

Workbook Info

Project:

Expert Panel 2015-2016

Meeting:

Lower Salmon Look Back Process

Primary Data Recorder:

Nick Legg, Geomorphologist, Cardno Inc.

Latest Revision:

5/23/2016

Filename:

LowerSalmonEP_CalcSpreadsheet_LookBack_5-23-16.xlsx

Workbook Description

This workbook is the "Calculation Spreadsheet" for the Expert Panel Look Back Process in the Lower Salmon Basin (meeting 4/20-4/21/2016) . The calculation spreadsheet captures numerical details of completed actions (2012-2015) and functional uplift calculations. This table was created in support of the biological notes contained in the spreadsheets below. The biological notes spreadsheet also documents the rationale underlying this spreadsheet.

Biological Notes Spreadsheets

Steelhead	LowSalm_Steelhead_HabFunctions_2013-2018_LB&LF_BioNotes_QA_5-23-16.xlsx
Chinook	LowSalm_Chinook_HabFunctions_2013-2018_LB&LF_BioNotes_QA_5-23-16.xlsx

Sheets:

Sheets are produced for individual Assessment Units and named by the Assessment Unit Code.

Fish Bearing Lengths by AU for each species (according to Streamnet)

Chinook Assessment Units

Au Name	Au Code	Watershed Area (mi ²)	Chinook Stream Miles (Stream Net)*
Secesh River	SES1	247.5	63
EFSF Salmon and Tribs	SSC1A	203.8	47.1
Johnson Creek	SSC1B	218	52.8
Upper SF Salmon Tribs above EFSF Salmon (High Idaho Batholith Tribs - from the headwaters to the mouth of EFSF Salmon)	SSC2	352.2	42.1
Lower SF Salmon Tribs below EFSF Salmon (Hot Dry Canyon Tribs - from mouth of EFSF Salmon to mouth of SF Salmon)	SSC3	270.9	13.9
Mainstem SF Salmon	SSC4	17.3	86.2
Lower Big Creek	BCC1A	279.9	46.3
Upper Big Creek	BCC1B	316	69.1

Steelhead Assessment Units

AuName	AuCode	Watershed Area (mi ²)	Steelhead Stream Miles (StreamNet)*
Lower Big Creek	MLS1A	279.9	92.5
Upper Big Creek	MLS1B	316	115.8
Secesh River	SES1	247.5	69.3
EFSF Salmon and Tribs	SSS1A	203.8	60.4
Johnson Creek	SSS1B	218	77.4
Upper SF Salmon Tribs above EFSF Salmon (High Idaho Batholith Tribs - from the headwaters to the mouth of EFSF Salmon)	SSS2	352.2	96.8
Lower SF Salmon Tribs below EFSF Salmon (Hot Dry Canyon Tribs - from mouth of EFSF Salmon to mouth of SF Salmon)	SSS3	270.9	20.1
Mainstem SF Salmon	SSS4	17.3	91.9

SEC1

Secesh River

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

78.3 mi

SEC1 - LF 1.1 (Anthropogenic Barriers)

Action	Streammiles 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)	78.3 mi.		
% Uplift (2018)	0.0%		

SEC1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Lick Creek & Burgdorf Road Improvements (9.6 road miles, 1.6 stream miles)	1.6	50%	0.8
Lake Creek Burgdorf Meadows Bank Stabilization (2013-2014, includes riparian planting, 1400 plants)	0.08	75%	0.061079545
Total Project Length	1.7		0.861079545
Total # Projects	2		
Total Stream Miles Affected (Weighted for 2018)	0.9		
Total Stream Miles (Denominator)	78.3 mi.		
% Uplift (2018)	1.1%		

SSC1A

EFSF Salmon and Tribs

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

51 mi

SSC1A - LF 1.1 (Anthropogenic Barriers)

<u>Action</u>	<u>Streammiles 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)	51 mi.		
% Uplift (2018)	0.0%		

SSC1A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles 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)	51 mi.		
% Uplift (2018)	0.0%		

SSC1A - LF 8.1 (Water Quality: Temperature)

Action	Streammiles treated	<u>2018 %</u>	<u>Realized Change in</u> <u>2018 (mi)</u>
		<u>Improvement</u> <u>(prorating</u> <u>factor)</u>	

No Actions		0
Total Project Length	0	0
Total # Projects	0	
Total Stream Miles Affected (Weighted for 2018)	0	
Total Stream Miles (Denominator)	51 mi.	
% Uplift (2018)	0.0%	

SSC1A - LF 8.7 (Water Quality: Toxic Contaminants)

<u>Action</u>	<u>Streammiles 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)	51 mi.		
% Uplift (2018)	0.0%		

SSC1B

Johnson Creek

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

63.3 mi

SSC1B - LF 1.1 (Anthropogenic Barriers)

<u>Action</u>	<u>Streammiles 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)	63.3 mi.		
% Uplift (2018)	0.0%		

SSC1B - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Burnt Log Road Decommissioning (10.5 rd. mi., 0.45 str. mi.)	0.45	100%	0.45
Total Project Length	0.45		0.45
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.45		
Total Stream Miles (Denominator)	63.3 mi.		
% Uplift (2018)	0.7%		

SSC1B - LF 8.1 (Water Quality: Temperature)

<u>Action</u>	<u>Streammiles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Cox Creek Fencing, and Reed Canary Grass Removal (1.35 acres fenced)	0.25	50%	0.125
Cox Creek Planting (590 plants)	0.15	50%	0.075
Total Project Length	0.4		0.2
Total # Projects	2		
Total Stream Miles Affected (Weighted for 2018)	0.2		
Total Stream Miles (Denominator)	63.3 mi.		
% Uplift (2018)	0.3%		

SSC2

Upper SF Salmon Tribs above EFSF Salmon (High Idaho Batholith Tribs - from the headwaters to the mouth of EFSF Salmon)

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

54.2 mi

SSC2 - LF 1.1 (Anthropogenic Barriers)

Action	Streammiles 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)	54.2 mi.		
% Uplift (2018)	0.0%		

SSC2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Stolle Road Decommissioning (2012, 25.5 road miles, 1.46 streammiles)	1.46	80%	1.168
Six Bit, Warm Lake, Curtis Creek, and Upper SFSR Drainages Road Decommissioning (2013, 52.2 road miles, 14.46 streammiles)	14.46	80%	11.568
Two Bit and Six Bit Sub Watershed in Upper SFSR Road Decommissioning (2014, 7.8 road miles, 2.4 streammiles)	Carried to look forward to address low bookend		Carried to look forward to address low bookend
Nickel and Dime Road Decommissioning (2015, 12.7 road miles, 1.74 streammiles)	Carried to look forward to address low bookend		Carried to look forward to address low bookend
Construct Bridge at Cabin Creek Ford (124 plants planted, 2013)	0.1	100%	0.1
Total Project Length	20.16		12.836
Total # Projects	5		
Total Stream Miles Affected (Weighted for 2018)	12.836		
Total Stream Miles (Denominator)	54.2 mi.		
% Uplift (2018)	23.7%		

SSC3

Lower SF Salmon Tribs below EFSF Salmon (Hot Dry Canyon Tribs - from mouth of EFSF Salmon to mouth of SF Salmon)

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

9.7 mi

SSC3 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles 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)	9.7 mi.		
% Uplift (2018)	0.0%		

SSC4

Mainstem SF Salmon

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

84.9 mi

SSC4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Old South Fork Road Decomissioning plus planting and seeding (2014, 2.4 road miles, 1.2 streammiles)	1.2	85%	1.02
Phoebe Creek Disp. Campsite RCA Restoration (0.2 acres, 450 feet of planting, 480 plants, lay back bank slope)	0.06	80%	0.048
SF Salmon Fishing Trail Improvement Project (10,000 linear feet of bank stabilization, 2015)	1.9	20%	0.378787879
Six Bit, Warm Lake, Curtis Creek, and Upper SFSR Drainages Road Decommissioning (2013, 3.1 road miles, 0.63 streammiles)	0.63	80%	0.504
Total Project Length	3.783939394		1.950787879
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)	1.950787879		
Total Stream Miles (Denominator)	84.9 mi.		
% Uplift (2018)	2.3%		

BCC1A **Lower Big Creek**

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

46.3 mi

BCC1A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles 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)	46.3 mi.		
% Uplift (2018)	0.0%		

No Actions			0
Total Project Length			0
Total # Projects			0

Total Stream Miles Affected (Weighted for 2018)	0
Total Stream Miles (Denominator)	82.7 mi.

% Uplift (2018)	0.0%
-----------------	------

SES1

Secesh River

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

152.1 mi

SES1 - LF 1.1 (Anthropogenic Barriers)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Burgdorf Culvert Replacement	2.1	100%	2.1
Total Project Length	2.1		2.1
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	2.1		
Total Stream Miles (Denominator)	152.1 mi.		
% Uplift (2018)	1.4%		

SES1 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Lick Creek & Burgdorf Road Improvements (9.6 road mi., 1.6 str. mi.)	1.6	50%	0.8
Lake Creek Burgdorf Meadows Bank Stabilization (2013-2014, includes riparian planting, 1400 plants)	0.08	75%	0.061079545
Total Project Length	1.681439394		0.861079545
Total # Projects	2		
Total Stream Miles Affected (Weighted for 2018)	0.861079545		
Total Stream Miles (Denominator)	152.1 mi.		
% Uplift (2018)	0.6%		

SSS1A EFSF Salmon and Tribs

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

98.5 mi

SSS1A - LF 1.1 (Anthropogenic Barriers)

<u>Action</u>	<u>Streammiles 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)	98.5 mi.		
% Uplift (2018)	0.0%		

SSS1A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles 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)	98.5 mi.		
% Uplift (2018)	0.0%		

SSS1A - LF 8.1 (Water Quality: Temperature)

Action	Streammiles treated	<u>2018 %</u>	<u>Realized Change in</u> 2018 (mi)
		<u>Improvement</u> <u>(prorating</u> factor)	

No Actions		0
Total Project Length	0	0
Total # Projects	0	
Total Stream Miles Affected (Weighted for 2018)	0	
Total Stream Miles (Denominator)	98.5 mi.	
% Uplift (2018)	0.0%	

SSS1A - LF 8.7 (Water Quality: Toxic Contaminants)

<u>Action</u>	<u>Streammiles 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)	98.5 mi.		
% Uplift (2018)	0.0%		

SSS1B Johnson Creek

Stream Miles Denominator used in Uplift
Calculation (in appropriate Limiting Factors) 101.8 mi

SSS1B - LF 1.1 (Anthropogenic Barriers)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Cox Creek Culvert Replacement (2 culverts)	0.4	50%	0.2
Total Project Length	0.4		0.2
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.2		
Total Stream Miles (Denominator)	101.8 mi.		
% Uplift (2018)	0.2%		

SSS1B - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Burnt Log Road Decommissioning (10.5 rd. mi., 0.45 str. mi.)	0.45	100%	0.45
Total Project Length	0.45		0.45
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.45		
Total Stream Miles (Denominator)	101.8 mi.		
% Uplift (2018)	0.4%		

SSS1B - LF 8.1 (Water Quality: Temperature)

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

Cox Creek Fencing, and Reed Canary Grass Removal (1.35 acres fenced)	0.25	50%	0.125
Cox Creek Planting (590 plants)	0.15	50%	0.075
Total Project Length	0.4		0.2
Total # Projects	2		
Total Stream Miles Affected (Weighted for 2018)	0.2		
Total Stream Miles (Denominator)	101.8 mi.		
% Uplift (2018)	0.2%		

SSS2

Upper SF Salmon Tribs above EFSF Salmon (High Idaho Batholith Tribs - from the headwaters to the mouth of EFSF Salmon)

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

146.7 mi

SSS2 - LF 1.1 (Anthropogenic Barriers)

Action	Streammiles 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)	146.7 mi.		
% Uplift (2018)	0.0%		

SSS2 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Stolle Road Decommissioning (2012, 25.5 road miles, 1.46 streammiles)	1.46	80%	1.168
Six Bit, Warm Lake, Curtis Creek, and Upper SFSR Drainages Road Decommissioning (2013, 52.2 road miles, 14.46 streammiles)	14.46	80%	11.568
Two Bit and Six Bit Sub Watershed in Upper SFSR Road Decommissioning (2014, 7.8 road miles, 2.4 streammiles)	Carried to look forward to address low bookend		Carried to look forward to address low bookend
Nickel and Dime Road Decommissioning (2015, 12.7 road miles, 1.74 streammiles)	Carried to look forward to address low bookend		Carried to look forward to address low bookend
Construct Bridge at Cabin Creek Ford (124 plants planted, 2013)	0.1	100%	0.1
Total Project Length	20.16		12.836
Total # Projects	5		

Total Stream Miles Affected (Weighted for 2018)

12.836

Total Stream Miles (Denominator)

146.7 mi.

% Uplift (2018)

8.7%

SSS3

Lower SF Salmon Tribs below EFSF Salmon (Hot Dry Canyon Tribs - from mouth of EFSF Salmon to mouth of SF Salmon)

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

89.5 mi

SSS3 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles 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)	89.5 mi.		
% Uplift (2018)	0.0%		

SSS4

Mainstem SF Salmon

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

88.7 mi

SSS4 - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Old South Fork Road Decommissioning plus planting and seeding (2014, 2.4 road miles, 1.2 streammiles)	1.2	85%	1.02
Phoebe Creek Disp. Campsite RCA Restoration (0.2 acres, 450 feet of planting, 480 plants, lay back bank slope)	0.06	80%	0.048
SF Salmon Fishing Trail Improvement Project (10,000 linear feet of bank stabilization, 2015)	1.9	20%	0.378787879
Six Bit, Warm Lake, Curtis Creek, and Upper SFSR Drainages Road Decommissioning (2013, 3.1 road miles, 0.63 streammiles)	0.63	80%	0.504
Total Project Length	3.783939394		1.950787879
Total # Projects	4		
Total Stream Miles Affected (Weighted for 2018)	1.950787879		
Total Stream Miles (Denominator)	88.7 mi.		
% Uplift (2018)	2.2%		

MLS1A **Lower Big Creek**

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

125.8 mi

MLS1A - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

<u>Action</u>	<u>Streammiles treated</u>	<u>2018 % Improvement (prorating factor)</u>	<u>Realized Change in 2018 (mi)</u>
Mayfield Creek and Trail Creek Reconnections** (2013)			
Total Project Length	0		0
Total # Projects	0		
Total Stream Miles Affected (Weighted for 2018)	0		

**** Added to Steelhead only due to differing AU boundaries, which include Loon Creek. However, project does not apply to sediment (only limiting factor)**

Total Stream Miles (Denominator)

125.8 mi.

% Uplift (2018)

0.0%

MLS1B Upper Big Creek

Stream Miles Denominator used in Uplift Calculation (in appropriate Limiting Factors) 140 mi

MLS1B - LF 1.1 (Anthropogenic Barriers)

Action	Streammiles 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)	140 mi.		
% Uplift (2018)	0.0%		

MLS1B - LF 7.2 (Sediment Conditions: Increased Sediment Quantity)

Action	Streammiles treated	2018 % Improvement (prorating factor)	Realized Change in 2018 (mi)
Smith Creek ATV Trail (4.87 mi. road, 0.62 streammiles)	0.62	40%	0.248
Total Project Length	0.62		0.248
Total # Projects	1		
Total Stream Miles Affected (Weighted for 2018)	0.248		
Total Stream Miles (Denominator)	140 mi.		
% Uplift (2018)	0.2%		

MLS1B - LF 8.7 (Water Quality: Toxic Contaminants)

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

No Actions

Total Project Length

Total # Projects

Total Stream Miles Affected (Weighted for 2018)

Total Stream Miles (Denominator)

% Uplift (2018)



0



0

0

0

0

140 mi.

0.0%