

	Historic	Natural	ROD
Fish Production			
Total Fish Abundance (millions)	5.0	5.0	5.0
Fry Abundance(millions)	4.2	3.8	4.2
Parr Abundance (millions)	0.8	1.2	0.8
Total Fish Biomass (metric ton)	5.5	7.4	5.5
Healthy River			
Bar Area Mobilized (%)	48.5	60.2	48.5
Bar Area with Shallow Scour (%)	17.4	27.2	17.4
Bar Area with Deeper Scour (%)	9.8	16.8	9.8
Cottonwood Potential Initiation Sites (#)	23	9	10
Frog Potential Reproduction Success (days)	22	6	22

CONCERN: Later egg laying leaves less time for warm season growth

Summary Statistics by Scenario

	Natural	ROD	Difference (Nat. – ROD)	Difference (%)
N - tot (millions)	5.0	5.0	0.0	0.8
N - Fry (millions)	3.8	4.2	-0.4	-8.0
N - Parr (millions)	1.2	0.8	0.4	46.6
Fry - FL (mm)	34.0	33.0	1.0	3.0
Parr - FL (mm)	83.0	76.0	7.0	9.2
Fry - Mass (g)	0.4	0.4	0.0	0.0
Parr - Mass (g)	5.9	4.6	1.3	28.3
Fry - BioMass (Metric ton)	2.5	2.2	0.3	12.3
Parr - BioMass (Metric ton)	4.9	3.3	1.6	48.1

Bed Scour and Mobility Model Output: Comparison of Results for all Active Bars in 3-mile reach

Total Active Bar Area (sq ft)	Peak Flow	Predicted Active Bar area <u>mobilized</u> by peak flow, D84 Shields parameter > 0.02 (sq ft)	Percent of total Active Bar area mobilized by peak flow	Predicted Active Bar area with <u>shallow scour</u> (>1D84) by peak flow, D84 Shields parameter > 0.025 (sq ft)	Percent of total Active Bar area scoured by peak flow	Predicted Active Bar area with <u>deeper scour</u> (>2D84) by peak flow, D84 Shields parameter > 0.030 (sq ft)	Percent of total Active Bar area scoured by peak flow
33,480	6,000 cfs	16,229	48.5%	5,828	17.4%	3,297	9.8%
33,480	8,500 cfs	20,169	60.2%	9,090	27.2%	5,617	16.8%

- Model predicts bed mobility objective are partially met during Normal year release (6,000 cfs) and shallow bed scour objective not met for Wet year (8,500 cfs) release
- Portion of bar area mobilized increases by 24% between 6,000 and 8,500 cfs
- Portion of bar area with shallow scour increases by 56% between 6,000 and 8,500 cfs
- Portion of bar area with deeper scour increases by 70% between 6,000 and 8,500 cfs
- Critical Shields parameter values used needs further review/calibration/discussion

RANKING BASED ON NUMBER OF INITIATION NODES

#1 USBR WY 2012 NORMAL Actual Release

- 23 predicted nodes

#2 Record of Decision NORMAL

- 10 predicted nodes

#3 Salmon River Scaled NORMAL

- 9 predicted nodes

Summary of successful breeding days

Flow/Temp Scenario	May 25 fixed breeding start date	>11.1°C breeding start date	Notes
ROD	21	22	11.1°C start date is too late
TRRP	6	22	11.1°C start date is too late
Natural	28	6	