NOTES:

This workbook contains habitat actions data downloaded directly from the Taurus database. Actions include those documented during the **Look Forward** process covering the **2016-2018** work window.

Individual sheets contain habitat actions data for individual populations for steelhead.

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	Action	Work Element	Metric	Metric Plan Value	Plan Comment
Upper Columbia Steelbead	Entiat River	ERS3A	Middle Entiat	4.1: Riparian Condition: Riparian Vegetation	Gray E F	47. Plant Vegetation	1406. # of riparian miles treated	0.15 miles treated	Middle Entiat based on 60% plans
Upper Columbia	Entiat River	ERS3A	Middle Entiat	4.1: Riparian Condition: Riparian Vegetation	Stormy A B C	47. Plant Vegetation	1406. # of riparian miles treated	0.36 miles treated	Middle Entiat based on 60% plans
Steelhead									
Upper Columbia	Entiat River	ERS3A	Middle Entiat	6.1: Channel Structure and Form: Bed and Channel Form	Stormy A B C	29. Increase Aquatic and/or Floodplain Complexity	1387. # of miles of stream with improved complexity	1.85 miles	Middle Entiat based on 60% plans
Steelhead									
Upper Columbia	Entiat River	ERS3A	Middle Entiat	6.2: Channel Structure and Form: Instream Structural	Stormy A B C	29. Increase Aquatic and/or Floodplain Complexity	1388. # of structures installed	69	Middle Entiat based on 60% plans
Steelhead				Complexity					
Upper Columbia	Entiat River	ERS3A	Middle Entiat	6.2: Channel Structure and Form: Instream Structural	Gray E F	29. Increase Aquatic and/or Floodplain Complexity	1388. # of structures installed	28	Middle Entiat based on 60% plans
Steelhead				Complexity					
Upper Columbia	Entiat River	ERS3A	Middle Entiat	6.1: Channel Structure and Form: Bed and Channel Form	Gray D E F	29. Increase Aquatic and/or Floodplain Complexity	1387. # of miles of stream with improved complexity	0.84 miles	Middle Entiat based on 60% plans
Steelhead									
Upper Columbia	Entiat River	ERS1	Lower Entiat	9.2: Water Quantity: Decreased Water Quantity	2016-17 Roaring Creek screen - 1.0 cfs (1.3 miles)	84. Remove/Install Diversion	1441. # of miles of habitat accessed to the next upstream barrier(s) or	1.0 cfs (1.3 miles)	
Steelhead							likely limit of habitable range		
Upper Columbia	Entiat River	ERS1	Lower Entiat	2.3: Injury and Mortality: Mechanical Injury	2016-17 Roaring Creek screen	69. Install Fish Screen	1746. Flow rate at the replaced screen diversion allowed by the water	0.22 cfs (1.3 miles)	1 screen
Steelhead					-		right in cubic-feet per second (cfs)		
Upper Columbia	Entiat River	ERS3B	Upper Middle Entiat	6.2: Channel Structure and Form: Instream Structural	2017: Upper Stillwaters Signal Peak Sidechannel			0.3 miles	
Steelhead				Complexity					
Upper Columbia	Entiat River	ERS3B	Upper Middle Entiat	6.2: Channel Structure and Form: Instream Structural	2017: Upper Burns Riprap Enhancement			0.5 miles	
Steelhead				Complexity					
Upper Columbia	Entiat River	ERS3A	Middle Entiat	5.2: Peripheral and Transitional Habitats: Floodplain	Stormy A B C	30. Realign, Connect, and/or Create Channel	1476. # of stream miles after treatment	1.85 miles	Middle Entiat based on 60% plans
Steelhead				Condition					
Upper Columbia	Entiat River	ERS3A	Middle Entiat	5.2: Peripheral and Transitional Habitats: Floodplain	Gray E F	30. Realign, Connect, and/or Create Channel	1476. # of stream miles after treatment	0.84 miles	Middle Entiat based on 60% plans
Steelhead				Condition					
Upper Columbia	Entiat River	ERS3A	Middle Entiat	6.2: Channel Structure and Form: Instream Structural	Stormy A B C	180. Enhance Floodplain/Remove, Modify, Breach Dike	1565. # of miles of dike removed or modified in the freshwater area	0.19	Middle Entiat based on 60% plans
Steelhead				Complexity					
Upper Columbia	Entiat River	ERS3A	Middle Entiat	6.2: Channel Structure and Form: Instream Structural	2016: Entiat 3D LWM Revisited			0.25	
Steelhead				Complexity					
Upper Columbia	Entiat River	ERS2	Mad River	6.2: Channel Structure and Form: Instream Structural	2018: Mad River LWD Meadow Project			0.3	
Steelhead				Complexity					

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	Action	Work Element	Metric	Metric Plan Value	Plan Comment
Upper Columbia Steelhead	Methow River	MES7	Lower Methow	9.2: Water Quantity: Decreased Water Quantity	Barkley MVID	164. Acquire Water Instream	1453. Flow of water returned to the stream as prescribed in the water acquisition in cubic-feet per second (cfs)	TBD cfs	
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	9.2: Water Quantity: Decreased Water Quantity	Barkley MVID	164. Acquire Water Instream	1453. Flow of water returned to the stream as prescribed in the water acquisition in cubic-feet per second (cfs)	TBD cfs	
Upper Columbia Steelhead	Methow River	MES9A	Middle Methow	9.2: Water Quantity: Decreased Water Quantity	2016 - Barkley Irrigation, TU	164. Acquire Water Instream	1453. Flow of water returned to the stream as prescribed in the water acquisition in cubic-feet per second (cfs)	7 cfs	permanenet
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	4.1: Riparian Condition: Riparian Vegetation	Twisp River Floodplain Phase II	47. Plant Vegetation		0.75	
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	Twisp River Floodplain Phase I	30. Realign, Connect, and/or Create Channel	1477. # of stream miles before treatment	0.75	
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	6.2: Channel Structure and Form: Instream Structural Complexity	2016-Twisp River Floodplain Phase I	29. Increase Aquatic and/or Floodplain Complexity	1387. # of miles of stream with improved complexity	0.65 miles	
Upper Columbia Steelhead	Methow River	MES9A	Middle Methow	2.3: Injury and Mortality: Mechanical Injury	2016-Barkley Irrigation	69. Install Fish Screen		1 screen	
Upper Columbia Steelhead	Methow River	MES9A	Middle Methow	4.1: Riparian Condition: Riparian Vegetation	2016-Barkley Bear Habitat Enhancement	47. Plant Vegetation	1406. # of riparian miles treated	0.75 miles	
Upper Columbia Steelhead	Methow River	MES9A	Middle Methow	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	2016-Barkley Bear Habitat Enhancement	30. Realign, Connect, and/or Create Channel	1476. # of stream miles after treatment	0.75 miles	
Upper Columbia Steelhead	Methow River	MES9A	Middle Methow	6.2: Channel Structure and Form: Instream Structural Complexity	Barkley Bear	29. Increase Aquatic and/or Floodplain Complexity	1387. # of miles of stream with improved complexity	0.34	0.85 miles treated, Expert panel prorated 40% to reflect progress toward PFC by 2018 (0.34)
Upper Columbia Steelhead	Methow River	MES9A	Middle Methow	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	2016 Silver side channel revival project	30. Realign, Connect, and/or Create Channel	1477. # of stream miles before treatment	0.38	3
Upper Columbia Steelhead	Methow River	MES3	Early Winters Creek	6.2: Channel Structure and Form: Instream Structural Complexity	2017: Early Winters 20 Below Large Wood			0.1 miles	will create large wood cover and scour pools along bank on river left
Upper Columbia Steelhead	Methow River	MES6	Lower Chewuch	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	Chewuch River Mile 15.5-17;			0.5 miles	
Upper Columbia Steelhead	Methow River	MES6	Lower Chewuch	6.1: Channel Structure and Form: Bed and Channel Form	Chewuch River Mile 15.5-17; Chewuch River Mile 17-20			4.5 miles	Combined two projects for a total of 4.5 stream miles treated
Upper Columbia Steelhead	Methow River	MES6	Lower Chewuch	6.2: Channel Structure and Form: Instream Structural Complexity	Chewuch River Mile 15.5-17; Chewuch River Mile 17-20			4.5 miles	Combined metrics for two projects
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	4.1: Riparian Condition: Riparian Vegetation	2016: Twisp Ponds Left Bank Side Channel	47. Plant Vegetation	1627. # of riparian wetland miles treated	0.26	large vegetation enhancement component
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	4.1: Riparian Condition: Riparian Vegetation	2017: Twisp River Horseshoe Side Channel			0.1 miles	
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	2016: Newby Narrows Project Side Channel Project			0.2 miles	1200 foot long side channel
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	2016: Twisp Ponds Left Bank Side Channel			0.26 miles	
Upper Columbia Steelhead	Methow River	MES8	Lower Twisp	5.1: Peripheral and Transitional Habitats: Side Channel and Wetland Conditions	2017: Twisp River Horseshoe Side Channel			0.1 miles	
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	6.1: Channel Structure and Form: Bed and Channel Form	2016: Newby Narrows Project	29. Increase Aquatic and/or Floodplain Complexity		0.8 miles	mainstem and side channel complexity
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	6.1: Channel Structure and Form: Bed and Channel Form	2016:Twisp Ponds Left Bank Side Channel	30. Realign, Connect, and/or Create Channel		0.26 miles	
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	6.1: Channel Structure and Form: Bed and Channel Form	2017: Twisp River Horseshoe Side Channel			0.2 miles	
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	6.2: Channel Structure and Form: Instream Structural	2016: Newby Narrows Project	29. Increase Aquatic and/or Floodplain Complexity		0.8 miles	mainstem and side channel complexity
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	6.2: Channel Structure and Form: Instream Structural	2016: Twisp Ponds Left Bank Side Channel	30. Realign, Connect, and/or Create Channel		0.26 miles	all complexity is in side channels
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	6.2: Channel Structure and Form: Instream Structural	2017: Lower Twisp Large Wood	29. Increase Aquatic and/or Floodplain Complexity		1 mile	
Upper Columbia Steelbead	Methow River	MES9B	Upper-Middle Methow	5.1: Peripheral and Transitional Habitats: Side Channel and Watland Conditions	2016: Big Valley South	181. Create, Restore, and/or Enhance Wetland		0.2 miles	3 backwater enhancements
Upper Columbia Steelhead	Methow River	MES9B	Upper-Middle Methow	6.1: Channel Structure and Form: Bed and Channel Form	2016: Big Valley South			0.9 miles	Cable Tram Removal, Apex Jams and Bank Burried LWS
Upper Columbia Steelhead	Methow River	MES9B	Upper-Middle Methow	6.2: Channel Structure and Form: Instream Structural	2016: Big Valley South			0.9 miles	Cable Tram Removal, Apex Jams and Bank Burried LWS
Upper Columbia Steelhead	Methow River	MES3	Early Winters Creek	6.1: Channel Structure and Form: Bed and Channel Form	2017: Early Winters 20 Below Large Wood			0.1 miles	will create large wood cover and scour pools along bank on river left
Upper Columbia Steelhead	Methow River	MES1	Beaver Creek	1.1: Habitat Quantity: Anthropogenic Barriers	Frazier Creek Barrier (2016)			2.5 miles	No measureable benefit at this time due to downstream barriers
Upper Columbia Steelhead	Methow River	MES1	Beaver Creek	1.1: Habitat Quantity: Anthropogenic Barriers	WDFW/Maltais diversion			2 miles	no measureable benefit at this time due to downstream barriers
Upper Columbia Steelbead	Methow River	MES1	Beaver Creek	1.1: Habitat Quantity: Anthropogenic Barriers	Stokes Culvert to bridge			6.7 miles	
Upper Columbia Stoolboad	Methow River	MES6	Lower Chewuch	5.1: Peripheral and Transitional Habitats: Side Channel and Wotland Conditions	Chewuch River Mile 17-20	30. Realign, Connect, and/or Create Channel	1752. # of miles of side channel treated in the freshwater non-tidal	0.2	2
Upper Columbia Steelbead	Methow River	MES8	Lower Twisp	4.1: Riparian Condition: Riparian Vegetation	2016: Devaney (Colville Tribe) Riparian Exclusion	47. Plant Vegetation	1627. # of riparian wetland miles treated	1	added as per EP 2016
Upper Columbia	Methow River	MES8	Lower Twisp	6.1: Channel Structure and Form: Bed and Channel Form	2016-Twisp River Floodplain Phase I			0.4 miles	
Upper Columbia	Methow River	MES8	Lower Twisp	6.1: Channel Structure and Form: Bed and Channel Form	2017-Lower Twisp Large Wood			1 mile	
Upper Columbia Stoolboad	Methow River	MES9A	Middle Methow	1.1: Habitat Quantity: Anthropogenic Barriers	2016 Barkley Bear	85. Remove/Breach Fish Passage Barrier		0.19 miles	
Upper Columbia	Methow River	MES9A	Middle Methow	4.1: Riparian Condition: Riparian Vegetation	2016-Lawson Fencing Project	40. Install Fence	1488. # of river miles treated	0.25	
Upper Columbia	Methow River	MES9A	Middle Methow	4.1: Riparian Condition: Riparian Vegetation	2016-Silver Side Channel	47. Plant Vegetation	1406. # of riparian miles treated	0.38	3
Upper Columbia	Methow River	MES9A	Middle Methow	6.1: Channel Structure and Form: Bed and Channel Form	2016 - Barkley Bear Habitat enhancement			0.85 miles	
Upper Columbia	Methow River	MES9A	Middle Methow	9.2: Water Quantity: Decreased Water Quantity	2016 Barkley Irrigation TU	164. Acquire Water Instream	1453. Flow of water returned to the stream as prescribed in the water	19 cfs	permanent
Upper Columbia	Methow River	MES9A	Middle Methow	9.2: Water Quantity: Decreased Water Quantity	TU MVID-east pipe		acquisition in cubic-reet per second (CIS)		no data
Sreemedu	1	1		1	1	1			

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	Action	Work Element	Metric	Metric Plan Value	Plan Comment	
Upper Columbia	Wenatchee River	WES7	Nason	5.1: Peripheral and Transitional Habitats: Side Channel and	2016: Lower White Pine Groups 2&3 - Yakama Nations	29. Increase Aquatic and/or Floodplain Complexity	1387. # of miles of stream with improved complexity	0.15 miles very small amount of riparian planting		
Steelhead				Wetland Conditions						
Upper Columbia	Wenatchee River	WES7	Nason	6.2: Channel Structure and Form: Instream Structural	2016: LWP Groups 2&3			0.25 miles	no side channel work	
Steelhead				Complexity						
Upper Columbia	Wenatchee River	WES9B	Upper Wenatchee	5.1: Peripheral and Transitional Habitats: Side Channel and	2017: Meacham Flats	180. Enhance Floodplain/Remove, Modify, Breach Dike		0.2 miles	side channel work: 8 structures. Includes complexity	
Steelhead				Wetland Conditions						
Upper Columbia	Wenatchee River	WES9B	Upper Wenatchee	6.2: Channel Structure and Form: Instream Structural	2016: Meacham Flats				0.2 miles - all side channels so no credit in this limiting factor	
Steelhead				Complexity						
Upper Columbia	Wenatchee River	WES7	Nason	4.1: Riparian Condition: Riparian Vegetation	Upper White Pine	47. Plant Vegetation	1406. # of riparian miles treated	0.59 miles	UWP based on 90% plans	
Steelhead									Reveg. area under power line in 2018. Moving power line. Prorated to 1% because	
									there is only one year to grow	
Upper Columbia	Wenatchee River	WES7	Nason	5.1: Peripheral and Transitional Habitats: Side Channel and	Upper White pine (2018)	180. Enhance Floodplain/Remove, Modify, Breach Dike	1565. # of miles of dike removed or modified in the freshwater area	0.019 miles	UWP based on 90% plans	
Steelhead				Wetland Conditions					alcove and side channel creation	
Upper Columbia	Wenatchee River	WES7	Nason	6.1: Channel Structure and Form: Bed and Channel Form	UWP	180. Enhance Floodplain/Remove, Modify, Breach Dike	1565. # of miles of dike removed or modified in the freshwater area	0.45 miles	UWP based on 90% plans	
Steelhead										
Upper Columbia	Wenatchee River	WES7	Nason	6.1: Channel Structure and Form: Bed and Channel Form	UWP	30. Realign, Connect, and/or Create Channel	1476. # of stream miles after treatment	0.25 miles	UWP based on 90% plans	
Steelhead										
Upper Columbia	Wenatchee River	WES7	Nason	6.2: Channel Structure and Form: Instream Structural	UWP (2018)	29. Increase Aquatic and/or Floodplain Complexity	1387. # of miles of stream with improved complexity	0.53 miles	UWP based on 90% plans	
Steelhead				Complexity						

ESU	Population	Code	Assessment Unit	2012 Standardized Limiting Factor	Action	Work Element	Metric	Me
Upper Columbia	Okanogan River	ORS5B	Upper Salmon Creek (OID to	4.1: Riparian Condition: Riparian Vegetation	2015: Riparian Planting	47. Plant Vegetation		1 ac
Steelhead			Conconully Dam)					
Upper Columbia	Okanogan River	ORS5B	Upper Salmon Creek (OID to	7.2: Sediment Conditions: Increased Sediment Quantity	2017: Bio engineering/bank stabilization	55. Erosion and Sedimentation Control		100
Steelhead			Conconully Dam)					_
Upper Columbia Steelhead	Okanogan River	ORS7K	Nine Mile Creek	6.1: Channel Structure and Form: Bed and Channel Form	2016: regrading of the lower portion of the creek to abate gravel aggredation	55. Erosion and Sedimentation Control		0.3
Upper Columbia Steelhead	Okanogan River	ORS1	Loup Loup Creek	9.2: Water Quantity: Decreased Water Quantity	2018: Irrigation canal lining	164. Acquire Water Instream		1-1
Upper Columbia Steelhead	Okanogan River	ORS2B	Okanogan River 01 (Chilliwist to Salmon)	2.3: Injury and Mortality: Mechanical Injury	2018: irrigation diversion screening	84. Remove/Install Diversion		Γ
Upper Columbia Steelhead	Okanogan River	ORS3A	Okanogan River 02 (Salmon Creek to Omak Creek)	2.3: Injury and Mortality: Mechanical Injury	2018: irrigation diversion screening	69. Install Fish Screen		0 so
Upper Columbia Steelhead	Okanogan River	ORS3B	Okanogan River 03 (Omak to Riverside)	2.3: Injury and Mortality: Mechanical Injury	2018: irrigation diversion screening	69. Install Fish Screen		3 so
Upper Columbia Steelhead	Okanogan River	ORS3C	Okanogan River 04 (Riverside to Janis Bridge)	2.3: Injury and Mortality: Mechanical Injury	2018: irrigation diversion screening	69. Install Fish Screen		6 so
Upper Columbia Steelhead	Okanogan River	ORS3C	Okanogan River 04 (Riverside to Janis Bridge)	4.1: Riparian Condition: Riparian Vegetation	Planting of side channel/floodplain habitat	47. Plant Vegetation		320
Upper Columbia Steelhead	Okanogan River	ORS3D	Okanogan River 05 (Janis to Siwash Creek)	2.3: Injury and Mortality: Mechanical Injury	2018: irrigation diversion screening	69. Install Fish Screen		
Upper Columbia Steelhead	Okanogan River	ORS8A	Okanogan River 06 (Siwash to Confluence with Similkameen)	7.2: Sediment Conditions: Increased Sediment Quantity	2017: Lesamiz Bio engineering/bank stabilization	55. Erosion and Sedimentation Control		1 m
Upper Columbia Steelhead	Okanogan River	ORS8A	Okanogan River 06 (Siwash to Confluence with Similkameen)	7.2: Sediment Conditions: Increased Sediment Quantity	2017: Lesamiz livestock exclusion fencing	40. Install Fence		1.5
Upper Columbia Steelhead	Okanogan River	ORS8A	Okanogan River 06 (Siwash to Confluence with Similkameen)	4.1: Riparian Condition: Riparian Vegetation	2017: Riparian Planting	47. Plant Vegetation		0.7
Upper Columbia Steelhead	Okanogan River	ORS4B	Upper Omak Creek (Upstream from Mission Falls)	7.2: Sediment Conditions: Increased Sediment Quantity	Omak Creek road decommissioning	29. Increase Aquatic and/or Floodplain Complexity		5 st
Upper Columbia Steelhead	Okanogan River	ORS1	Loup Loup Creek	9.2: Water Quantity: Decreased Water Quantity	**** Listed in spreadsheet as Johnson Creek, but no AU corollary**** 2018: Irrigation canal lining	164. Acquire Water Instream		T
Upper Columbia Steelhead	Okanogan River	ORS5B	Upper Salmon Creek (OID to Conconully Dam)	9.2: Water Quantity: Decreased Water Quantity	Okanogan Irrigation District Irrigation Diversion Improvement	164. Acquire Water Instream	1452. Amount of water secured in acre-feet/year	1,8
Upper Columbia Steelhead	Okanogan River	ORS5A	Lower Salmon Creek (OID to Mouth)	9.2: Water Quantity: Decreased Water Quantity	Okanogan Irrigation District Irrigation Diversion Improvement	164. Acquire Water Instream	1452. Amount of water secured in acre-feet/year	1,80
Upper Columbia Steelhead	Okanogan River	ORS5A	Lower Salmon Creek (OID to Mouth)	9.2: Water Quantity: Decreased Water Quantity	Okanogan Irrigation District Pipeline Improvement	164. Acquire Water Instream	1452. Amount of water secured in acre-feet/year	
Upper Columbia Steelhead	Okanogan River	ORS6A	Lower Similkameen (Confluence To Cross Channel)	7.2: Sediment Conditions: Increased Sediment Quantity	2018: Bio engineering/bank stabilization	55. Erosion and Sedimentation Control		100
Upper Columbia Steelhead	Okanogan River	ORS8A	Okanogan River 06 (Siwash to Confluence with Similkameen)	4.1: Riparian Condition: Riparian Vegetation	Lesamiz Project			T

ric Plan Value	Plan Comment
re	
) feet	Reach Salmon 8
miles	
cfs, depending on time of year	water most beneficial during winter rearing
	Move to lookback
	1 screen
eens	**** check accuracy of data ****
eens	
reens	
) feet	
	2 screens
	move to lookback
le	estimated length
niles	
miles	
eam miles	
	2 cfs
	PLACEHOLDER - currently no AU for Johnson Creek
0 ac ft/yr for 50 years	
0 ac ft/yr for 50 years	
	1,800 ac ft/yr for 50 years
	Wont happen by 2018
) feet	