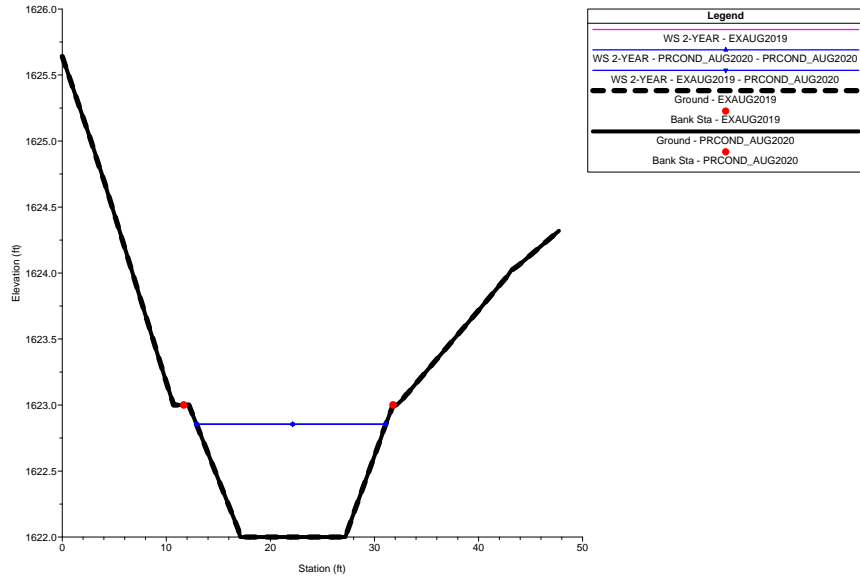


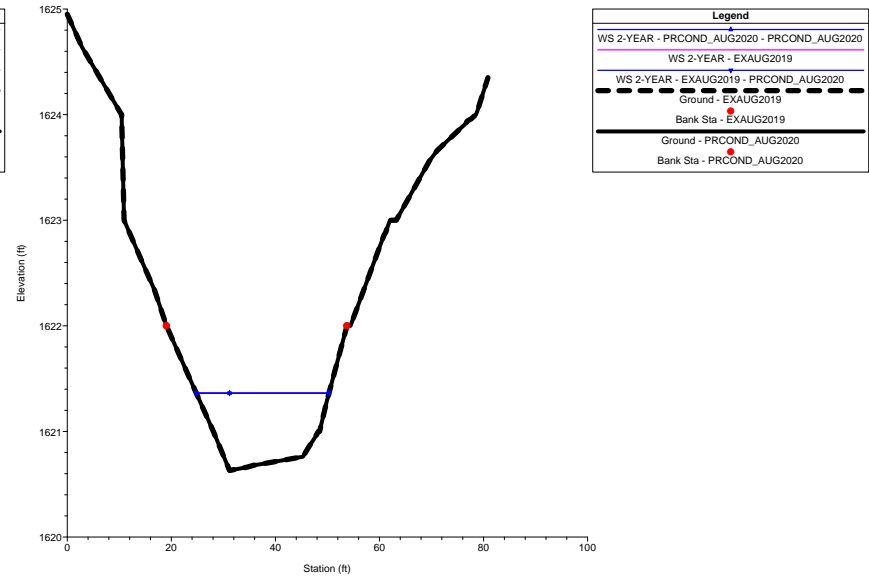
Hydraulic Model Overview
Becker Pond Dam
Mount Washington, Massachusetts



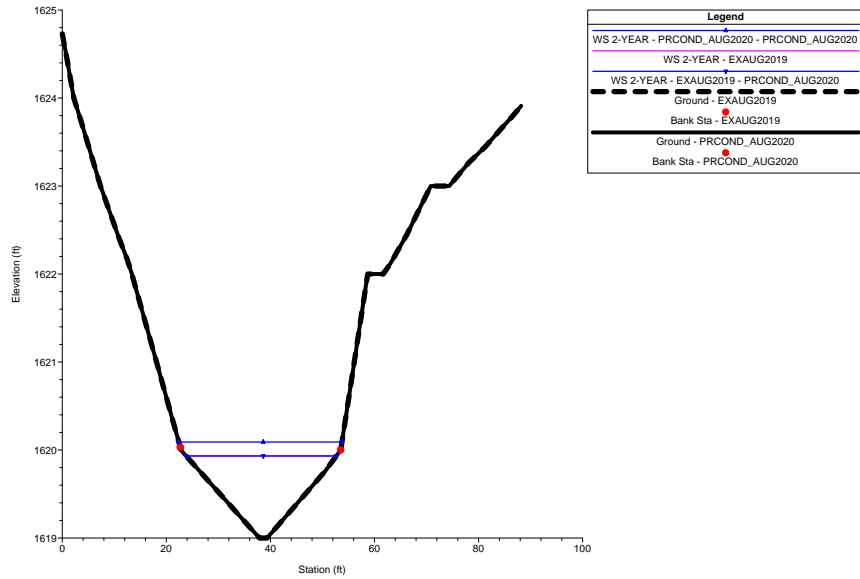
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 873.7751



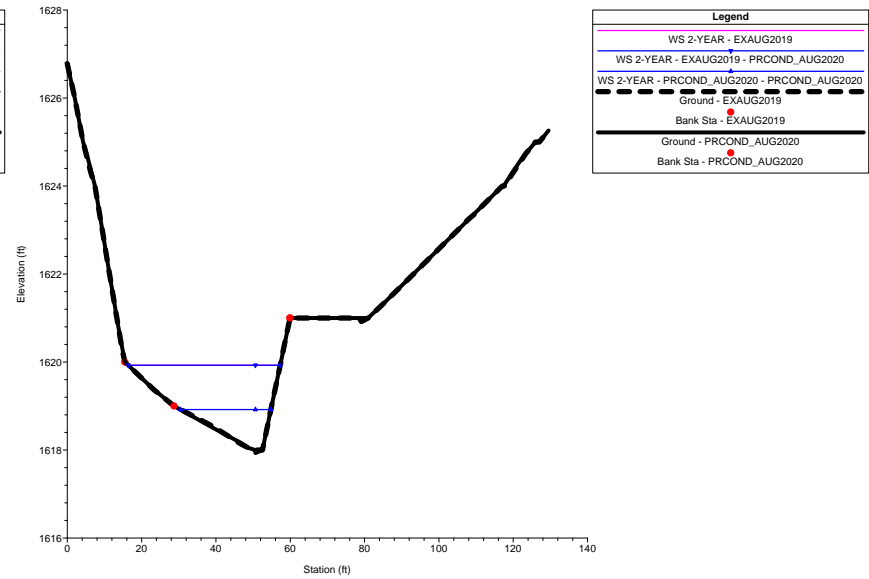
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 782.6332



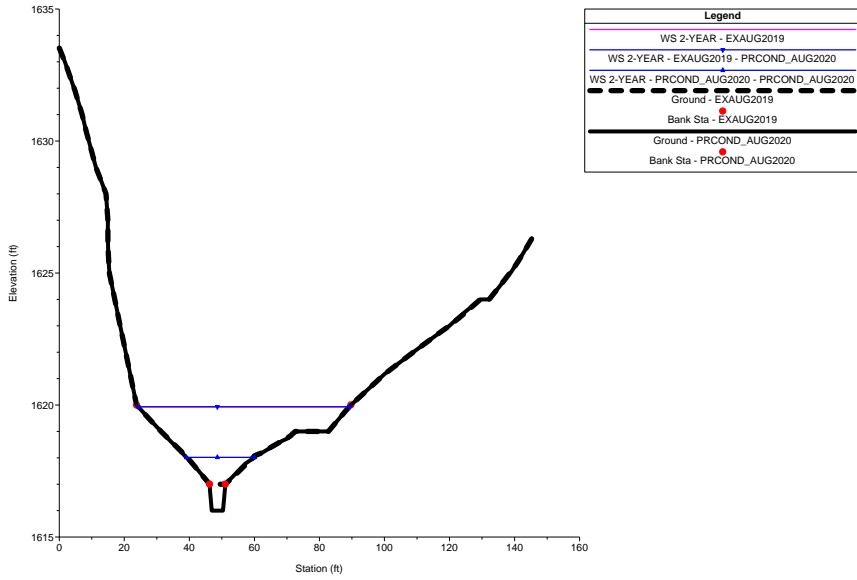
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 719.1365



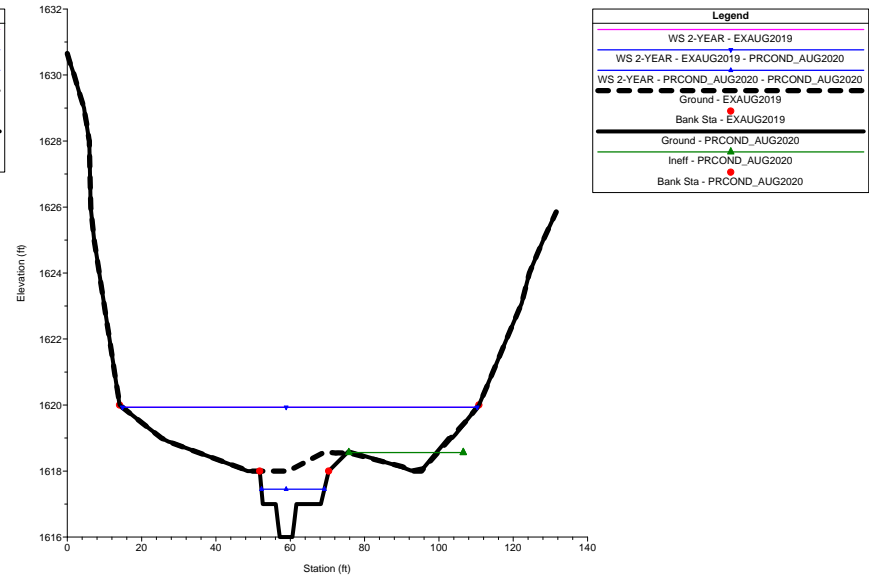
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 617.6659



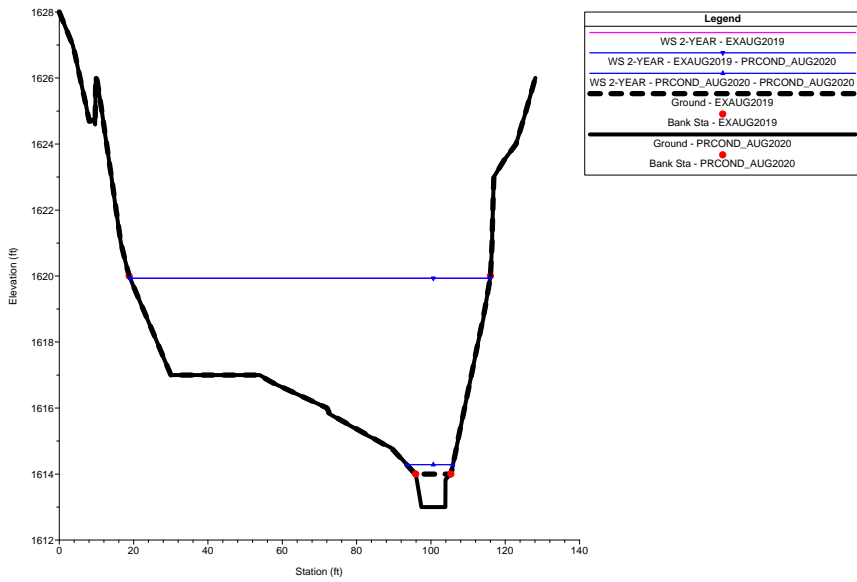
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 566.4481



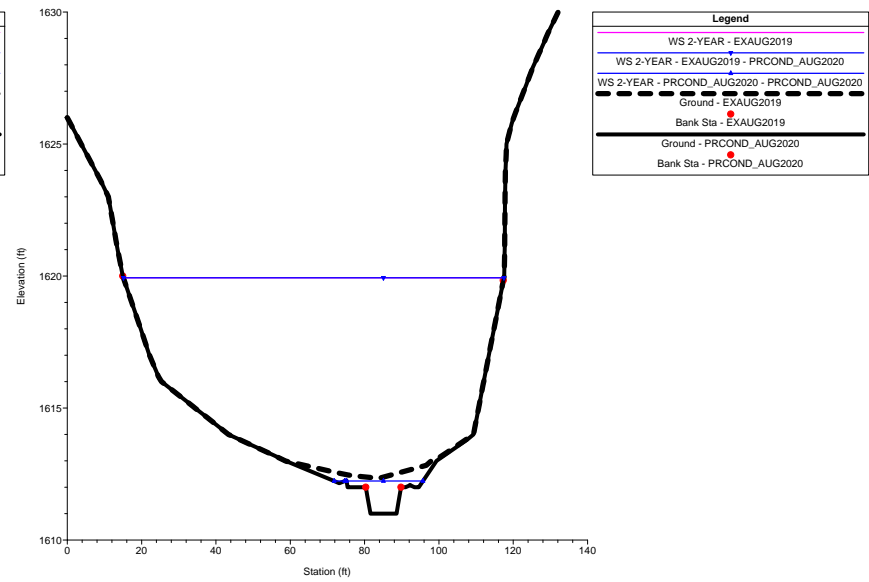
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 510.7805



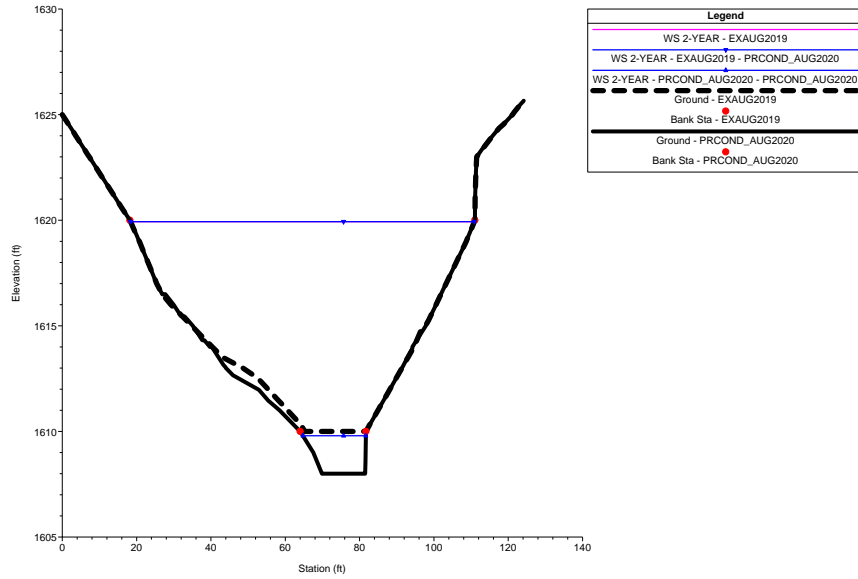
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 430.2187 pond



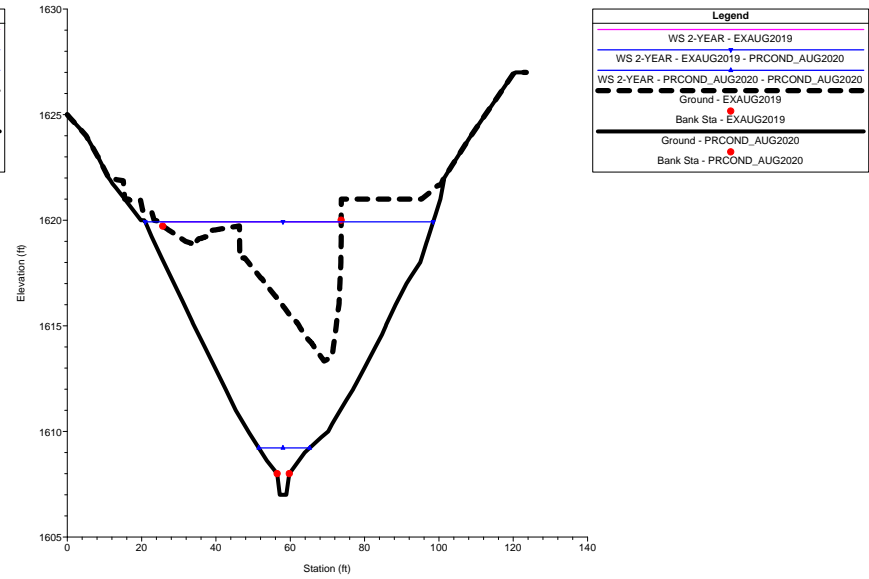
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 334.6249 pond



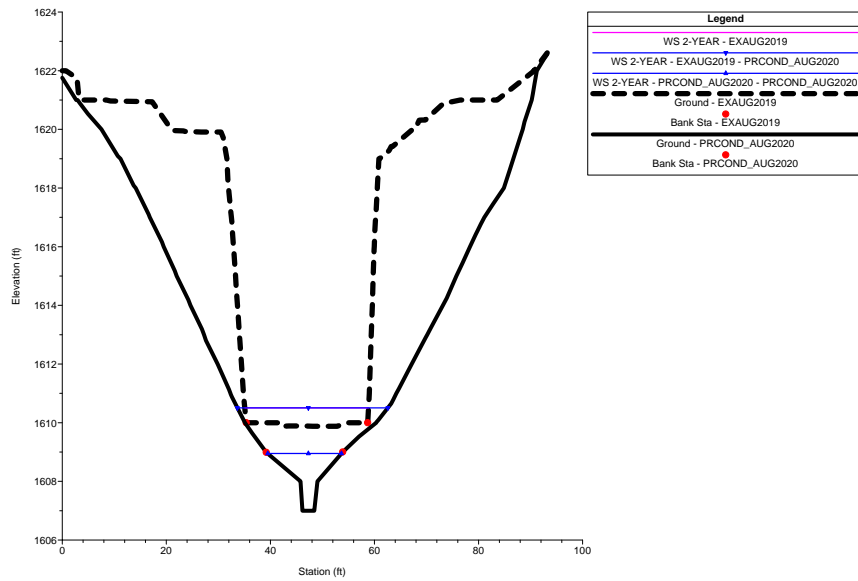
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 248.6842 pond



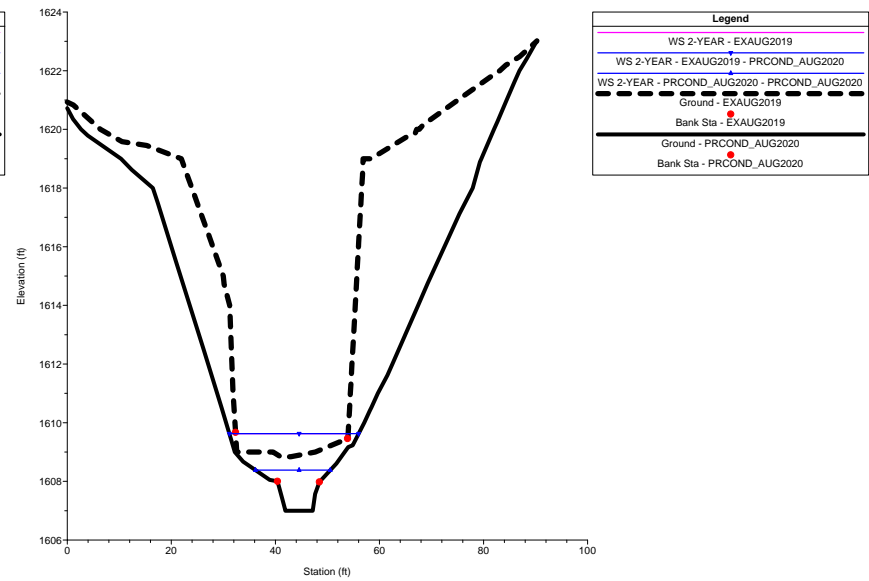
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 226.1339 upstream of dam including deep area by gate



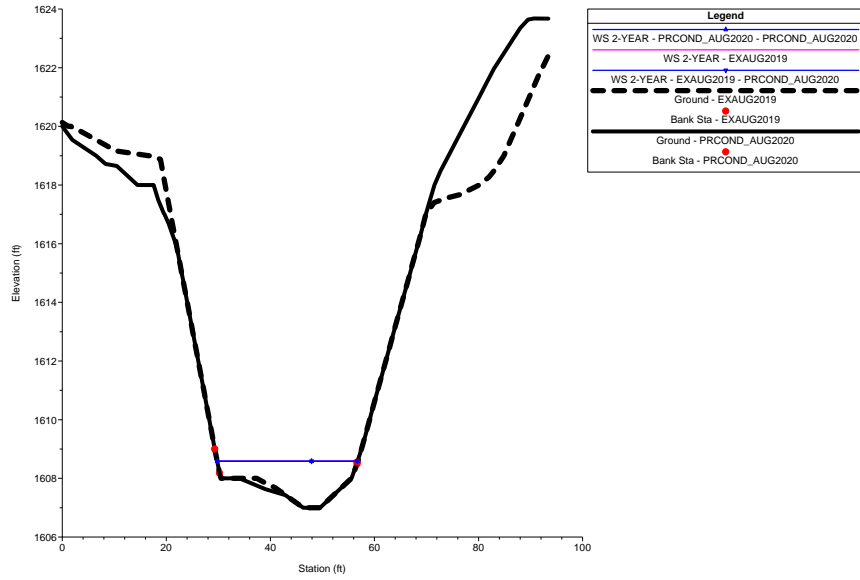
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 219.1212 upstream limit of concrete apron



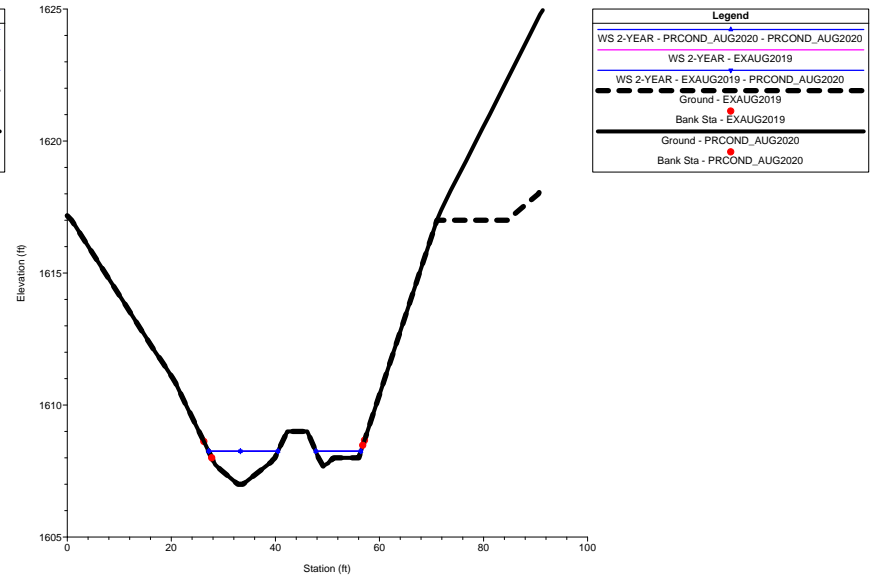
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 209.4033 Downstream limit of concrete apron



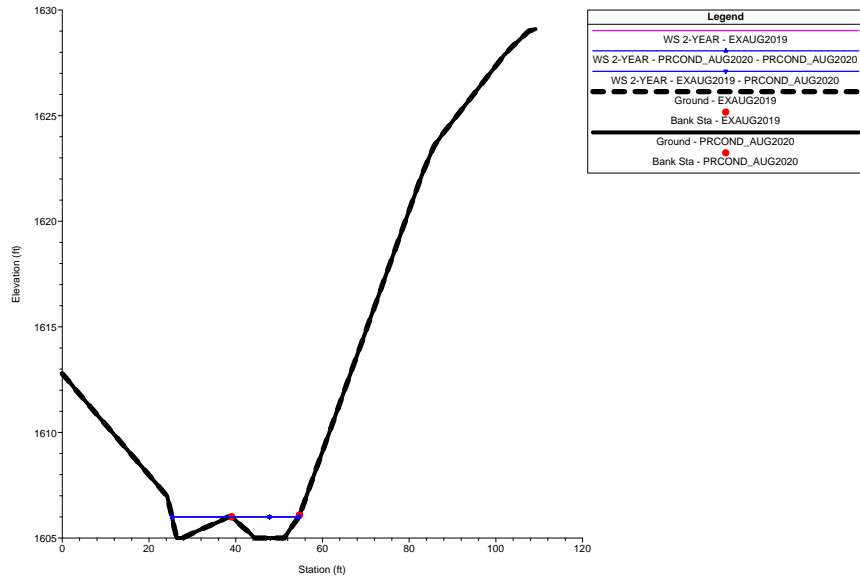
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 197.6462



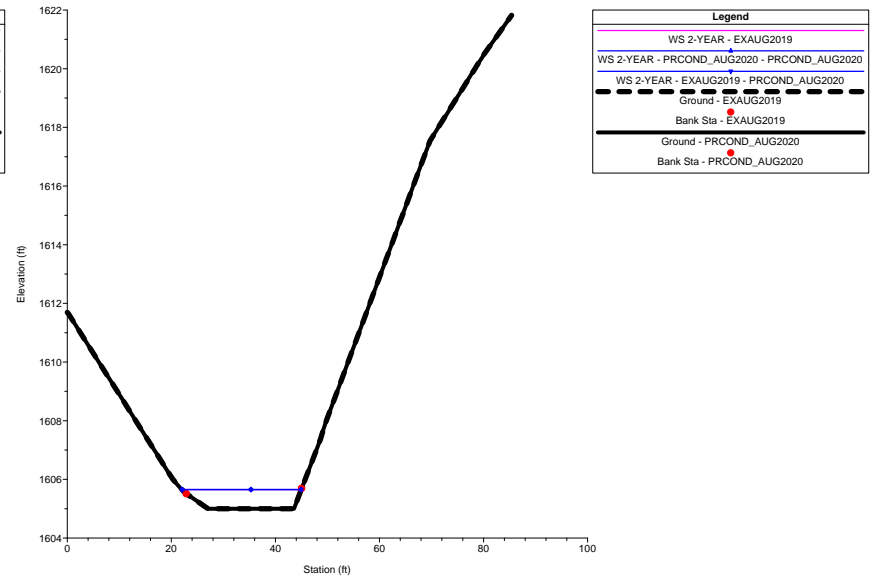
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 178.6404



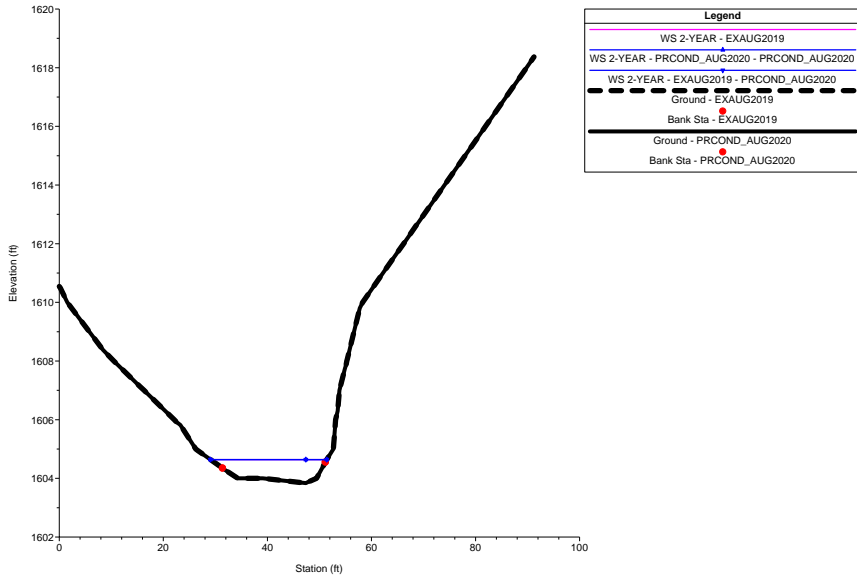
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 149.4387



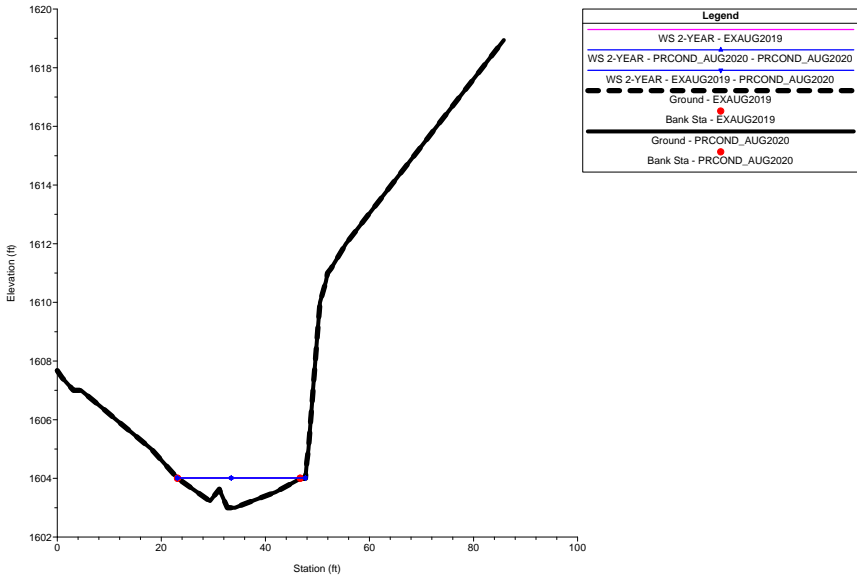
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 129.4051



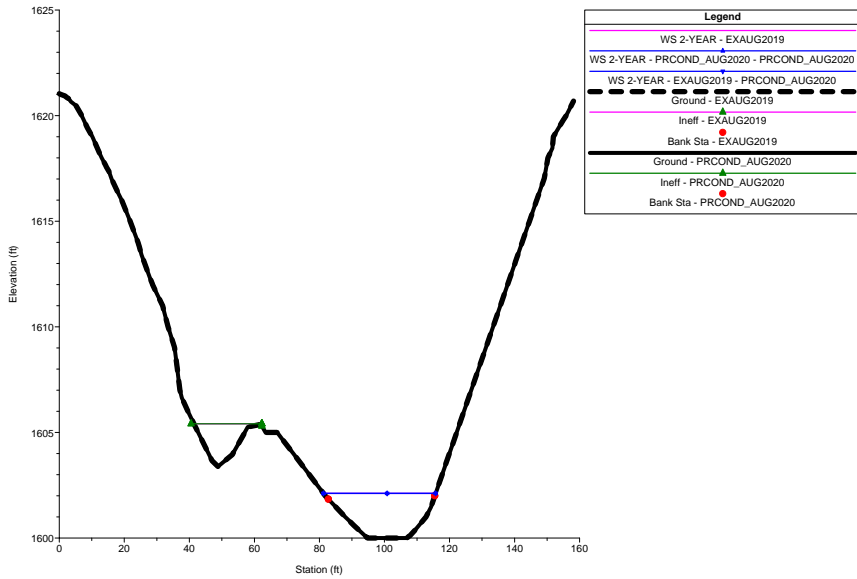
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 89.91512



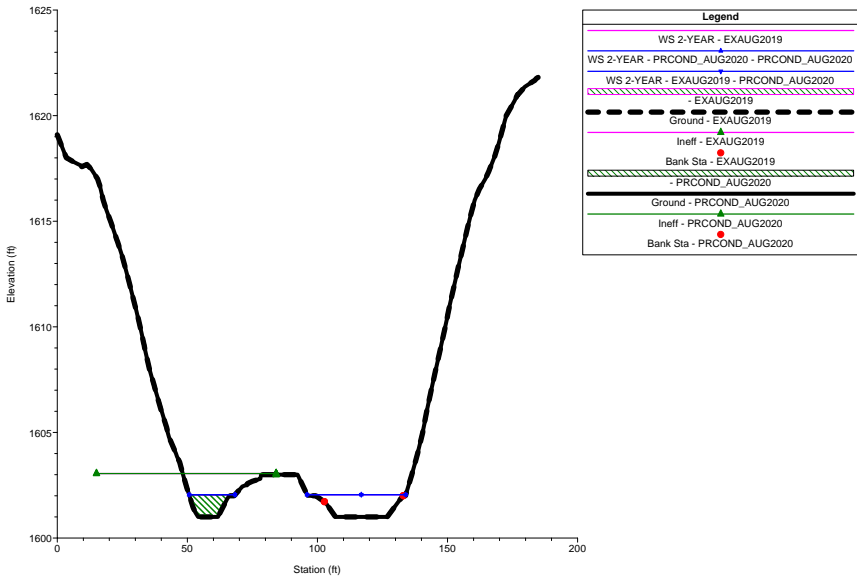
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 76.1522



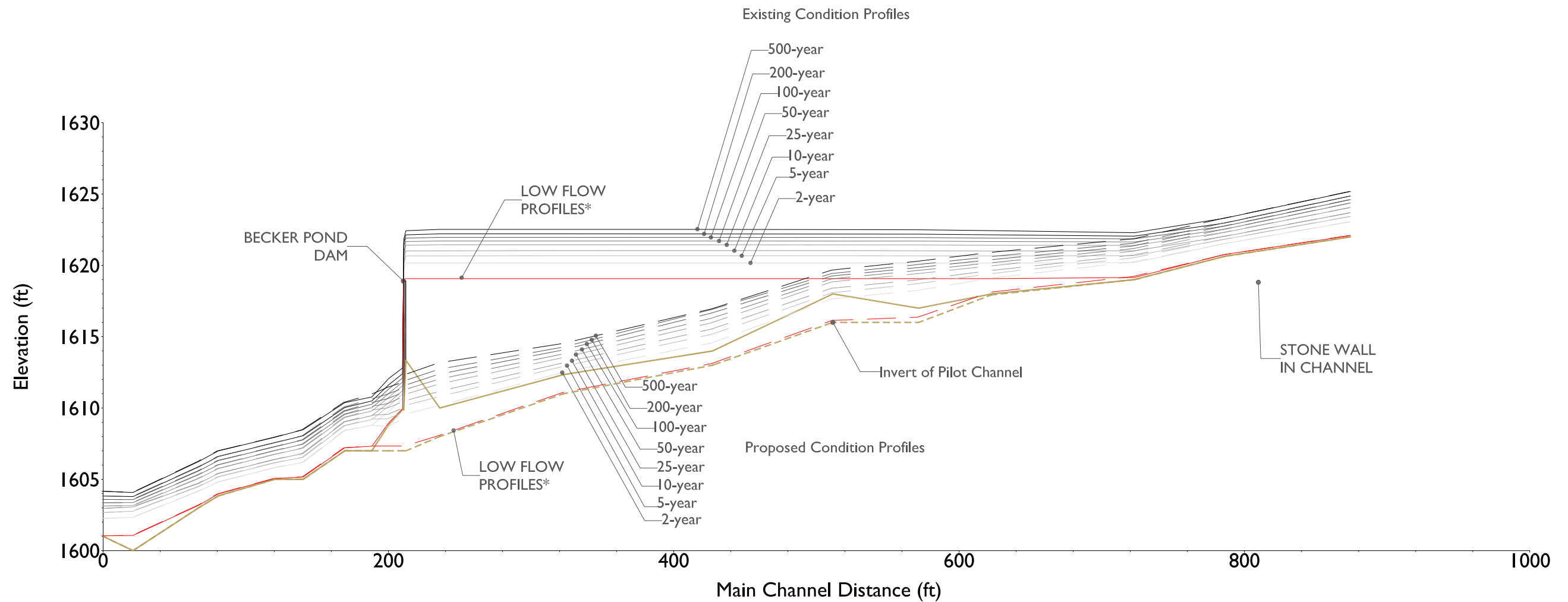
Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 30.23758



Becker_Pond_Dam Plan: 1) PRCOND_AUG2020 2) EXAUG2019
RS = 9.272341



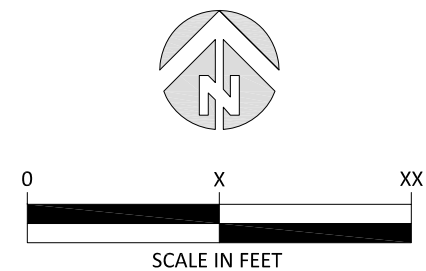
Becker Pond Dam Detailed Designs (75%) September 2020
 Flood profiles produced using peak discharge rates developed via the regional regression equations (USGS).



- NOTES:
- (1) FOOTBRIDGE LOCATED AT STATION 885 +/- BEYOND THE UPSTREAM LIMIT OF THE HYDRAULIC MODEL
 - (2) DIFFERENCES BETWEEN LOW FLOW PROFILES ARE INDISTINGUISHABLE AT THIS SCALE
 - (3) STATIONING ON THE DESIGN PLANS AND STATIONING IN THE HYDRAULIC MODEL MAY DIFFER. THIS DIAGRAM PRESENTS STATIONING CONSISTENT WITH THE HYDRAULIC MODEL.

PROFILES

REVISED SEPTEMBER 2020 (POST-MEPA REVIEW)



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BECKER POND DAM REMOVAL PROJECT
 HYDRAULIC MODEL RESULTS SUMMARY
 PROFILES

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	2-YEAR	80	1622.0	1623.1	1623.1	1623.5	0.014	5.0	16.1	22.4	0.99	1623.1	1623.1	0.0
	1	782.6332	2-YEAR	80	1620.6	1621.5	1621.5	1621.8	0.016	4.6	17.5	27.7	1.01	1621.5	1621.5	0.0
	1	719.1365	2-YEAR	80	1619.0	1620.2	0.0	1620.4	0.008	3.6	22.5	32.1	0.74	1620.2	1620.3	0.0
	1	617.6659	2-YEAR	80	1618.0	1620.2	0.0	1620.2	0.001	1.4	55.6	42.8	0.22	1620.2	1619.1	-1.1
	1	566.4481	2-YEAR	80	1617.0	1620.2	0.0	1620.2	0.000	0.7	113.5	67.8	0.09	1620.2	1618.2	-1.9
	1	510.7805	2-YEAR	80	1618.0	1620.2	0.0	1620.2	0.000	0.5	154.8	97.6	0.07	1620.2	1617.7	-2.5
	1	430.2187	2-YEAR	80	1614.0	1620.2	0.0	1620.2	0.000	0.2	376.3	97.7	0.02	1620.2	1614.6	-5.6
	1	334.6249	2-YEAR	80	1612.3	1620.2	0.0	1620.2	0.000	0.1	618.1	102.9	0.01	1620.2	1612.5	-7.7
	1	248.6842	2-YEAR	80	1610.0	1620.2	0.0	1620.2	0.000	0.1	607.7	93.5	0.01	1620.2	1610.2	-10.0
	1	226.1339	2-YEAR	80	1613.3	1620.2	1615.3	1620.2	0.000	0.6	138.4	50.6	0.06	1620.2	1609.6	-10.6
DAM																
C o n d i t i o n	1	219.1212	2-YEAR	80	1609.9	1610.7	1610.7	1611.0	0.015	4.8	16.8	23.9	1.00	1610.7	1609.2	-1.5
	1	209.4033	2-YEAR	80	1608.8	1609.8	1609.8	1610.2	0.015	5.0	16.2	21.7	1.01	1609.8	1608.7	-1.1
	1	197.6462	2-YEAR	80	1607.0	1608.8	0.0	1608.9	0.002	2.6	31.4	27.6	0.42	1608.8	1608.8	0.0
	1	178.6404	2-YEAR	80	1607.0	1608.4	1608.4	1608.8	0.016	4.9	16.5	23.4	1.02	1608.4	1608.4	0.0
	1	149.4387	2-YEAR	80	1605.0	1606.2	0.0	1606.4	0.009	4.3	23.5	29.8	0.80	1606.2	1606.2	0.0
	1	129.4051	2-YEAR	80	1605.0	1605.8	1605.8	1606.2	0.014	4.9	16.7	24.1	0.99	1605.8	1605.8	0.0
	1	89.91512	2-YEAR	80	1603.8	1604.8	1604.8	1605.2	0.014	5.0	16.8	24.3	0.98	1604.8	1604.8	0.0
	1	76.1522	2-YEAR	80	1603.0	1604.2	1604.2	1604.5	0.015	4.8	16.9	25.5	1.00	1604.2	1604.2	0.0
	1	30.23758	2-YEAR	80	1600.0	1602.3	1600.9	1602.4	0.000	1.4	59.7	36.1	0.18	1602.3	1602.3	0.0
	1	9.272341	2-YEAR	80	1601.0	1602.3	1601.7	1602.3	0.002	2.4	35.9	58.9	0.40	1602.3	1602.3	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	2-YEAR	80	1620.6	1621.5	1621.5	1621.8	0.015	4.5	17.6	27.7	1.00	
1	719.1365	2-YEAR	80	1619.0	1620.3	0.0	1620.4	0.006	3.4	24.0	32.5	0.67	
1	617.6659	2-YEAR	80	1617.9	1619.1	1619.1	1619.4	0.016	4.6	17.3	28.1	1.01	
1	566.4481	2-YEAR	80	1616.0	1618.2	1618.1	1618.7	0.007	5.9	22.0	25.8	0.72	
1	510.7805	2-YEAR	80	1616.0	1617.7	1617.7	1618.1	0.015	5.3	15.2	17.5	1.00	
1	430.2187	2-YEAR	80	1613.0	1614.6	1614.6	1615.1	0.012	6.1	14.3	15.2	0.93	
1	334.6249	2-YEAR	80	1611.0	1612.5	1612.5	1612.9	0.009	5.5	19.8	29.5	0.83	
1	248.6842	2-YEAR	80	1608.0	1610.2	0.0	1610.3	0.001	2.5	31.8	19.1	0.33	
1	226.1339	2-YEAR	80	1607.0	1609.6	1609.6	1610.1	0.010	7.2	18.1	17.1	0.83	
DAM													
C o n d i t i o n	1	219.1212	2-YEAR	80	1607.0	1609.2	1609.2	1609.7	0.015	5.6	14.4	16.4	1.01
	1	209.4033	2-YEAR	80	1607.0	1608.7	1608.7	1609.2	0.010	6.1	16.2	18.5	0.87
	1	197.6462	2-YEAR	80	1607.0	1608.8	0.0	1608.9	0.002	2.4	32.9	27.7	0.39
	1	178.6404	2-YEAR	80	1607.0	1608.4	1608.4	1608.8	0.015	4.9	16.6	23.5	1.01
	1	149.4387	2-YEAR	80	1605.0	1606.2	0.0	1606.4	0.009	4.3	23.5	29.8	0.80
	1	129.4051	2-YEAR	80	1605.0	1605.8	1605.8	1606.2	0.014	4.9	16.7	24.1	0.99
	1	89.91512	2-YEAR	80	1603.8	1604.8	1604.8	1605.2	0.014	5.0	16.8	24.3	0.98
	1	76.1522	2-YEAR	80	1603.0	1604.2	1604.2	1604.5	0.015	4.8	16.9	25.5	1.00
	1	30.23758	2-YEAR	80	1600.0	1602.3	1600.9	1602.4	0.000	1.4	59.7	36.1	0.18
	1	9.272341	2-YEAR	80	1601.0	1602.3	1601.7	1602.3	0.002	2.4	35.9	58.9	0.40

Plan	Reach	River Sta	Profile	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	Existing	Proposed	Δ (ft)
														Condition WSE (ft NAVD)	Condition WSE (ft NAVD)	
E x i s t i n g	1	873.7751	5-YEAR	140	1622.0	1623.4	1623.4	1624.0	0.012	5.9	25.3	27.8	0.96	1623.4	1623.4	0.0
	1	782.6332	5-YEAR	140	1620.6	1621.8	1621.8	1622.3	0.014	5.2	26.8	32.2	1.01	1621.8	1621.8	0.0
	1	719.1365	5-YEAR	140	1619.0	1620.7	0.0	1620.9	0.004	3.7	38.8	35.7	0.60	1620.7	1620.5	-0.2
	1	617.6659	5-YEAR	140	1618.0	1620.7	0.0	1620.7	0.001	1.8	77.1	45.1	0.24	1620.7	1619.4	-1.2
	1	566.4481	5-YEAR	140	1617.0	1620.7	0.0	1620.7	0.000	1.0	148.5	73.0	0.11	1620.7	1618.7	-2.0
	1	510.7805	5-YEAR	140	1618.0	1620.7	0.0	1620.7	0.000	0.7	204.1	100.1	0.08	1620.7	1618.1	-2.6
	1	430.2187	5-YEAR	140	1614.0	1620.7	0.0	1620.7	0.000	0.3	425.4	99.0	0.03	1620.7	1615.2	-5.5
	1	334.6249	5-YEAR	140	1612.3	1620.7	0.0	1620.7	0.000	0.2	669.7	103.6	0.01	1620.7	1612.9	-7.8
	1	248.6842	5-YEAR	140	1610.0	1620.7	0.0	1620.7	0.000	0.2	654.8	95.4	0.01	1620.7	1610.8	-9.9
	1	226.1339	5-YEAR	140	1613.3	1620.7	1615.9	1620.7	0.000	0.9	164.0	53.7	0.08	1620.7	1610.2	-10.5
DAM																
C o n d i t i o n	1	219.1212	5-YEAR	140	1609.9	1611.0	1611.0	1611.5	0.013	5.8	24.6	24.2	1.00	1611.0	1609.6	-1.3
	1	209.4033	5-YEAR	140	1608.8	1610.1	1610.1	1610.7	0.013	6.0	23.6	22.0	1.00	1610.1	1609.2	-0.9
	1	197.6462	5-YEAR	140	1607.0	1609.2	0.0	1609.4	0.002	3.3	42.8	28.7	0.47	1609.2	1609.2	0.0
	1	178.6404	5-YEAR	140	1607.0	1608.8	1608.8	1609.2	0.014	5.6	25.0	26.4	1.01	1608.8	1608.8	0.0
	1	149.4387	5-YEAR	140	1605.0	1606.5	1606.3	1606.9	0.008	5.1	34.6	30.9	0.81	1606.5	1606.5	0.0
	1	129.4051	5-YEAR	140	1605.0	1606.2	1606.2	1606.7	0.012	5.8	25.3	26.3	0.98	1606.2	1606.2	0.0
	1	89.91512	5-YEAR	140	1603.8	1605.2	1605.2	1605.7	0.012	5.9	26.1	27.1	0.96	1605.2	1605.2	0.0
	1	76.1522	5-YEAR	140	1603.0	1604.5	1604.5	1605.0	0.013	5.7	25.3	27.2	0.99	1604.5	1604.5	0.0
	1	30.23758	5-YEAR	140	1600.0	1602.8	1601.3	1602.8	0.001	1.9	76.1	39.1	0.22	1602.8	1602.8	0.0
	1	9.272341	5-YEAR	140	1601.0	1602.7	1602.1	1602.8	0.002	2.9	52.7	67.4	0.42	1602.7	1602.7	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	5-YEAR	140	1620.6	1621.8	1621.8	1622.3	0.014	5.2	26.8	32.2	1.01	
1	719.1365	5-YEAR	140	1619.0	1620.5	0.0	1620.8	0.007	4.3	33.5	34.6	0.73	
1	617.6659	5-YEAR	140	1617.9	1619.4	1619.4	1619.9	0.013	5.4	27.0	33.3	0.98	
1	566.4481	5-YEAR	140	1616.0	1618.7	1618.7	1619.2	0.008	7.1	36.5	36.3	0.78	
1	510.7805	5-YEAR	140	1616.0	1618.1	1618.1	1618.7	0.013	6.1	23.2	28.1	0.97	
1	430.2187	5-YEAR	140	1613.0	1615.2	1615.2	1615.8	0.009	6.9	25.7	24.4	0.88	
1	334.6249	5-YEAR	140	1611.0	1612.9	1612.9	1613.4	0.008	6.4	34.0	38.7	0.84	
1	248.6842	5-YEAR	140	1608.0	1610.8	0.0	1611.0	0.002	3.2	45.4	24.6	0.37	
1	226.1339	5-YEAR	140	1607.0	1610.2	1610.2	1610.8	0.009	8.2	30.3	22.6	0.84	
DAM													
C o n d i t i o n	1	219.1212	5-YEAR	140	1607.0	1609.6	1609.6	1610.3	0.012	6.5	23.3	21.3	0.95
	1	209.4033	5-YEAR	140	1607.0	1609.2	1609.2	1609.9	0.008	7.0	27.6	23.1	0.86
	1	197.6462	5-YEAR	140	1607.0	1609.2	0.0	1609.4	0.002	3.2	44.9	28.8	0.44
	1	178.6404	5-YEAR	140	1607.0	1608.8	1608.8	1609.3	0.014	5.7	25.2	26.5	1.00
	1	149.4387	5-YEAR	140	1605.0	1606.5	1606.3	1606.9	0.008	5.1	34.6	30.9	0.81
	1	129.4051	5-YEAR	140	1605.0	1606.2	1606.2	1606.7	0.012	5.8	25.3	26.3	0.98
	1	89.91512	5-YEAR	140	1603.8	1605.2	1605.2	1605.7	0.012	5.9	26.1	27.1	0.96
	1	76.1522	5-YEAR	140	1603.0	1604.5	1604.5	1605.0	0.013	5.7	25.3	27.2	0.99
	1	30.23758	5-YEAR	140	1600.0	1602.8	1601.3	1602.8	0.001	1.9	76.1	39.1	0.22
	1	9.272341	5-YEAR	140	1601.0	1602.7	1602.1	1602.8	0.002	2.9	52.7	67.4	0.42

Plan	Reach	River Sta	Profile	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	Existing	Proposed	Δ (ft)
														Condition WSE (ft NAVD)	Condition WSE (ft NAVD)	
E x i s t i n g	1	873.7751	10-YEAR	190	1622.0	1623.7	1623.7	1624.3	0.011	6.4	33.1	31.7	0.95	1623.7	1623.7	0.0
	1	782.6332	10-YEAR	190	1620.6	1622.0	1622.0	1622.5	0.014	5.6	33.7	35.8	1.01	1622.0	1622.0	0.0
	1	719.1365	10-YEAR	190	1619.0	1621.0	0.0	1621.3	0.003	3.9	51.4	38.2	0.55	1621.0	1620.7	-0.3
	1	617.6659	10-YEAR	190	1618.0	1621.0	0.0	1621.1	0.001	2.1	93.6	67.7	0.25	1621.0	1619.6	-1.4
	1	566.4481	10-YEAR	190	1617.0	1621.0	0.0	1621.1	0.000	1.1	175.3	76.7	0.12	1621.0	1619.0	-2.0
	1	510.7805	10-YEAR	190	1618.0	1621.0	0.0	1621.0	0.000	0.8	240.3	101.9	0.09	1621.0	1618.4	-2.6
	1	430.2187	10-YEAR	190	1614.0	1621.0	0.0	1621.0	0.000	0.4	461.2	99.9	0.03	1621.0	1615.5	-5.5
	1	334.6249	10-YEAR	190	1612.3	1621.0	0.0	1621.0	0.000	0.3	707.1	104.2	0.02	1621.0	1613.2	-7.9
	1	248.6842	10-YEAR	190	1610.0	1621.0	0.0	1621.0	0.000	0.3	689.4	96.7	0.02	1621.0	1611.2	-9.9
	1	226.1339	10-YEAR	190	1613.3	1621.0	1616.2	1621.0	0.000	1.1	183.5	80.0	0.10	1621.0	1610.5	-10.5
DAM																
C o n d i t i o n	1	219.1212	10-YEAR	190	1609.9	1611.2	1611.2	1611.8	0.012	6.4	30.2	24.3	1.00	1611.2	1610.0	-1.3
	1	209.4033	10-YEAR	190	1608.8	1610.4	1610.4	1611.0	0.012	6.6	29.1	22.1	1.00	1610.4	1609.6	-0.8
	1	197.6462	10-YEAR	190	1607.0	1609.5	0.0	1609.7	0.003	3.9	50.4	29.4	0.50	1609.5	1609.5	0.0
	1	178.6404	10-YEAR	190	1607.0	1609.0	1609.0	1609.6	0.014	5.9	32.8	32.5	1.01	1609.0	1609.0	0.0
	1	149.4387	10-YEAR	190	1605.0	1606.8	1606.6	1607.2	0.008	5.7	43.0	31.6	0.81	1606.8	1606.8	0.0
	1	129.4051	10-YEAR	190	1605.0	1606.4	1606.4	1607.0	0.012	6.4	31.5	27.6	0.98	1606.4	1606.4	0.0
	1	89.91512	10-YEAR	190	1603.8	1605.4	1605.4	1606.0	0.011	6.5	32.6	28.0	0.97	1605.4	1605.4	0.0
	1	76.1522	10-YEAR	190	1603.0	1604.7	1604.7	1605.3	0.012	6.3	31.7	28.5	0.99	1604.7	1604.7	0.0
	1	30.23758	10-YEAR	190	1600.0	1603.1	1601.5	1603.1	0.001	2.3	88.0	41.3	0.25	1603.1	1603.1	0.0
	1	9.272341	10-YEAR	190	1601.0	1603.0	1602.3	1603.1	0.002	3.3	64.9	73.4	0.43	1603.0	1603.0	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	10-YEAR	190	1620.6	1622.0	1622.0	1622.5	0.014	5.6	33.7	35.8	1.01	
1	719.1365	10-YEAR	190	1619.0	1620.7	0.0	1621.1	0.007	4.9	40.3	36.0	0.77	
1	617.6659	10-YEAR	190	1617.9	1619.6	1619.6	1620.2	0.012	5.9	34.4	36.5	0.97	
1	566.4481	10-YEAR	190	1616.0	1619.0	1618.9	1619.6	0.008	7.8	46.9	41.0	0.82	
1	510.7805	10-YEAR	190	1616.0	1618.4	1618.4	1619.0	0.010	6.4	32.8	51.2	0.90	
1	430.2187	10-YEAR	190	1613.0	1615.5	1615.5	1616.3	0.008	7.3	36.3	31.1	0.85	
1	334.6249	10-YEAR	190	1611.0	1613.2	1613.2	1613.7	0.009	7.0	44.5	44.7	0.87	
1	248.6842	10-YEAR	190	1608.0	1611.2	0.0	1611.4	0.002	3.8	55.2	28.1	0.40	
1	226.1339	10-YEAR	190	1607.0	1610.5	1610.5	1611.2	0.010	9.1	38.2	24.8	0.88	
DAM													
C o n d i t i o n	1	219.1212	10-YEAR	190	1607.0	1610.0	1610.0	1610.7	0.011	7.0	30.6	24.8	0.93
	1	209.4033	10-YEAR	190	1607.0	1609.6	1609.6	1610.3	0.009	7.8	34.9	24.5	0.89
	1	197.6462	10-YEAR	190	1607.0	1609.5	0.0	1609.7	0.002	3.7	52.8	29.5	0.47
	1	178.6404	10-YEAR	190	1607.0	1609.0	1609.0	1609.6	0.014	6.0	32.9	32.5	1.01
	1	149.4387	10-YEAR	190	1605.0	1606.8	1606.6	1607.2	0.008	5.7	43.0	31.6	0.81
	1	129.4051	10-YEAR	190	1605.0	1606.4	1606.4	1607.0	0.012	6.4	31.5	27.6	0.98
	1	89.91512	10-YEAR	190	1603.8	1605.4	1605.4	1606.0	0.011	6.5	32.6	28.0	0.97
	1	76.1522	10-YEAR	190	1603.0	1604.7	1604.7	1605.3	0.012	6.3	31.7	28.5	0.99
	1	30.23758	10-YEAR	190	1600.0	1603.1	1601.5	1603.1	0.001	2.3	88.0	41.3	0.25
	1	9.272341	10-YEAR	190	1601.0	1603.0	1602.3	1603.1	0.002	3.3	64.9	73.4	0.43

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	25-YEAR	275	1622.0	1624.1	1624.1	1624.8	0.010	7.1	45.7	37.2	0.94	1624.1	1624.1	0.0
	1	782.6332	25-YEAR	275	1620.6	1622.3	1622.3	1622.9	0.012	6.3	44.4	39.8	0.99	1622.3	1622.3	0.0
	1	719.1365	25-YEAR	275	1619.0	1621.4	0.0	1621.7	0.003	4.5	66.4	41.0	0.57	1621.4	1621.0	-0.4
	1	617.6659	25-YEAR	275	1618.0	1621.4	0.0	1621.5	0.001	2.5	121.9	73.5	0.27	1621.4	1620.0	-1.5
	1	566.4481	25-YEAR	275	1617.0	1621.4	0.0	1621.5	0.000	1.4	207.6	81.5	0.14	1621.4	1619.4	-2.0
	1	510.7805	25-YEAR	275	1618.0	1621.4	0.0	1621.5	0.000	1.0	282.6	104.0	0.10	1621.4	1618.8	-2.6
	1	430.2187	25-YEAR	275	1614.0	1621.4	0.0	1621.5	0.000	0.6	502.5	100.5	0.04	1621.4	1616.0	-5.5
	1	334.6249	25-YEAR	275	1612.3	1621.4	0.0	1621.5	0.000	0.4	750.2	104.7	0.02	1621.4	1613.5	-7.9
	1	248.6842	25-YEAR	275	1610.0	1621.4	0.0	1621.5	0.000	0.4	729.5	98.2	0.02	1621.4	1611.7	-9.8
	1	226.1339	25-YEAR	275	1613.3	1621.4	1616.7	1621.4	0.000	1.4	216.2	83.0	0.12	1621.4	1611.0	-10.5
DAM																
C o n d i t i o n	1	219.1212	25-YEAR	275	1609.9	1611.6	1611.6	1612.4	0.011	7.2	38.8	24.5	1.00	1611.6	1610.4	-1.2
	1	209.4033	25-YEAR	275	1608.8	1610.8	1610.8	1611.6	0.011	7.4	37.5	22.4	1.00	1610.8	1610.0	-0.8
	1	197.6462	25-YEAR	275	1607.0	1609.8	0.0	1610.1	0.003	4.7	60.4	30.3	0.56	1609.8	1609.9	0.1
	1	178.6404	25-YEAR	275	1607.0	1609.3	1609.3	1610.0	0.012	6.6	42.5	33.7	1.00	1609.3	1609.3	0.0
	1	149.4387	25-YEAR	275	1605.0	1607.2	1606.9	1607.7	0.007	6.5	55.4	33.4	0.83	1607.2	1607.2	0.0
	1	129.4051	25-YEAR	275	1605.0	1606.7	1606.7	1607.5	0.011	7.1	41.8	29.7	0.97	1606.7	1606.7	0.0
	1	89.91512	25-YEAR	275	1603.8	1605.8	1605.8	1606.5	0.011	7.4	42.6	29.5	0.98	1605.8	1605.8	0.0
	1	76.1522	25-YEAR	275	1603.0	1605.1	1605.1	1605.8	0.011	7.1	41.8	30.6	0.99	1605.1	1605.1	0.0
	1	30.23758	25-YEAR	275	1600.0	1603.2	1601.8	1603.3	0.001	3.1	92.1	42.0	0.34	1603.2	1603.2	0.0
	1	9.272341	25-YEAR	275	1601.0	1603.1	1602.5	1603.3	0.002	3.5	113.4	88.5	0.44	1603.1	1603.1	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	25-YEAR	275	1620.6	1622.3	1622.3	1622.9	0.012	6.3	44.4	39.8	0.99	
1	719.1365	25-YEAR	275	1619.0	1621.0	1620.8	1621.5	0.008	5.8	50.2	37.9	0.82	
1	617.6659	25-YEAR	275	1617.9	1620.0	1620.0	1620.6	0.011	6.4	47.1	41.3	0.95	
1	566.4481	25-YEAR	275	1616.0	1619.4	1619.4	1620.0	0.007	8.3	70.6	57.6	0.81	
1	510.7805	25-YEAR	275	1616.0	1618.8	1618.8	1619.4	0.007	6.2	64.8	72.8	0.78	
1	430.2187	25-YEAR	275	1613.0	1616.0	1616.0	1616.8	0.008	8.1	51.3	36.9	0.87	
1	334.6249	25-YEAR	275	1611.0	1613.5	1613.5	1614.2	0.008	7.7	62.4	54.0	0.88	
1	248.6842	25-YEAR	275	1608.0	1611.7	0.0	1612.0	0.002	4.5	71.0	32.8	0.43	
1	226.1339	25-YEAR	275	1607.0	1611.0	1611.0	1611.8	0.011	10.2	50.0	27.8	0.93	
DAM													
C o n d i t i o n	1	219.1212	25-YEAR	275	1607.0	1610.4	1610.4	1611.3	0.010	7.8	42.3	28.2	0.93
	1	209.4033	25-YEAR	275	1607.0	1610.0	1610.0	1610.9	0.009	8.8	46.3	26.5	0.92
	1	197.6462	25-YEAR	275	1607.0	1609.9	0.0	1610.2	0.003	4.4	63.5	30.4	0.52
	1	178.6404	25-YEAR	275	1607.0	1609.3	1609.3	1610.0	0.012	6.7	43.0	33.8	1.00
	1	149.4387	25-YEAR	275	1605.0	1607.2	1606.9	1607.7	0.007	6.5	55.4	33.4	0.83
	1	129.4051	25-YEAR	275	1605.0	1606.7	1606.7	1607.5	0.011	7.1	41.8	29.7	0.97
	1	89.91512	25-YEAR	275	1603.8	1605.8	1605.8	1606.5	0.011	7.4	42.6	29.5	0.98
	1	76.1522	25-YEAR	275	1603.0	1605.1	1605.1	1605.8	0.011	7.1	41.8	30.6	0.99
	1	30.23758	25-YEAR	275	1600.0	1603.2	1601.8	1603.3	0.001	3.1	92.1	42.0	0.34
	1	9.272341	25-YEAR	275	1601.0	1603.1	1602.5	1603.3	0.002	3.5	113.4	88.5	0.44

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	50-YEAR	345	1622.0	1624.4	1624.4	1625.1	0.008	7.3	58.3	42.4	0.89	1624.4	1624.4	0.0
	1	782.6332	50-YEAR	345	1620.6	1622.5	1622.5	1623.2	0.011	6.7	53.3	43.3	0.98	1622.5	1622.5	0.0
	1	719.1365	50-YEAR	345	1619.0	1621.6	0.0	1622.0	0.004	5.0	76.4	42.7	0.59	1621.6	1621.2	-0.5
	1	617.6659	50-YEAR	345	1618.0	1621.7	0.0	1621.8	0.001	2.7	141.3	77.1	0.29	1621.7	1620.2	-1.5
	1	566.4481	50-YEAR	345	1617.0	1621.7	0.0	1621.7	0.000	1.6	229.5	84.7	0.15	1621.7	1619.6	-2.1
	1	510.7805	50-YEAR	345	1618.0	1621.7	0.0	1621.7	0.000	1.1	310.5	105.4	0.11	1621.7	1619.1	-2.6
	1	430.2187	50-YEAR	345	1614.0	1621.7	0.0	1621.7	0.000	0.7	529.4	100.9	0.05	1621.7	1616.3	-5.4
	1	334.6249	50-YEAR	345	1612.3	1621.7	0.0	1621.7	0.000	0.4	778.3	105.1	0.03	1621.7	1613.8	-7.9
	1	248.6842	50-YEAR	345	1610.0	1621.7	0.0	1621.7	0.000	0.5	755.9	99.3	0.03	1621.7	1612.0	-9.7
	1	226.1339	50-YEAR	345	1613.3	1621.7	1617.1	1621.7	0.000	1.6	237.8	85.3	0.13	1621.7	1611.3	-10.4
DAM																
C o n d i t i o n	1	219.1212	50-YEAR	345	1609.9	1611.8	1611.8	1612.8	0.011	7.8	45.3	24.7	1.00	1611.8	1610.7	-1.1
	1	209.4033	50-YEAR	345	1608.8	1611.0	1611.0	1612.0	0.011	8.0	43.6	22.6	1.01	1611.0	1610.3	-0.7
	1	197.6462	50-YEAR	345	1607.0	1610.0	0.0	1610.5	0.004	5.3	67.7	30.9	0.60	1610.0	1610.1	0.1
	1	178.6404	50-YEAR	345	1607.0	1609.5	1609.5	1610.3	0.012	7.1	49.9	34.6	1.00	1609.5	1609.6	0.0
	1	149.4387	50-YEAR	345	1605.0	1607.5	1607.1	1608.1	0.007	7.1	64.7	35.0	0.84	1607.5	1607.5	0.0
	1	129.4051	50-YEAR	345	1605.0	1607.0	1607.0	1607.9	0.010	7.7	49.7	31.2	0.97	1607.0	1607.0	0.0
	1	89.91512	50-YEAR	345	1603.8	1606.0	1606.0	1606.9	0.010	7.9	50.5	31.1	0.99	1606.0	1606.0	0.0
	1	76.1522	50-YEAR	345	1603.0	1605.3	1605.3	1606.2	0.010	7.5	50.2	32.5	0.97	1605.3	1605.3	0.0
	1	30.23758	50-YEAR	345	1600.0	1603.4	1602.1	1603.6	0.001	3.6	101.0	43.5	0.38	1603.4	1603.4	0.0
	1	9.272341	50-YEAR	345	1601.0	1603.4	1602.7	1603.5	0.002	3.7	133.6	89.5	0.44	1603.4	1603.4	0.0

Plan	Reach	River Sta	Profile	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
P r o p o s e d	1	873.7751	50-YEAR	345	1622.0	1624.4	1624.4	1625.1	0.008	7.3	58.3	42.4	0.89
	1	782.6332	50-YEAR	345	1620.6	1622.5	1622.5	1623.2	0.011	6.7	53.3	43.3	0.98
	1	719.1365	50-YEAR	345	1619.0	1621.2	1621.0	1621.8	0.008	6.4	57.3	39.3	0.87
	1	617.6659	50-YEAR	345	1617.9	1620.2	1620.2	1620.9	0.010	6.9	56.4	42.8	0.95
	1	566.4481	50-YEAR	345	1616.0	1619.6	1619.6	1620.2	0.008	8.8	83.5	60.7	0.83
	1	510.7805	50-YEAR	345	1616.0	1619.1	1619.1	1619.6	0.007	6.6	81.3	79.4	0.78
	1	430.2187	50-YEAR	345	1613.0	1616.3	1616.3	1617.2	0.008	8.7	64.1	43.2	0.87
	1	334.6249	50-YEAR	345	1611.0	1613.8	1613.8	1614.4	0.008	8.2	76.9	60.5	0.88
	1	248.6842	50-YEAR	345	1608.0	1612.0	0.0	1612.4	0.002	5.0	82.7	35.9	0.46
	1	226.1339	50-YEAR	345	1607.0	1611.3	1611.3	1612.2	0.011	10.8	59.7	29.9	0.95
C o n d i t i o n	1	219.1212	50-YEAR	345	1607.0	1610.7	1610.7	1611.7	0.009	8.2	52.1	30.5	0.91
	1	209.4033	50-YEAR	345	1607.0	1610.3	1610.3	1611.3	0.009	9.5	54.8	27.9	0.95
	1	197.6462	50-YEAR	345	1607.0	1610.1	0.0	1610.5	0.003	5.0	71.2	31.1	0.56
	1	178.6404	50-YEAR	345	1607.0	1609.6	1609.6	1610.4	0.012	7.2	50.6	34.7	1.00
	1	149.4387	50-YEAR	345	1605.0	1607.5	1607.1	1608.1	0.007	7.1	64.7	35.0	0.84
	1	129.4051	50-YEAR	345	1605.0	1607.0	1607.0	1607.9	0.010	7.7	49.7	31.2	0.97
	1	89.91512	50-YEAR	345	1603.8	1606.0	1606.0	1606.9	0.010	7.9	50.5	31.1	0.99
	1	76.1522	50-YEAR	345	1603.0	1605.3	1605.3	1606.2	0.010	7.5	50.2	32.5	0.97
	1	30.23758	50-YEAR	345	1600.0	1603.4	1602.1	1603.6	0.001	3.6	101.0	43.5	0.38
	1	9.272341	50-YEAR	345	1601.0	1603.4	1602.7	1603.5	0.002	3.7	133.6	89.5	0.44

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	100-YEAR	425	1622.0	1624.6	1624.6	1625.5	0.008	7.9	68.6	43.4	0.91	1624.6	1624.6	0.0
	1	782.6332	100-YEAR	425	1620.6	1622.8	1622.8	1623.5	0.010	7.1	63.3	46.9	0.97	1622.8	1622.8	0.0
	1	719.1365	100-YEAR	425	1619.0	1621.9	0.0	1622.3	0.004	5.5	85.8	44.3	0.63	1621.9	1621.4	-0.5
	1	617.6659	100-YEAR	425	1618.0	1621.9	0.0	1622.1	0.001	3.1	160.3	80.5	0.31	1621.9	1620.4	-1.5
	1	566.4481	100-YEAR	425	1617.0	1622.0	0.0	1622.0	0.000	1.8	250.9	87.7	0.17	1622.0	1619.9	-2.1
	1	510.7805	100-YEAR	425	1618.0	1622.0	0.0	1622.0	0.000	1.3	336.9	106.6	0.12	1622.0	1619.3	-2.7
	1	430.2187	100-YEAR	425	1614.0	1622.0	0.0	1622.0	0.000	0.8	554.8	101.3	0.06	1622.0	1616.7	-5.3
	1	334.6249	100-YEAR	425	1612.3	1622.0	0.0	1622.0	0.000	0.5	804.7	105.4	0.03	1622.0	1614.1	-7.9
	1	248.6842	100-YEAR	425	1610.0	1622.0	0.0	1622.0	0.000	0.6	781.0	100.2	0.03	1622.0	1612.4	-9.6
	1	226.1339	100-YEAR	425	1613.3	1621.9	1617.5	1622.0	0.000	1.9	258.2	87.8	0.15	1621.9	1611.6	-10.3
DAM																
C o n d i t i o n	1	219.1212	100-YEAR	425	1609.9	1612.1	1612.1	1613.2	0.010	8.4	52.1	24.8	1.00	1612.1	1611.0	-1.1
	1	209.4033	100-YEAR	425	1608.8	1611.3	1611.3	1612.5	0.010	8.6	50.4	22.7	1.00	1611.3	1610.7	-0.7
	1	197.6462	100-YEAR	425	1607.0	1610.3	0.0	1610.8	0.004	6.0	75.0	31.5	0.64	1610.3	1610.4	0.1
	1	178.6404	100-YEAR	425	1607.0	1609.8	1609.8	1610.7	0.011	7.6	58.1	35.6	1.00	1609.8	1609.8	0.0
	1	149.4387	100-YEAR	425	1605.0	1607.8	1607.4	1608.4	0.007	7.6	75.4	36.8	0.85	1607.8	1607.8	0.0
	1	129.4051	100-YEAR	425	1605.0	1607.3	1607.3	1608.3	0.010	8.2	58.5	32.7	0.97	1607.3	1607.3	0.0
	1	89.91512	100-YEAR	425	1603.8	1606.3	1606.3	1607.3	0.010	8.4	60.1	33.2	0.98	1606.3	1606.3	0.0
	1	76.1522	100-YEAR	425	1603.0	1605.6	1605.6	1606.5	0.010	8.1	59.0	34.4	0.97	1605.6	1605.6	0.0
	1	30.23758	100-YEAR	425	1600.0	1603.6	1602.3	1603.8	0.002	4.2	110.3	47.8	0.42	1603.6	1603.6	0.0
	1	9.272341	100-YEAR	425	1601.0	1603.6	1603.0	1603.8	0.002	4.0	154.7	90.6	0.45	1603.6	1603.6	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	100-YEAR	425	1620.6	1622.8	1622.8	1623.5	0.010	7.1	63.3	46.9	0.97	
1	719.1365	100-YEAR	425	1619.0	1621.4	1621.3	1622.1	0.009	7.1	64.9	40.7	0.90	
1	617.6659	100-YEAR	425	1617.9	1620.4	1620.4	1621.2	0.010	7.3	65.6	43.8	0.96	
1	566.4481	100-YEAR	425	1616.0	1619.9	1619.9	1620.5	0.008	9.5	96.4	63.7	0.87	
1	510.7805	100-YEAR	425	1616.0	1619.3	1619.3	1619.8	0.007	7.0	97.0	83.0	0.79	
1	430.2187	100-YEAR	425	1613.0	1616.7	1616.7	1617.5	0.007	8.9	81.1	50.8	0.85	
1	334.6249	100-YEAR	425	1611.0	1614.1	1614.1	1614.7	0.007	8.4	95.3	66.6	0.86	
1	248.6842	100-YEAR	425	1608.0	1612.4	0.0	1612.8	0.002	5.5	96.0	40.5	0.48	
1	226.1339	100-YEAR	425	1607.0	1611.6	1611.6	1612.6	0.011	11.7	68.8	31.8	0.99	
DAM													
C o n d i t i o n	1	219.1212	100-YEAR	425	1607.0	1611.0	1611.0	1612.1	0.009	8.8	61.8	32.1	0.91
	1	209.4033	100-YEAR	425	1607.0	1610.7	1610.7	1611.8	0.009	10.1	64.7	29.4	0.95
	1	197.6462	100-YEAR	425	1607.0	1610.4	0.0	1610.8	0.003	5.6	79.2	31.8	0.59
	1	178.6404	100-YEAR	425	1607.0	1609.8	1609.8	1610.7	0.011	7.7	59.0	35.7	1.00
	1	149.4387	100-YEAR	425	1605.0	1607.8	1607.4	1608.4	0.007	7.6	75.4	36.8	0.85
	1	129.4051	100-YEAR	425	1605.0	1607.3	1607.3	1608.3	0.010	8.2	58.5	32.7	0.97
	1	89.91512	100-YEAR	425	1603.8	1606.3	1606.3	1607.3	0.010	8.4	60.1	33.2	0.98
	1	76.1522	100-YEAR	425	1603.0	1605.6	1605.6	1606.5	0.010	8.1	59.0	34.4	0.97
	1	30.23758	100-YEAR	425	1600.0	1603.6	1602.3	1603.8	0.002	4.2	110.3	47.8	0.42
	1	9.272341	100-YEAR	425	1601.0	1603.6	1603.0	1603.8	0.002	4.0	154.7	90.6	0.45

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	200-YEAR	515	1622.0	1624.9	1624.9	1625.8	0.008	8.4	79.8	44.4	0.91	1624.9	1624.9	0.0
	1	782.6332	200-YEAR	515	1620.6	1623.0	1623.0	1623.8	0.010	7.6	73.9	50.5	0.97	1623.0	1623.0	0.0
	1	719.1365	200-YEAR	515	1619.0	1622.1	0.0	1622.6	0.004	6.1	94.7	49.2	0.67	1622.1	1621.6	-0.5
	1	617.6659	200-YEAR	515	1618.0	1622.1	0.0	1622.3	0.001	3.4	179.4	83.7	0.33	1622.1	1620.6	-1.5
	1	566.4481	200-YEAR	515	1617.0	1622.2	0.0	1622.3	0.000	2.0	272.3	90.8	0.19	1622.2	1620.1	-2.1
	1	510.7805	200-YEAR	515	1618.0	1622.2	0.0	1622.2	0.000	1.5	363.0	107.9	0.13	1622.2	1619.4	-2.8
	1	430.2187	200-YEAR	515	1614.0	1622.2	0.0	1622.2	0.000	0.9	579.6	101.7	0.06	1622.2	1616.9	-5.3
	1	334.6249	200-YEAR	515	1612.3	1622.2	0.0	1622.2	0.000	0.6	830.6	105.7	0.04	1622.2	1614.3	-8.0
	1	248.6842	200-YEAR	515	1610.0	1622.2	0.0	1622.2	0.000	0.7	805.6	101.2	0.04	1622.2	1612.7	-9.5
	1	226.1339	200-YEAR	515	1613.3	1622.1	1617.8	1622.2	0.000	2.1	279.0	91.1	0.17	1622.1	1611.9	-10.2
DAM																
C o n d i t i o n	1	219.1212	200-YEAR	515	1609.9	1612.4	1612.4	1613.6	0.010	8.9	59.5	25.0	1.00	1612.4	1611.3	-1.1
	1	209.4033	200-YEAR	515	1608.8	1611.6	1611.6	1612.9	0.010	9.2	57.4	22.9	1.00	1611.6	1611.0	-0.7
	1	197.6462	200-YEAR	515	1607.0	1610.5	0.0	1611.2	0.004	6.6	82.2	32.1	0.69	1610.5	1610.6	0.1
	1	178.6404	200-YEAR	515	1607.0	1610.0	1610.0	1611.0	0.010	8.0	67.2	36.6	0.99	1610.0	1610.1	0.0
	1	149.4387	200-YEAR	515	1605.0	1608.1	1607.7	1608.8	0.007	8.2	86.3	38.5	0.86	1608.1	1608.1	0.0
	1	129.4051	200-YEAR	515	1605.0	1607.6	1607.6	1608.7	0.009	8.7	68.1	34.3	0.97	1607.6	1607.6	0.0
	1	89.91512	200-YEAR	515	1603.8	1606.6	1606.6	1607.7	0.009	8.9	70.0	35.0	0.98	1606.6	1606.6	0.0
	1	76.1522	200-YEAR	515	1603.0	1605.9	1605.9	1606.9	0.009	8.5	68.9	36.4	0.97	1605.9	1605.9	0.0
	1	30.23758	200-YEAR	515	1600.0	1603.8	1602.5	1604.1	0.002	4.7	120.0	51.9	0.46	1603.8	1603.8	0.0
	1	9.272341	200-YEAR	515	1601.0	1603.8	1603.0	1604.0	0.002	4.3	176.8	92.0	0.46	1603.8	1603.8	0.0

Plan	Reach	River Sta	Profile	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	
														DAM
P r o p o s e d	1	873.7751	200-YEAR	515	1622.0	1624.9	1624.9	1625.8	0.008	8.4	79.8	44.4	0.91	
	1	782.6332	200-YEAR	515	1620.6	1623.0	1623.0	1623.8	0.010	7.6	73.9	50.5	0.97	
	1	719.1365	200-YEAR	515	1619.0	1621.6	1621.5	1622.5	0.009	7.7	72.9	42.1	0.94	
	1	617.6659	200-YEAR	515	1617.9	1620.6	1620.6	1621.5	0.010	7.8	75.4	44.8	0.97	
	1	566.4481	200-YEAR	515	1616.0	1620.1	1620.1	1620.8	0.009	10.1	109.9	66.5	0.90	
	1	510.7805	200-YEAR	515	1616.0	1619.4	1619.4	1620.1	0.007	7.5	112.0	86.3	0.82	
	1	430.2187	200-YEAR	515	1613.0	1616.9	1616.9	1617.9	0.008	9.6	94.3	55.3	0.88	
	1	334.6249	200-YEAR	515	1611.0	1614.3	1614.3	1615.0	0.008	8.9	108.6	68.6	0.89	
	1	248.6842	200-YEAR	515	1608.0	1612.7	0.0	1613.2	0.002	6.0	110.6	44.8	0.51	
	1	226.1339	200-YEAR	515	1607.0	1611.9	1611.9	1613.0	0.011	12.3	79.8	33.8	1.00	
	C o n d i t i o n	1	219.1212	200-YEAR	515	1607.0	1611.3	1611.3	1612.5	0.009	9.3	71.6	33.7	0.93
		1	209.4033	200-YEAR	515	1607.0	1611.0	1611.0	1612.2	0.009	10.8	74.4	30.8	0.98
		1	197.6462	200-YEAR	515	1607.0	1610.6	0.0	1611.2	0.004	6.2	87.3	32.4	0.63
		1	178.6404	200-YEAR	515	1607.0	1610.1	1610.1	1611.1	0.010	8.1	68.5	36.8	0.98
1		149.4387	200-YEAR	515	1605.0	1608.1	1607.7	1608.8	0.007	8.2	86.3	38.5	0.86	
1		129.4051	200-YEAR	515	1605.0	1607.6	1607.6	1608.7	0.009	8.7	68.1	34.3	0.97	
1		89.91512	200-YEAR	515	1603.8	1606.6	1606.6	1607.7	0.009	8.9	70.0	35.0	0.98	
1		76.1522	200-YEAR	515	1603.0	1605.9	1605.9	1606.9	0.009	8.5	68.9	36.4	0.97	
1		30.23758	200-YEAR	515	1600.0	1603.8	1602.5	1604.1	0.002	4.7	120.0	51.9	0.46	
1		9.272341	200-YEAR	515	1601.0	1603.8	1603.0	1604.0	0.002	4.3	176.8	92.0	0.46	

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	500-YEAR	649	1622.0	1625.2	1625.2	1626.3	0.008	9.1	94.1	45.8	0.94	1625.2	1625.2	0.0
	1	782.6332	500-YEAR	649	1620.6	1623.3	1623.3	1624.2	0.009	8.0	91.8	55.8	0.94	1623.3	1623.3	0.0
	1	719.1365	500-YEAR	649	1619.0	1622.3	0.0	1623.0	0.005	7.0	107.0	53.0	0.74	1622.3	1621.9	-0.4
	1	617.6659	500-YEAR	649	1618.0	1622.4	0.0	1622.7	0.001	3.8	204.7	87.8	0.36	1622.4	1620.9	-1.5
	1	566.4481	500-YEAR	649	1617.0	1622.5	0.0	1622.6	0.000	2.4	300.8	94.7	0.21	1622.5	1620.3	-2.2
	1	510.7805	500-YEAR	649	1618.0	1622.5	0.0	1622.6	0.000	1.7	396.8	109.5	0.15	1622.5	1619.7	-2.8
	1	430.2187	500-YEAR	649	1614.0	1622.5	0.0	1622.5	0.000	1.1	611.6	102.2	0.08	1622.5	1617.0	-5.6
	1	334.6249	500-YEAR	649	1612.3	1622.5	0.0	1622.5	0.000	0.8	864.0	106.1	0.05	1622.5	1614.5	-8.0
	1	248.6842	500-YEAR	649	1610.0	1622.5	0.0	1622.5	0.000	0.8	837.7	102.4	0.05	1622.5	1613.2	-9.3
	1	226.1339	500-YEAR	649	1613.3	1622.4	1618.3	1622.5	0.000	2.5	305.8	93.0	0.19	1622.4	1612.4	-10.1
DAM																
C o n d i t i o n	1	219.1212	500-YEAR	649	1609.9	1612.8	1612.8	1614.2	0.009	9.6	69.7	25.2	1.00	1612.8	1611.8	-1.0
	1	209.4033	500-YEAR	649	1608.8	1612.1	1612.1	1613.6	0.009	9.9	67.4	23.1	1.00	1612.1	1611.5	-0.6
	1	197.6462	500-YEAR	649	1607.0	1610.8	0.0	1611.7	0.005	7.6	91.3	32.8	0.75	1610.8	1611.0	0.2
	1	178.6404	500-YEAR	649	1607.0	1610.4	1610.4	1611.5	0.010	8.6	80.1	38.0	0.98	1610.4	1610.4	0.0
	1	149.4387	500-YEAR	649	1605.0	1608.5	1608.1	1609.4	0.007	8.8	103.0	41.0	0.87	1608.5	1608.5	0.0
	1	129.4051	500-YEAR	649	1605.0	1607.9	1607.9	1609.2	0.009	9.3	81.5	36.3	0.97	1607.9	1607.9	0.0
	1	89.91512	500-YEAR	649	1603.8	1607.0	1607.0	1608.3	0.009	9.6	84.2	37.5	0.98	1607.0	1607.0	0.0
	1	76.1522	500-YEAR	649	1603.0	1606.2	1606.2	1607.5	0.009	9.1	83.3	39.1	0.96	1606.2	1606.2	0.0
	1	30.23758	500-YEAR	649	1600.0	1604.1	1602.9	1604.5	0.002	5.4	133.4	56.6	0.50	1604.1	1604.1	0.0
	1	9.272341	500-YEAR	649	1601.0	1604.2	1603.0	1604.4	0.002	4.6	207.4	93.7	0.47	1604.2	1604.2	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	500-YEAR	649	1620.6	1623.3	1623.3	1624.2	0.009	8.0	91.8	55.8	0.94	
1	719.1365	500-YEAR	649	1619.0	1621.9	1621.9	1622.9	0.009	8.4	86.2	44.4	0.95	
1	617.6659	500-YEAR	649	1617.9	1620.9	1620.9	1621.9	0.010	8.4	88.7	46.2	0.99	
1	566.4481	500-YEAR	649	1616.0	1620.3	1620.3	1621.1	0.010	11.0	126.1	69.0	0.95	
1	510.7805	500-YEAR	649	1616.0	1619.7	1619.7	1620.4	0.007	8.1	133.5	90.7	0.85	
1	430.2187	500-YEAR	649	1613.0	1617.0	1617.0	1618.4	0.011	11.8	96.9	56.1	1.08	
1	334.6249	500-YEAR	649	1611.0	1614.5	1614.5	1615.3	0.008	9.7	126.8	71.3	0.93	
1	248.6842	500-YEAR	649	1608.0	1613.2	0.0	1613.8	0.003	6.6	132.0	48.6	0.53	
1	226.1339	500-YEAR	649	1607.0	1612.4	1612.4	1613.6	0.011	13.2	94.7	36.3	1.02	
DAM													
C o n d i t i o n	1	219.1212	500-YEAR	649	1607.0	1611.8	1611.8	1613.1	0.008	10.0	86.7	36.1	0.93
	1	209.4033	500-YEAR	649	1607.0	1611.5	1611.5	1612.9	0.009	11.6	89.4	33.0	0.99
	1	197.6462	500-YEAR	649	1607.0	1611.0	0.0	1611.7	0.004	7.0	98.3	33.3	0.67
	1	178.6404	500-YEAR	649	1607.0	1610.4	1610.4	1611.5	0.010	8.8	80.9	38.1	0.99
	1	149.4387	500-YEAR	649	1605.0	1608.5	1608.1	1609.4	0.007	8.8	103.0	41.0	0.87
	1	129.4051	500-YEAR	649	1605.0	1607.9	1607.9	1609.2	0.009	9.3	81.5	36.3	0.97
	1	89.91512	500-YEAR	649	1603.8	1607.0	1607.0	1608.3	0.009	9.6	84.2	37.5	0.98
	1	76.1522	500-YEAR	649	1603.0	1606.2	1606.2	1607.5	0.009	9.1	83.3	39.1	0.96
	1	30.23758	500-YEAR	649	1600.0	1604.1	1602.9	1604.5	0.002	5.4	133.4	56.6	0.50
	1	9.272341	500-YEAR	649	1601.0	1604.2	1603.0	1604.4	0.002	4.6	207.4	93.7	0.47

Plan	Reach	River Sta	Profile	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	Existing	Proposed	Δ (ft)
														Condition WSE (ft NAVD)	Condition WSE (ft NAVD)	
E x i s t i n g	1	873.7751	D99	0.06	1622.0	1622.0	1622.0	1622.0	0.003	0.2	0.3	10.3	0.28	1622.0	1622.0	0.0
	1	782.6332	D99	0.06	1620.6	1620.7	1620.7	1620.7	0.017	0.5	0.1	4.7	0.62	1620.7	1620.7	0.0
	1	719.1365	D99	0.06	1619.0	1619.0	1619.0	1619.1	0.042	0.9	0.1	2.5	0.98	1619.0	1619.1	0.0
	1	617.6659	D99	0.06	1618.0	1619.0	0.0	1619.0	0.000	0.0	14.6	26.5	0.00	1619.0	1618.0	-1.0
	1	566.4481	D99	0.06	1617.0	1619.0	0.0	1619.0	0.000	0.0	44.0	51.6	0.00	1619.0	1616.1	-2.9
	1	510.7805	D99	0.06	1618.0	1619.0	0.0	1619.0	0.000	0.0	51.9	78.1	0.00	1619.0	1616.0	-3.0
	1	430.2187	D99	0.06	1614.0	1619.0	0.0	1619.0	0.000	0.0	266.2	92.0	0.00	1619.0	1613.0	-6.0
	1	334.6249	D99	0.06	1612.3	1619.0	0.0	1619.0	0.000	0.0	501.0	98.9	0.00	1619.0	1611.0	-8.0
	1	248.6842	D99	0.06	1610.0	1619.0	0.0	1619.0	0.000	0.0	502.4	88.0	0.00	1619.0	1608.0	-11.0
	1	226.1339	D99	0.06	1613.3	1619.0	1613.4	1619.0	0.000	0.0	90.0	30.4	0.00	1619.0	1607.1	-11.9
DAM																
C o n d i t i o n	1	219.1212	D99	0.06	1609.9	1609.9	1609.9	1609.9	0.008	0.3	0.2	10.8	0.41	1609.9	1607.1	-2.8
	1	209.4033	D99	0.06	1608.8	1608.9	1608.9	1608.9	0.047	0.9	0.1	2.9	1.02	1608.9	1607.1	-1.8
	1	197.6462	D99	0.06	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.3	4.4	0.12	1607.1	1607.1	0.0
	1	178.6404	D99	0.06	1607.0	1607.1	1607.1	1607.1	0.036	1.0	0.1	1.6	0.95	1607.1	1607.0	0.0
	1	149.4387	D99	0.06	1605.0	1605.0	0.0	1605.0	0.001	0.2	0.4	9.0	0.16	1605.0	1605.0	0.0
	1	129.4051	D99	0.06	1605.0	1605.0	1605.0	1605.0	0.001	0.1	0.4	16.8	0.15	1605.0	1605.0	0.0
	1	89.91512	D99	0.06	1603.8	1603.9	1603.9	1603.9	0.037	0.8	0.1	3.1	0.90	1603.9	1603.9	0.0
	1	76.1522	D99	0.06	1603.0	1603.0	1603.0	1603.1	0.123	1.4	0.0	1.9	1.63	1603.0	1603.0	0.0
	1	30.23758	D99	0.06	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00	1601.0	1601.0	0.0
	1	9.272341	D99	0.06	1601.0	1601.0	1601.0	1601.0	0.001	0.1	0.6	28.2	0.11	1601.0	1601.0	0.0

Plan	Reach	River Sta	Profile	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
P r o p o s e d	1	873.7751	D99	0.06	1622.0	1622.0	0.0	1622.0	0.005	0.3	0.2	10.3	0.33
	1	782.6332	D99	0.06	1620.6	1620.7	1620.7	1620.7	0.161	1.2	0.1	3.5	1.73
	1	719.1365	D99	0.06	1619.0	1619.1	0.0	1619.1	0.006	0.5	0.1	3.2	0.38
	1	617.6659	D99	0.06	1617.9	1618.0	1618.0	1618.0	0.027	0.9	0.1	2.0	0.81
	1	566.4481	D99	0.06	1616.0	1616.1	0.0	1616.1	0.000	0.2	0.4	3.6	0.10
	1	510.7805	D99	0.06	1616.0	1616.0	1616.0	1616.0	0.028	0.7	0.1	3.5	0.79
	1	430.2187	D99	0.06	1613.0	1613.0	1613.0	1613.0	0.008	0.4	0.2	6.5	0.42
	1	334.6249	D99	0.06	1611.0	1611.0	1611.0	1611.0	0.004	0.3	0.2	7.1	0.31
	1	248.6842	D99	0.06	1608.0	1608.0	1608.0	1608.0	0.002	0.2	0.3	11.7	0.20
	1	226.1339	D99	0.06	1607.0	1607.1	0.0	1607.1	0.001	0.3	0.2	1.9	0.20
DAM													
C o n d i t i o n	1	219.1212	D99	0.06	1607.0	1607.1	0.0	1607.1	0.001	0.3	0.2	2.4	0.16
	1	209.4033	D99	0.06	1607.0	1607.1	0.0	1607.1	0.000	0.1	0.5	5.5	0.07
	1	197.6462	D99	0.06	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.3	4.5	0.11
	1	178.6404	D99	0.06	1607.0	1607.0	1607.0	1607.1	0.047	1.1	0.1	1.5	1.07
	1	149.4387	D99	0.06	1605.0	1605.0	0.0	1605.0	0.001	0.2	0.4	9.0	0.16
	1	129.4051	D99	0.06	1605.0	1605.0	1605.0	1605.0	0.001	0.1	0.4	16.8	0.15
	1	89.91512	D99	0.06	1603.8	1603.9	1603.9	1603.9	0.037	0.8	0.1	3.1	0.90
	1	76.1522	D99	0.06	1603.0	1603.0	1603.0	1603.1	0.123	1.4	0.0	1.9	1.63
	1	30.23758	D99	0.06	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00
	1	9.272341	D99	0.06	1601.0	1601.0	1601.0	1601.0	0.001	0.1	0.6	28.2	0.11

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	D95	0.1	1622.0	1622.0	1622.0	1622.0	0.010	0.4	0.3	10.3	0.46	1622.0	1622.0	0.0
	1	782.6332	D95	0.1	1620.6	1620.7	1620.7	1620.7	0.019	0.6	0.2	5.6	0.66	1620.7	1620.7	0.0
	1	719.1365	D95	0.1	1619.0	1619.1	1619.1	1619.1	0.037	1.0	0.1	2.8	0.96	1619.1	1619.1	0.0
	1	617.6659	D95	0.1	1618.0	1619.0	0.0	1619.0	0.000	0.0	14.6	26.5	0.00	1619.0	1618.0	-1.0
	1	566.4481	D95	0.1	1617.0	1619.0	0.0	1619.0	0.000	0.0	44.0	51.6	0.00	1619.0	1616.1	-2.9
	1	510.7805	D95	0.1	1618.0	1619.0	0.0	1619.0	0.000	0.0	51.9	78.1	0.00	1619.0	1616.0	-3.0
	1	430.2187	D95	0.1	1614.0	1619.0	0.0	1619.0	0.000	0.0	266.2	92.1	0.00	1619.0	1613.0	-6.0
	1	334.6249	D95	0.1	1612.3	1619.0	0.0	1619.0	0.000	0.0	501.1	98.9	0.00	1619.0	1611.0	-8.0
	1	248.6842	D95	0.1	1610.0	1619.0	0.0	1619.0	0.000	0.0	502.4	88.0	0.00	1619.0	1608.0	-11.0
	1	226.1339	D95	0.1	1613.3	1619.0	1613.4	1619.0	0.000	0.0	90.0	30.4	0.00	1619.0	1607.1	-11.9
DAM																
C o n d i t i o n	1	219.1212	D95	0.1	1609.9	1609.9	1609.9	1609.9	0.023	0.5	0.2	10.8	0.68	1609.9	1607.1	-2.8
	1	209.4033	D95	0.1	1608.8	1608.9	1608.9	1608.9	0.036	0.9	0.1	3.3	0.93	1608.9	1607.1	-1.8
	1	197.6462	D95	0.1	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.5	4.8	0.13	1607.1	1607.1	0.0
	1	178.6404	D95	0.1	1607.0	1607.1	1607.1	1607.1	0.039	1.3	0.1	1.7	1.03	1607.1	1607.1	0.0
	1	149.4387	D95	0.1	1605.0	1605.1	0.0	1605.1	0.001	0.2	0.5	9.3	0.15	1605.1	1605.1	0.0
	1	129.4051	D95	0.1	1605.0	1605.0	1605.0	1605.0	0.003	0.2	0.4	16.8	0.25	1605.0	1605.0	0.0
	1	89.91512	D95	0.1	1603.8	1603.9	1603.9	1603.9	0.038	0.9	0.1	3.8	0.95	1603.9	1603.9	0.0
	1	76.1522	D95	0.1	1603.0	1603.1	1603.1	1603.1	0.040	1.1	0.1	2.3	1.01	1603.1	1603.1	0.0
	1	30.23758	D95	0.1	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00	1601.0	1601.0	0.0
	1	9.272341	D95	0.1	1601.0	1601.0	1601.0	1601.0	0.002	0.2	0.6	28.2	0.19	1601.0	1601.0	0.0

Plan	Reach	River Sta	Profile	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
P r o p o s e d	1	873.7751	D95	0.1	1622.0	1622.0	0.0	1622.0	0.007	0.4	0.3	10.3	0.41
	1	782.6332	D95	0.1	1620.6	1620.7	1620.7	1620.7	0.044	0.9	0.1	4.7	0.98
	1	719.1365	D95	0.1	1619.0	1619.1	0.0	1619.1	0.005	0.5	0.2	3.8	0.37
	1	617.6659	D95	0.1	1617.9	1618.0	1618.0	1618.0	0.042	1.1	0.1	2.3	1.03
	1	566.4481	D95	0.1	1616.0	1616.1	0.0	1616.1	0.000	0.2	0.4	3.6	0.12
	1	510.7805	D95	0.1	1616.0	1616.0	1616.0	1616.1	0.040	1.0	0.1	3.5	0.97
	1	430.2187	D95	0.1	1613.0	1613.0	1613.0	1613.0	0.021	0.6	0.2	6.5	0.68
	1	334.6249	D95	0.1	1611.0	1611.0	1611.0	1611.0	0.012	0.5	0.2	7.1	0.52
	1	248.6842	D95	0.1	1608.0	1608.0	1608.0	1608.0	0.005	0.3	0.3	11.7	0.34
	1	226.1339	D95	0.1	1607.0	1607.1	0.0	1607.1	0.002	0.4	0.2	2.0	0.23
C o n d i t i o n	1	219.1212	D95	0.1	1607.0	1607.1	0.0	1607.1	0.001	0.4	0.3	2.4	0.19
	1	209.4033	D95	0.1	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.6	5.5	0.08
	1	197.6462	D95	0.1	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.5	4.8	0.12
	1	178.6404	D95	0.1	1607.0	1607.1	1607.1	1607.1	0.021	1.0	0.1	1.9	0.78
	1	149.4387	D95	0.1	1605.0	1605.1	0.0	1605.1	0.001	0.2	0.5	9.3	0.15
	1	129.4051	D95	0.1	1605.0	1605.0	1605.0	1605.0	0.003	0.2	0.4	16.8	0.25
	1	89.91512	D95	0.1	1603.8	1603.9	1603.9	1603.9	0.038	0.9	0.1	3.8	0.95
	1	76.1522	D95	0.1	1603.0	1603.1	1603.1	1603.1	0.040	1.1	0.1	2.3	1.01
	1	30.23758	D95	0.1	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00
	1	9.272341	D95	0.1	1601.0	1601.0	1601.0	1601.0	0.002	0.2	0.6	28.2	0.19

Plan	Reach	River Sta	Profile	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	Existing	Proposed	Δ (ft)
														Condition WSE (ft NAVD)	Condition WSE (ft NAVD)	
E x i s t i n g	1	873.7751	D50	1	1622.0	1622.1	1622.1	1622.1	0.012	1.1	0.9	10.9	0.65	1622.1	1622.1	0.0
	1	782.6332	D50	1	1620.6	1620.8	0.0	1620.8	0.019	1.1	0.9	15.1	0.75	1620.8	1620.7	0.0
	1	719.1365	D50	1	1619.0	1619.2	1619.2	1619.2	0.035	1.9	0.5	5.8	1.09	1619.2	1619.2	0.1
	1	617.6659	D50	1	1618.0	1619.1	0.0	1619.1	0.000	0.1	16.0	27.4	0.01	1619.1	1618.1	-1.0
	1	566.4481	D50	1	1617.0	1619.1	0.0	1619.1	0.000	0.0	46.8	52.4	0.00	1619.1	1616.4	-2.7
	1	510.7805	D50	1	1618.0	1619.1	0.0	1619.1	0.000	0.0	56.1	79.1	0.00	1619.1	1616.1	-2.9
	1	430.2187	D50	1	1614.0	1619.1	0.0	1619.1	0.000	0.0	271.1	92.3	0.00	1619.1	1613.1	-6.0
	1	334.6249	D50	1	1612.3	1619.1	0.0	1619.1	0.000	0.0	506.4	99.1	0.00	1619.1	1611.1	-8.0
	1	248.6842	D50	1	1610.0	1619.1	0.0	1619.1	0.000	0.0	507.1	88.3	0.00	1619.1	1608.1	-11.0
	1	226.1339	D50	1	1613.3	1619.1	1613.6	1619.1	0.000	0.0	91.6	31.1	0.00	1619.1	1607.3	-11.7
DAM																
C o n d i t i o n	1	219.1212	D50	1	1609.9	1610.0	1610.0	1610.0	0.036	1.4	0.7	11.7	1.03	1610.0	1607.3	-2.6
	1	209.4033	D50	1	1608.8	1609.0	1609.0	1609.0	0.033	1.7	0.6	6.8	1.05	1609.0	1607.3	-1.6
	1	197.6462	D50	1	1607.0	1607.3	0.0	1607.3	0.001	0.6	1.8	7.8	0.20	1607.3	1607.3	0.0
	1	178.6404	D50	1	1607.0	1607.2	1607.2	1607.3	0.026	2.1	0.5	3.6	1.00	1607.2	1607.2	0.0
	1	149.4387	D50	1	1605.0	1605.2	0.0	1605.2	0.002	0.7	1.6	11.4	0.31	1605.2	1605.2	0.0
	1	129.4051	D50	1	1605.0	1605.1	0.0	1605.1	0.020	1.0	1.0	17.1	0.77	1605.1	1605.1	0.0
	1	89.91512	D50	1	1603.8	1604.0	1604.0	1604.0	0.036	1.6	0.6	9.0	1.06	1604.0	1604.0	0.0
	1	76.1522	D50	1	1603.0	1603.2	1603.2	1603.2	0.027	1.9	0.5	4.4	1.00	1603.2	1603.2	0.0
	1	30.23758	D50	1	1600.0	1601.1	1600.1	1601.1	0.000	0.1	20.4	25.5	0.01	1601.1	1601.1	0.0
	1	9.272341	D50	1	1601.0	1601.0	1601.0	1601.1	0.045	1.2	0.8	28.4	1.09	1601.0	1601.0	0.0

Plan	Reach	River Sta	Profile	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
1	782.6332	D50	1	1620.6	1620.7	1620.7	1620.8	0.047	1.5	0.7	12.6	1.15	
1	719.1365	D50	1	1619.0	1619.2	0.0	1619.2	0.005	0.9	1.1	8.1	0.46	
1	617.6659	D50	1	1617.9	1618.1	1618.1	1618.2	0.029	1.8	0.6	5.4	1.01	
1	566.4481	D50	1	1616.0	1616.4	0.0	1616.4	0.001	0.7	1.4	4.0	0.22	
1	510.7805	D50	1	1616.0	1616.1	1616.1	1616.2	0.027	2.1	0.5	3.7	1.00	
1	430.2187	D50	1	1613.0	1613.1	1613.1	1613.1	0.013	1.3	0.8	6.6	0.69	
1	334.6249	D50	1	1611.0	1611.1	1611.1	1611.1	0.031	1.7	0.6	7.2	1.01	
1	248.6842	D50	1	1608.0	1608.1	1608.1	1608.1	0.023	1.3	0.8	11.8	0.84	
1	226.1339	D50	1	1607.0	1607.3	0.0	1607.4	0.005	1.5	0.7	2.3	0.47	
DAM													
C o n d i t i o n	1	219.1212	D50	1	1607.0	1607.3	0.0	1607.4	0.004	1.2	0.8	2.6	0.39
	1	209.4033	D50	1	1607.0	1607.3	0.0	1607.3	0.001	0.5	1.9	6.0	0.17
	1	197.6462	D50	1	1607.0	1607.3	0.0	1607.3	0.001	0.6	1.8	7.8	0.20
	1	178.6404	D50	1	1607.0	1607.2	1607.2	1607.3	0.026	2.1	0.5	3.6	1.00
	1	149.4387	D50	1	1605.0	1605.2	0.0	1605.2	0.002	0.7	1.6	11.4	0.31
	1	129.4051	D50	1	1605.0	1605.1	0.0	1605.1	0.020	1.0	1.0	17.1	0.77
	1	89.91512	D50	1	1603.8	1604.0	1604.0	1604.0	0.036	1.6	0.6	9.0	1.06
	1	76.1522	D50	1	1603.0	1603.2	1603.2	1603.2	0.027	1.9	0.5	4.4	1.00
	1	30.23758	D50	1	1600.0	1601.1	1600.1	1601.1	0.000	0.1	20.4	25.5	0.01
	1	9.272341	D50	1	1601.0	1601.0	1601.0	1601.1	0.045	1.2	0.8	28.4	1.09

Plan	Reach	River Sta	Profile	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	Existing Condition	Proposed Condition	Δ (ft)
														WSE (ft NAVD)	WSE (ft NAVD)	
E x i s t i n g	1	873.7751	7Q2	0.11	1622.0	1622.0	1622.0	1622.0	0.007	0.4	0.3	10.3	0.41	1622.0	1622.0	0.0
	1	782.6332	7Q2	0.11	1620.6	1620.7	1620.7	1620.7	0.047	0.9	0.1	4.8	1.02	1620.7	1620.7	0.0
	1	719.1365	7Q2	0.11	1619.0	1619.0	1619.0	1619.1	0.091	1.4	0.1	2.6	1.46	1619.0	1619.1	0.0
	1	617.6659	7Q2	0.11	1618.0	1619.0	0.0	1619.0	0.000	0.0	14.6	26.5	0.00	1619.0	1618.0	-1.0
	1	566.4481	7Q2	0.11	1617.0	1619.0	0.0	1619.0	0.000	0.0	44.0	51.6	0.00	1619.0	1616.1	-2.9
	1	510.7805	7Q2	0.11	1618.0	1619.0	0.0	1619.0	0.000	0.0	51.9	78.1	0.00	1619.0	1616.0	-3.0
	1	430.2187	7Q2	0.11	1614.0	1619.0	0.0	1619.0	0.000	0.0	266.2	92.1	0.00	1619.0	1613.0	-6.0
	1	334.6249	7Q2	0.11	1612.3	1619.0	0.0	1619.0	0.000	0.0	501.1	98.9	0.00	1619.0	1611.0	-8.0
	1	248.6842	7Q2	0.11	1610.0	1619.0	0.0	1619.0	0.000	0.0	502.4	88.0	0.00	1619.0	1608.0	-11.0
	1	226.1339	7Q2	0.11	1613.3	1619.0	1613.4	1619.0	0.000	0.0	90.0	30.4	0.00	1619.0	1607.1	-11.9
	DAM															
C o n d i t i o n	1	219.1212	7Q2	0.11	1609.9	1609.9	1609.9	1609.9	0.028	0.6	0.2	10.8	0.75	1609.9	1607.1	-2.8
	1	209.4033	7Q2	0.11	1608.8	1608.9	1608.9	1608.9	0.051	1.1	0.1	3.3	1.11	1608.9	1607.1	-1.8
	1	197.6462	7Q2	0.11	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.5	4.9	0.13	1607.1	1607.1	0.0
	1	178.6404	7Q2	0.11	1607.0	1607.1	1607.1	1607.1	0.040	1.3	0.1	1.8	1.05	1607.1	1607.1	0.0
	1	149.4387	7Q2	0.11	1605.0	1605.1	0.0	1605.1	0.001	0.2	0.5	9.3	0.18	1605.1	1605.1	0.0
	1	129.4051	7Q2	0.11	1605.0	1605.0	1605.0	1605.0	0.003	0.3	0.4	16.8	0.27	1605.0	1605.0	0.0
	1	89.91512	7Q2	0.11	1603.8	1603.9	1603.9	1603.9	0.049	1.0	0.1	3.7	1.07	1603.9	1603.9	0.0
	1	76.1522	7Q2	0.11	1603.0	1603.1	1603.1	1603.1	0.047	1.2	0.1	2.3	1.10	1603.1	1603.1	0.0
	1	30.23758	7Q2	0.11	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00	1601.0	1601.0	0.0
	1	9.272341	7Q2	0.11	1601.0	1601.0	1601.0	1601.0	0.002	0.2	0.6	28.2	0.21	1601.0	1601.0	0.0

Plan	Reach	River Sta	Profile	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	
														DAM
P r o p o s e d	1	873.7751	7Q2	0.11	1622.0	1622.0	0.0	1622.0	0.007	0.4	0.3	10.3	0.41	
	1	782.6332	7Q2	0.11	1620.6	1620.7	1620.7	1620.7	0.047	0.9	0.1	4.8	1.02	
	1	719.1365	7Q2	0.11	1619.0	1619.1	0.0	1619.1	0.005	0.5	0.2	3.9	0.38	
	1	617.6659	7Q2	0.11	1617.9	1618.0	1618.0	1618.0	0.039	1.1	0.1	2.5	1.00	
	1	566.4481	7Q2	0.11	1616.0	1616.1	0.0	1616.1	0.000	0.2	0.5	3.6	0.12	
	1	510.7805	7Q2	0.11	1616.0	1616.0	1616.0	1616.1	0.059	1.1	0.1	3.5	1.17	
	1	430.2187	7Q2	0.11	1613.0	1613.0	0.0	1613.0	0.019	0.6	0.2	6.5	0.66	
	1	334.6249	7Q2	0.11	1611.0	1611.0	1611.0	1611.0	0.014	0.5	0.2	7.1	0.57	
	1	248.6842	7Q2	0.11	1608.0	1608.0	1608.0	1608.0	0.006	0.4	0.3	11.7	0.37	
	1	226.1339	7Q2	0.11	1607.0	1607.1	0.0	1607.1	0.002	0.5	0.2	2.0	0.24	
	C o n d i t i o n	1	219.1212	7Q2	0.11	1607.0	1607.1	0.0	1607.1	0.001	0.4	0.3	2.4	0.20
		1	209.4033	7Q2	0.11	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.7	5.5	0.09
		1	197.6462	7Q2	0.11	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.5	4.9	0.13
		1	178.6404	7Q2	0.11	1607.0	1607.1	1607.1	1607.1	0.026	1.1	0.1	1.9	0.85
1		149.4387	7Q2	0.11	1605.0	1605.1	0.0	1605.1	0.001	0.2	0.5	9.3	0.18	
1		129.4051	7Q2	0.11	1605.0	1605.0	1605.0	1605.0	0.003	0.3	0.4	16.8	0.27	
1		89.91512	7Q2	0.11	1603.8	1603.9	1603.9	1603.9	0.049	1.0	0.1	3.7	1.07	
1		76.1522	7Q2	0.11	1603.0	1603.1	1603.1	1603.1	0.047	1.2	0.1	2.3	1.10	
1		30.23758	7Q2	0.11	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00	
1		9.272341	7Q2	0.11	1601.0	1601.0	1601.0	1601.0	0.002	0.2	0.6	28.2	0.21	

Plan	Reach	River Sta	Profile	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	Existing	Proposed	Δ (ft)	
														Condition WSE (ft NAVD)	Condition WSE (ft NAVD)		
E x i s t i n g	1	873.7751	7Q10	0.06	1622.0	1622.0	1622.0	1622.0	0.003	0.2	0.3	10.3	0.28	1622.0	1622.0	0.0	
	1	782.6332	7Q10	0.06	1620.6	1620.7	1620.7	1620.7	0.017	0.5	0.1	4.7	0.62	1620.7	1620.7	0.0	
	1	719.1365	7Q10	0.06	1619.0	1619.0	1619.0	1619.1	0.042	0.9	0.1	2.5	0.98	1619.0	1619.1	0.0	
	1	617.6659	7Q10	0.06	1618.0	1619.0	0.0	1619.0	0.000	0.0	14.6	26.5	0.00	1619.0	1618.0	-1.0	
	1	566.4481	7Q10	0.06	1617.0	1619.0	0.0	1619.0	0.000	0.0	44.0	51.6	0.00	1619.0	1616.1	-2.9	
	1	510.7805	7Q10	0.06	1618.0	1619.0	0.0	1619.0	0.000	0.0	51.9	78.1	0.00	1619.0	1616.0	-3.0	
	1	430.2187	7Q10	0.06	1614.0	1619.0	0.0	1619.0	0.000	0.0	266.2	92.0	0.00	1619.0	1613.0	-6.0	
	1	334.6249	7Q10	0.06	1612.3	1619.0	0.0	1619.0	0.000	0.0	501.0	98.9	0.00	1619.0	1611.0	-8.0	
	1	248.6842	7Q10	0.06	1610.0	1619.0	0.0	1619.0	0.000	0.0	502.4	88.0	0.00	1619.0	1608.0	-11.0	
	1	226.1339	7Q10	0.06	1613.3	1619.0	1613.4	1619.0	0.000	0.0	90.0	30.4	0.00	1619.0	1607.1	-11.9	
	DAM																
	C o n d i t i o n	1	219.1212	7Q10	0.06	1609.9	1609.9	1609.9	1609.9	0.008	0.3	0.2	10.8	0.41	1609.9	1607.1	-2.8
		1	209.4033	7Q10	0.06	1608.8	1608.9	1608.9	1608.9	0.047	0.9	0.1	2.9	1.02	1608.9	1607.1	-1.8
1		197.6462	7Q10	0.06	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.3	4.4	0.12	1607.1	1607.1	0.0	
1		178.6404	7Q10	0.06	1607.0	1607.1	1607.1	1607.1	0.036	1.0	0.1	1.6	0.95	1607.1	1607.0	0.0	
1		149.4387	7Q10	0.06	1605.0	1605.0	0.0	1605.0	0.001	0.2	0.4	9.0	0.16	1605.0	1605.0	0.0	
1		129.4051	7Q10	0.06	1605.0	1605.0	1605.0	1605.0	0.001	0.1	0.4	16.8	0.15	1605.0	1605.0	0.0	
1		89.91512	7Q10	0.06	1603.8	1603.9	1603.9	1603.9	0.037	0.8	0.1	3.1	0.90	1603.9	1603.9	0.0	
1		76.1522	7Q10	0.06	1603.0	1603.0	1603.0	1603.1	0.123	1.4	0.0	1.9	1.63	1603.0	1603.0	0.0	
1		30.23758	7Q10	0.06	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00	1601.0	1601.0	0.0	
1		9.272341	7Q10	0.06	1601.0	1601.0	1601.0	1601.0	0.001	0.1	0.6	28.2	0.11	1601.0	1601.0	0.0	

Plan	Reach	River Sta	Profile	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	Comparison			
														Existing	Proposed	Δ	
P r o p o s e d	1	873.7751	7Q10	0.06	1622.0	1622.0	0.0	1622.0	0.005	0.3	0.2	10.3	0.33	1622.0	1622.0	0.0	
	1	782.6332	7Q10	0.06	1620.6	1620.7	1620.7	1620.7	0.161	1.2	0.1	3.5	1.73	1620.7	1620.7	0.0	
	1	719.1365	7Q10	0.06	1619.0	1619.1	0.0	1619.1	0.006	0.5	0.1	3.2	0.38	1619.1	1619.1	0.0	
	1	617.6659	7Q10	0.06	1617.9	1618.0	1618.0	1618.0	0.027	0.9	0.1	2.0	0.81	1618.0	1618.0	0.0	
	1	566.4481	7Q10	0.06	1616.0	1616.1	0.0	1616.1	0.000	0.2	0.4	3.6	0.10	1616.1	1616.1	0.0	
	1	510.7805	7Q10	0.06	1616.0	1616.0	1616.0	1616.0	0.028	0.7	0.1	3.5	0.79	1616.0	1616.0	0.0	
	1	430.2187	7Q10	0.06	1613.0	1613.0	1613.0	1613.0	0.008	0.4	0.2	6.5	0.42	1613.0	1613.0	0.0	
	1	334.6249	7Q10	0.06	1611.0	1611.0	1611.0	1611.0	0.004	0.3	0.2	7.1	0.31	1611.0	1611.0	0.0	
	1	248.6842	7Q10	0.06	1608.0	1608.0	1608.0	1608.0	0.002	0.2	0.3	11.7	0.20	1608.0	1608.0	0.0	
	1	226.1339	7Q10	0.06	1607.0	1607.1	0.0	1607.1	0.001	0.3	0.2	1.9	0.20	1607.1	1607.1	0.0	
	DAM																
	C o n d i t i o n	1	219.1212	7Q10	0.06	1607.0	1607.1	0.0	1607.1	0.001	0.3	0.2	2.4	0.16	1607.1	1607.1	0.0
		1	209.4033	7Q10	0.06	1607.0	1607.1	0.0	1607.1	0.000	0.1	0.5	5.5	0.07	1607.1	1607.1	0.0
1		197.6462	7Q10	0.06	1607.0	1607.1	0.0	1607.1	0.000	0.2	0.3	4.5	0.11	1607.1	1607.1	0.0	
1		178.6404	7Q10	0.06	1607.0	1607.0	1607.0	1607.1	0.047	1.1	0.1	1.5	1.07	1607.0	1607.1	0.1	
1		149.4387	7Q10	0.06	1605.0	1605.0	0.0	1605.0	0.001	0.2	0.4	9.0	0.16	1605.0	1605.0	0.0	
1		129.4051	7Q10	0.06	1605.0	1605.0	1605.0	1605.0	0.001	0.1	0.4	16.8	0.15	1605.0	1605.0	0.0	
1		89.91512	7Q10	0.06	1603.8	1603.9	1603.9	1603.9	0.037	0.8	0.1	3.1	0.90	1603.9	1603.9	0.0	
1		76.1522	7Q10	0.06	1603.0	1603.0	1603.0	1603.1	0.123	1.4	0.0	1.9	1.63	1603.0	1603.0	0.0	
1		30.23758	7Q10	0.06	1600.0	1601.0	1600.0	1601.0	0.000	0.0	19.4	25.1	0.00	1601.0	1601.0	0.0	
1		9.272341	7Q10	0.06	1601.0	1601.0	1601.0	1601.0	0.001	0.1	0.6	28.2	0.11	1601.0	1601.0	0.0	