated the improvement at 15%, permitting may limit future treatments so the action was valued at 0%. Comments entered RM 7/6/2016.
elative miting of olexity nt. nat is ation	Based on the EP spreadsheet no uplift was estimated. The panel considered area planted, time to maturity, mortality, and potential function within 2018 period to assess benefits. Using acres as the metric, with 300-foot buffer (150 feet on each side for the length of stream miles in the assessment unit: 57 miles minus wilderness area(14.1 ac), applying a restoration target of 75% and a denominator of 1,157 acres a treated area of 39 acres (sum of 7 projects) yields a 0.03% uplift. Comments entered RM 7/6/2016 and edited 9/1/32016.

				2012 Standardized		Low	Original 2018	Updated 2018	High 2018	Original 2033	High 2033		
ESU	Population	Code	Assessment Unit	Limiting Factor	LF Weight	Bookend	Estimate	Estimate	Bookend	Estimate	Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	4.2: Riparian Condition: LWD Recruitment	2.00%	20	20	20.04				The panel discussed adding limiting factor 4.2 because it was determined that other limiting factors were not reflective of the concern about long-term large woody debris recruitment in the Upper Tucannon. That said, limiting factor 4.2 presents difficulties in assessing benefits because of the time related to tree growth and eventual senescence and recruitment to the stream system. The panel noted that the benefits considered by this limiting factor are not "independent" and can be captured in other limiting factors (e.g., 4.1 and 6.2). Based on this logic the panel weighted this limiting factor at 2%. Comments entered RM 7/6/2016.	The EP and calculation spreadsheets include 5 projects that were determined to affect large wood recruitment. Benefits were considered based on acres treated that accounted for 31.5 ac in the look forward. Based on a denominator of 2,055 ac and a 2.5% proration factor that accounts for "slow" recruitment of large woody debris over time, the estimated uplift was 0.04%. Comments entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	20.00%	25	28	28				In 2016 the expert panel added limiting factor 5.1 because other limiting factors were not reflecting their concerns regarding side channels and the work that remains to be completed in the Upper Tucannon. Comments entered RM 7/6/2016.	The EP and calculation spreadsheet include 3 actions that based on the percent of the reach treated times the percent that benefits were immediately realized and added to the % estimated improvement by 2018, equaled the percent side channel function. The calculation assumed partial improvement that would be calibrated relative to how the features function after the next high flow. Using a denominator of 42.42 mi (56.52 stream miles minus 14.1 wilderness miles) the estimated uplift was 3.01%. Comments entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	5.2: Peripheral and Transitional Habitats: Floodplain Condition	20.00%	47	47	51.14	46	50	50	In 2016 the expert panel adjusted the limiting factor weight and the low bookend for this limiting factor to account for changes in understanding of the status of limiting factors. See the EP spreadsheet for the rationale behind the bookend adjustments. Comment entered RM 7/6/2016.	The expert panel evaluated the same projects evaluated for limiting factor 5.1 using the same denominator and calculation framework. The uplift calculator was modified to better calculate habitat function to reflect a less direct 1:1 of habitat project length to uplift. The panel also standardized the denominator for calculating improvement of function. The proration percentage was changed relative to treated portions of each reach where this limiting factor was addressed. In two cases it was determined that benefits would be immediate. Based on this and hte calculation for other others the expected uplift was 4.14%. Comments entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	6.1: Channel Structure and Form: Bed and Channel Form	10.00%	30	31.81	31.81	75		85	In 2016 the expert panel adjusted the limiting factor weights and book ends based on understanding of the current condition of the limiting factor. The rationale for updating limiting factor weight and bookends is included in the EP spreadsheet. Comments entered RM 7/6/2016.	In 2016 the expert panel discussed the time lag before effects from large wood treatments and channel reconstruction projects. More short-term (prior to 2018) value was estimated for limiting factor 6.2. Although certain treatments target bed form, effects to bed form are often considered secondary effects of treatments to improve instream complexity and floodplain connectivity. Bed and channel form can remain static until channel-altering (high) flows cause sudden changes. Based on this rationale and using a denominator of 42.45 mi, treating 5.9 mi will result in a 1.81% uplift. This considers "lower" immediate benefits to this limiting factor, assigns a 50% improved complexity resulting from constructed features (with 20% of those benefits being immediate) and a 1.5% per year increase in vegetation growth through 2018. Comments entered RM 7/6/2016.

5011	Develotion	Co.do		2012 Standardized		Low	Original 2018	Updated 2018	High 2018	Original 2033	High 2033		5
ESU	Population	Code	Assessment Unit	Limiting Factor	LF Weight	Bookend	Estimate	Estimate	Bookend	Estimate	Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River Spring/Summer Chinook	lucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	6.2: Channel Structure and Form: Instream Structural Complexity	20.00%	37	39.5	40.8	30	32	32	In 2015 the expert panel adjusted the limiting factor weights and bookends to reflect understanding of current condition of the limiting factor. The rationale for these revisions is captured in the EP spreadsheet that also includes a revised denominator. Comments entered RM 7/6/2016.	In 2016 the expert pane treatments to enhance 6.1. The expert panel ar overall treatments yield entered RM 7/6/2016 a 9/13/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	7.2: Sediment Conditions: Increased Sediment Quantity	1.00%	85	85	85	90	95	95	In 2016 the expert panel determined that improvements to this limiting factor came as secondary benefits from other related activities. Comment entered RM 7/6/2016.	No actions applicable to implemented within the Therefore, no change in expected. Comments e
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	8.1: Water Quality: Temperature	1.00%	34	34	34	45	60	60	In 2016 the expert panel determined that although temperature is a key limiting factor in the basin benefits to temperature were secondary, resulting from watershed-scale processes that were not influenced by site-scale actions. Comments entered RM 7/6/2016.	The expert panel deterr were slow to be realized temperature by hundre actions to augment flow
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	8.4: Water Quality: Turbidity	0.00%	97	97	97	97	98	98	in 2016 the expert panel reweighted this limiting factor reducing it to zero. The panel did not consider suspended sediment to be limiting to populations in the basin and concluded that limiting factors and treatments to address those limiting factors better reflect benefits to sediments. Comments entered RM 7/6/2016.	No actions applicable to implemented within the Therefore, no change in Comments entered RM
Snake River Spring/Summer Chinook	Tucannon River	TUC1A	Upper Tucannon - Pataha up to Panjab	9.2: Water Quantity: Decreased Water Quantity	1.00%	90	90	90	95	96	96	In 2016 the expert panel determine that improvements to this limiting factor were accounted for previously and "flow" seems to be improving, despite lower than average precipitation. This is not a key limiting factor in this subbasin. No future actions to address this limiting factor were planned for 2018. Comments entered RM 7/6/2016.	No actions applicable to implemented within the Therefore no change in entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	1.1: Habitat Quantity: Anthropogenic Barriers	4.00%	95	95	95	96	95	97	The expert panel discussed the uncertainty regarding the effects of the Starbuck Dam on fish passage and expect this will be investigated in future. The limiting factor weight was reduced when the weight for limiting factor 4.2 was adjusted. Comment entered RM 7/6/2016.	No actions to improve of to be implemented betw denominator to 11.3 mi the Regional Tech Team
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	10.4: Population Level Effects: Life History Changes	0.00%	25	25	25	70	25	90	This limiting factor is included as a placeholder because 25-50% of the natural origin spring Chinook are by-passing the Tucannon River and ascending the Snake River.	No actions applicable to implemented within the Therefore no change in expected. Comments e
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	2.3: Injury and Mortality: Mechanical Injury	0.00%	96	96	96	97	96	97	In 2016 the expert panel re-weighted this limiting factor at zero when limiting factor 4.2 was weighted. Comment entered RM 7/6/2016.	No actions applicable to the 2016-2018 period ir in percent function of th entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	4.1: Riparian Condition: Riparian Vegetation	11.00%	33.4	33.4	33.5	45	32	55		The expert panel evaluation implemented between the treat 5.54 ac that are ested an 8% improvement expected uplift is 0.1%. denominator of 308 minutes and the street of t

ookends Comments	Estimates Comments
ert panel adjusted the limiting nd bookends to reflect f current condition of the limiting onale for these revisions is EP spreadsheet that also includes a nator. Comments entered RM	In 2016 the expert panel discussed time lag associated with treatments to enhance complexity. See rationale for limiting factor 6.1. The expert panel anticipated immediate benefits from 30% of overall treatments yielding a 3.8% expected uplift. Comments entered RM 7/6/2016 and edited based on expert panel comments 9/13/2016.
ert panel determined that o this limiting factor came as iits from other related activities. ed RM 7/6/2016.	No actions applicable to this limiting factor were expected to be implemented within the 2013-2018 period in this assessment unit. Therefore, no change in function relative to the low bookend were expected. Comments entered RM 7/6/2016.
ert panel determined that although key limiting factor in the basin perature were secondary, resulting -scale processes that were not e-scale actions. Comments /2016.	The expert panel determined that improvements to temperature were slow to be realized and that site-specific actions only affect temperature by hundredths of a percentage point unless they are actions to augment flow. Comments entered RM 7/6/2016.
ert panel reweighted this limiting t to zero. The panel did not ded sediment to be limiting to ne basin and concluded that and treatments to address those better reflect benefits to uments entered RM 7/6/2016.	No actions applicable to this limiting factor were expected to be implemented within the 2013-2018 period in this assessment unit. Therefore, no change in percent function was expected. Comments entered RM 7/6/2016.
ert panel determine that o this limiting factor were reviously and "flow" seems to be ite lower than average is is not a key limiting factor in this ture actions to address this ere planned for 2018. Comments /2016.	No actions applicable to this limiting factor were expected to be implemented within the 2013-2018 period in this assessment unit. Therefore no change in percent function was expected. Comments entered RM 7/6/2016.
I discussed the uncertainty fects of the Starbuck Dam on fish ect this will be investigated in ing factor weight was reduced t for limiting factor 4.2 was nent entered RM 7/6/2016.	No actions to improve condition of this limiting factor are expected to be implemented between 2013 and 2018. The panel revised the denominator to 11.3 miles based on discussion and agreement with the Regional Tech Team. Comments entered RM 7/6/2016.
or is included as a placeholder of the natural origin spring passing the Tucannon River and nake River.	No actions applicable to this limiting factor were expected to be implemented within the 2016-2018 period in this assessment unit. Therefore no change in percent function in this limiting factor is expected. Comments entered RM 7/6/2016.
ert panel re-weighted this limiting nen limiting factor 4.2 was nent entered RM 7/6/2016.	No actions applicable to this limiting factor were expected within the 2016-2018 period in this assessment unit. Therefore, no change in percent function of the limiting factor was expected. Comments entered RM 7/6/2016.
	The expert panel evaluated 1 riparian action expected to be implemented between 2013-2018. PA-40 Tucannon Reach will treat 5.54 ac that are estimated will result in a 5%. This in addition to an 8% improvement reflected in the EP spreadsheet the expected uplift is 0.1%. The estimation of benefits was based on a denominator of 308 mi that considers 75% of stream mi x 150 ft per each side of the stream. Comments entered RM 7/6/2016.

				2012 Standardized		Low	Original 2018	Updated 2018	High 2018	Original 2033	High 2033		
ESU	Population	Code	Assessment Unit	Limiting Factor	LF Weight	Bookend	Estimate	Estimate	Bookend	Estimate	Bookend	LF Weight and Bookends Comments	Estimates Comments
Snake River Spring/Summer Chinook Snake River Spring/Summer	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha Lower Tucannon - Mouth to Pataha	 4.2: Riparian Condition: LWD Recruitment 5.1: Peripheral and Transitional Habitats: 	2.00%	20 25	20 25	20.1 25				In 2016 the expert panel added this limiting factor. The low bookend estimated by panel was based on an estimate of current properly functioning condition and work remaining to be done to address this limiting factor. Comment entered RM 7/6/2016. in 2016 the expert panel added limiting factor 5.1 and reweighted other limiting factors. The low	The expert panel evaluat be implemented between will treat 5.54 ac. The sar limiting factor 4.1 were a 0.1% expected uplift. Cor No actions applicable to a implemented within the
Chinook				Side Channel and Wetland Conditions								bookend was based on an estimate of current properly functioning condition and work remaining to be done to address this limiting factor. Comments entered RM 7/6/2016.	Therefore no change in p expected. Comments en
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	5.2: Peripheral and Transitional Habitats: Floodplain Condition	19.00%	30.6	30.6	30.6	31	25	32	In 2016 the expert panel reweighted this limiting factor to accommodate the addition of limiting factor 4.2. Comment entered RM 7/6/2016.	No actions applicable to the 2016-2018 period in in percent function of thi entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	6.1: Channel Structure and Form: Bed and Channel Form	9.00%	30	30	30	54		54		No actions applicable to the 2016-2018 period in in percent function of thi entered RM 7/6/2016.
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	6.2: Channel Structure and Form: Instream Structural Complexity	19.00%	21	21	21	45	18	45	In 2016 the expert panel reduced the weight of this limiting factor to accommodate addition of limiting factor 4.2. Comment entered RM 7/6/2016.	No actions applicable to implemented within the Therefore no change in p expected. Comments en
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	7.2: Sediment Conditions: Increased Sediment Quantity	11.00%	80	80	80	85	90	90		No actions applicable to implemented between 2 Therefore no change in p expected. Comments en
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	8.1: Water Quality: Temperature	5.00%	20	20	20				The expert panel discussed the importance of this limiting factor that they concluded was affected most by watershed-scale processes. Given the time frame in which estimates of benefit would be evaluated the expert panel determined that projects that would affect this limiting factor are unlikely to happen within the 2016-2018 period. The panel did note the significance of this limiting factor established in the Recovery Plan and as well pointed out that some limiting factors can be seen as symptoms reflecting a degraded condition in other limiting factors. The expert panel estimated low bookend on 5/18/2016. Comments entered RM 7/6/2016.	No actions applicable to implemented within the Therefore no change in p expected. Comments ent
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	8.4: Water Quality: Turbidity	1.00%	80	80	80	85	80	90		No actions applicable to implemented within the Therefore no change in p expected. Comments ent
Snake River Spring/Summer Chinook	Tucannon River	TUC1B	Lower Tucannon - Mouth to Pataha	9.2: Water Quantity: Decreased Water Quantity	0.00%	95	95	95	96	96	96	in 2016 the expert panel reduced the weight of this limiting factor to accommodate addition of limiting factor 4.2. Comment entered RM 7/6/2016.	No actions applicable to t implemented within the Therefore no change in p expected. Comments en

	Estimates Comments
g factor. based hing ro red RM	The expert panel evaluated one riparian action that is expected to be implemented between 2013 and 2018. PA-40 Tucannon Reach will treat 5.54 ac. The same rationale used to estimate benefits to limiting factor 4.1 were applied to this limiting factor, resulting in 0.1% expected uplift. Comments entered RM 7/6/2016.
tor 5.1 low ent emaining	No actions applicable to this limiting factor were expected to be implemented within the 2016-2018 period in this assessment unit. Therefore no change in percent function of this limiting factor was expected. Comments entered RM 7/6/2016.
miting iting 5.	No actions applicable to this limiting factor were expected within the 2016-2018 period in this assessment unit. Therefore no change in percent function of this limiting factor was expected. Comments entered RM 7/6/2016.
	No actions applicable to this limiting factor were expected within the 2016-2018 period in this assessment unit. Therefore, no change in percent function of this limiting factor was expected. Comments entered RM 7/6/2016.
ht of on of	No actions applicable to this limiting factor were expected to be implemented within the 2016-2018 period in this assessment unit. Therefore no change in percent function of the limiting factor was expected. Comments entered RM 7/6/2016.
	No actions applicable to this limiting factor were antcipiated to be implemented between 2013-2018 period in this assessment unit. Therefore no change in percent function of the limiting factor was expected. Comments entered RM 7/6/2016.
e of this ected the yould be to or are eriod. imiting d as well be seen on in timated tered	No actions applicable to this limiting factor were expected to be implemented within the 2016-2018 period in this assessment unit. Therefore no change in percent function of this limiting factor was expected. Comments entered RM 7/6/2016.
	implemented within the 2016-2018 period in this assessment unit. Therefore no change in percent function of this limiting factor was expected. Comments entered RM 7/6/2016.
ht of on of	No actions applicable to this limiting factor were expected to be implemented within the 2016-2018 period in this assessment unit. Therefore no change in percent function of this limiting factor was expected. Comments entered RM 7/6/2016.