

Workbook Info

Project: Expert Panel 2015-2016 Primary Data Recorder: Nick Legg, Geomorphologist, Cardno Inc.  
Meeting: Upper Salmon Look Forward Latest Revision: 6/30/2016 By Ellen W. Wilt, BPA

Workbook Description

This workbook is the "Calculation Spreadsheet" used to capture planned actions and calculate functional uplift during the Upper Salmon Look Forward meeting on March 22-24, 2016. This table was created in support of the biological notes taken in the same meeting, and contained in the spreadsheets listed below. The biological notes spreadsheet also documents the rationale underlying this spreadsheet.

Calculation Spreadsheet Filename: UpperSalmon\_LookForward2016-2018\_CalcSpreadsheet\_063016\_eww.xlsx

BioNotes Spreadsheet Filenames: USalmon Chinook 2013-18\_HAB\_FUNCTIONS\_LookFWD\_BioNotes\_042316.xlsx  
USalmon Steelhead 2013-18\_HAB\_FUNCTIONS\_LookFWD\_BioNotes\_ 042316.xlsx

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.  
Weighting sheets are also present for Assessment Units for which the panel revised weights or low bookends.

Highlighting Key:

Flow projects carried to the 2016-2018 period from the Look Back Meeting (includes long leases extending to 2016-2018 period plus permanent flow acquisitions/savings). These added projects typically affected uplift calculations of both LF 9.2 and 8.1 due to 8.1's depence on flow benefits. Note, these projects were added to the calculation spreadsheet after the Look Forward meeting, and therefore should be reviewed by the Panel.

**LRC1**

AU Code	Limiting Factor ID #	New LRC1 2015 Low Bookend
LRC1	1.1	30
LRC1	2.3	25
LRC1	4.1	50
LRC1	5.2	50
LRC1	6.1	50
LRC1	6.2	40
LRC1	7.2	35
LRC1	8.1	40
LRC1	9.2	25

Beasley looks up sediment CHaMP data. LRS1 and LRC1. CHaMP 26% sand and fines for AU. 19% sand and fines should be used as target

LRC1      Lehmi River tributaries and Carmen Creek

Stream Miles Denominator used in Uplift Calculation (in appropriate Limiting Factors)

85.9 mi

LRC1 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Canyon Creek HWY 29 Bridge	3.65	25%	0.9125
Big Timber - 02 Diversion Removal	5	100%	5
Big Timber - Carey Act Dam Fish Screen	10	50%	5
Agency Creek Lower Culvert to Bridge (200 yd up from Lemhi Backroad)	1.1	25%	0.275
Canyon Creek C3 Beyeler	1.2	50%	0.6
Canyon Creek C4 Tyler	2	25%	0.5
Carmen Creek Bills Ranch (small lower ditch)	1.2	25%	0.3
Carmen Slavin - Barsalou ditch	1.1	25%	0.275
Eighteenmile Access - Beyeler Push Up Dam	0.65	25%	0.1625
Hawley LHaC-01 - Tylers Diversion	4	75%	3
Hawley Creek LHaC-02 - Mouth of Canyon	2.1	25%	0.525
Middle Eighteenmile Creek - Breashear Diversion Removal	2.64	75%	1.98
Pratt Creek Access Mulkey	0.5	50%	0.25
Pratt Creek Snook	0.4	25%	0.1
Pratt Creek Lemhi backroad	1	50%	0.5
Pratt Creek Access and Flow Enhancement - Moulton	0.5	25%	0.125
Bohannon Creek 3 - Diversion Removal	3.25	50%	1.625
Eighteenmile Creek Highway 29 Bridge	1	50%	0.5
Lemhi Little Springs Creek LSC-2 Diversion Removal	3.5	25%	0.875
Total Project Length	44.79		22.505
Total # Projects	19		
Total Stream Miles Affected (Weighted for 2018)	22.505		
Total Stream Miles (Denominator)	85.9 mi.		
% Uplift (2018)	26.2%		

LRC1 - LF 2.3 (Injury and Mortality: Mechanical Injury)

<u>Action</u>	<u>Design Flow of Screen (cfs)</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (flow)</u>
Canyon Creek - 03 Screen - Beyeler	2.5	100%	2.5
Canyon Creek - 04 Screen - Tyler	2.06	100%	2.06
Hawley Creek - 02 Fish Screen	6.91	100%	6.91
Big Timber Cr. - Carey Act Screen (IDFG)	27.8	100%	27.8
Big Timber 05 - Ellsworth	4	100%	4
Pratt Creek - 01 Screen (IDFG) - Julana	0.86	100%	0.86
Pratt Creek - 02 Screen (IDFG) - Snooks Diversion	2	100%	2
Pratt Creek - 03 Screen (IDFG) - Lower Moulton	5	100%	5
Pratt Creek - 04 Screen (IDFG) - Upper Moulton	15	100%	15
Sandy Creek Screen - Mulkey	0.5	100%	0.5
Fourth of July Creek - 01 Screen (IDFG)	1	100%	1
Fourth of July Creek - 02 Screen (IDFG)	1	100%	1
Fourth of July Creek - 03 Screen (IDFG)	2	100%	2
Fourth of July Creek - 04 Screen (IDFG)	4	100%	4
Total Project Length	74.63		74.63
Total # Projects	14		
Total Flow Affected (Weighted for 2018)	74.63 cfs		
Total Flow (Denominator)	950 cfs		
<b>% Uplift (2018)</b>	<b>7.9%</b>		

### **LRC1 - LF 4.1 (Riparian Vegetation)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Wimpey Creek TU Riparian Restoration	0.75	20%	0.15
Pratt Creek Restoration - TU	0.3	20%	0.06
Hawley Creek Beaver Analogues	2	10%	0.2
Eighteenmile Cr. (Tyler Property)	0.5	10%	0.05
Texas Creek (Tyler Property)	0.5	10%	0.05
Total Project Length	4.05		0.51
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	0.51		
Total Stream Miles (Denominator)	85.9 mi.		
<b>% Uplift (2018)</b>	<b>0.6%</b>		

**LRC1 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Hawley Creek Beaver Analogues	2	50%	1
Eighteenmile Cr. (Tyler Property)	0.5	5%	0.025
Texas Creek (Tyler Property)	0.5	5%	0.025
Total Project Length	3		1.05
Total # Projects	3		
Total Miles Affected (Weighted for 2018)		1.05	
Total Stream Miles (Denominator)		85.9 mi.	
% Uplift (2018)		1.2%	

**LRC1 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Wimpey Creek Restoration TU	0.75	75%	0.5625
Pratt Creek Restoration TU	0.3	100%	0.3
Hawley Creek Beaver Analogues	2	20%	0.4
Eighteenmile Cr. (Tyler Property)	0.5	5%	0.025
Texas Creek (Tyler Property)	0.5	5%	0.025
Total Project Length	4.05		1.3125
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)		1.3125	
Total Stream Miles (Denominator)		85.9 mi.	
% Uplift (2018)		1.5%	

**LRC1 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Wimpey Creek Restoration TU	0.75	50%	0.375
Pratt Creek Restoration TU	0.3	50%	0.15

Hawley Creek Beaver Analogues	2	10%	0.2
Eighteenmile Cr. (Tyler Property)	0.5	3%	0.0125
Texas Creek (Tyler Property)	0.5	3%	0.0125
Total Project Length	4.05		0.75
Total # Projects	5		

Total Stream Miles Affected (Weighted for 2018) 0.75  
Total Stream Miles (Denominator) 85.9 mi.

**% Uplift (2018)** **0.9%**

**LRC1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Wimpey Creek Restoration TU	0.75	10%	0.075
Pratt Creek Restoration TU	0.3	10%	0.03
Hawley Creek Beaver Analogues	2	50%	1
Eighteenmile Cr. (Tyler Property)	0.5	3%	0.0125
Texas Creek (Tyler Property)	0.5	3%	0.0125
Total Project Length	4.05		1.13
Total # Projects	5		

Total Stream Miles Affected (Weighted for 2018) 1.13  
Total Stream Miles (Denominator) 85.9 mi.

**% Uplift (2018)** **1.3%**

**LRC1 - LF 8.1 (Water Quality: Temperature)**

Riparian (LF 4.1) Uplift	<b>0.6%</b>
Flow (LF 9.2) Uplift	<b>3.2%</b>

**% Uplift (2018)** **3.8%**

**LRC1- LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Permanent</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Canyon Creek - 04 Screen - Tyler	4.44	4.44	4.44	4.44

Hawley Creek - 02 Consolidation	2.09	2.09	2.09	2.09
Pratt Creek - 02 (IDFG) - Snooks Diversion	0.56	0	0.56	0.56
Pratt Creek - 03 (IDFG) - Lower Moulton	1.5	1.5	1.5	1.5
Sandy Creek - Mulkey	0.5	0.5	0.5	0.5
Bohannon 3 Elimination - Source Switch	8.3	0	8.3	8.3
Carmen Creek Access and Flow Enhancement (L. Bills) LSWCD	3.4	0	0	3.4
Carmen Slavin-Barsalou Ditch Access and Flow Enhancement	0.6	0	0	0.6
Middle Eighteenmile Cr. Irrigation Improvement	1.2	0	0	1.2
Big Timber 02 - Tyler Diversion	2.53	0	2.53	2.53
Carmen Creek (SSC-03, 2014)	1.2	1.2	1.2	1.2
Bohannon Creek (permanent)	2	2	2	2
Lemhi Little Springs Creek (L-50 and LSC03 Diversion)	0.9	0.9	0.9	0.9
Kenney Creek (2013)	0.14	0.14	0.14	0.14
Upper Hawley (2014 - Upper Hawley Creek Water Rights Transfer (LHaC-03) - LSWCD)	5.3	5.3	5.3	5.3
Carmen - 20yr source switch BS (2015)	1	1	1	1
Carmen - 20yr source switch DS (2015)	1	1	1	1
Hawley-18 mile LSWCD	0.7	0.7	0.7	0.7

<b>Total</b>	<b>37.36</b>	<b>20.77</b>	<b>32.16</b>	<b>37.36</b>
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*Average of leases*

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30.1

Total	30.1 cfs
Total # Projects	10
Denominator	950 cfs

From Look Back

<b>% Uplift (2018)</b>	<b>3.2%</b>
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**LRC2**

## Sum of Revised Weights

100%

0%

AU Code	Limiting Factor ID #	2012 AU Weight	2012 LF Weight	Revised LF Weight	Change in Weight	2012 Low Bookend	2015 Low Bookend	Revised 2015 Low Bookend
LRC2	1.1	68%	2%	1%	-1%	85	85.25	
LRC2	1.3	68%	2%	0%	-2%	50	50	
LRC2	2.3	68%	5%	2%	-3%	90	91.25	
LRC2	4.1	68%	15%	15%	0%	35	35.1	
LRC2	5.2	68%	10%	10%	0%	20	21	
LRC2	6.1	68%	8%	13%	5%	40	41	
ADDED	6.2	68%	0%	16%	16%			23
LRC2	7.2	68%	8%	8%	0%	30	30.1	
LRC2	8.1	68%	10%	10%	0%	28	35.5	
LRC2	9.2	68%	40%	25%	-15%	23.5	30.9	

## Sum of Revised Weights

100%

0%



LRC2

Mainstem Lehmi River, Hayden Creek, Big Springs Creek

Stream Miles Denominator used in Uplift Calculation (in appropriate Limiting Factors)

80.3 mi

LRC2 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	80.3 mi.		
% Uplift (2018)	0.0%		

LRC2 - LF 1.3 (Habitat Quantity: Competition)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	80.3 cfs		
% Uplift (2018)	0.0%		

LRC2 - LF 2.3 (Injury and Mortality: Mechanical Injury)

<u>Action</u>	<u>Design Flow of Screen (cfs)</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (flow)</u>
L-10 Screen - IDFG		0%	0
L-8A Screen - IDFG		0%	0
L-58B Screen -IDFG		0%	0
L-58C Screen -IDFG		0%	0
L-59 Screen -IDFG		0%	0
L-60 Screen -IDFG		0%	0
Total Project Length	0		0
Total # Projects	0		

Total Stream Miles Affected (Weighted for 2018)

0

Total Flow (Denominator)

750 mi.

From Look Back

% Uplift (2018)

0.0%

LRC2 - LF 4.1 (Riparian Vegetation)

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Lower Lemhi Stream Restoration (L-3AO) TU (Fencing)	0.5	10%	0.05
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	5%	0.0035
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	5%	0.055
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	5%	0.018
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	5%	0.035
Lemhi Restoration (Tyler Property)	0.8	5%	0.04
Big Springs Restoration	1	5%	0.05
Little Sawmill Planting	0.2	5%	0.01
Total Project Length	4.7		0.3
Total # Projects	8		

Total Stream Miles Affected (Weighted for 2018)

0.3

Total Stream Miles (Denominator)

80.3 mi.

% Uplift (2018)

0.3%

LRC2 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	75%	0.825
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	50%	0.179924242

Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	75%	0.525
Lemhi Restoration (Tyler Property)	0.8	20%	0.16
Big Springs Restoration	1	20%	0.2
Total Project Length	4.0		1.9
Total # Projects	5		
Total Miles Affected (Weighted for 2018)	1.9		
Total Stream Miles (Denominator)	80.3 mi.		
<b>% Uplift (2018)</b>	<b>2.4%</b>		

***LRC2 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	75%	0.83
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	75%	0.27
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	75%	0.53
Lemhi Restoration (Tyler Property)	0.8	10%	0.08
Big Springs Restoration	1	35%	0.35
Little Sawmill	0.2	50%	0.10
Lower Lemhi Stream Restoration (L-3AO) TU	0.5	50%	0.25
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	10%	0.01
Total Project Length	4.7		2.41
Total # Projects	8		
Total Stream Miles Affected (Weighted for 2018)	2.41		
Total Stream Miles (Denominator)	80.3 mi.		
<b>% Uplift (2018)</b>	<b>3.0%</b>		

***LRC2 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	65%	0.72
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	50%	0.18
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	50%	0.35
Lemhi Restoration (Tyler Property)	0.8	20%	0.16
Big Springs Restoration	1	60%	0.60
Little Sawmill	0.2	50%	0.10
Lower Lemhi Stream Restoration (L-3AO) TU	0.5	50%	0.25
Thor Upper Lemhi River Channel Restoration (IDFG)	0.5	20%	0.10
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	40%	0.03
Total Project Length	5.2		2.48

Total # Projects	9
Total Stream Miles Affected (Weighted for 2018)	2.48
Total Stream Miles (Denominator)	80.3 mi.

% Uplift (2018)

3.1%

### LRC2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
			0
Lower Lemhi Stream Restoration (L-3AO) TU (Fencing)	0.5	2%	0.01
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	1%	0.0007
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	5%	0.055
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	5%	0.017992424
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	5%	0.035
Lemhi Restoration (Tyler Property)	0.8	5%	0.04
Big Springs Restoration	1	5%	0.05
Little Sawmill Planting	0.2	2%	0.004
Total Project Length	4.729848485		0.212692424
Total # Projects	8		

Total Stream Miles Affected (Weighted for 2018)	0.212692424
Total Stream Miles (Denominator)	80.3 mi.

% Uplift (2018)

0.3%

### LRC2 - LF 8.1 (Water Quality: Temperature)

Riparian (LF 4.1) Uplift	0.3%
Flow (LF 9.2) Uplift	12.0%

% Uplift (2018)

12.3%

### LRC2- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent	2016	2017	2018
Big Springs Creek Minimum Flow	15	15	15	15
L-63	8.64	8.64	8.64	8.64
Lower Lemhi 2016-2017 Minimum Flow Agreement- IDWR	18.25	18.25	18.25	18.25
Trib from upstr Canyon Creek - 04 Screen - Tyler	4.44	4.44	4.44	4.44

Trib from upstr	Hawley Creek - 02 Consolidation	2.09	2.09	2.09	2.09
Trib from upstr	Pratt Creek - 03 (IDFG) - Lower Moulton	1.5	1.5	1.5	1.5
Trib from upstr	Big Timber 02 - Tyler Diversion	2.53	0	2.53	2.53
	Lemhi-Big Springs 20-year Source Switch - IDWR	4.5	4.5	4.5	4.5
	Tyler Ranch Conservation Easement - LRLT	12.7	12.7	12.7	12.7
	Lower Lemhi Permanent - JP: Permanent Subordination Easement	0.6	0.6	0.6	0.6
	Lemhi L-1 Diversion Dam Removal and Access and Flow Enhancement Project	2.23	2.23	2.23	2.23
	2014 - LHC-08 Fish Screen project - IDFG	1	1	1	1
	Lemhi Little Springs Creek (L-50 and LSC03 Diversion)	0.9	0.9	0.9	0.9
	2013 - Bohannon Creek Diversion Consolidation-Flow Enhancement Project - IDFG	2	2	2	2
	Kenney Creek (2013)	0.14	0.14	0.14	0.14
	Lee Creek, Big Eightmile Creek Reconnects - TNC	14.5	14.5	14.5	14.5
	<b>Total</b>	<b>91.02</b>	<b>88.49</b>	<b>91.02</b>	<b>91.02</b>

Average of leases

==> 90.2

Total	90.2 cfs
Total # Projects	
Denominator	750 cfs

From Look Back

% Uplift (2018)

12.0%

Lemhi River AU Weighting Revisions for Steelhead AUs

AU Code	Revised AU Weight
LRS4	60%
LRS2	40%

Sum of  
Revised  
Weights

100%

**LRS4**

New Assessment Unit created by combining former LRS1 and LRS3

Sum of Revised  
Weights100%

AU Code	Limiting Factor ID #	former LRS3 LF Weights	New LRS4 LF Weights	Former LRS3 2012 Low Bookend	Former LRS3 2015 Low Bookend	New LRS4 2015 Low Bookend
LRS4	1.1	20%	20%	20	39.9	30
LRS4	2.3	15%	15%	20	21.9	25
LRS4	4.1	5%	5%	80	80.5	50
LRS4	5.2	5%	5%	75	75.6	50
LRS4	6.1	5%	5%	75	76.9	50
LRS4	6.2	5%	5%	75	76.9	40
LRS4	7.2	5%	5%	50	50.5	35
LRS4	8.1	5%	5%	70	73.2	40
LRS4	9.2	35%	35%	22.5	25.2	25

100%

Beasley looks up sediment CHaMP data. LRS1 and LRC1. CHaMP 26% sand and fines for AU.19% sand and fines should be used as target

LRS4

Lemhi tributaries and Carmen Creek

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

180 mi

Sum of former  
LRS1 and LRS3

LRS4- LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Canyon Creek HWY 29 Bridge	3.65	25%	0.9125
Big Timber - 02 Diversion Removal	5	100%	5
Big Timber - Carey Act Dam Fish Screen	10	50%	5
Agency Creek Lower Culvert to Bridge (200 yd up from Lemhi Back	1.1	25%	0.275
Canyon Creek C3 Beyeler	1.2	50%	0.6
Canyon Creek C4 Tyler	2	25%	0.5
Carmen Creek Bills Ranch (small lower ditch)	1.2	25%	0.3
Carmen Slavin- Barsalou ditch	1.1	25%	0.275
Eighteenmile Access - Beyeler Push Up Dam	0.65	25%	0.1625
Hawley LHaC-01 - Tylers Diversion	4	75%	3
Hawley Creek LHaC-02 - Mouth of Canyon	2.1	25%	0.525
Middle Eighteenmile Creek - Breashear Diversion Removal	2.64	75%	1.98
Pratt Creek Access Mulkey	0.5	50%	0.25
Pratt Creek Snook	0.4	25%	0.1
Pratt Creek Lemhi backroad	1	50%	0.5
Pratt Creek Access and Flow Enhancement - Moulton	0.5	25%	0.125
Bohannon Creek 3 - Diversion Removal	6.25	25%	1.5625
Eighteenmile Creek Highway 29 Bridge	1	50%	0.5
Lemhi Little Springs Creek LSC-2 Diversion Removal	3.5	25%	0.875
Bohannon Creek 13	0.75	25%	0.1875
Total Project Length	48.54		22.63
Total # Projects	20		
Total Stream Miles Affected (Weighted for 2018)	22.63		
Total Stream Miles (Denominator)	180 mi.		
% Uplift (2018)	12.6%		

LRS4 - LF 2.3 (Injury and Mortality: Mechanical Injury)



<u>Action</u>	<u>Design Flow of Screen (cfs)</u>	<u>2018 % Improvement</u>	<u>Realized Change in 2018 (flow)</u>
		<u>(prorating factor)</u>	
Canyon Creek - 03 Screen - Beyeler	2.5	100%	2.5
Canyon Creek - 04 Screen - Tyler	2.06	100%	2.06
Hawley Creek - 02 Fish Screen	6.91	100%	6.91
Big Timber Cr. - Carey Act Screen (IDFG)	27.8	100%	27.8
Big Timber 05 - Ellsworth	4	100%	4
Pratt Creek - 01 Screen (IDFG) - Julana	0.86	100%	0.86
Pratt Creek - 02 Screen (IDFG) - Snooks Diversion	2	100%	2
Pratt Creek - 03 Screen (IDFG) - Lower Moulton	5	100%	5
Pratt Creek - 04 Screen (IDFG) - Upper Moulton	15	100%	15
Sandy Creek Screen - Mulkey	0.5	100%	0.5
Fourth of July Creek - 01 Screen (IDFG)	1	100%	1
Fourth of July Creek - 02 Screen (IDFG)	1	100%	1
Fourth of July Creek - 03 Screen (IDFG)	2	100%	2
Fourth of July Creek - 04 Screen (IDFG)	4	100%	4
Bohannon Creek 13 Screen	4.34	100%	4.34
Total Project Length	78.97		78.97
Total # Projects	14		
Total Flow Affected (Weighted for 2018)	78.97 cfs		
Total Flow (Denominator)	950 cfs		
<b>% Uplift (2018)</b>	<b>8.3%</b>		

### **LRS4 - LF 4.1 (Riparian Vegetation)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement</u>	<u>Realized Change in 2018 (mi)</u>
		<u>(prorating factor)</u>	
Wimpey Creek TU Riparian Restoration	0.75	20%	0.15
Pratt Creek Restoration - TU	0.3	20%	0.06
Hawley Creek Beaver Analogues	2	10%	0.2
Eighteenmile Cr. (Tyler Property)	0.5	10%	0.05
Texas Creek (Tyler Property)	0.5	10%	0.05
Total Project Length	4.05		0.51
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	0.51		
Total Stream Miles (Denominator)	180 mi.		
<b>% Uplift (2018)</b>	<b>0.3%</b>		

**LRS4 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Hawley Creek Beaver Analogues	2	50%	1
Eighteenmile Cr. (Tyler Property)	0.5	5%	0.025
Texas Creek (Tyler Property)	0.5	5%	0.025
Total Project Length	3		1.05
Total # Projects	3		
Total Miles Affected (Weighted for 2018)	1.05		
Total Stream Miles (Denominator)	180 mi.		
<b>% Uplift (2018)</b>	<b>0.6%</b>		

**LRS4 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Wimpey Creek Restoration TU	0.75	75%	0.5625
Pratt Creek Restoration TU	0.3	100%	0.3
Hawley Creek Beaver Analogues	2	20%	0.4
Eighteenmile Cr. (Tyler Property)	0.5	5%	0.025
Texas Creek (Tyler Property)	0.5	5%	0.025
Total Project Length	4.05		1.3125
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	1.3125		
Total Stream Miles (Denominator)	180 mi.		
<b>% Uplift (2018)</b>	<b>0.7%</b>		

**LRS4 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Wimpey Creek Restoration TU	0.75	50%	0.375
Pratt Creek Restoration TU	0.3	50%	0.15

Hawley Creek Beaver Analogues	2	10%	0.2
Eighteenmile Cr. (Tyler Property)	0.5	3%	0.0125
Texas Creek (Tyler Property)	0.5	3%	0.0125
Total Project Length	4.05		0.75
Total # Projects	5		

Total Stream Miles Affected (Weighted for 2018)	0.75
Total Stream Miles (Denominator)	180 mi.

% Uplift (2018)	0.4%
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***LRS4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement</u>		<u>Realized Change in 2018 (mi)</u>
		<u>(prorating factor)</u>		
Wimpey Creek Restoration TU	0.75	10%		0.075
Pratt Creek Restoration TU	0.3	10%		0.03
Hawley Creek Beaver Analogues	2	50%		1
Eighteenmile Cr. (Tyler Property)	0.5	3%		0.0125
Texas Creek (Tyler Property)	0.5	3%		0.0125
Total Project Length	4.05			1.13
Total # Projects	5			

Total Stream Miles Affected (Weighted for 2018)	1.13
Total Stream Miles (Denominator)	180 mi.

% Uplift (2018)	0.6%
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***LRS4- LF 8.1 (Water Quality: Temperature)***

Riparian (LF 4.1) Uplift	0.3%
Flow (LF 9.2) Uplift	4.7%

% Uplift (2018)	5.0%
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***LRS4 - LF 9.2 (Water Quantity: Decreased Water Quantity)***

<u>Action</u>	<u>Permanent</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Canyon Creek - 04 Screen - Tyler	4.44	4.44	4.44	4.44

Hawley Creek - 02 Consolidation	2.09	2.09	2.09	2.09
Pratt Creek - 02 (IDFG) - Snooks Diversion	0.56	0	0.56	0.56
Pratt Creek - 03 (IDFG) - Lower Moulton	1.5	1.5	1.5	1.5
Sandy Creek - Mulkey	0.5	0.5	0.5	0.5
Bohannon 3 Elimination - Source Switch	8.3	0	8.3	8.3
Carmen Creek Access and Flow Enhancement (L. Bills) LSWCD	3.4	0	0	3.4
Carmen Slavin-Barsalou ditch Access and Flow Enhancement	0.6	0	0	0.6
Middle Eighteenmile Cr. Irrigation Improvement	1.2	0	0	1.2
Big Timber 02 - Tyler Diversion	2.53	0	2.53	2.53
Bohannon Creek Diversion Consolidation-Flow Enhancement Project - IDFG	2	2	2	2
Kenney Creek 20-year Source Switch - IDWR	0.14	0.14	0.14	0.14
Carmen Creek SCC-03 Flow Enhancement - LSWCD	1.2	1.2	1.2	1.2
Carmen Creek BS - 20-year Source Switch - IDWR	1	1	1	1
Carmen Creek DS - 20-year Source Switch - IDWR	1	1	1	1
Lemhi Little Springs Creek (L-50 and LSC03 Diversion)	0.9	0.9	0.9	0.9
Upper Hawley (2014 - Upper Hawley Creek Water Rights Transfer (	5.3	5.3	5.3	5.3
Hawley-18 mile LSWCD	0.7	0.7	0.7	0.7
Lee Creek, Big Eightmile Creek Reconnects - TNC	14.5	14.5	14.5	14.5
<b>Total</b>	<b>51.86</b>	<b>35.27</b>	<b>46.66</b>	<b>51.86</b>

Average of leases

==>

44.6

Total	44.6 cfs
Total # Projects	10
Denominator	950 cfs

From Look Back

% Uplift (2018)

4.7%

**LRS2**

## Sum of Revised Weights

100%

0%

AU Code	Limiting Factor ID #	2012 AU Weight	2012 LF Weight	Revised LF Weight	Change in Weight	2012 Low Bookend	2015 Low Bookend	Revised 2015 Low Bookend
LRS2	1.1	45%	2%	1%	-1%	85	85	
LRS2	2.3	45%	7%	2%	-5%	90	91.25	
LRS2	4.1	45%	15%	15%	0%	35	35.1	
LRS2	5.2	45%	10%	10%	0%	20	20.7	
LRS2	6.1	45%	8%	13%	5%	40	40.8	
ADDED	6.2	68%	0%	16%	16%			23
LRS2	7.2	45%	8%	8%	0%	30	30.8	
LRS2	8.1	45%	10%	10%	0%	28	35.8	
LRS2	9.2	45%	40%	25%	-15%	23.5	31.2	

## Sum of Revised Weights

100%

0%

LRS2

Mainstem Salmon and Lemhi Rivers and Hayden Creek

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

107.8 mi

LRS2 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	107.8 mi.		
% Uplift (2018)	0.0%		

LRS2 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
L-10 Screen - IDFG			0%0
L-8A Screen - IDFG			0%0
L-58B Screen -IDFG			0%0
L-58C Screen -IDFG			0%0
L-59 Screen -IDFG			0%0
L-60 Screen -IDFG			0%0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Flow (Denominator)	750 mi.		From Look Back
% Uplift (2018)	0.0%		

**LRS2 - LF 4.1 (Riparian Vegetation)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 %</u>	<u>Realized Change in 2018 (mi)</u>
		<u>Improvement (prorating factor)</u>	
Lower Lemhi Stream Restoration (L-3AO) TU (Fencing)	0.5	10%	0.05
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	5%	0.0035
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	5%	0.055
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	5%	0.017992424
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	5%	0.035
Lemhi Restoration (Tyler Property)	0.8	5%	0.04
Big Springs Restoration	1	5%	0.05
Little Sawmill Planting	0.2	5%	0.01
Total Project Length	4.7		0.3
Total # Projects	8		

Total Stream Miles Affected (Weighted for 2018)

0.3

Total Stream Miles (Denominator)

107.8 mi.

**% Uplift (2018)**

**0.2%**

**LRS2 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 %</u>	<u>Realized Change in 2018 (mi)</u>
		<u>Improvement (prorating factor)</u>	
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	75%	0.825
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	50%	0.179924242
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	75%	0.525
Lemhi Restoration (Tyler Property)	0.8	20%	0.16
Big Springs Restoration	1	20%	0.2
Total Project Length	4.0		1.9
Total # Projects	5		

Total Miles Affected (Weighted for 2018)

1.9

Total Stream Miles (Denominator)

107.8 mi.

**% Uplift (2018)**

**1.8%**

**LRS2 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 %</u>	<u>Realized Change in 2018 (mi)</u>
		<u>Improvement (prorating factor)</u>	
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	75%	0.83

Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	75%	0.27
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	75%	0.53
Lemhi Restoration (Tyler Property)	0.8	10%	0.08
Big Springs Restoration	1	35%	0.35
Little Sawmill	0.2	50%	0.10
Lower Lemhi Stream Restoration (L-3AO) TU	0.5	50%	0.25
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	10%	0.01
Total Project Length	4.7		2.41
Total # Projects	8		

Total Stream Miles Affected (Weighted for 2018) 2.41  
Total Stream Miles (Denominator) 107.8 mi.

**% Uplift (2018)** **2.2%**

### ***LRS2 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 %</u>	<u>Realized Change in</u>
		<u>Improvement</u> <u>(prorating factor)</u>	<u>2018 (mi)</u>
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	65%	0.72
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	50%	0.18
Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	50%	0.35
Lemhi Restoration (Tyler Property)	0.8	20%	0.16
Big Springs Restoration	1	60%	0.60
Little Sawmill	0.2	50%	0.10
Lower Lemhi Stream Restoration (L-3AO) TU	0.5	50%	0.25
Thor Upper Lemhi River Channel Restoration (IDFG)	0.5	20%	0.10
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	40%	0.03
Total Project Length	5.2		2.48
Total # Projects	9		

Total Stream Miles Affected (Weighted for 2018) 2.48  
Total Stream Miles (Denominator) 107.8 mi.

**% Uplift (2018)** **2.3%**

### ***LRS2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 %</u>	<u>Realized Change in</u>
		<u>Improvement</u> <u>(prorating factor)</u>	<u>2018 (mi)</u>
Lower Lemhi Stream Restoration (L-3AO) TU (Fencing)	0.5	2%	0.01
Stokes Bank Lower Lemhi Rehabilitation - IDFG	0.07	1%	0.0007
Lower Lemhi Rehabilitation: Eagle Valley Phases 1- IDFG	1.1	5%	0.055
Lower Lemhi Rehabilitation: Eagle Valley Phases 2 - IDFG	0.36	5%	0.017992424



Lower Lemhi Rehabilitation: Eagle Valley Phases 3 - IDFG	0.7	5%	0.035
Lemhi Restoration (Tyler Property)	0.8	5%	0.04
Big Springs Restoration	1	5%	0.05
Little Sawmill Planting	0.2	2%	0.004
Total Project Length	4.729848485		0.212692424
Total # Projects	8		

Total Stream Miles Affected (Weighted for 2018)

0.212692424

Total Stream Miles (Denominator)

107.8 mi.

% Uplift (2018)

0.2%

LRS2 - LF 8.1 (Water Quality: Temperature)

Riparian (LF 4.1) Uplift	0.2%
Flow (LF 9.2) Uplift	12.0%

% Uplift (2018)

12.2%

LRS2- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent	2016	2017	2018
Big Springs Creek Minimum Flow	15	15	15	15
L-63	8.64	8.64	8.64	8.64
Lower Lemhi 2016-2017 minimum Flow Agreement- IDWR	18.25	18.25	18.25	18.25
Trib from upstr Canyon Creek - 04 Screen - Tyler	4.44	4.44	4.44	4.44
Trib from upstr Hawley Creek - 02 Consolidation	2.09	2.09	2.09	2.09
Trib from upstr Pratt Creek - 03 (IDFG) - Lower Moulton	1.5	1.5	1.5	1.5
Trib from upstr Big Timber 02 - Tyler Diversion	2.53	0	2.53	2.53
Lemhi-Big Springs 20-year Source Switch - IDWR	4.5	4.5	4.5	4.5
Tyler Ranch Conservation Easement - LRLT	12.7	12.7	12.7	12.7
Lower Lemhi Permanent - JP: Permanent Subordination Easement	0.6	0.6	0.6	0.6
Lemhi L-1 Diversion Dam Removal and Access and Flow Enhancem	2.23	2.23	2.23	2.23
Lemhi Little Springs Creek (L-50 and LSC03 Diversion)	0.9	0.9	0.9	0.9
Kenney Creek (2013)	0.14	0.14	0.14	0.14
Lee Creek, Big Eightmile Creek Reconnects - TNC	14.5	14.5	14.5	14.5
2013 - Bohannon Creek Diversion Consolidation-Flow				
Enhancement Project - IDFG	2	2	2	2
2014 - LHC-08 Fish Screen project - IDFG	1	1	1	1

<i><b>Total</b></i>	91.02	88.49	91.02	91.02
		<i><b>Average of leases</b></i>		
		==>		90.2
Total	90.2 cfs			
Total # Projects	16			
Denominator	750 cfs	From Look Back		
<b>% Uplift (2018)</b>	<b>12.0%</b>			

**PRC1 (AU combined from former PRC1 and PRC2)**

## Sum of Revised Weights

100%

0%

AU Code	Limiting Factor ID #	2012 AU Weight	2012 LF Weight	Revised LF Weight	Change in Weight	2012 Low Bookend	2015 Low Bookend	Revised 2015 Low Bookend
PRC1	1.1	54%	10%	5%	-5%	40	54	
PRC1	1.3	54%	5%	0%	-5%	50	50	
PRC1	2.3	54%	10%	5%	-5%	65	73	
PRC1	4.1	54%	15%	15%	0%	50	52.1	
PRC1	6.1	54%	10%	15%	5%	50	52.9	
ADDED	6.2	54%	0%	15%	15%	-	-	20
PRC1	7.2	54%	15%	15%	0%	20	21.5	
PRC1	8.1	54%	10%	10%	0%	40	55.3	
PRC1	9.2	54%	25%	20%	-5%	30	43.2	

## Sum of Revised Weights

100%

0%

PRC1 Pahsimeroi River

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors) 95 mi

PRC1 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Dowton Lane Bridge	6	50%	3
Patterson Big Springs Creek 10 Restoration	1	100%	1
P-17 Above Fury Lane Diversion	2.3	25%	0.575
Patterson Big Springs Creek 2 Removal	1	10%	0.1
Upper Muddy Spring Culvert	1	100%	1
Flying Joseph Passage - IDFG	4	100%	4
Total Project Length	15.3		9.675
Total # Projects	6		
Total Stream Miles Affected (Weighted for 2018)	9.675		
Total Stream Miles (Denominator)	95 mi.		
% Uplift (2018)	10.2%		

PRC1 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
P-17 Fish Screen - IDFG	8	100%	8
Muddy Springs Screening	4	100%	4
Big Creek -03 Screen -IDFG	8	100%	8
PBSC-10 Fish Screen	3	100%	3
Total Project Length	23		23
Total # Projects	4		
Total Flow Affected (Weighted for 2018)	23		
Total Flow (Denominator)	610 cfs		

% Uplift (2018)

3.8%

***PRC1 - LF 4.1 (Riparian Vegetation)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
BLM below P-16 - IDFG	0.8	20%	0.16
Furey to Hooper - IDFG	4	18%	0.72
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	20%	0.05
Martiny Riparian Enhancement	1	18%	0.18
Upper Muddy Spring fence	1	15%	0.15
Lone Pine Fence/CAFO/Stockwater - CSWCD	1	10%	0.1
Flying Joseph - Planting	0.5	10%	0.05
Total Project Length	8.55		1.41
Total # Projects	7		
Total Stream Miles Affected (Weighted for 2018)	1.41		
Total Stream Miles (Denominator)	95 mi.		

% Uplift (2018)

1.5%

terra

***PRC1 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Patterson Big Springs Creek 10 Restoration	0.1	75%	0.075
BLM below P-16 - IDFG	0.8	75%	0.6
Furey to Hooper	4	85%	3.4
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	50%	0.125
Flying Joseph - Dam Removal	0.5	40%	0.2
Total Project Length	5.65		4.4
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	4.4		
Total Stream Miles (Denominator)	95 mi.		

% Uplift (2018)

4.6%

***PRC1 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Patterson Big Springs Creek 10 Restoration	0.1	25%	0.025
BLM below P-16 - IDFG	0.8	75%	0.6
Furey to Hooper	4	85%	3.4
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	35%	0.0875
Flying Joseph - Dam Removal	0.5	10%	0.05
Total Project Length	5.65		4.1625
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	4.1625		
Total Stream Miles (Denominator)	95 mi.		
<b>% Uplift (2018)</b>	<b>4.4%</b>		

### **PRC1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
BLM below P-16 - IDFG	0.8	20%	0.16
Furey to Hooper - IDFG	4	18%	0.72
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	40%	0.1
Martiny Riparian Enhancement	1	10%	0.1
Upper Muddy Spring fence	1	10%	0.1
Lone Pine Fence/CAFO/Stockwater - CSWCD	1	10%	0.1
Flying Joseph - Planting	0.5	10%	0.05
Dowton Page Conservation Easement	3	5%	0.15
Bauchman/Mickelson Ranch Conservation Easement - TNC	1.5	5%	0.075
Big Creek Conservation Easement - TNC	2.5	10%	0.25
Page, Mill Creek	0.6	5%	0.03
Robins Bridge -CSWCD	1.5	5%	0.075
Warm springs on Gydesen	1	5%	0.05
Total Project Length	18.65		1.96
Total # Projects	13		
Total Stream Miles Affected (Weighted for 2018)	1.96		
Total Stream Miles (Denominator)	95 mi.		
<b>% Uplift (2018)</b>	<b>2.1%</b>		

**PRC1 - LF 8.1 (Water Quality: Temperature)**

Riparian (LF 4.1) Uplift	1.5%
Flow (LF 9.2) Uplift	11.7%

% Uplift (2018)	13.2%
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**PRC1 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Permanent</u>	<u>Leases</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Patterson Big Springs Creek 10 Restoration - IDFG/TU	7		7	7	7
Muddy Springs and Pahs. Lease/Rental			3	3	3
P-17 Diversion and Irrigation (Robbins and Posada Easement)	6.2		6.2	6.2	6.2
Patterson Big Springs Creek 2012: 20-year Source Switch - IDWR	6		6	6	6
Sulphur Creek Donation: Permanent Lease/Rental - IDWR	1.07		1.07	1.07	1.07
Sulfur Creek East (Pivot relocation upstream of Hooper Lane)	4.5		4.5	4.5	4.5
P-13 Irrigation Diversion Removal Project - CSWCD	8.8		8.8	8.8	8.8
Sulphur Creek Irrigation, Stockwater, Fence Project - CSWCD	3		3	3	3
P-16 Headgate - BoR	15		15	15	15
O'Neal Conservation Easement - LRLT	15		15	15	15
Page Mill Creek Reconnection - TU	2		2	2	2
<b>Total</b>	<b>68.57</b>		<b>71.57</b>	<b>71.57</b>	<b>71.57</b>

		<b>Average of leases</b>	
		==>	71.6
Total	71.6 cfs		
Total # Projects			
Denominator	610 cfs	Sum of denominators used in Look Back for former AUs PRC1 and PRC2	

% Uplift (2018)	11.7%
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**AU Weighting for Pahsimeroi Steelhead**

AU Code	Revised AU Weight
PRS4 (combined former PRS1 and PRS3)	70%
PRS2	30%



**PRS4 (AU combined from former PRS1 and PRS3)**

## Sum of Revised Weights

100%

0%

AU Code	Limiting Factor ID #	2012 AU Weight	2012 LF Weight	Revised LF Weight	Change in Weight	2012 Low Bookend	2015 Low Bookend	Revised 2015 Low Bookend
PRS4	1.1	20%	20%	10%	-10%	40	54.2	
PRS4	2.3	20%	15%	10%	-5%	65	73	
PRS4	4.1	20%	10%	10%	0%	50	52.1	
PRS4	6.1	20%	5%	10%	5%	50	52.9	
ADDED	6.2	20%	0%	15%	15%	-	-	20
PRS4	7.1	20%	0%	0%	0%	20	21.5	
PRS4	7.2	20%	5%	15%	10%	20	21.5	
PRS4	8.1	20%	5%	10%	5%	40	55.3	
PRS4	9.2	20%	40%	20%	-20%	30	43.2	

## Sum of Revised Weights

100%

0%

PRS4

Pahsimeroi River

Combination of former PRS1 and PRS3 (the two were combined)

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)151 mi

PRS4 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Dowton Lane Bridge	6	50%	3
Patterson Big Springs Creek 10 Restoration	1	100%	1
P-17 Above Fury Lane Diversion	2.3	25%	0.575
Patterson Big Springs Creek 2 Removal	1	10%	0.1
Upper Muddy Spring Culvert	1	100%	1
Flying Joseph Passage - IDFG	4	100%	4
Total Project Length	15.3		9.675
Total # Projects	6		
Total Stream Miles Affected (Weighted for 2018)	9.675		
Total Stream Miles (Denominator)	151 mi.		
% Uplift (2018)	6.4%		

PRS4 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
P-17 Fish Screen - IDFG	8	100%	8
Muddy Springs Screening	4	100%	4
Big Creek -03 Screen -IDFG	8	100%	8
PBSC-10 Fish Screen	3	100%	3
Total Project Length	23		23
Total # Projects	4		
Total Flow Affected (Weighted for 2018)	23		
Total Flow (Denominator)	610 cfs		

% Uplift (2018)

3.8%

***PR\$4 - LF 4.1 (Riparian Vegetation)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
BLM below P-16 - IDFG	0.8	20%	0.16
Furey to Hooper - IDFG	4	18%	0.72
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	20%	0.05
Martiny Riparian Enhancement	1	18%	0.18
Upper Muddy Spring fence	1	15%	0.15
Lone Pine Fence/CAFO/Stockwater - CSWCD	1	10%	0.1
Flying Joseph - Planting	0.5	10%	0.05
Total Project Length	8.55		1.41
Total # Projects	7		
Total Stream Miles Affected (Weighted for 2018)	1.41		
Total Stream Miles (Denominator)	151 mi.		

% Uplift (2018)

0.9%

***PR\$4 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Patterson Big Springs Creek 10 Restoration	0.1	75%	0.075
BLM below P-16 - IDFG	0.8	75%	0.6
Furey to Hooper	4	85%	3.4
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	50%	0.125
Flying Joseph - Dam Removal	0.5	40%	0.2
Total Project Length	5.65		4.4
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	4.4		
Total Stream Miles (Denominator)	151 mi.		

% Uplift (2018)

2.9%

***PR\$4 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Patterson Big Springs Creek 10 Restoration	0.1	25%	0.025
BLM below P-16 - IDFG	0.8	75%	0.6
Furey to Hooper	4	85%	3.4
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	35%	0.0875
Flying Joseph - Dam Removal	0.5	10%	0.05
Total Project Length	5.65		4.1625
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	4.1625		
Total Stream Miles (Denominator)	151 mi.		
<b>% Uplift (2018)</b>	<b>2.8%</b>		

#### **PRS4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
BLM below P-16 - IDFG	0.8	20%	0.16
Furey to Hooper - IDFG	4	18%	0.72
Pahs. River Bank Restoration (Dixon and Dowton) - TU	0.25	40%	0.1
Martiny Riparian Enhancement	1	10%	0.1
Upper Muddy Spring fence	1	10%	0.1
Lone Pine Fence/CAFO/Stockwater - CSWCD	1	10%	0.1
Flying Joseph - Planting	0.5	10%	0.05
Dowton Page Conservation Easement	3	5%	0.15
Bauchman/Mickelson Ranch Conservation Easement - TNC	1.5	5%	0.075
Big Creek Conservation Easement - TNC	2.5	10%	0.25
Page, Mill Creek	0.6	5%	0.03
Robins Bridge -CSWCD	1.5	5%	0.075
Warm springs on Gydesen	1	5%	0.05
Total Project Length	18.65		1.96
Total # Projects	13		
Total Stream Miles Affected (Weighted for 2018)	1.96		
Total Stream Miles (Denominator)	151 mi.		
<b>% Uplift (2018)</b>	<b>1.3%</b>		

**PRS4 - LF 8.1 (Water Quality: Temperature)**

Riparian (LF 4.1) Uplift	0.9%
Flow (LF 9.2) Uplift	11.7%

% Uplift (2018)	12.6%
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**PRS4 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

Action	Permanent	2016	2017	2018
Patterson Big Springs Creek 10 Restoration - IDFG/TU	7	7	7	7
Muddy Springs and Pahs. Lease/Rental		3	3	3
P-17 Diversion and Irrigation (Robbins and Posada Easement)	6.2	6.2	6.2	6.2
Patterson Big Springs Creek 2012: 20-year Source Switch - IDWR	6	6	6	6
Sulphur Creek Donation: Permanent Lease/Rental - IDWR	1.07	1.07	1.07	1.07
Sulfur Creek East (Pivot relocation upstream of Hooper Lane)	4.5	4.5	4.5	4.5
P-13 Irrigation Diversion Removal Project - CSWCD	8.8	8.8	8.8	8.8
Sulphur Creek Irrigation, Stockwater, Fence Project - CSWCD	3	3	3	3
P-16 Headgate - BoR	15	15	15	15
O'Neal Conservation Easement - LRLT	15	15	15	15
Page Mill Creek Reconnection - TU	2	2	2	2
Total	68.57	71.57	71.57	71.57

Average of leases  
==> 71.6

Total	71.6 cfs
Total # Projects	
Denominator	610 cfs

Sum of denominators used in Look Back for former AUs PRS1 and PRS3

% Uplift (2018)	11.7%
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PRS2- LF 8.1(Water Quality: Temperature)

Panel used sum of Riparian uplift (0% in this case) plus flow (LF 9.2) uplift

% Uplift (2018)1.9%

PRS2- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent Acquisition	2016	2017	2018
Cow Creek	2	2	2	2
Poison Creek	6	6	6	6
2015 - Big Hat and Hat Creek 2015-2017 3-year Lease/Rental - IDWR		2.13	2.13	
Total	8	10.13	10.13	8

Average of leases  
 ==>9.4

Total9.4 cfs  
 Total # Projects0  
 Denominator497 cfsMorgan Case (IDWR) summation of diversions

% Uplift (2018)1.9%

UMC1

Mainstem Upper Salmon River, Alturas Lake Creek, and tributaries upstream from Alturas Lake Creek

Stream Miles Denominator used in Uplift Calculation (in appropriate Limiting Factors)

92.6 mi

See bio notes for mileage change

UMC1 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Cabin Creek Reconnect	1	100%	1
Total Project Length	1		1
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	1		
Total Stream Miles (Denominator)	92.6 mi.		
% Uplift (2018)	1.1%		

UMC1 - LF 1.3 (Habitat Quantity: Competition)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	92.6 mi.		
% Uplift (2018)	0.0%		

UMC1 - LF 4.1 (Riparian Vegetation)

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Pole Creek Meadows - Channel realignment	0.8	90%	0.72
Cabin Creek Reconnect - USFS	0.4	90%	0.36
Total Project Length	1.2		1.08
Total # Projects	2		
Total Stream Miles Affected (Weighted for 2018)	1.08		
Total Stream Miles (Denominator)	92.6 mi.		

<b>% Uplift (2018)</b>	<b>1.2%</b>
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### **UMC1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Pole Creek Meadows - Channel realignment	0.8	75%	0.6
Cabin Creek Reconnect - USFS	0.4	10%	0.04
Total Project Length	1.2		0.64
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0.64		
Total Stream Miles (Denominator)	92.6 mi.		

<b>% Uplift (2018)</b>	<b>0.7%</b>
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### **UMC1 - LF 8.1 (Water Quality: Temperature)**

Riparian (LF 4.1) Uplift	<b>1.2%</b>	
Flow (LF 9.2) Uplift	<b>12.4%</b>	76.7

<b>% Uplift (2018)</b>	<b>13.6%</b>
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### **UMC1 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Permanent</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Pole Creek Source Switch	18	18	18	18
Beaver Creek (20-yr lease)		5.9	5.9	5.9



<b>Total</b>	<b>18</b>	<b>23.9</b>	<b>23.9</b>	<b>23.9</b>
		<i>Average of leases</i>		
		==>		23.9
Total	23.9 cfs			
Total # Projects	3			
Denominator	192 cfs	From look back		
<b>% Uplift (2018)</b>	<b>12.4%</b>			

UMC2

Upper Salmon tributaries with significant water withdrawals (Fourth of July, Champion, Cleveland, Fisher, Warm, Williams Creek)

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

24.3 mi

UMC2 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Fourth of July Creek (3 barriers removed, per USFS)	6.5	33%	2.145
Total Project Length	6.5		2.145
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	2.145		
Total Stream Miles (Denominator)	24.3 mi.		
% Uplift (2018)	8.8%		

UMC2 - LF 1.3 (Habitat Quantity: Competition)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	24.3 mi.		
% Uplift (2018)	0.0%		

UMC2 - LF 2.3 (Injury and Mortality: Mechanical Injury)

<u>Action</u>	<u>Design Flow of Screen (cfs)</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (flow)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Flow Affected (Weighted for 2018)	0		
Total Flow (Denominator)	cfs		
<b>% Uplift (2018)</b>	<b>#DIV/0!</b>		

### **UMC2 - LF 4.1 (Riparian Vegetation)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
4th of July Creek flow enhancements	2	10%	0.2
Total Project Length	2		0.2
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.2		
Total Stream Miles (Denominator)	24.3 mi.		
<b>% Uplift (2018)</b>	<b>0.8%</b>		

### **UMC2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	24.3 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

**UMC2 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Permanent</u>	<u>Leases</u>		
		<u>2016</u>	<u>2017</u>	<u>2018</u>
Fourth of July Creek Flow Enhancement		0	0	9
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>
<b>Average of leases</b>				
==>				3.0
Total	3.0 cfs			
Total # Projects	0			
Denominator	194.6 cfs			
<b>% Uplift (2018)</b>	<b>1.5%</b>			

LMC4

Morgan Creek

LMC4- LF 8.1 (Water Quality: Temperature)

Riparian (LF 4.1) Uplift	0.0%
Flow (LF 9.2) Uplift	3.0%
% Uplift (2018)	3.0%

LMC4- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent Acquisition	Leases		
		2016	2017	2018
2015 - Morgan Creek 2015-2017 Minimum Flow Agreement - IDWR		2	2	
Total	0	2	2	0
		Average of leases ==>		1.3
Total	1.3 cfs			
Total # Projects	0			
Denominator	44.8 cfs	Morgan Case (IDWR) summation of diversions		
% Uplift (2018)	3.0%			

LMC6

Remaining lower mainstem tributaries (Bayshore, Mill, Hat, Thompson, Slate, Gordon, Warm Springs Cr. etc.)

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

53.3 mi

LMC6 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Garden Creek Syphon - CSWCD	2	50%	1
Total Project Length	2		1
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	1		
Total Stream Miles (Denominator)	53.3 mi.		
% Uplift (2018)	1.9%		

LMC6 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Flow (Denominator)	291 cfs		
% Uplift (2018)	0.0%		

LMC6 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	2018 % Improvement (prorating 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 (Weighted for 2018)	0	
Total Stream Miles (Denominator)	53.3 mi.	
<b>% Uplift (2018)</b>	<b>0.0%</b>	

***LMC6 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)***

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
<b><u>No Actions</u></b>			0
Total Project Length	<div></div> 0		<div></div> 0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	53.3 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

***LMC6 - LF 9.2 (Water Quantity: Decreased Water Quantity)***

<u>Action</u>	<u>Permanent</u>	<u>Leases</u>			
		<u>2016</u>	<u>2017</u>	<u>2018</u>	
Bayhorse Creek - 20 yr	2.23	2.23	2.23	2.23	
Cow Creek	2	2	2	2	
Poison Creek	6	6	6	6	
Garden Creek	1.6	1.6	1.6	1.6	
2015 - Big Hat and Hat Creek 2015-2017 3-year Lease/Rental - IDWR		2.13	2.13		
Lyon Creek	2.6	2.6	2.6	2.6	
<b>Total</b>	<b>14.43</b>	<b>16.56</b>	<b>16.56</b>	<b>14.43</b>	
					<b>Average of leases ==&gt; 15.9</b>
Total	15.9 cfs				
Total # Projects	1				
Denominator	291 cfs		From look back		
<b>% Uplift (2018)</b>	<b>5.4%</b>				

EFC1

East Fork Salmon River

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

92.7 mi

EFC1 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	92.7 mi.		
% Uplift (2018)	0.0%		

EFC1 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Flow (Denominator)	cfs		
% Uplift (2018)	#DIV/0!		

EFC1 - LF 4.1 (Riparian Vegetation)



<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	92.7 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

**EFC1 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	92.7 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

**EFC1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	92.7 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

***EFC1 - LF 9.2 (Water Quantity: Decreased Water Quantity)***

<u>Action</u>	<u>Permanent Acquisition</u>	<u>Leases</u>		
		<u>2016</u>	<u>2017</u>	<u>2018</u>
No Actions				
<b>Total</b>	0	0	0	0
<b>Average of leases</b>				
==>				0.0
Total		0.0 cfs		
Total # Projects	#REF!			
Denominator		cfs		
% Uplift (2018)		#DIV/0!		

Example: Base Flow

EFS1- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent Acquisition	Leases			
			2016	2017	2018
2012 - Bayhorse Creek 20-year Source Switch - IDWR	2.23		2.23	2.23	2.23
Total	2.23		2.23	2.23	2.23
		Average of leases ==>			
		2.2			
Total	2.2 cfs				
Total # Projects	0				
Denominator	8 cfs		Morgan Case (IDWR) summation of diversions		
% Uplift (2018)	27.9%				

EFS5

Garden Creek

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

12 mi

EFS5 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Garden Creek Syphon - CSWCD	2	50%	1
Total Project Length	2		1
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	1		
Total Stream Miles (Denominator)	12 mi.		
% Uplift (2018)	8.3%		

EFS5 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Flow (Denominator)	26.4 cfs		
% Uplift (2018)	0.0%		

EFS5 - LF 4.1 (Riparian Vegetation)

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	12 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

**EFS5 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
No Actions			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	12 mi.		
<b>% Uplift (2018)</b>	<b>0.0%</b>		

**EFS5 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Permanent Acquisition</u>	<u>Leases</u>		
		<u>2016</u>	<u>2017</u>	<u>2018</u>
<b>Total</b>	0	0	0	0
		<b>Average of leases ==&gt;</b>		0.0
Total	0.0 cfs			
Total # Projects	#REF!			
Denominator	26.4 cfs			
<b>% Uplift (2018)</b>	<b>0.0%</b>			

EFS6

Herd Creek

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

27.8 mi

EFS6 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Total Project Length	0		0
Total # Projects	0		0
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	27.8 mi.		
% Uplift (2018)	0.0%		

EFS6 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Total Project Length	0		0
Total # Projects	0		0
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	27.8 mi.		
% Uplift (2018)	0.0%		

EFS6 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)

Total Project Length	<div><div></div><div>0</div></div>	<div><div></div><div>0</div></div>
Total # Projects	0	

Total Stream Miles Affected (Weighted for 2018) 0

Total Stream Miles (Denominator) 27.8 mi.

% Uplift (2018)

0.0%

EFS6- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent Acquisition	Leases			
		2016	2017	2018	
Total	0	0	0	0	
Average of leases ==>					0.0
Total	0.0 cfs				
Total # Projects	0				
Denominator	cfs	Example: Base Flow			

% Uplift (2018)

#DIV/0!

Morgan Creek

EFS8- LF 8.1 (Water Quality: Temperature)

Riparian (LF 4.1) Uplift	0.0%
Flow (LF 9.2) Uplift	2.3%

% Uplift (2018)	2.3%
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EFS8- LF 9.2 (Water Quantity: Decreased Water Quantity)

Action	Permanent Acquisition	Leases		
		2016	2017	2018
2015 - Morgan Creek 2015-2017 Minimum Flow Agreement - IDWR		2	2	
Total	0	2	2	0

		Average of leases		
		==>		1.3
Total	1.3 cfs			
Total # Projects	0			
Denominator	57 cfs	Morgan Case (IDWR) summation of diversions		

% Uplift (2018)	2.3%
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VCC1Valley Creek

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)72.6 mi

VCC1 - LF 1.1 (Anthropogenic Barriers)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Iron Creek Channel Reconnect - USFS	4.5	33%	1.485
Total Project Length	4.5		1.485
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	1.485		
Total Stream Miles (Denominator)	72.6 mi.		
% Uplift (2018)	2.0%		

VCC1 - LF 1.3 (Competition)

No Actions

VCC1 - LF 2.3 (Injury and Mortality: Mechanical Injury)

Action	Design Flow of Screen (cfs)	2018 % Improvement (prorating factor)	Realized Change in 2018 (flow)
Elk Creek 1	8	0%	0
Goat Creek 1 Fish Screen - IDFG	3	100%	3
Goat Creek 2 Fish Screen - IDFG	3	100%	3
			0
Total Project Length	14		6
Total # Projects	3		
Total Stream Miles Affected (Weighted for 2018)	6		
Total Flow (Denominator)	152.14 cfs		Morgan Case Sum of Diversions
% Uplift (2018)	3.9%		

VCC1 - LF 4.1 (Riparian Vegetation)

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Stanley Lake Inlet Restoration - USFS	0.4	10%	0.04
Total Project Length	0.4		0.04
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.04		
Total Stream Miles (Denominator)	72.6 mi.		
<b>% Uplift (2018)</b>	<b>0.1%</b>		

### **VCC1 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Iron Creek Channel Reconnect	2	20%	0.4
Total Project Length	2		0.4
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.4		
Total Stream Miles (Denominator)	72.6 mi.		
<b>% Uplift (2018)</b>	<b>0.6%</b>		

### **VCC1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Stanley Lake Inlet Restoration	0.4	10%	0.04
Total Project Length	0.4		0.04
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0.04		
Total Stream Miles (Denominator)	72.6 mi.		
<b>% Uplift (2018)</b>	<b>0.1%</b>		

**VCC1 - LF 8.1 (Water Quality: Temperature)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Iron Creek Channel Reconnect	2	50%	1
Stanley Lake inlet	0.4	10%	0.04
Total Project Length	2.4		1.04
Total # Projects	2		
Total Stream Miles Affected (Weighted for 2018)	1.04		
Total Stream Miles (Denominator)	72.6 mi.		

**% Uplift (2018)** **1.4%**

**VCC1 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Permanent Acquisition</u>	<u>Leases</u>			
		<u>2016</u>	<u>2017</u>	<u>2018</u>	
<b>Total</b>	0	0	0	0	
		<b>Average of leases</b>			
		==>			0.0
Total	0.0 cfs				
Total # Projects	0				
Denominator	cfs	Example: Base Flow			

**% Uplift (2018)** **#DIV/0!**

YFC2

West Fork Yankee Fork

Stream Miles Denominator used in Uplift

Calculation (in appropriate Limiting Factors)

10 mi

YFC2 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Yankee Fork West Fork Phase II - TU	0.1	90%	0.09
Total Project Length	0.1		0.09
Total # Projects	1		
Total Miles Affected (Weighted for 2018)	0.09		
Total Stream Miles (Denominator)	10 mi.		
% Uplift (2018)	0.9%		

YFC2 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Yankee Fork West Fork Phase II - TU	0.1	90%	0.09
Total Project Length	0.1		0.09
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.09		
Total Stream Miles (Denominator)	10 mi.		
% Uplift (2018)	0.9%		

YFC2 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Yankee Fork West Fork Phase II - TU	0.1	95%	0.095

Total Project Length	<div><div></div></div> 0.1	<div><div></div></div> 0.095
Total # Projects	1	
Total Stream Miles Affected (Weighted for 2018)	0.095	
Total Stream Miles (Denominator)	10 mi.	
% Uplift (2018)	1.0%	

YFC3

Yankee Fork

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

25 mi

YFC3 - LF 4.2 (LWD Recruitment)

Action	Miles treated	2018 %	Realized Change in 2018
		Improvement (prorating factor)	
Yankee Fork West Fork Phase I & II - TU	0.5	75%	0.375
Bonanza City	0.85	1%	0.0085
Pond Series 1	0.25	1%	0.0025
Total Project Length	1.6		0.386
Total # Projects	3		
Total Stream Miles Affected (Weighted for 2018)	0.386		
Total Stream Miles (Denominator)	25 mi.		
% Uplift (2018)	1.5%		

YFC3 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

Action	Miles treated	2018 %	Realized Change in 2018
		Improvement (prorating factor)	
Yankee Fork West Fork Phase I & II - TU	0.5	80%	0.4
Bonanza City	0.85	80%	0.68
Pond Series 1	0.25	50%	0.125
Total Project Length	1.6		1.205
Total # Projects	0		
Total Miles Affected (Weighted for 2018)	1.205		
Total Stream Miles (Denominator)	25 mi.		
% Uplift (2018)	4.8%		

YFC3 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	80%	0.4
Bonanza City	0.85	80%	0.68
Pond Series 1	0.25	60%	0.15
Preacher's Plus - TU	0.5	10%	0.05
Total Project Length	2.1		1.28
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)	1.28		
Total Stream Miles (Denominator)	25 mi.		
<b>% Uplift (2018)</b>	<b>5.1%</b>		

### **YFC3 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	95%	0.475
Bonanza City	0.85	90%	0.765
Pond Series 1	0.25	80%	0.2
Preacher's Plus - TU	0.5	70%	0.35
Total Project Length	2.1		1.79
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)	1.79		
Total Stream Miles (Denominator)	25 mi.		
<b>% Uplift (2018)</b>	<b>7.2%</b>		

### **YFC3 - LF 7.1 (Sediment Conditions: Decrease Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	95%	0.475
Bonanza City	0.85	95%	0.8075
Pond Series 1	0.25	80%	0.2
Preacher's Plus - TU	0.5	10%	0.05
Total Project Length	0.5		1.5325

Total # Projects	1
Total Stream Miles Affected (Weighted for 2018)	1.5325
Total Stream Miles (Denominator)	25 mi.
% Uplift (2018)	6.1%



UMS2

Mainstem Upper Salmon River

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

73.3 mi

UMS2 - LF 4.1 (Riparian Vegetation)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	73.3 mi.		
% Uplift (2018)	0.0%		

UMS2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
			0
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		
Total Stream Miles (Denominator)	73.3 mi.		
% Uplift (2018)	0.0%		

UMS2 - LF 8.1 (Water Quality: Temperature)

Riparian (LF 4.1) Uplift	0.0%
Flow (LF 9.2) Uplift	8.5%
% Uplift (2018)	8.5%

**UMS2 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Leases</u>		<u>2016</u>	<u>2017</u>	<u>2018</u>
	<u>Permanent Acquisition</u>				
Beaver Creek (20-yr lease)			5.9	5.9	5.9
Pole Creek Diversion - USFS/USBR/CSWCD	12		12	12	12
<b>Total</b>		<b>12</b>	<b>17.9</b>	<b>17.9</b>	<b>17.9</b>

*Average of leases*  
==> 17.9

Total 17.9 cfs  
Total # Projects 2  
Denominator 210 cfs From look back

**% Uplift (2018)** **8.5%**

# UMS3

189.5 mi

### UMS3 - LF 1.1 (Anthropogenic Barriers)

<u><b>Action</b></u>	<u><b>Miles treated</b></u>	<u><b>2018 % Improvement (prorating factor)</b></u>	<u><b>Realized Change in 2018 (mi)</b></u>
Cabin Creek Reconnect	1	100%	1
4th of July Creek flow enhancements	2	10%	0.2
Iron Creek Channel Reconnect - USFS	4.5	33%	1.485
Total Project Length	7.5		2.685
Total # Projects	3		

2.685

189.5 mi.

1.4%

**UMS3 - LF 2.3 (Injury and Mortality: Mechanical Injury)**

<u>Action</u>	<u>Design Flow of Screen (cfs)</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (flow)</u>
Elk Creek 1	8	0%	0
Goat Creek 1 Fish Screen - IDFG	3	100%	3
Goat Creek 2 Fish Screen - IDFG	3	100%	3
Total Project Length	14		6
Total # Projects	3		

6

386 cfs

1.6%

**UMS3 - LF 4.1 (Riparian Vegetation)**

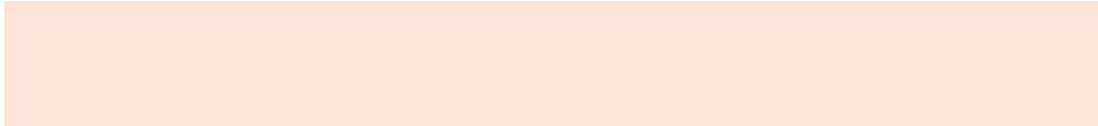
<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Pole Creek Meadows - Channel realignment	0.8	90%	0.72
Cabin Creek Reconnect - USFS	0.4	90%	0.36
4th of July Creek flow enhancements	2	10%	0.2
Stanley Lake Inlet Restoration - USFS	0.4	10%	0.04
Total Project Length	3.6		1.32
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)	1.32		
Total Stream Miles (Denominator)	189.5 mi.		
<b>% Uplift (2018)</b>	<b>0.7%</b>		

### **UMS3 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Pole Creek Meadows - Channel realignment	0.8	75%	0.6
Cabin Creek Reconnect - USFS	0.4	10%	0.04
Stanley Lake Inlet Restoration - USFS	0.4	10%	0.04
Total Project Length	1.6		0.68
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0.68		
Total Stream Miles (Denominator)	189.5 mi.		
<b>% Uplift (2018)</b>	<b>0.4%</b>		

### **UMS3 - LF 8.1 (Water Quality: Temperature)**

Riparian (LF 4.1) Uplift	<b>0.7</b>
Flow (LF 9.2) Uplift	<b>7.0</b>
<b>% Uplift (2018)</b>	<b>7.7</b>



**UMS3 - LF 9.2 (Water Quantity: Decreased Water Quantity)**

<u>Action</u>	<u>Leases</u>			
	<u>Permanent Acquisition</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Pole Creek Source Switch	18	18	18	18
Beaver Creek (20-yr lease)		5.9	5.9	5.9
Fourth of July Creek Flow Enhancement		0	0	9
<b>Total</b>	<b>18</b>	<b>23.9</b>	<b>23.9</b>	<b>32.9</b>

*Average of leases*  
==> 26.9

Total 26.9 cfs  
Total # Projects 7  
Denominator 386 cfs From look back

**% Uplift (2018)** **7.0%**

UMS4

West Fork Yankee Fork

Stream Miles Denominator used in Uplift  
Calculation (in appropriate Limiting Factors)

20 mi

UMS4 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Yankee Fork West Fork Phase II - TU	0.1	90%	0.09
Total Project Length	0.1		0.09
Total # Projects	0		
Total Miles Affected (Weighted for 2018)	0.09		
Total Stream Miles (Denominator)	20 mi.		
% Uplift (2018)	0.5%		

UMS4 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Yankee Fork West Fork Phase II - TU	0.1	90%	0.09
Total Project Length	0.1		0.09
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.09		
Total Stream Miles (Denominator)	20 mi.		
% Uplift (2018)	0.5%		

UMS4 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)

Action	Miles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Yankee Fork West Fork Phase II - TU	0.1	95%	0.095
Total Project Length	0.1		0.095

Total # Projects	1
Total Stream Miles Affected (Weighted for 2018)	0.095
Total Stream Miles (Denominator)	20 mi.
<b>% Uplift (2018)</b>	<b>0.5%</b>

**UMS5**

## Yankee Fork

Stream Miles Denominator used in Uplift Calculation (in appropriate Limiting Factors)

30 mi

### **UMS5 - LF 1.1 (Anthropogenic Barriers)**

Not discussed by EP, presume no actions.

**UMS5 - LF 4.2 (LWD Recruitment)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	75%	0.375
Bonanza City	0.85	1%	0.0085
Pond Series 1	0.25	1%	0.0025
Total Project Length	1.6		0.386
Total # Projects	3		
Total Stream Miles Affected (Weighted for 2018)	0.386		
Total Stream Miles (Denominator)	30 mi.		

## % Uplift (2018)

**1.3%**

**UMS5 - LF 5.2 (Peripheral and Transitional Habitats: Floodplain Condition)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	80%	0.4
Bonanza City	0.85	80%	0.68
Pond Series 1	0.25	50%	0.125
Total Project Length	1.6		1.205
Total # Projects	0		
Total Miles Affected (Weighted for 2018)	1.205		
Total Stream Miles (Denominator)	30 mi.		

## % Uplift (2018)

**4.0%**



**UMS5 - LF 6.1 (Channel Structure and Form: Bed and Channel Form)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	80%	0.4
Bonanza City	0.85	80%	0.68
Pond Series 1	0.25	60%	0.15
Preacher's Plus - TU	0.5	10%	0.05
Total Project Length	2.1		1.28
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)		1.28	
Total Stream Miles (Denominator)		30 mi.	
<b>% Uplift (2018)</b>	<b>4.3%</b>		

**UMS5 - LF 6.2 (Channel Structure and Form: Instream Structural Complexity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	95%	0.475
Bonanza City	0.85	90%	0.765
Pond Series 1	0.25	80%	0.2
Preacher's Plus - TU	0.5	70%	0.35
Total Project Length	2.1		1.79
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)		1.79	
Total Stream Miles (Denominator)		30 mi.	
<b>% Uplift (2018)</b>	<b>6.0%</b>		

**UMS5 - LF 7.1 (Sediment Conditions: Decrease Sediment Quantity)**

<u>Action</u>	<u>Miles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Yankee Fork West Fork Phase I & II - TU	0.5	95%	0.475
Bonanza City	0.85	95%	0.8075
Pond Series 1	0.25	90%	0.225

Preacher's Plus - TU	0.5	10%	0.05
Total Project Length	0.5		1.5575
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)	1.5575		
Total Stream Miles (Denominator)	30 mi.		
<b>% Uplift (2018)</b>	<b>5.2%</b>		