

Workbook Info

Project:

Expert Panel 2015-2016

Meeting:

Clearwater Lookback

Primary Data Recorder:

Nick Legg, Geomorphologist, Cardno Inc.

Latest Revision:

3/1/2016

QA - EWL

3.10.16

Workbook Description

This workbook is the "Calculation Spreadsheet" used to capture completed actions and calculate functional uplift during the Clearwater Lookback meeting on February 9-11, 2016. This table was created in support of the biological notes taken in the same meeting, and contained in the spreadsheet "Clearwater Steelhead_Look Back2012-2015_BioNotes_3-1-16.xlsx". The biological notes spreadsheet also documents the rationale underlying this spreadsheet.

Filename:

V:\CSRO\Habitat Program\EXPERT PANELS\2016 EP website\EP Final Docs_2016\Clearwater\Calculation_Tables\EP_Clearwater_LB_2012-15_Steelhead_CalcTable_070616_Final.xlsx

Clearwater Calculations Info

Sheets:

Sheets are produced for individual Assessment Units and named by the Assessment Unit Code. When the panel identified no actions in an assessment unit, a sheet was generally not created.

Stream Miles of Steelhead Use

93 mi

(used as denominator
in uplift calculation)

Panel decided on 93 miles counting major tributaries and no 1st order streams, as well as tribs with known Steelhead

SCS1 - LF 1.1 (Anthropogenic Barriers)			
Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Little Elk Creek	4.2	75%	3.15
Lightning Fork-Little Elk Creek	1	50%	0.5
Elk Creek PFI Road	12	40%	4.8
American River	44.3	40%	17.72
West Fork American River	0.5	50%	0.25
Total Project Length	62		26.42
Total # Projects	5		
Total Stream Miles Affected	26.42		
Total Stream Miles (Denominator)	93 mi.		
% Uplift	28.4%		

SCS1 - LF 4.1 (Riparian Vegetation)			
Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	93 mi.		
% Uplift	0.0%		

SCS1 - LF 4.2 (LWD Recruitment)			
Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0

Total Project Length	<div></div> 0	<div></div> 0
Total # Projects	0	
Total Stream Miles Affected	0	
Total Stream Miles (Denominator)	93 mi.	
% Uplift	0.0%	

SCS1 - LF 5.1 (Peripheral and Transitional Habitats: Side Channel and Wetland Conditions)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions	<div></div>		<div></div> 0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	93 mi.		
% Uplift	0.0%		

SCS1 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions	<div></div>		<div></div> 0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	93 mi.		
% Uplift	0.0%		

SCS1 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions	<div></div>		<div></div> 0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	93 mi.		

% Uplift

0.0%

SCS1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Road Landscape Position		Weighting (categorized by riparian (90%), mid-slope (50%), upper watershed (10%), landslide prone area (90%) based on gradient)	Weighting of total benefit possible	Realized Change in 2018 (mi)
	Stream Miles affected	Road Miles			
American River Road Decommissioning	2		2.9	50%	5%0.05
Total Project Length	2				0.05
Total # Projects	1				
Effective weighting					3%
Total Stream Miles Affected (weighted)	0.05				
Total Stream Miles (Denominator)	93 mi.				

% Uplift

0.1%

SCS1 - LF 8.1(Water Quality: Temperature)

No Actions

% Uplift

0.0%

Stream Miles of Steelhead Use	44 mi	(used as denominator in uplift calculation)
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SCS2 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	44 mi.		Mileage calculated by panel
% Uplift	0.0%		

SCS2 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Crooked River (2013)	0.25	50%	0.125
Total Project Length	0.25		0.125
Total # Projects	1		
Total Stream Miles Affected	0.125		
Total Stream Miles (Denominator)	44 mi.		
% Uplift	0.3%		

SCS2 - LF 4.2 (LWD Recruitment)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Crooked River (2013)	0.25	0%	0
Total Project Length	0.25		0
Total # Projects	1		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	44 mi.		

% Uplift	0.0%
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SCS2 - LF 5.1 (Peripheral and Transitional Habitats: Side Channel and Wetland Conditions)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	44 mi.		

% Uplift	0.0%
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SCS2 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	44 mi.		

% Uplift	0.0%
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SCS2 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	44 mi.		

% Uplift	0.0%
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SCS2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Road Landscape Position Weighting (categorized by riparian (90%), mid-</u>		<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
Tributary to EF Crooked R. (2013) Culvert Replace	5		90%	5%	0.225
Total Project Length	5				0.225
Total # Projects	1				
Total Stream Miles Affected	0.225				
Total Stream Miles (Denominator)	44 mi.				
% Uplift	0.5%				

SCS2 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Road Landscape Position Weighting (categorized by riparian (90%), mid-</u>		<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
Crooked River Veg Planting (2013)	2		0%	0%	0
Total Project Length	2				0
Total # Projects	1				
Total Stream Miles Affected	0				
Total Stream Miles (Denominator)	44 mi.				
% Uplift	0.0%			Alternative method: Uplift equals riparian vegetation uplift	

Stream Miles of Steelhead Use	21 mi	(used as denominator in uplift calculation)	Streamnet Steelhead distribution plus about 6 miles based on Intrinsic Potential layer and known tributaries with steelhead use.
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SCS4 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	21 mi.		Mileage calculated by panel
% Uplift	0.0%		

SCS4 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
McComas Meadows Veg Planting & Invasive Weed Treatment (2012)	0.25	30%	0.075
McComas Meadows Veg Planting & Invasive Weed Treatment (2013)	0.25	25%	0.0625
McComas Meadows Veg Planting & Invasive Weed Treatment (2014)	0.25	20%	0.05
McComas Meadows Veg Planting & Invasive Weed Treatment (2015)	0.25	15%	0.0375
Total Project Length	1		0.225
Total # Projects	4		
Total Stream Miles Affected	0.225		
Total Stream Miles (Denominator)	21 mi.		
% Uplift	1.1%		

SCS4 - LF 4.2 (LWD Recruitment)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		

Total Stream Miles Affected	0
Total Stream Miles (Denominator)	21 mi.
% Uplift	0.0%

SCS4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Road Landscape Position Weighting (categorized by riparian (90%), mid-</u>		<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
Meadow Face III 2012 Road Decomm.	5		30%	5%	0.075
Meadow Face IV 2014 Road Decomm.	5		30%	5%	0.075
Total Project Length	10				0.15
Total # Projects	2				
Total Stream Miles Affected	0.15				
Total Stream Miles (Denominator)	21 mi.				
% Uplift	0.7%				

SCS4 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
McComas Meadows Veg Planting & Invasive Weed Treatment (2012)	0.25	30%	0.075
McComas Meadows Veg Planting & Invasive Weed Treatment (2013)	0.25	25%	0.0625
McComas Meadows Veg Planting & Invasive Weed Treatment (2014)	0.25	20%	0.05
McComas Meadows Veg Planting & Invasive Weed Treatment (2015)	0.25	15%	0.0375
Total Project Length	1		0.225
Total # Projects	4		
Total Stream Miles Affected	0.225		
Total Stream Miles (Denominator)	21 mi.		
% Uplift	1.1%		

Stream Miles of Steelhead Use	24.1 mi	(used as denominator in uplift calculation)	Streamnet plus added miles from tribs
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SCS5 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Hunt Creek Culvert	3.1	50%	1.55
Black George Creek Culvert	0.9	50%	0.45
Adams Creek Culvert	0.3	50%	0.15
Total Project Length	4.3		2.15
Total # Projects	3		
Total Stream Miles Affected	2.15		
Total Stream Miles (Denominator)	24.1 mi.		
% Uplift	8.9%		

SCS5 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Weighting accounting for coincident project location	Realized Change in 2018 (mi)
Mill Creek Slide (2012)	0.1	30%	25%	0.0075
Mill Creek Slide(2013)	0.1	25%	25%	0.00625
Mill Creek Slide (2014)	0.1	20%	25%	0.005
Mill Creek Slide (2015)	0.1	15%	25%	0.00375
				0.0225
Total # Projects	4			
Total Stream Miles Affected	0.0225			
Total Stream Miles (Denominator)	24.1 mi.			
% Uplift	0.1%			

SCS5 - LF 4.2 (LWD Recruitment)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
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No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	24.1 mi.		
% Uplift	0.0%		

SCS5 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Road Landscape Position Weighting (categorized by riparian (90%), mid-</u>		<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
Mill Creek Trail (2014) Bridge Installation	0.5	100%		50%	0.25
Total Project Length	0.5				0.25
Total # Projects	1				
Total Stream Miles Affected	0.25				
Total Stream Miles (Denominator)	24.1 mi.				
% Uplift	1.0%				

SCS5 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Weighting accounting for coincident project location</u>		<u>Realized Change in 2018 (mi)</u>
Mill Creek Slide (2012)	0.1	30%		25%	0.0075
Mill Creek Slide(2013)	0.1	25%		25%	0.00625
Mill Creek Slide (2014)	0.1	20%		25%	0.005
Mill Creek Slide (2015)	0.1	15%		25%	0.00375
					0.0225
Total # Projects	4				
Total Stream Miles Affected	0.0225				
Total Stream Miles (Denominator)	24.1				
% Uplift	0.1%				mi.

Change stream miles ot 22.8 based on USFS distribution maps

Stream Miles of Steelhead Use
(StreamNet Miles)

22.8 mi

(used as
denominator in
uplift
calculation)

SCS6 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length		0	0
Total # Projects		0	
Total Stream Miles Affected		0	
Total Stream Miles (Denominator)		22.8 mi.	
% Uplift		0.0%	

SCS6 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Weighting accounting for coincident project location	Realized Change in 2018 (mi)
No Actions				0
Total # Projects		0		0
Total Stream Miles Affected		0		
Total Stream Miles (Denominator)		22.8 mi.		
% Uplift		0.0%		

SCS6 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Road Landscape Position Weighting (categorized by riparian (90%), mid-	Weighting of total benefit possible	Realized Change in 2018 (mi)
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Road 469 Peasley Creek	4	90%	50%	1.8
Total Project Length	4			1.8
Total # Projects	1			
Total Stream Miles Affected	1.8			
Total Stream Miles (Denominator)	22.8 mi.			
% Uplift	7.9%			

SCS6 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement</u> <u>Weighting</u>	<u>Weighting</u> <u>accounting for</u> <u>coincident project</u> <u>location</u>	<u>Realized Change</u> <u>in 2018 (mi)</u>
No Actions				0
				0%
Total # Projects		0		
Total Stream Miles Affected		0		
Total Stream Miles (Denominator)		22.8		
% Uplift		0.0%		

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)

51.1 mi

(used as denominator in uplift calculation)

SCS7 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	51.1 mi.		
% Uplift	0.0%		

SCS7 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Newsome Creek Stream and Floodplain Restoration Phase I vegetation planting (2014)	2.5	40%	1
Total # Projects	1		1
Total Stream Miles Affected	1		
Total Stream Miles (Denominator)	51.1 mi.		
% Uplift	2.0%		

SCS7 - LF 4.2 (LWD Recruitment)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Newsome Creek Stream and Floodplain Restoration Phase I vegetation planting (2014)	2.5	4%	0.1
Total # Projects	1		0.1
Total Stream Miles Affected	0.1		
Total Stream Miles (Denominator)	51.1 mi.		
% Uplift	0.2%		

SCS7 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Newsome Creek Stream and Floodplain Restoration Phase I Mine Tailings Removal (2012, reach 3)	0.55	90%	0.495

Newsome Creek Stream and Floodplain Restoration Phase I Mine Tailings Removal (2013-2015, reach 2)	2	100%	2
Total Project Length	2.55		2.495
Total # Projects	2		
Total Stream Miles Affected	2.495		
Total Stream Miles (Denominator)	12 mi.	Denominator is approximate mainstem stream miles with floodplain.	
% Uplift	20.8%		

SCS7 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Newsome Creek Stream and Floodplain Restoration Phase I Stream Restoration (2012)	0.55	50%	0.275
Total Project Length	0.55		0.275
Total # Projects	1		
Total Stream Miles Affected	0.275		
Total Stream Miles (Denominator)	12 mi.		
% Uplift	2.3%		

SCS7 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Road Landscape Position Weighting (categorized by riparian (90%), mid-	Weighting of total benefit possible	Realized Change in 2018 (mi)
Haysfork Sediment Pond Decommissioning	3.5	50%	5%	0.0875
Total Project Length	3.5			0.0875
Total # Projects	1			
Total Stream Miles Affected	0.0875			
Total Stream Miles (Denominator)	51.1 mi.			
% Uplift	0.2%			

SCS7 - LF 8.1(Water Quality: Temperature)

Action	Stream Miles Affected	% Improvement Weighting	Realized Change in 2018 (mi)
Newsome Creek Stream and Floodplain Restoration Phase I Tailings Removal and Vegetation Planting (Combined Projects)	4	15%	0.6
Total # Projects	4		0.6
	1		
Total Stream Miles Affected	0.6		
Total Stream Miles (Denominator)	51.1		
% Uplift	1.2%mi.		

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)

94.1 mi

(used as denominator in uplift calculation)

Streamnet miles plus 11 miles from Expert Panel knowledge of fish use.

SCS8 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Soda Creek MP2.1, 2.6, 3.4, and 3.5 (2013-2015) Culvert Replacements (4 culverts)	9	50%	4.5
Total Project Length	9		4.5
Total # Projects	1		
Total Stream Miles Affected	4.5		
Total Stream Miles (Denominator)	94.1 mi.		
% Uplift	4.8%		

SCS8 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Red River Meadows Conservation Easement - Vegetation Planting (2012-2013)	2	50%	1
Red River Meadows Conservation Easement - Vegetation Planting (2014)	0.1	4%	0.004
			1.004
Total # Projects	2		
Total Stream Miles Affected	1.004		
Total Stream Miles (Denominator)	94.1 mi.		
% Uplift	1.1%		

SCS8 - LF 4.2 (LWD Recruitment)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Change			0
			0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	94.1 mi.		
% Uplift	0.0%		

SCS8 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	94.1 mi.		Denominator is approximate mainstem stream miles with floodplain.
% Uplift	0.0%		

SCS8 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
			0
Total Project Length	0		
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	12 mi.		
% Uplift	0.0%		

SCS8 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Road Landscape</u>	<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
		<u>(categorized by riparian (90%), mid-</u>		
Deadwood Road Decommissioning (2012)	8	65%	50%	2.6
Road 1166 Improvement (2014)	2	90%	50%	0.9
South Fork Red River Road Decommissioning (2014)	7	65%	50%	2.275
Log Culvert Removal (2013) (5 log culverts)	3	90%	75%	2.025
Total Project Length (stream miles affected)	20			7.8
Total # Projects	4			
Total Stream Miles Affected	7.8			
Total Stream Miles (Denominator)	94.1 mi.			
% Uplift		8.3%		

SCS8 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
Red River Meadows Conservation Easement - Vegetation Planting (2012-2013)	2	0%	0
Red River Meadows Conservation Easement - Vegetation Planting (2014)	0.1	0%	0
	<hr/>		<hr/>
	2.1		0
Total # Projects	2		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	94.1		
% Uplift	<div>0.0%</div>		

			(used as denominator in uplift calculation)
Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	30.9	mi	

SCS9 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No actions			0
			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	30.9	mi.	
% Uplift	0.0%		

SCS9 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Group collectively decided on 1.75% uplift based on contributing Assessment Units

SCS9 - LF 8.1(Water Quality: Temperature)

Action	Stream Miles Affected	% Improvement Weighting	Realized Change in 2018 (mi)
No Change	0		0
	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	30.9		
% Uplift	0.0%	mi.	

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)

18.5 mi

(used as denominator in uplift calculation)

SCS10 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	18.5 mi.		
% Uplift	0.0%		

SCS10 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Landscape Position Weighting		Realized Change in 2018 (mi)
		(categorized by riparian (90%), mid-	Weighting of total benefit possible	
Replacment of Ten Mile Creek Bridge (2012)	4	90%	10%	0.36
Total Project Length	4			0.36
Total # Projects	1			
Total Stream Miles Affected	0.36			
Total Stream Miles (Denominator)	18.5 mi.			
% Uplift	1.9%			

LOS1

Eldorado Creek

No Actions in Entire Assessment Unit

Stream Miles of Steelhead Use (StreamNet Miles)

12.3 mi

(used as denominator in uplift calculation)

LOS1 - LF 1.2 (Natural Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	12.3 mi.		
% Uplift	0.0%		

LOS1 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Weighting accounting for coincident project location	Realized Change in 2018 (mi)
No Actions				0
Total # Projects	0			0
Total Stream Miles Affected	0			
Total Stream Miles (Denominator)	12.3 mi.			
% Uplift	0.0%			

LOS1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Road Landscape Position Weighting (categorized by riparian (90%), mid-	Weighting of total benefit possible	Realized Change in 2018 (mi)
No Actions				0
Total Project Length	0			0

Total # Projects	0
Total Stream Miles Affected	0
Total Stream Miles (Denominator)	12.3 mi.
% Uplift	0.0%

Stream Miles of Steelhead Use (StreamNet Miles)	35.1 mi	denominator in uplift calculation)	Mileage provided by panel (2nd and 3rd order streams). Streamnet was 0.
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LOS2 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Jim Brown Creek MP 39 Culvert (2012)	5	75%	3.75
Total Project Length	5		3.75
Total # Projects	1		
Total Stream Miles Affected	3.75		
Total Stream Miles (Denominator)	35.1 mi.		
% Uplift	10.7%		

LOS2 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Jim Brown Creek MP 39 Culvert (2012) - Veg planting	0.075	30%	0.023
			0.023
Total # Projects	1		
Total Stream Miles Affected	0.023		
Total Stream Miles (Denominator)	35.1 mi.		
% Uplift	0.1%		

LOS2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Road Landscape Position Weighting (categorized by riparian (90%), mid-	Weighting of total benefit possible	Realized Change in 2018 (mi)
Jim Brown Creek MP 39 Culvert (2012) - Culvert replace and veg planting	1	90%	50%	0.45
Total Project Length	1			0.45
Total # Projects	1			

Total Stream Miles Affected	0.45
Total Stream Miles (Denominator)	35.1 mi.
% Uplift	1.3%

LOS2 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
Jim Brown Creek MP 39 Culvert (2012) - Veg planting	0.075	30%	0.0225
			2%
Total # Projects	1		
Total Stream Miles Affected	0.0225		
Total Stream Miles (Denominator)	35.1		
% Uplift	0.1%		

LOS2 - LF 8.2 (Water Quality: Oxygen)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Weighting accounting for coincident project location</u>	<u>Realized Change in 2018 (mi)</u>
No Actions				0
				0
Total # Projects	0			
Total Stream Miles Affected	0			
Total Stream Miles (Denominator)	35.1 mi.			
% Uplift	0.0%			

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	54.5 mi	(used as denominator in uplift calculation)	Streamnet plus additional streams with Steelhead use based on panel knowledge.
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LOS3 - LF 1.1 (Anthropogenic Barriers)			
Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Molly creek Culvert Replacment (2014)	1.2	50%	0.6
Total Project Length	1.2		0.6
Total # Projects	1		
Total Stream Miles Affected	0.6		
Total Stream Miles (Denominator)	54.5 mi.		
% Uplift	1.1%		

LOS3 - LF 4.1 (Riparian Vegetation)			
Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Collette Mine Restoration Phase 1 (2015)	0.2	30%	0.06
			0.06
Total # Projects	1		
Total Stream Miles Affected	0.06		
Total Stream Miles (Denominator)	54.5 mi.		
% Uplift	0.1%		

LOS3 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)			
Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Collette Mine Restoration Phase 1 (2015) - LWD Placement	0.2	80%	0.16
Total Project Length	0.2		0.16
Total # Projects	1		
Total Stream Miles Affected	0.16		

Total Stream Miles (Denominator)

29.5 mi.

Panel subtracted 25 miles from streamnet miles due to canyon

% Uplift

0.5%

LOS3 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action

Collette Mine Restoration Phase 1 (2015)

Molly creek Culvert Replacment (2014)

Total Project Length

Total # Projects

Stream Miles
Affected

Road Landscape

Position Weighting

(categorized by
riparian (90%), mid-

Weighting of total benefit possible

Realized Change in 2018
(mi)

0.72

0.18

0.9

2

Total Stream Miles Affected

0.9

Total Stream Miles (Denominator)

54.5 mi.

% Uplift

1.7%

Musselshell Creek

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	24 mi	(used as denominator in uplift calculation)	Expert Panel added miles to Streamnet miles of 6.9.
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LOS4 - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
Musselshell Tunnel Creek Realignment (2012)	8	80%	6.4
Total Project Length	8		6.4
Total # Projects	1		
Total Stream Miles Affected	6.4		
Total Stream Miles (Denominator)	24 mi.		
% Uplift	26.7%		

LOS4 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Deer Gulch Meadow Restoration (2013) - Fence and Veg Planting	0.56	15%	0.084
Total # Projects	1		0.084
Total Stream Miles Affected	0.084		
Total Stream Miles (Denominator)	24 mi.		
% Uplift	0.4%		

LOS4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Landscape Position Weighting (categorized by riparian (90%), mid-	Weighting of total benefit possible	Realized Change in 2018 (mi)
Deer Gulch Meadow Restoration (2013) - Fence and Veg Planting	0.56	90%	75%	0.378
Total Project Length	0.56			0.378
Total # Projects	1			

Total Stream Miles Affected	0.378
Total Stream Miles (Denominator)	24 mi.
% Uplift	1.6%

LOS4 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
Deer Gulch Meadow Restoration (2013) - Fence and Veg Planting	0.56	15%	0.084
			8%
Total # Projects	1		
Total Stream Miles Affected	0.084		
Total Stream Miles (Denominator)	24		
% Uplift	0.4%		

LOS5

Yoosa Creek

No Actions in Entire Assessment Unit

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)

75.5 mi

(used as denominator in uplift calculation)

Miles of perennial flow

LCS4 - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
Flat Iron Road Fish Passage	5	0%	0
Tom Beall Barrier Removal	1.74	0%	0
Total Project Length	6.74		0
Total # Projects	2		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	75.5 mi.		
% Uplift	0.0%		

LCS4 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Mission Creek Planting and Fencing (2012), Site 11-128	1.52	30%	0.456
Rock Creek Fence (2012)	0.45	30%	0.135
Rock Creek Restoration - Riparian Planting and Weed Control	0.7	12%	0.084
Mission Creek Bank Stabilization and planting (2012) -Site 10115	0.11	6%	0.0066
Sweetwater Creek Levee Removal & Planting (2015)	0.1	15%	0.015
Sweetwater Creek Site 12-161 Planting (2013)	0.13	5%	0.0065
Controll Hybrid Knotweed (2012-15)	12	1%	0.12
Bocontrol Treatments (2012-2015)	15	1%	0.15
Site 12-160 - STB Buffer Project Phases I to III - Veg Planting (2015)	1.25	6%	0.075
STB Upper Sites (2012-2013)	0.3	10%	0.03
	31.56		1.0781
Total # Projects	10		
Total Stream Miles Affected	1.0781		
Total Stream Miles (Denominator)	75.5 mi.		
% Uplift	1.4%		

LCS4 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)	Project Specific Denominator	Project Specific Uplift %
Sweetwater Creek Levee Removal (2015)	0.1	75%	0.075	21	0.4%
Rock Creek Restoration (2012)	0.7	75%	0.525	75.5	0.7%
Total Project Length	0.8		0.6		
Total # Projects	2				

21 Treatable miles relative to this limiting factor.

Total Stream Miles Affected 0.6
Total Stream Miles (Denominator) See Above

% Uplift 1.1%

LCS4 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>	<u>Project Specific Denominator</u>	<u>Project Specific Uplift</u>
11-124 Tom Beall Bridge Bank Stabilization	0.01	100%	0.01	75.5	0.01%
Rock Creek Restoration (2012)	0.7	20%	0.14	75.5	0.2%
Sweetwater Creek Levee and Planting	0.1	20%	0.02	21.1	0.1%
Total Project Length	0.81		0.17		
Total # Projects	3				

Total Stream Miles Affected 0.17
Total Stream Miles (Denominator) 50.5 mi.

Panel subtracted 25 miles from streamnet miles due to canyon

% Uplift 0.3%

LCS4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position Weighting (categorized by riparian (90%), mid-</u>	<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
Site 12-161 Stream Crossing	0.01	90%	50%	0.0045
Mission Creek Planting and Fencing (2012), Site 11-128	1.52	90%	15%	0.2052
Rock Creek Fence (2012)	0.45	90%	5%	0.02025
Mission Creek Bank Stabilization (2012) -Site 10115	0.11	90%	45%	0.04455
Sweetwater Creek Levee Removal (2015)	0.1	90%	37%	0.0333
Rock Creek Restoration (2012)	0.7	90%	37%	0.2331
Sweetwater Creek Site 12-161 Planting and Fencing (2013)	0.13	90%	37%	0.04329
Site 12-160 - STB Buffer Project Phases I to III - Veg Planting (2015)	1.25	90%	37%	0.41625
STB Upper Sites (2012-2013)	0.3	90%	40%	0.108
Livestock Exclusion from Webb Creek Spring 12-153	0.15	90%	40%	0.054
11-124 Tom Beall Bridge Bank Stabilization	0.01	90%	50%	0.0045
Tom Beall and Sweetwater Road Treatments	0.4	90%	40%	0.144
No Till	10.05	25%	10%	0.25125
Fountain Grade Project	0.1	90%	10%	0.009
Total Project Length	15.28			1.57119
Total # Projects	14			

Total Stream Miles Affected 1.57
Total Stream Miles (Denominator) 75.5 mi.

% Uplift 2.1%

LCS4 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
Mission Creek Planting and Fencing (2012), Site 11-128	1.52	1%	0.0152
Rock Creek Fence (2012)	0.45	1%	0.0045
Mission Creek Bank Stabilization (2012) -Site 10115	0.11	1%	0.0011
Sweetwater Creek Levee Removal (2015)	0.1	1%	0.001
Sweetwater Creek Planting (2015)	0.1	1%	0.001
Sweetwater Creek Site 12-161 Planting (2013)	0.13	1%	0.0013
Controll Hybrid Knotweed (2012-15)	12	1%	0.12
Bocontrol Treatments (2012-2015)	15	1%	0.15
Site 12-160 - STB Buffer Project Phases I to III - Veg Planting (2015)	1.25	1%	0.0125
STB Upper Sites (2012-2013)	0.3	1%	0.003
TU-30 Plant Vegetation (2013)	0.7	1%	0.007
TA-350 Wetland Restoration (2015)	0.01	1%	0.0001
TA-365 Plant Native Trees and Shrubs (2014)	0.2	1%	0.002
12-157 Weed Control Demonstration Project (Planting at spring)	0.3	1%	0.003
	<u>32.17</u>		<u>0.3217</u>
Total # Projects	14		
Total Stream Miles Affected	0.3217		
Total Stream Miles (Denominator)	75.5		
% Uplift	0.4%		

LCS4- LF 8.7 (Water Quality: Toxic Chemicals)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
			<u>0</u>
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	75.5 mi.		
% Uplift	0.0%		

LCS4- LF 9.1 (Water Quantity: Increased Water Quantity)

No Actions

LCS4- LF 9.2 (Water Quantity: Decreased Water Quantity)

No Actions

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	179.5 mi	(used as denominator in uplift calculation)	Additional 84 miles over stream net based on known fish use.
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LCS5 - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
Remove Troy Dam, West Fork Little Bear also remove 2 culverts	10.7	100%	10.7
Total Project Length	10.7		10.7
Total # Projects	1		
Total Stream Miles Affected	10.7		
Total Stream Miles (Denominator)	179.5 mi.		
% Uplift	6.0%		

LCS5 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Racetrace Planting and Fancing (2013)	0.28	30%	0.084
Upper Corrale Creek (2015) planting and fencing	1.83	40%	0.732
Fry Meadow (2013) Planting and Fencing	0.75	25%	0.1875
Bloom Creek (2014) Planting and Fencing	0.75	25%	0.1875
Troy Dam (2013) Planting	0.2	25%	0.05
Big Bear Swanstrom (2014)	0.4	25%	0.1
			1.341
Total # Projects	6		
Total Stream Miles Affected	1.341		
Total Stream Miles (Denominator)	179.5 mi.		
% Uplift	0.7%		

LCS5 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Racetrace Channel Reconstruction (2013)	0.28	85%	0.238

Upper Corrale Creek (2015) Channel Reconstruction	1.83	90%	1.647
Fry Meadow (2013) Channel Reconstruction	0.75	90%	0.675
Bloom Creek (2014) Channel Reconstruction	0.75	90%	0.675
Troy Dam (2013) Channel Reconstruction	0.2	95%	0.19
Big Bear Swanstrom (2014) Channel Reconstruction	0.4	80%	0.32
Total Project Length	4.21		3.745
Total # Projects	6		
Total Stream Miles Affected	3.745		
Total Stream Miles (Denominator)	179.5		
% Uplift	2.1%		

LCS5 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
Racetrace Channel Reconstruction (2013)	0.28	70%	0.196
Upper Corrale Creek (2015) Channel Reconstruction	1.83	70%	1.281
Fry Meadow (2013) LWD Addition	0.75	90%	0.675
Bloom Creek (2014) LWD Addition	0.75	90%	0.675
Troy Dam (2013) Channel Reconstruction	0.2	70%	0.14
Big Bear Swanstrom (2014) Channel Reconstruction	0.4	10%	0.04
Total Project Length	4.21		3.007
Total # Projects	6		
Total Stream Miles Affected	3.007		
Total Stream Miles (Denominator)	179.5 mi.		
% Uplift	1.7%		

Panel subtracted 25 miles from streamnet miles due to canyon

LCS5 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position Weighting (categorized by riparian (90%), mid-</u>	<u>Weighting of total benefit possible</u>	<u>Sub-watershed Importance Weight</u>	<u>Realized Change in 2018 (mi)</u>
Racetrace Channel Reconstruction (2013)	0.28	90%	90%	45%	0.10
Upper Corrale Creek (2015) Channel Reconstruction	1.83	90%	85%	45%	0.63
Fry Meadow (2013) LWD Addition	0.75	90%	100%	45%	0.30
Bloom Creek (2014) LWD Addition	0.75	90%	100%	45%	0.30
Troy Dam (2013) Channel Reconstruction	0.2	90%	80%	90%	0.13
Big Bear Swanstrom (2014) Channel Reconstruction	0.4	90%	80%	90%	0.26
Total Project Length	4.21				1.73

Total # Projects	6
Total Stream Miles Affected	1.7283375
Total Stream Miles (Denominator)	179.5 mi.
% Uplift	1.0%

LCS5 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
Racetrace Channel Reconstruction (2013)	0.28	0%	0
Upper Corrale Creek (2015) Channel Reconstruction	1.83	0%	0
Fry Meadow (2013) LWD Addition	0.75	0%	0
Bloom Creek (2014) LWD Addition	0.75	0%	0
Troy Dam (2013) Channel Reconstruction	0.2	0%	0
Big Bear Swanstrom (2014) Channel Reconstruction	0.4	0%	0
			0
Total # Projects	6		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	179.5		
% Uplift	0.0%		

LCS5- LF 9.2 (Water Quantity: Decreased Water Quantity)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Change			0
			0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	179.5 mi.		
% Uplift	0.0%		

Upper Lochsa Tributaries – Post office to Parachute Creeks

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	41 mi	(used as denominator in uplift calculation)
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LAS1A - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
East Fork Imnamatnoon Culvert (2015)	0.5	50%	0.25
Total Project Length	0.5		0.25
Total # Projects	1		
Total Stream Miles Affected	0.25		
Total Stream Miles (Denominator)	41 mi.		
% Uplift	0.6%		

LAS1A - LF 4.2 (LWD Recruitment)

Action	Stream Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
108 Road Relocation (2015) Waw'aalainime	0.13	50%	0.06
			0.06
Total # Projects	1		
Total Stream Miles Affected	0.06		
Total Stream Miles (Denominator)	41 mi.		
% Uplift	0.2%		

LAS1A - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
108 Road Relocation (2015) Waw'aalainime	0.13	50%	0.06
Total Project Length	0.13		0.06
Total # Projects	1		
Total Stream Miles Affected	0.06		
Total Stream Miles (Denominator)	41 mi.		
% Uplift	0.2%		

Trib	Miles added to Streamnet Denominator
Badger	4
Wa2	2
Spring Doe	0.5
	1
Total	7.5

LAS1A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position</u>	<u>Weighting</u>	<u>Weighting of total</u>	<u>Realized Change</u>
		<u>(categorized by riparian (90%), mid- slope (50%), upper watershed (10%), landslide prone area (90%) based on gradient)</u>	<u>benefit possible</u>	<u>in 2018 (mi)</u>	
108 Road Relocation (2015) Waw'aalainime	0.13		90%	20%	0.02
2012 Parachute Tree Planting on Decommissioned Road	1		50%	5%	0.03
2013 Cold Storage Planting	1		50%	5%	0.03
2014 Wendover-Badger Tree Planting	1		50%	5%	0.03
2013 5621 Wendover Side Road Improvement	4		70%	10%	0.28
2015 E Fork Imnatoon Culvert	2		90%	2.5%	0.05
2015 Waw'aalainime Dispersed Site	0.1		90%	2.5%	0.00
2015 imnamatoon Dispersed Site	0.1		90%	2.5%	0.00
Treat Invasive Species (2012-2015)	41		50%	1%	0.21
Total Project Length	50.33				0.63
Total # Projects	9				
Total Stream Miles Affected	0.63				
Total Stream Miles (Denominator)	41 mi.				
% Uplift	1.5%				

LAS1A - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No measureable benefit			0
			0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	41		
% Uplift		0.0%	

LAS1A- LF 9.2 (Water Quantity: Decreased Water Quantity)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
			0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	41 mi.		
% Uplift	0.0%		

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)		40.7 mi	(used as denominator in uplift calculation)	Streamnet plus 10.5 miles of known fish use	Trib	Miles added to Streamnet
<i>LAS2A - LF 1.1 (Anthropogenic Barriers)</i>						
<u>Action</u>	<u>Miles affected</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>			
Alkire Creek Culvert Replacement (2015)	0.5	50%	0.25		Cabin	2
			0		Beaver	2.5
			0		Alkire	1
					Walton	2
					Savage	3
					Total	10.5
Total Project Length	0.5		0.25			
Total # Projects	1					
Total Stream Miles Affected	0.25					
Total Stream Miles (Denominator)	40.7 mi.					
% Uplift		0.6%				

10.5

<i>LAS2A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)</i>					
		<u>Landscape Position</u>			
		<u>Weighting</u>			
<u>Action</u>	<u>Stream Miles Affected</u>	<u>(categorized by riparian (90%), mid-</u>	<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>	
Roadside Invasive Treatment (2012-2015)	40.7	50%	1%	0.20	
Alkire Creek Culvert Replacement (2015)	1.0	90%	2%	0.02	
Total Project Length	41.70			0.22	
Total # Projects	2				
Total Stream Miles Affected	0.2215				
Total Stream Miles (Denominator)	40.7 mi.				
% Uplift		0.5%			

LAS2A - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
			0
Total # Projects		0	
Total Stream Miles Affected		0	
Total Stream Miles (Denominator)		40.7	
% Uplift		0.0%	

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	33.4 mi	(used as denominator in uplift calculation)	Streamnet plus tribs with known steelhead use
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LAS3A - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
Pack 1 Bridge (2013)	1.5	0%	0
Pack 2 Bridge (2013)	3.5	0%	0
Pack 3 Bridge (2013)	2.7	0%	0
Total Project Length	7.7		0
Total # Projects	3		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	33.4 mi.		
% Uplift	0.0%		

Tributary	Miles added to Streamnet
Rock	1
Haskell	1
Pack	0.1
South Fork	1
North Fork	1
Shoot	1
Shotgun	1
Total	6.1

LAS3A - LF 4.2 (LWD Recruitment)

Action	Stream Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
Total # Projects	0		0.00
Total Stream Miles Affected	0.00		
Total Stream Miles (Denominator)	33.4 mi.		
% Uplift	0.0%		

LAS3A - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0.00
Total Project Length	0.00		0.00
Total # Projects	0		
Total Stream Miles Affected	0.00		

Total Stream Miles (Denominator) 33.4 mi.

% Uplift 0.0%

LAS3A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position</u>		<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
		<u>(categorized by riparian (90%), mid-</u>			
Pack Cr. 1 Bridge (2013)	1.5	90%		5%	0.07
Pack Cr. 2 Bridge (2013)	3.5	90%		5%	0.16
Pack Cr. 3 Bridge (2013)	2.7	90%		5%	0.12
Pack Creek Road Decommissioning (2013-2015, includes Mt. Fugi, including tree planting)	5	50%		50%	1.25
Brushy Fork Culverts (2012-2015, 4 culverts)	2	90%		10%	0.18
Invasive Species Treatment (2012-15)	33.4	50%		1%	0.17
Cherokee/Twin Road Decommissioning	3	50%		50%	0.75
Haskell Beaver Ridge Planting	1	10%		5%	0.005
Total Project Length	52.1				2.70
Total # Projects	8				

Total Stream Miles Affected 2.70
Total Stream Miles (Denominator) 33.4 mi.

% Uplift 8.1%

LAS3A - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No Measurable Benefit	0	0%	0
			0
Total # Projects	1		

Total Stream Miles Affected 0
Total Stream Miles (Denominator) 33.4

% Uplift 0.0%

Upper Crooked Fork/Boulder Creek

Stream Miles of Steelhead Use (Unless otherwise noted,
mileage calculated from StreamNet GIS layer)

19.3 mi

(used as
denominator in
uplift
calculation)

Streamnet

LAS3B - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0
			0
			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	19.3 mi.		
% Uplift	0.0%		

LAS3B - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Stream Miles Affected	Landscape Position		Weighting of total benefit possible	Realized Change in 2018 (mi)
		Weighting (categorized by riparian (90%), mid-			
Treat Invasive Species (2012-2015)	19.3	50%		1%	0.10
Granite Pass Tree Planting on Decommissioned Roads	1	50%		5%	0.025
Total Project Length	20.3				0.12
Total # Projects	2				
Total Stream Miles Affected	0.12				
Total Stream Miles (Denominator)	19.3 mi.				
% Uplift	0.6%				

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	71.4 mi	(used as denominator in uplift calculation)	

LAS6 - LF 4.1 (Riparian Vegetation)

<u>Action</u>	<u>Stream Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
			0
			0
			0.00
Total # Projects	0		
Total Stream Miles Affected	0.00		
Total Stream Miles (Denominator)	71.4 mi.		
% Uplift	0.0%		

LAS6 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position Weighting (categorized by riparian (90%), mid-50%)</u>	<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
Treat invasives (2013-2015)	71.4	50%	1%	0.36
Total Project Length	71.4			0.36
Total # Projects	1			
Total Stream Miles Affected	0.36			
Total Stream Miles (Denominator)	71.4 mi.			
% Uplift for Actions within LAS6	0.5%			
Average Uplift From Contributing Assessment Units	2.3%			
Weighting of Contributing Uplift	50.0%			
Total Uplift %	1.7%			

LAS6 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No Measurable Benefit			0
			0
Total # Projects		0	
Total Stream Miles Affected		0	
Total Stream Miles (Denominator)		71.4	
% Uplift		0.0%	

Lower Lochsa (Deadman Creek to Pete King Creek)

Stream Miles of Steelhead Use (Unless otherwise noted,
mileage calculated from StreamNet GIS layer)

29.4 mi

(used as
denominator in
uplift
calculation)
Decided on by
Panel

LAS7 - LF 1.1 (Anthropogenic Barriers)

Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
Deep Canyon Road Decommissioning and Culvert Removal (2013)	1	100%	1
Total Project Length	1		1
Total # Projects	1		
Total Stream Miles Affected	1		
Total Stream Miles (Denominator)	29.4 mi.		
% Uplift	3.4%		

LAS7 - LF 4.1 (Riparian Vegetation)

Action	Stream Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Deep Canyon Road Decommissioning and Culvert Removal (2013)	0.25	25%	0.06
Total # Projects	1		0.06
Total Stream Miles Affected	0.06		
Total Stream Miles (Denominator)	29.4 mi.		
% Uplift	0.2%		

LAS7 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
No Actions			0.00
Total Project Length	0.00		0.00
Total # Projects	0		
Total Stream Miles Affected	0.00		
Total Stream Miles (Denominator)	29.4 mi.		

% Uplift

0.0%

LAS7 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position Weighting</u>		<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
		<u>(categorized by</u>	<u>riparian (90%), mid-</u>		
Deep Canyon Road Decommissioning and Culvert Removal (2013)	0.25		90%	30%	0.07
Canyon 445 Decommission (2012)	1.2		90%	25%	0.27
Bear Canyon Road Decommission (2012)	1		50%	25%	0.13
Cedar Brush Road Decommission (Glade Creek, 2012)	1		50%	25%	0.13
Tree Planting on Decommissioned Roads (2015)	1		50%	1%	0.01
Invasives Treatment (2012-2015)	29.4		50%	1%	0.15
Total Project Length	33.85				0.74
Total # Projects	6				
Total Stream Miles Affected	0.74				
Total Stream Miles (Denominator)	29.4 mi.				

% Uplift

2.5%

LAS7 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
			0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	29.4		

% Uplift

0.0%

Middle Lochsa North Face tributaries - Weir to Tick Creeks

Stream Miles of Steelhead Use (Unless otherwise noted,
mileage calculated from StreamNet GIS layer)

57.7 mi

(used as
denominator in
uplift
calculation)

LAS8 - LF 1.1 (Anthropogenic Barriers)			
Action	Miles affected	% Improvement (proration factor)	Realized Change in 2018 (mi)
107 Road/Indian Graves Culvert Replacement/Bridge	0	0%	0
Total Project Length	0		0
Total # Projects	1		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	57.7 mi.		
% Uplift	0.0%		

LAS8 - LF 4.1 (Riparian Vegetation)			
Action	Stream Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
Weir Creek Trail Realignment (2013)	0.50	25%	0.13
			0.13
Total # Projects	0		
Total Stream Miles Affected	0.13		
Total Stream Miles (Denominator)	57.7 mi.		
% Uplift	0.2%		

LAS8 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)				
Action	Stream Miles Affected	Landscape Position Weighting		Realized Change in 2018 (mi)
		(categorized by riparian (90%), mid-	Weighting of total benefit possible	
Invasives and Native Planting Treatment on Decommissioned Roads (2012-2015)	57.7	50%	1%	0.29
107 Road/Indian Graves Culvert Replacement/Bridge	0.5	90%	5%	0.02
Weir Creek Trail Realignment and Decommissioning(2013)	1.0	90%	1%	0.01
Total Project Length	59.2			0.32

Total # Projects	3
Total Stream Miles Affected	0.32
Total Stream Miles (Denominator)	57.7 mi.
% Uplift	0.6%

LAS8 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total # Projects		0	0
Total Stream Miles Affected		0	
Total Stream Miles (Denominator)		57.7	
% Uplift		0.0%	

Middle Lochsa South Face tributaries - Lottie to Robin Creeks

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)	80.8 mi	(used as denominator in uplift calculation)		
<u>LAS9 - LF 8.1(Water Quality: Temperature)</u>				

Action	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
No Meaningful Actions			0
			0
Total # Projects		0	
Total Stream Miles Affected		0	
Total Stream Miles (Denominator)		80.8	
% Uplift	0.0%		

Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)

60.4 mi

(used as denominator in uplift calculation)

Tributary	Miles Added to Streamnet
Twenty Three	3
Gedney	2
Boyd	3
Nineteen Mile	3
Swiftwater	3
Elk City	1
Island	1
SOB	2
Falls	3
Total	21

SRS1 - LF 1.1 (Anthropogenic Barriers)

Action

Twenty Three Mile Creek Culvert Replacment (2012)
Boyd Creek Culvert Replacment (2013)
Glover Creek Culvert Replacment (2014)
Total Project Length
Total # Projects

Miles treated	% Improvement (proration factor)	Realized Change in 2018 (mi)
3	75%	2.25
3	100%	3
1	50%	0.5
7		5.75
3		

Total Stream Miles Affected

5.75

Total Stream Miles (Denominator)

60.4 mi.

% Uplift

9.5%

SRS1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action

Race Creek (2015) Culvert Replacments (2 culverts)
Total Project Length
Total # Projects

Stream Miles Affected	Landscape Position Weighting (categorized by riparian (90%), mid-riparian (90%), mid-	Weighting of total benefit possible	Realized Change in 2018 (mi)
1	90%	5%	0.045
1			0.045
1			

Total Stream Miles Affected

0.045

Total Stream Miles (Denominator)

60.4 mi.

% Uplift

0.1%

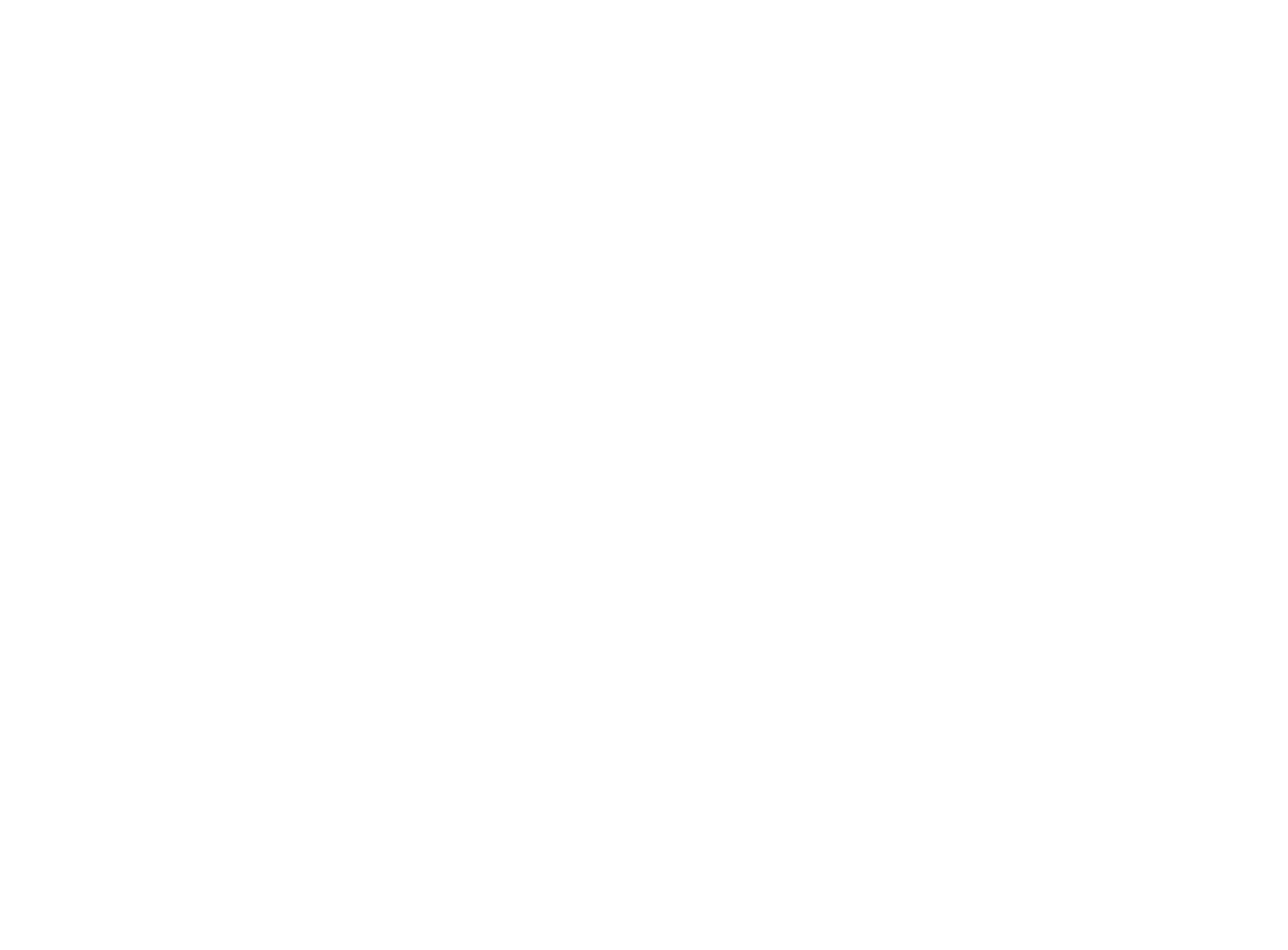
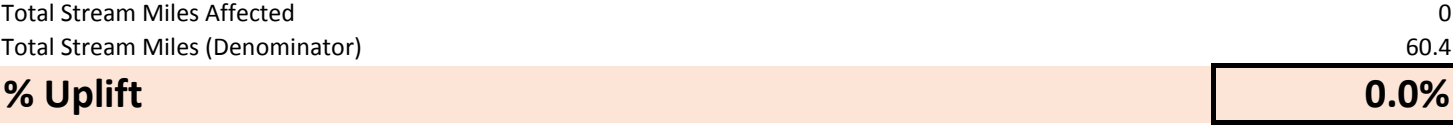
SRS1 - LF 8.1(Water Quality: Temperature)

Action

No Actions

Stream Miles Affected	% Improvement Weighting	Realized Change in 2018 (mi)
		0
		0
0		

Total # Projects



Stream Miles of Steelhead Use (Unless otherwise noted, mileage calculated from StreamNet GIS layer)

13.1 mi

(used as denominator in uplift calculation)

SRS3 - LF 4.1 (Riparian Vegetation)

<u>Action</u>	<u>Miles treated</u>	<u>% Improvement (proration factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
			0
Total # Projects	0		
Total Stream Miles Affected	0		
Total Stream Miles (Denominator)	13.1 mi.		
% Uplift	0.0%		

Trib	Miles Added to Streamnet
Hamby	1
Stillman	1
Saddle	2
Total	4

SRS3 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>Landscape Position Weighting (categorized by riparian (90%), mid-</u>	<u>Weighting of total benefit possible</u>	<u>Realized Change in 2018 (mi)</u>
O'Hara Road Improvement (2015)	3.5	90%	20%	0.63
Total Project Length	3.5			0.63
Total # Projects	1			
Total Stream Miles Affected	0.63			
Total Stream Miles (Denominator)	13.1 mi.			
% Uplift	4.8%			

SRS3 - LF 8.1(Water Quality: Temperature)

<u>Action</u>	<u>Stream Miles Affected</u>	<u>% Improvement Weighting</u>	<u>Realized Change in 2018 (mi)</u>
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No Actions

Total # Projects

Total Stream Miles Affected

Total Stream Miles (Denominator)

% Uplift

0

0

13.1

0.0%

0

0