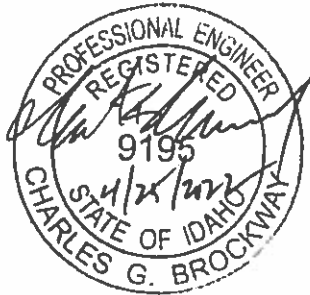


Engineering "No-Rise" Certification
(for projects located in a mapped floodway)

44 CFR 60.3(d)(3) requires that local communities participating in the National Flood Insurance Program "Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;"

This is to certify that I am a duly qualified engineer licensed to practice in the State of Idaho. Pursuant to the above statute and ordinance, this further certifies that the attached data support the fact that the proposed Skjonsby bank stabilization project will not increase the base flood (100-year flood) elevation on the Big Wood River at published sections in the Flood Insurance Study for Ketchum, Idaho dated November 26, 2010 and will not increase the 100-year flood elevations at unpublished cross-sections contained in the effective HEC-RAS model.

Seal:



RECEIVED

MAY 26 2022

BLAINE COUNTY
LAND USE & BUILDING SERVICES

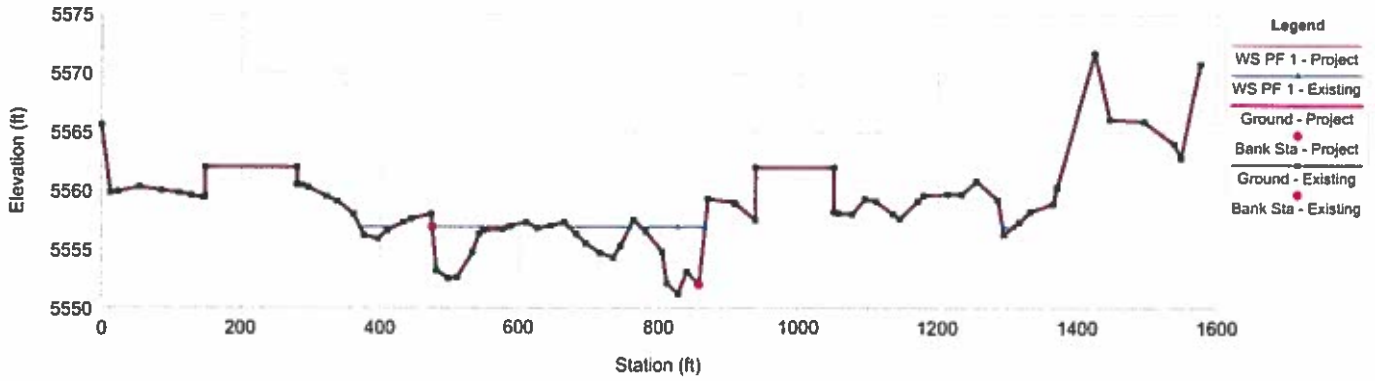


HEC-RAS Cross-Sections

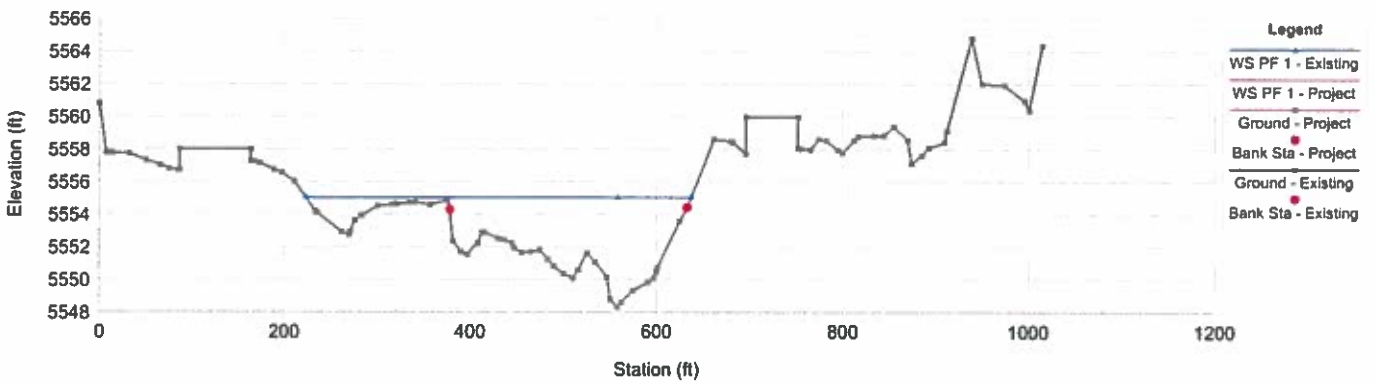


Flood conditions on May 10, 2017. Flow is left to right, bank erosion and development of scour hole at cottonwood tree is evident.

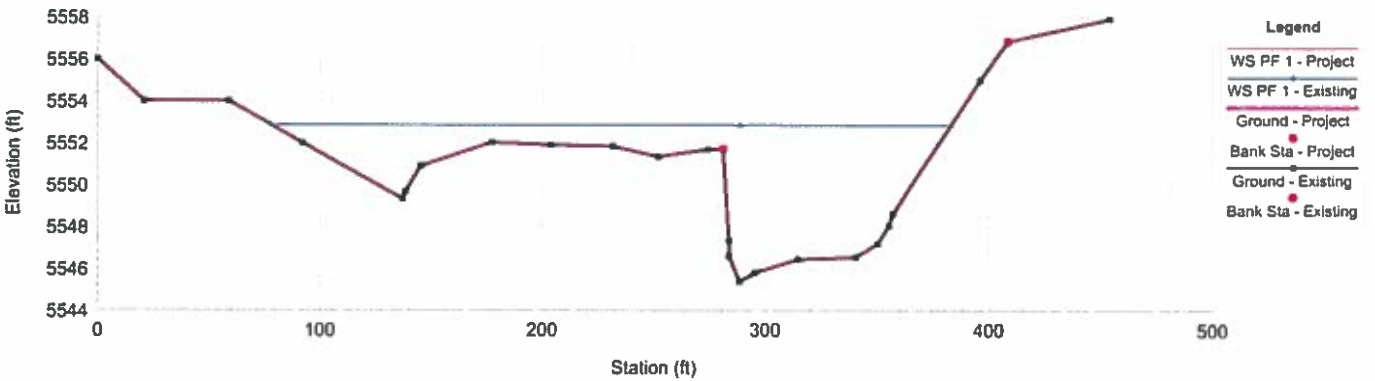
Skjonsby Plan: 1) Existing 2) Project
RS = 67111 CV



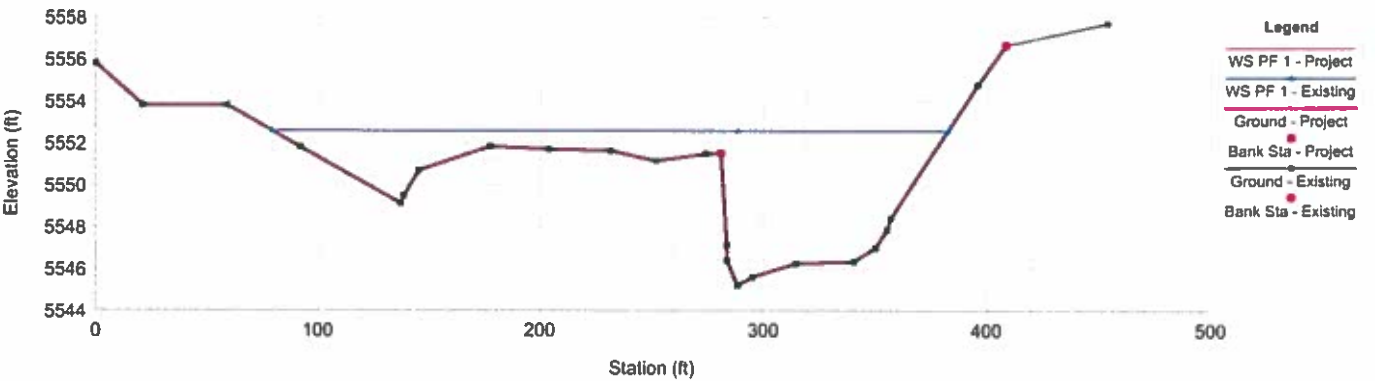
Skjonsby Plan: 1) Existing 2) Project
RS = 66783.5° Interp



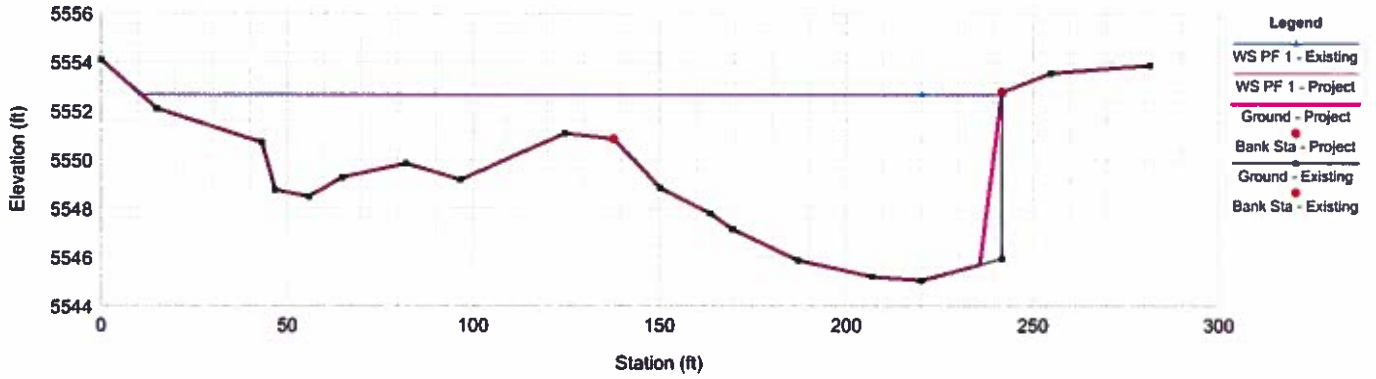
Skjonsby Plan: 1) Existing 2) Project
RS = 66456 New 12 upstream of gravel bar



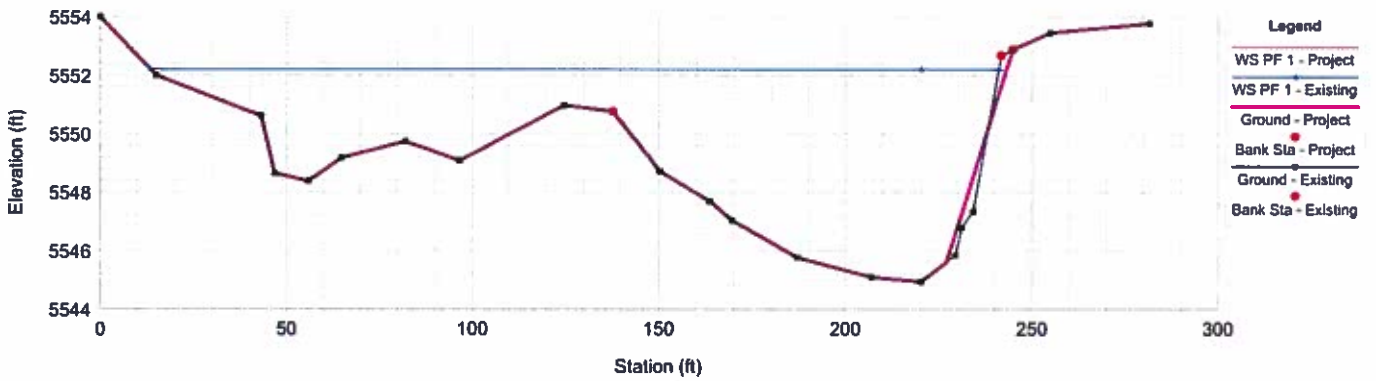
Skjonsby Plan: 1) Existing 2) Project
RS = 66424 Duplicate of 12, 32' downstream at midpt of gravel bar



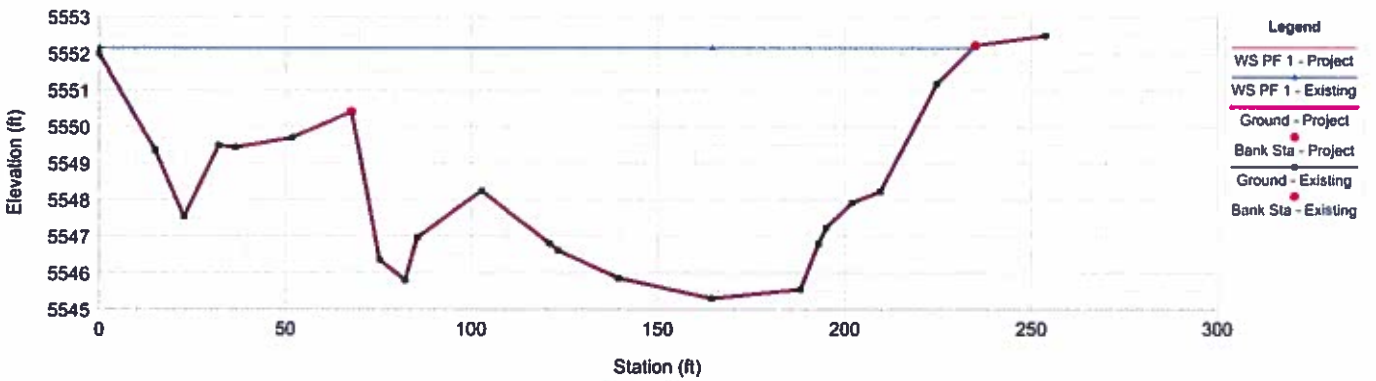
Skjonsby Plan: 1) Existing 2) Project
 RS = 66379 Duplicate of 11, 40' upstream at undercut



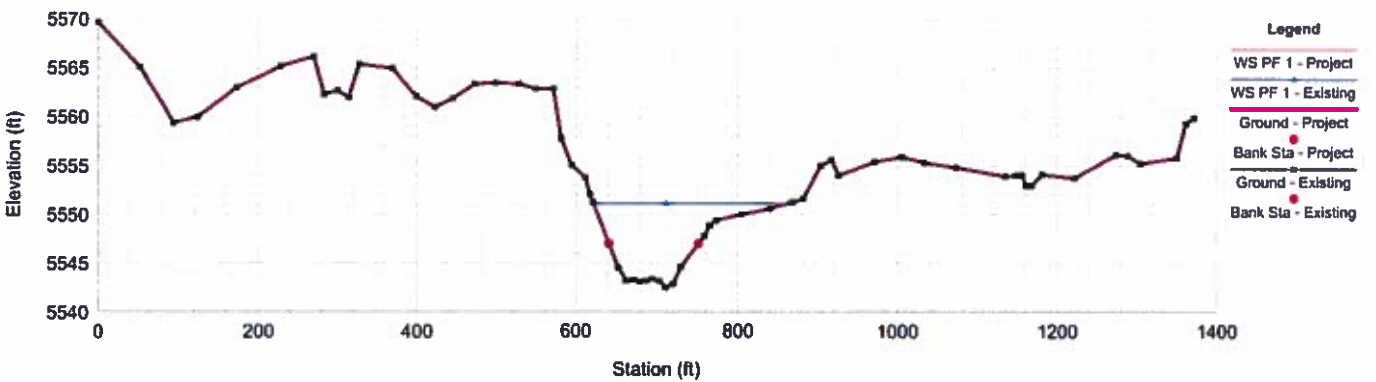
Skjonsby Plan: 1) Existing 2) Project
 RS = 66339 New 11



Skjonsby Plan: 1) Existing 2) Project
 RS = 66298 New 10



Skjonsby Plan: 1) Existing 2) Project
 RS = 65957 CU



HEC-RAS River: RIVER-1 Reach: Reach-1 Profile: PF 1

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach-1	71324	PF 1	Existing	5320.00	5574.80	5586.07	5584.551	5586.27	0.006417	4.45	1825.90	1328.82	0.58
Reach-1	71324	PF 1	Project	5320.00	5574.80	5586.07	5584.551	5586.27	0.006417	4.45	1825.90	1328.82	0.58
Reach-1	69364	PF 1	Existing	5320.00	5586.00	5572.66	5572.013	5572.90	0.007603	4.62	1542.47	913.47	0.62
Reach-1	69364	PF 1	Project	5320.00	5586.00	5572.66	5572.013	5572.90	0.007603	4.62	1542.47	913.47	0.62
Reach-1	68202	PF 1	Existing	5320.00	5556.00	5564.79		5565.09	0.006143	4.66	1340.28	739.90	0.58
Reach-1	68202	PF 1	Project	5320.00	5556.00	5564.79		5565.09	0.006143	4.66	1340.28	739.90	0.58
Reach-1	67764	PF 1	Existing	5320.00	5555.60	5562.59	5561.320	5562.87	0.004249	4.34	1322.65	564.89	0.49
Reach-1	67764	PF 1	Project	5320.00	5555.60	5562.59	5561.320	5562.87	0.004249	4.34	1322.65	564.89	0.49
Reach-1	67111	PF 1	Existing	5320.00	5551.20	5556.90	5556.896	5557.90	0.017088	8.12	692.36	364.69	0.97
Reach-1	67111	PF 1	Project	5320.00	5551.20	5556.90	5556.896	5557.90	0.017088	8.12	692.36	364.69	0.97
Reach-1	66783.5'	PF 1	Existing	5320.00	5548.29	5555.03	5553.568	5555.47	0.003518	5.35	1100.08	414.91	0.48
Reach-1	66783.5'	PF 1	Project	5320.00	5548.29	5555.03	5553.568	5555.47	0.003520	5.35	1099.88	414.90	0.48
Reach-1	66456	PF 1	Existing	5320.00	5545.39	5552.85	5552.375	5553.98	0.006712	8.96	818.62	304.88	0.69
Reach-1	66456	PF 1	Project	5320.00	5545.39	5552.86	5552.375	5553.98	0.006700	8.95	819.36	304.93	0.69
Reach-1	66424	PF 1	Existing	5320.00	5545.19	5552.57	5552.187	5553.75	0.007128	9.16	793.95	303.05	0.71
Reach-1	66424	PF 1	Project	5320.00	5545.19	5552.59	5552.187	5553.76	0.007041	9.12	798.99	303.43	0.71
Reach-1	66379	PF 1	Existing	5320.00	5545.04	5552.66		5553.43	0.003894	7.38	845.14	231.27	0.53
Reach-1	66379	PF 1	Project	5320.00	5545.04	5552.65		5553.45	0.004230	7.66	915.73	230.67	0.56
Reach-1	66339	PF 1	Existing	5320.00	5544.94	5552.21		5553.22	0.005830	8.53	817.10	227.78	0.65
Reach-1	66339	PF 1	Project	5320.00	5544.94	5552.21		5553.23	0.006083	8.58	812.36	229.86	0.66
Reach-1	66298	PF 1	Existing	5320.00	5545.30	5552.16		5552.70	0.003151	6.03	998.57	234.28	0.48
Reach-1	66298	PF 1	Project	5320.00	5545.30	5552.16		5552.70	0.003151	6.03	998.57	234.28	0.48
Reach-1	65957	PF 1	Existing	5320.00	5542.50	5551.14		5551.78	0.002288	6.54	965.70	241.33	0.43
Reach-1	65957	PF 1	Project	5320.00	5542.50	5551.14		5551.78	0.002288	6.54	965.70	241.33	0.43
Reach-1	65907	PF 1	Existing	5320.00	5542.60	5549.87	5548.753	5551.49	0.007702	10.22	520.57	90.84	0.75
Reach-1	65907	PF 1	Project	5320.00	5542.60	5549.87	5548.753	5551.49	0.007702	10.22	520.57	90.84	0.75
Reach-1	65891			Bridge									
Reach-1	65875	PF 1	Existing	5320.00	5541.90	5549.78		5551.18	0.007337	9.48	560.95	106.07	0.73
Reach-1	65875	PF 1	Project	5320.00	5541.90	5549.78		5551.18	0.007337	9.48	560.95	106.07	0.73
Reach-1	65777	PF 1	Existing	5320.00	5542.10	5549.32		5550.37	0.006999	8.22	647.32	148.09	0.69
Reach-1	65777	PF 1	Project	5320.00	5542.10	5549.32		5550.37	0.006999	8.22	647.32	148.09	0.69
Reach-1	65177	PF 1	Existing	6200.00	5536.00	5546.28		5547.11	0.004313	7.32	846.58	160.12	0.56
Reach-1	65177	PF 1	Project	6200.00	5536.00	5546.28		5547.11	0.004313	7.32	846.58	160.12	0.56
Reach-1	64185	PF 1	Existing	6200.00	5532.00	5542.55	5539.491	5543.45	0.003191	7.62	813.99	111.87	0.50
Reach-1	64185	PF 1	Project	6200.00	5532.00	5542.55	5539.491	5543.45	0.003191	7.62	813.99	111.87	0.50