

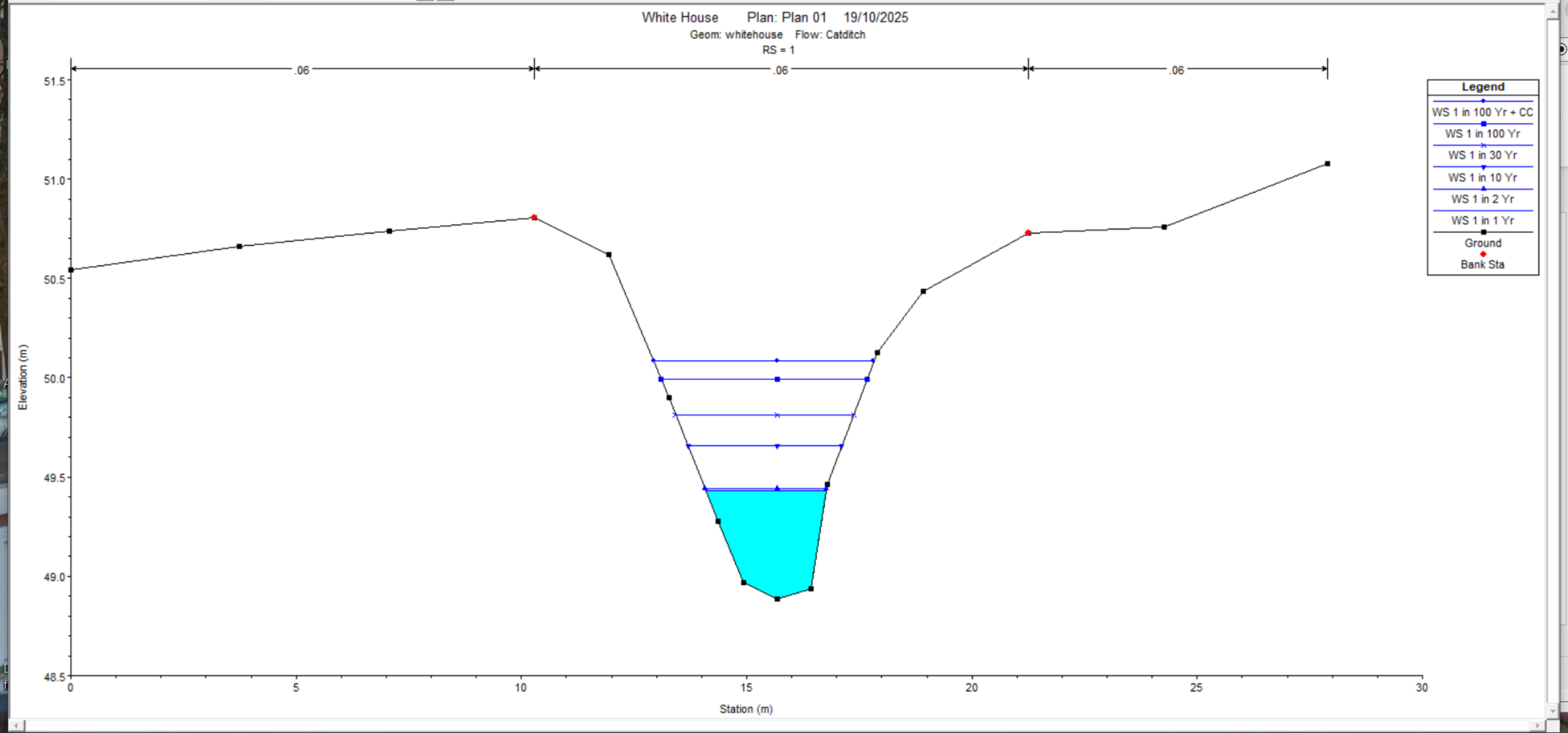
Appendix H Predicted Peak Water Levels for a range of events

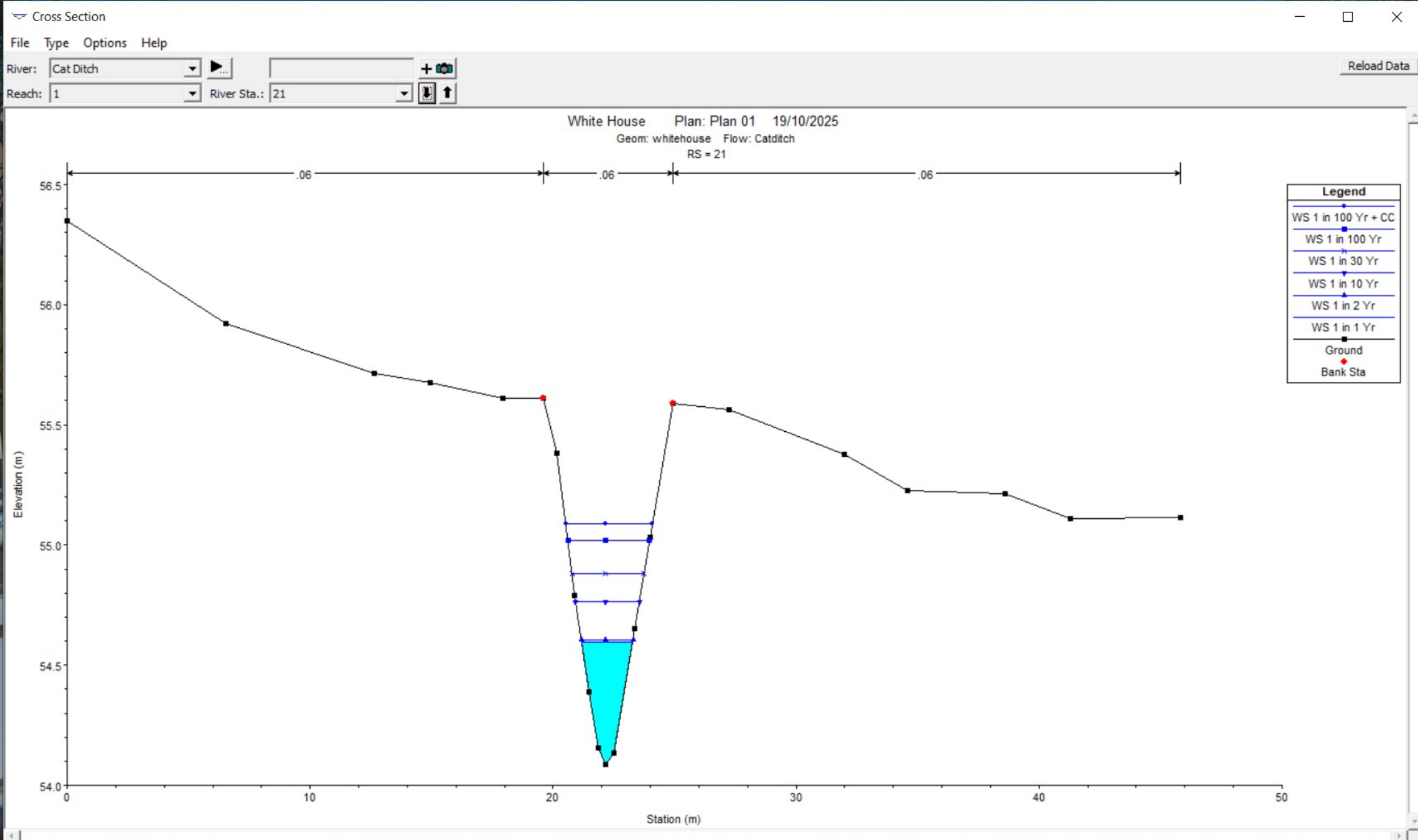
HEC-RAS Plan: Plan 01 River: Cat Ditch Reach: 1

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
1	21	1 in 1 Yr	0.25	54.09	54.60		54.60	0.003070	0.39	0.65	2.10	0.22
1	21	1 in 2 Yr	0.26	54.09	54.61		54.61	0.003080	0.39	0.66	2.13	0.22
1	21	1 in 10 Yr	0.49	54.09	54.76		54.77	0.003277	0.47	1.04	2.61	0.24
1	21	1 in 30 Yr	0.72	54.09	54.88		54.90	0.003356	0.53	1.37	2.96	0.25
1	21	1 in 100 Yr	1.05	54.09	55.02		55.04	0.003420	0.58	1.80	3.35	0.25
1	21	1 in 100 Yr + CC	1.25	54.09	55.09		55.11	0.003461	0.61	2.04	3.56	0.26
1	20	1 in 1 Yr	0.25	54.08	54.54		54.55	0.005882	0.51	0.49	1.69	0.30
1	20	1 in 2 Yr	0.26	54.08	54.55		54.56	0.005888	0.51	0.51	1.71	0.30
1	20	1 in 10 Yr	0.49	54.08	54.70		54.72	0.006227	0.62	0.79	2.07	0.32
1	20	1 in 30 Yr	0.72	54.08	54.81		54.84	0.006402	0.69	1.05	2.34	0.33
1	20	1 in 100 Yr	1.05	54.08	54.94		54.97	0.006611	0.76	1.38	2.71	0.34
1	20	1 in 100 Yr + CC	1.25	54.08	55.01		55.05	0.006685	0.80	1.57	2.90	0.35
1	19	1 in 1 Yr	0.25	53.97	54.45		54.46	0.005836	0.50	0.50	1.74	0.30
1	19	1 in 2 Yr	0.26	53.97	54.45		54.47	0.005846	0.51	0.51	1.76	0.30
1	19	1 in 10 Yr	0.49	53.97	54.60		54.62	0.006441	0.62	0.79	2.15	0.32
1	19	1 in 30 Yr	0.72	53.97	54.71		54.74	0.006534	0.68	1.05	2.47	0.33
1	19	1 in 100 Yr	1.05	53.97	54.84		54.87	0.006604	0.75	1.40	2.87	0.34
1	19	1 in 100 Yr + CC	1.25	53.97	54.91		54.94	0.006609	0.78	1.60	3.11	0.35
1	18	1 in 1 Yr	0.25	53.80	54.21		54.23	0.010183	0.62	0.40	1.57	0.39
1	18	1 in 2 Yr	0.26	53.80	54.22		54.24	0.010144	0.62	0.42	1.59	0.39
1	18	1 in 10 Yr	0.49	53.80	54.37		54.40	0.009266	0.71	0.69	1.98	0.39
1	18	1 in 30 Yr	0.72	53.80	54.48		54.51	0.009138	0.78	0.92	2.25	0.39
1	18	1 in 100 Yr	1.05	53.80	54.61		54.65	0.008803	0.85	1.24	2.57	0.39
1	18	1 in 100 Yr + CC	1.25	53.80	54.67		54.71	0.009141	0.90	1.39	2.72	0.40
1	17	1 in 1 Yr	0.25	53.55	53.99		54.01	0.006219	0.51	0.49	1.71	0.31
1	17	1 in 2 Yr	0.26	53.55	54.00		54.02	0.006229	0.52	0.50	1.73	0.31
1	17	1 in 10 Yr	0.49	53.55	54.15		54.17	0.006317	0.62	0.79	2.11	0.32
1	17	1 in 30 Yr	0.72	53.55	54.27		54.29	0.006505	0.69	1.05	2.39	0.33
1	17	1 in 100 Yr	1.05	53.55	54.41		54.44	0.006424	0.74	1.41	2.86	0.34
1	17	1 in 100 Yr + CC	1.25	53.55	54.45		54.48	0.007035	0.80	1.77	14.51	0.36
1	16	1 in 1 Yr	0.25	53.31	53.72		53.74	0.008545	0.58	0.43	1.63	0.36
1	16	1 in 2 Yr	0.26	53.31	53.73		53.74	0.008528	0.58	0.44	1.65	0.36
1	16	1 in 10 Yr	0.49	53.31	53.87		53.90	0.008365	0.69	0.71	2.00	0.37
1	16	1 in 30 Yr	0.72	53.31	53.99		54.01	0.008265	0.75	0.95	2.28	0.37
1	16	1 in 100 Yr	1.05	53.31	54.12		54.15	0.008895	0.78	1.46	8.16	0.39
1	16	1 in 100 Yr + CC	1.25	53.31	54.16		54.19	0.008031	0.78	1.87	9.35	0.38
1	15	1 in 1 Yr	0.25	52.92	53.33		53.35	0.012468	0.68	0.37	1.43	0.42
1	15	1 in 2 Yr	0.26	52.92	53.33		53.36	0.012461	0.68	0.38	1.44	0.42
1	15	1 in 10 Yr	0.49	52.92	53.48		53.51	0.012709	0.80	0.62	1.87	0.44
1	15	1 in 30 Yr	0.72	52.92	53.58		53.62	0.012762	0.87	0.83	2.22	0.45
1	15	1 in 100 Yr	1.05	52.92	53.70		53.74	0.012689	0.95	1.11	2.62	0.46
1	15	1 in 100 Yr + CC	1.25	52.92	53.75		53.80	0.012765	0.99	1.26	2.81	0.47
1	14	1 in 1 Yr	0.25	52.65	53.00		53.03	0.013922	0.69	0.36	1.58	0.46
1	14	1 in 2 Yr	0.26	52.65	53.01		53.04	0.014005	0.69	0.37	1.59	0.46
1	14	1 in 10 Yr	0.49	52.65	53.12		53.16	0.016355	0.88	0.56	1.82	0.51
1	14	1 in 30 Yr	0.72	52.65	53.20		53.26	0.017272	0.99	0.72	2.01	0.53
1	14	1 in 100 Yr	1.05	52.65	53.31		53.37	0.017537	1.11	0.95	2.24	0.54
1	14	1 in 100 Yr + CC	1.25	52.65	53.37		53.43	0.017841	1.16	1.07	2.35	0.55
1	13	1 in 1 Yr	0.25	51.92	52.22		52.27	0.038210	1.02	0.25	1.21	0.72
1	13	1 in 2 Yr	0.26	51.92	52.22		52.28	0.037536	1.02	0.25	1.23	0.72
1	13	1 in 10 Yr	0.49	51.92	52.36		52.43	0.028273	1.09	0.45	1.53	0.64
1	13	1 in 30 Yr	0.72	51.92	52.47		52.54	0.026118	1.17	0.62	1.76	0.63
1	13	1 in 100 Yr	1.05	51.92	52.59		52.67	0.023840	1.24	0.84	2.03	0.62
1	13	1 in 100 Yr + CC	1.25	51.92	52.65		52.73	0.023276	1.29	0.97	2.17	0.61
1	12	1 in 1 Yr	0.25	51.28	51.73		51.75	0.007663	0.56	0.44	1.57	0.34
1	12	1 in 2 Yr	0.26	51.28	51.74		51.75	0.007709	0.57	0.46	1.59	0.34
1	12	1 in 10 Yr	0.49	51.28	51.87		51.90	0.008984	0.71	0.69	1.89	0.38
1	12	1 in 30 Yr	0.72	51.28	51.98		52.01	0.009285	0.79	0.91	2.14	0.39
1	12	1 in 100 Yr	1.05	51.28	52.10		52.14	0.009571	0.88	1.19	2.45	0.40
1	12	1 in 100 Yr + CC	1.25	51.28	52.17		52.21	0.009685	0.92	1.36	2.62	0.41
1	11	1 in 1 Yr	0.25	50.95	51.33		51.36	0.013871	0.69	0.36	1.51	0.45
1	11	1 in 2 Yr	0.26	50.95	51.34		51.36	0.013654	0.69	0.38	1.54	0.45
1	11	1 in 10 Yr	0.49	50.95	51.50		51.53	0.011005	0.76	0.65	1.95	0.42
1	11	1 in 30 Yr	0.72	50.95	51.61		51.64	0.010283	0.81	0.89	2.25	0.41
1	11	1 in 100 Yr	1.05	50.95	51.74		51.78	0.009786	0.88	1.20	2.60	0.41
1	11	1 in 100 Yr + CC	1.25	50.95	51.81		51.85	0.009270	0.90	1.39	2.79	0.41
1	10	1 in 1 Yr	0.25	50.55	51.06		51.07	0.004424	0.46	0.55	1.73	0.26
1	10	1 in 2 Yr	0.26	50.55	51.07		51.08	0.004469	0.46	0.56	1.75	0.26
1	10	1 in 10 Yr	0.49	50.55	51.22		51.24	0.005027	0.57	0.86	2.15	0.29
1	10	1 in 30 Yr	0.72	50.55	51.34		51.36	0.005415	0.64	1.12	2.40	0.30
1	10	1 in 100 Yr	1.05	50.55	51.47		51.50	0.005634	0.72	1.46	2.70	0.31

HEC-RAS Plan: Plan 01 River: Cat Ditch Reach: 1 (Continued)

Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
1	10	1 in 100 Yr + CC	1.25	50.55	51.54		51.57	0.005670	0.75	1.66	2.86	0.32
1	9	1 in 1 Yr	0.25	50.44	50.84	50.68	50.86	0.007371	0.53	0.47	1.88	0.34
1	9	1 in 2 Yr	0.26	50.44	50.85	50.69	50.86	0.007309	0.54	0.49	1.90	0.34
1	9	1 in 10 Yr	0.49	50.44	51.00	50.77	51.01	0.006794	0.62	0.79	2.33	0.34
1	9	1 in 30 Yr	0.72	50.44	51.11	50.83	51.13	0.006188	0.67	1.08	2.59	0.33
1	9	1 in 100 Yr	1.05	50.44	51.25	50.92	51.28	0.005632	0.72	1.46	2.87	0.32
1	9	1 in 100 Yr + CC	1.25	50.44	51.33	50.96	51.36	0.005404	0.74	1.69	3.02	0.32
1	8.5	Culvert										
1	8	1 in 1 Yr	0.25	50.37	50.76		50.78	0.006330	0.52	0.48	1.72	0.31
1	8	1 in 2 Yr	0.26	50.37	50.77		50.79	0.006145	0.52	0.50	1.74	0.31
1	8	1 in 10 Yr	0.49	50.37	50.91		50.93	0.007140	0.65	0.75	2.04	0.34
1	8	1 in 30 Yr	0.72	50.37	51.01		51.03	0.007886	0.74	0.97	2.26	0.36
1	8	1 in 100 Yr	1.05	50.37	51.12		51.16	0.008589	0.84	1.25	2.57	0.39
1	8	1 in 100 Yr + CC	1.25	50.37	51.18		51.22	0.008922	0.89	1.41	2.75	0.40
1	7	1 in 1 Yr	0.25	50.25	50.63		50.65	0.007583	0.54	0.47	1.88	0.34
1	7	1 in 2 Yr	0.26	50.25	50.64		50.66	0.007687	0.54	0.48	1.90	0.35
1	7	1 in 10 Yr	0.49	50.25	50.76		50.78	0.008746	0.67	0.73	2.30	0.38
1	7	1 in 30 Yr	0.72	50.25	50.85		50.88	0.009074	0.75	0.96	2.61	0.40
1	7	1 in 100 Yr	1.05	50.25	50.96		51.00	0.009041	0.83	1.27	2.97	0.40
1	7	1 in 100 Yr + CC	1.25	50.25	51.02		51.06	0.008968	0.87	1.44	3.12	0.41
1	6	1 in 1 Yr	0.25	49.94	50.22		50.27	0.033459	0.95	0.26	1.35	0.69
1	6	1 in 2 Yr	0.26	49.94	50.23		50.28	0.032209	0.95	0.27	1.37	0.67
1	6	1 in 10 Yr	0.49	49.94	50.38		50.43	0.022126	0.98	0.50	1.71	0.58
1	6	1 in 30 Yr	0.72	49.94	50.49		50.54	0.019166	1.03	0.70	1.99	0.55
1	6	1 in 100 Yr	1.05	49.94	50.61		50.67	0.016729	1.07	0.98	2.33	0.53
1	6	1 in 100 Yr + CC	1.25	49.94	50.68		50.74	0.015578	1.09	1.15	2.52	0.52
1	5	1 in 1 Yr	0.25	49.54	49.94		49.95	0.005748	0.51	0.49	1.59	0.29
1	5	1 in 2 Yr	0.26	49.54	49.94		49.96	0.005897	0.52	0.50	1.60	0.29
1	5	1 in 10 Yr	0.49	49.54	50.07		50.10	0.007635	0.67	0.73	1.81	0.34
1	5	1 in 30 Yr	0.72	49.54	50.19		50.22	0.008145	0.76	0.95	2.02	0.36
1	5	1 in 100 Yr	1.05	49.54	50.32		50.36	0.008469	0.85	1.24	2.28	0.37
1	5	1 in 100 Yr + CC	1.25	49.54	50.40		50.44	0.008515	0.89	1.41	2.44	0.37
1	4	1 in 1 Yr	0.25	49.26	49.54		49.57	0.026391	0.86	0.29	1.41	0.60
1	4	1 in 2 Yr	0.26	49.26	49.55		49.58	0.024469	0.85	0.31	1.43	0.58
1	4	1 in 10 Yr	0.49	49.26	49.77		49.80	0.009946	0.72	0.68	2.04	0.40
1	4	1 in 30 Yr	0.72	49.26	49.93		49.95	0.006938	0.69	1.05	2.53	0.34
1	4	1 in 100 Yr	1.05	49.26	50.11		50.13	0.005215	0.68	1.55	3.07	0.31
1	4	1 in 100 Yr + CC	1.25	49.26	50.20		50.22	0.004676	0.68	1.83	3.33	0.29
1	3	1 in 1 Yr	0.25	48.95	49.51		49.52	0.000697	0.23	1.11	2.56	0.11
1	3	1 in 2 Yr	0.26	48.95	49.52		49.53	0.000704	0.23	1.13	2.58	0.11
1	3	1 in 10 Yr	0.49	48.95	49.74		49.75	0.000779	0.28	1.75	3.16	0.12
1	3	1 in 30 Yr	0.72	48.95	49.90		49.91	0.000832	0.31	2.29	3.63	0.13
1	3	1 in 100 Yr	1.05	48.95	50.08		50.08	0.000879	0.35	2.98	4.16	0.13
1	3	1 in 100 Yr + CC	1.25	48.95	50.17		50.18	0.000902	0.37	3.37	4.43	0.14
1	2	1 in 1 Yr	0.25	48.90	49.48		49.48	0.001354	0.28	0.89	2.30	0.14
1	2	1 in 2 Yr	0.26	48.90	49.49		49.49	0.001359	0.28	0.92	2.32	0.14
1	2	1 in 10 Yr	0.49	48.90	49.70		49.71	0.001378	0.33	1.48	3.08	0.15
1	2	1 in 30 Yr	0.72	48.90	49.86		49.87	0.001349	0.36	2.02	3.75	0.16
1	2	1 in 100 Yr	1.05	48.90	50.04		50.05	0.001314	0.38	2.76	4.65	0.16
1	2	1 in 100 Yr + CC	1.25	48.90	50.13		50.14	0.001264	0.39	3.20	5.08	0.16
1	1	1 in 1 Yr	0.25	48.89	49.43	49.06	49.43	0.000871	0.24	1.04	2.66	0.12
1	1	1 in 2 Yr	0.26	48.89	49.44	49.06	49.44	0.000870	0.24	1.07	2.69	0.12
1	1	1 in 10 Yr	0.49	48.89	49.66	49.13	49.66	0.000871	0.28	1.72	3.41	0.13
1	1	1 in 30 Yr	0.72	48.89	49.81	49.19	49.82	0.000871	0.31	2.30	3.95	0.13
1	1	1 in 100 Yr	1.05	48.89	49.99	49.26	50.00	0.000870	0.34	3.06	4.57	0.13
1	1	1 in 100 Yr + CC	1.25	48.89	50.08	49.30	50.09	0.000870	0.36	3.50	4.89	0.14





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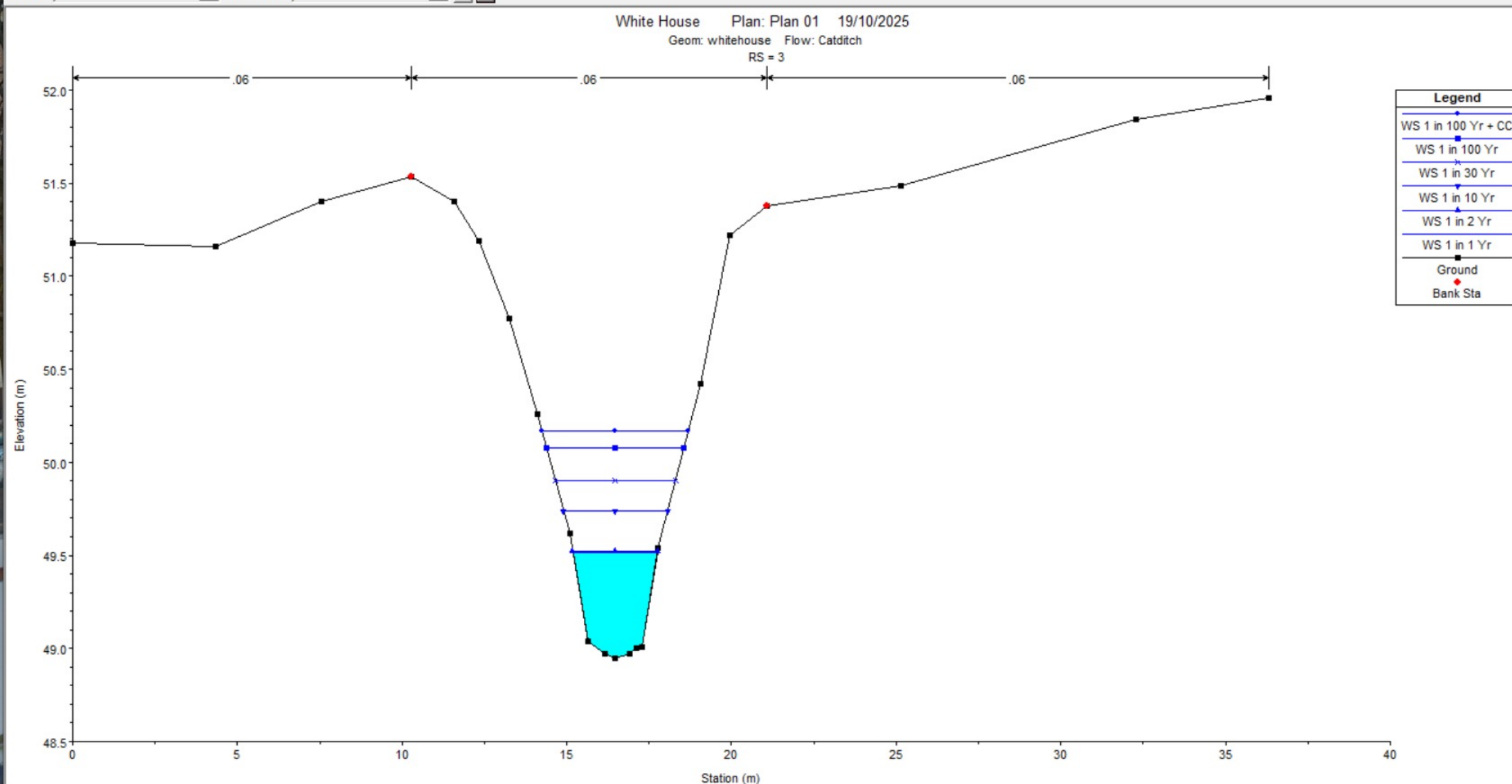
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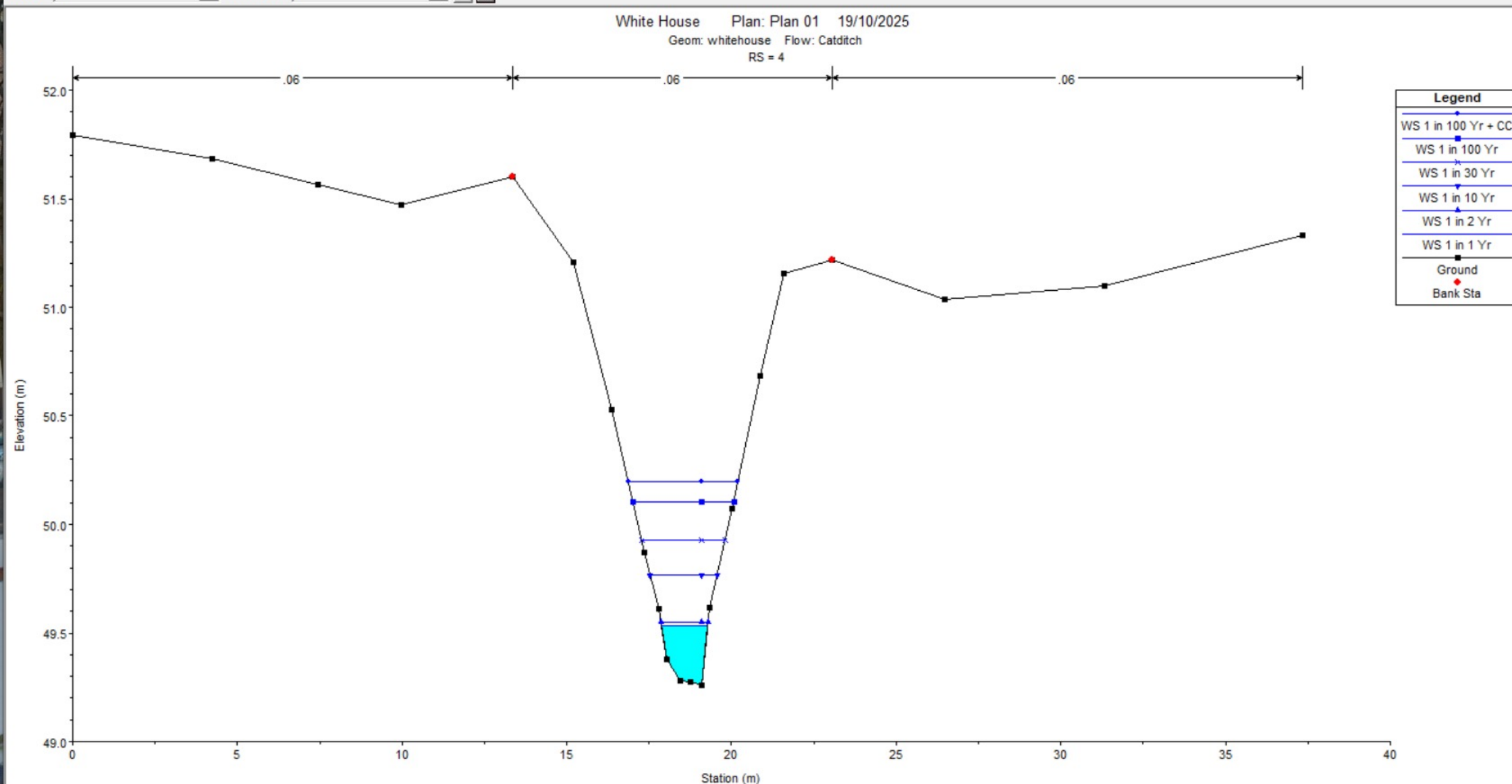
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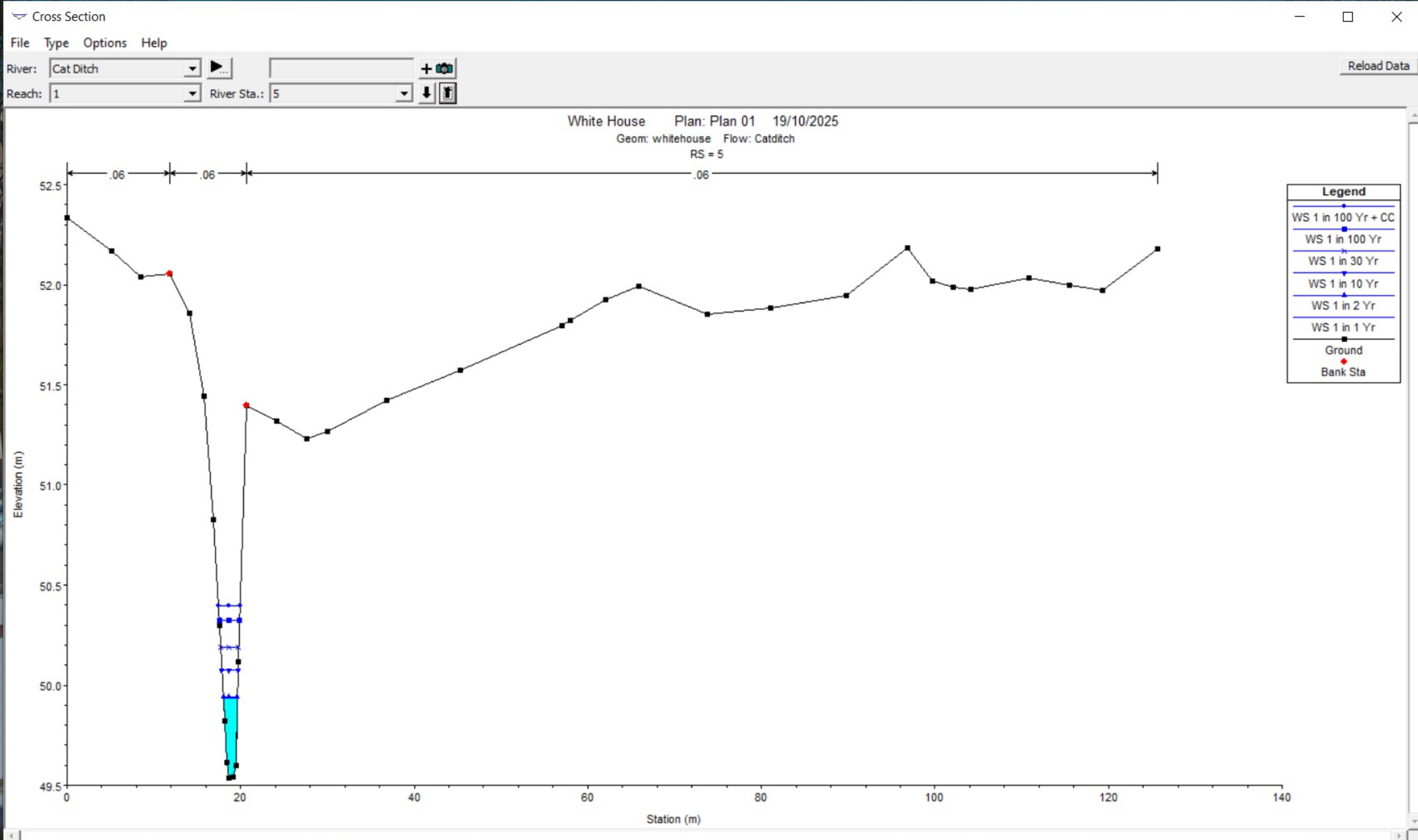
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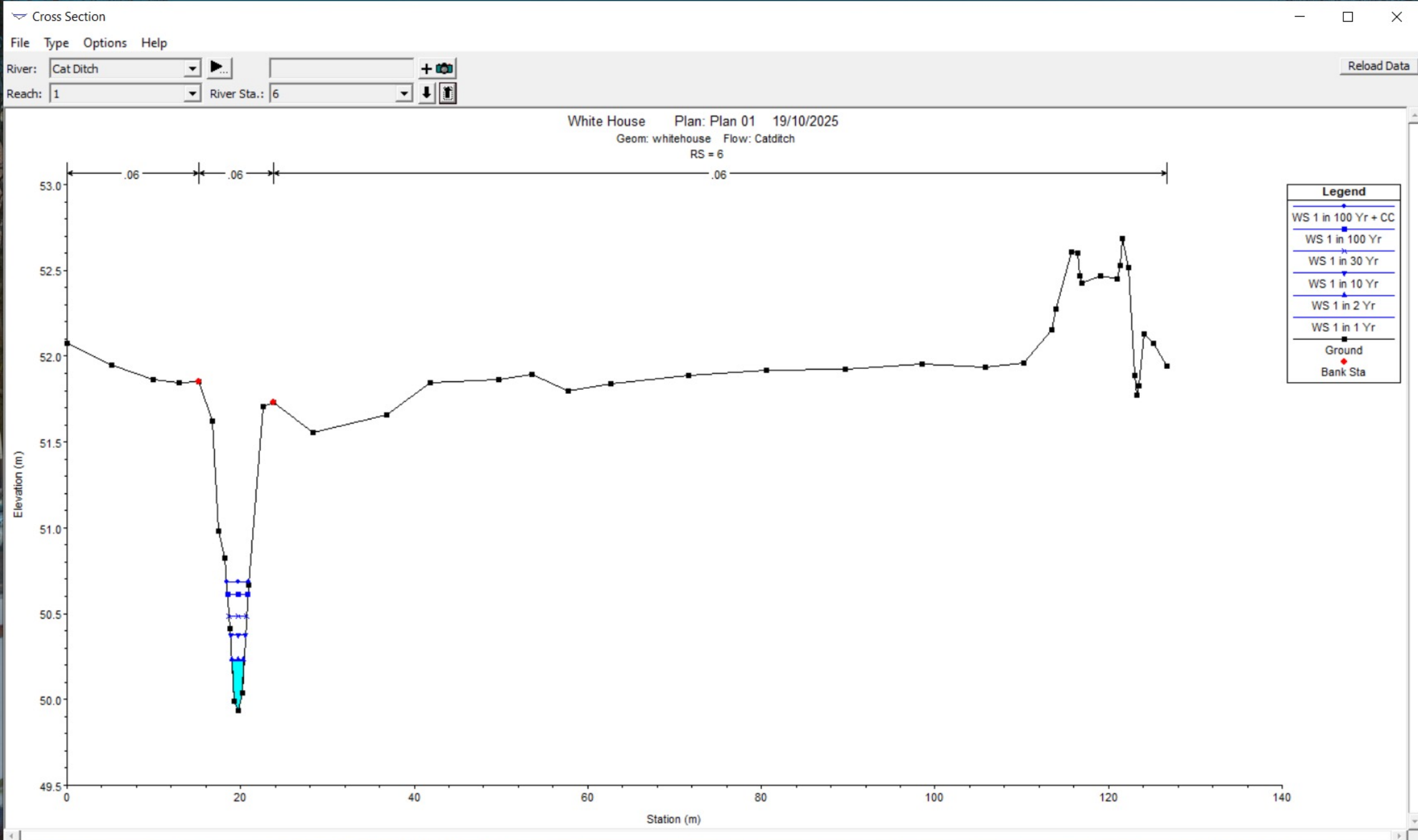
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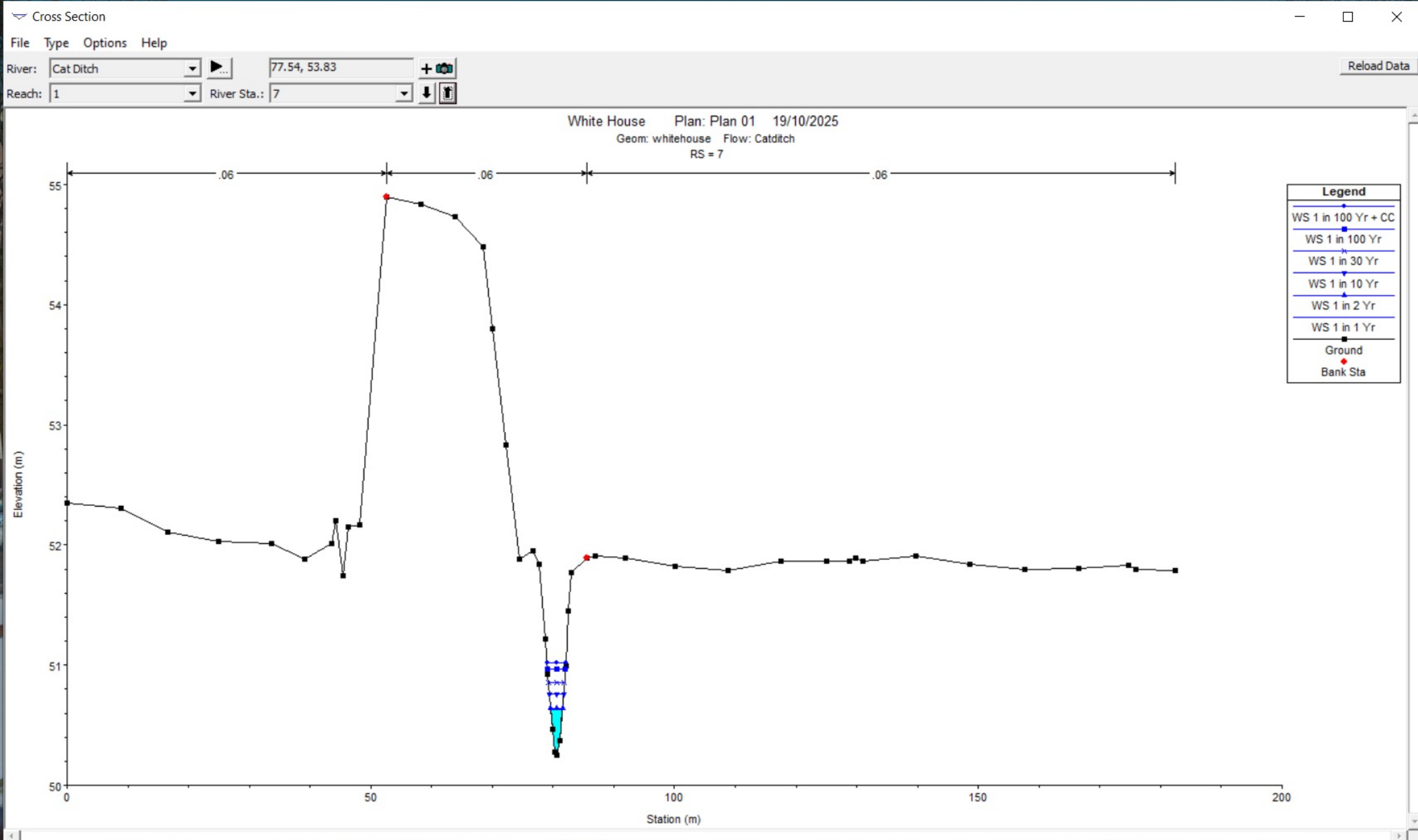
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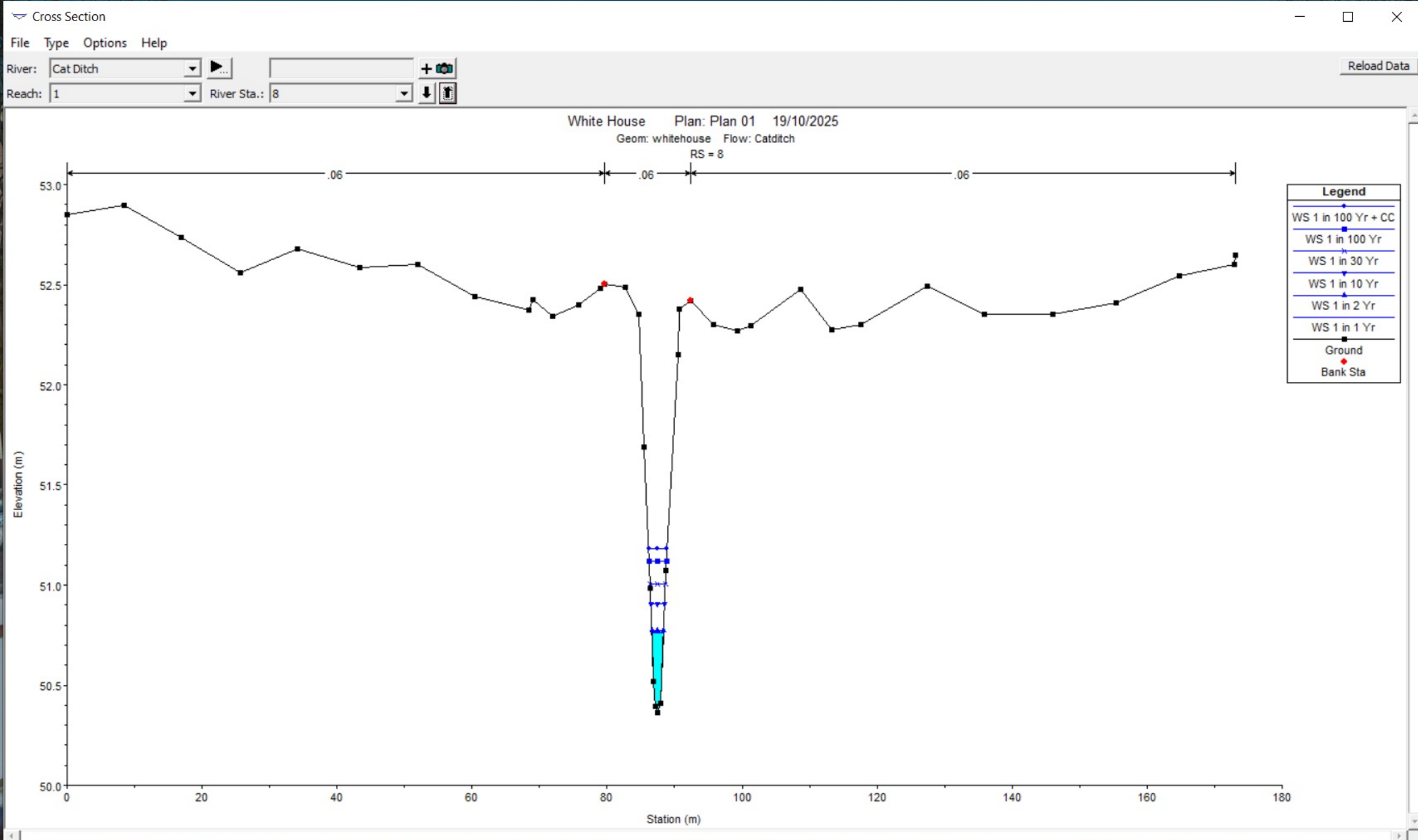
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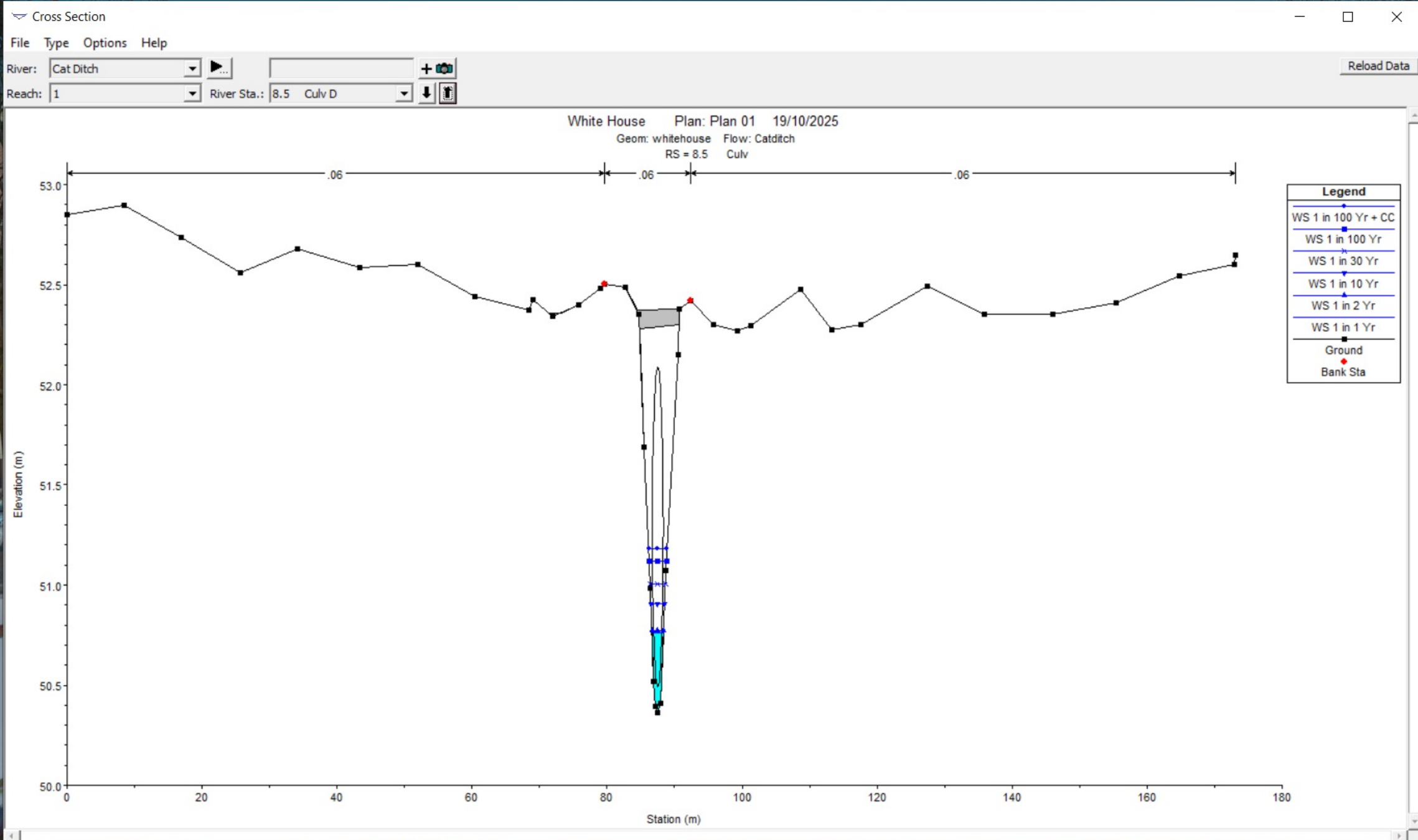
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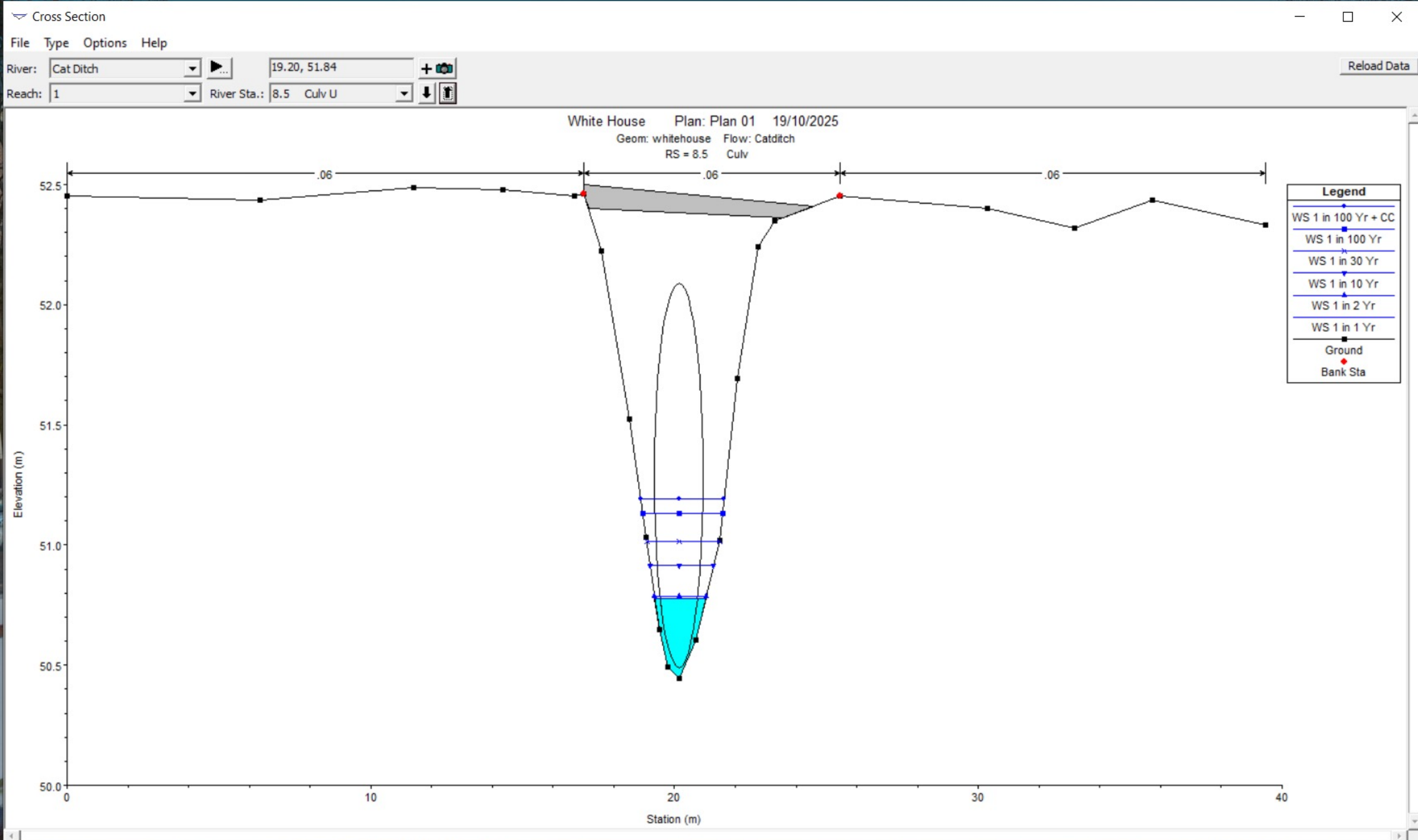
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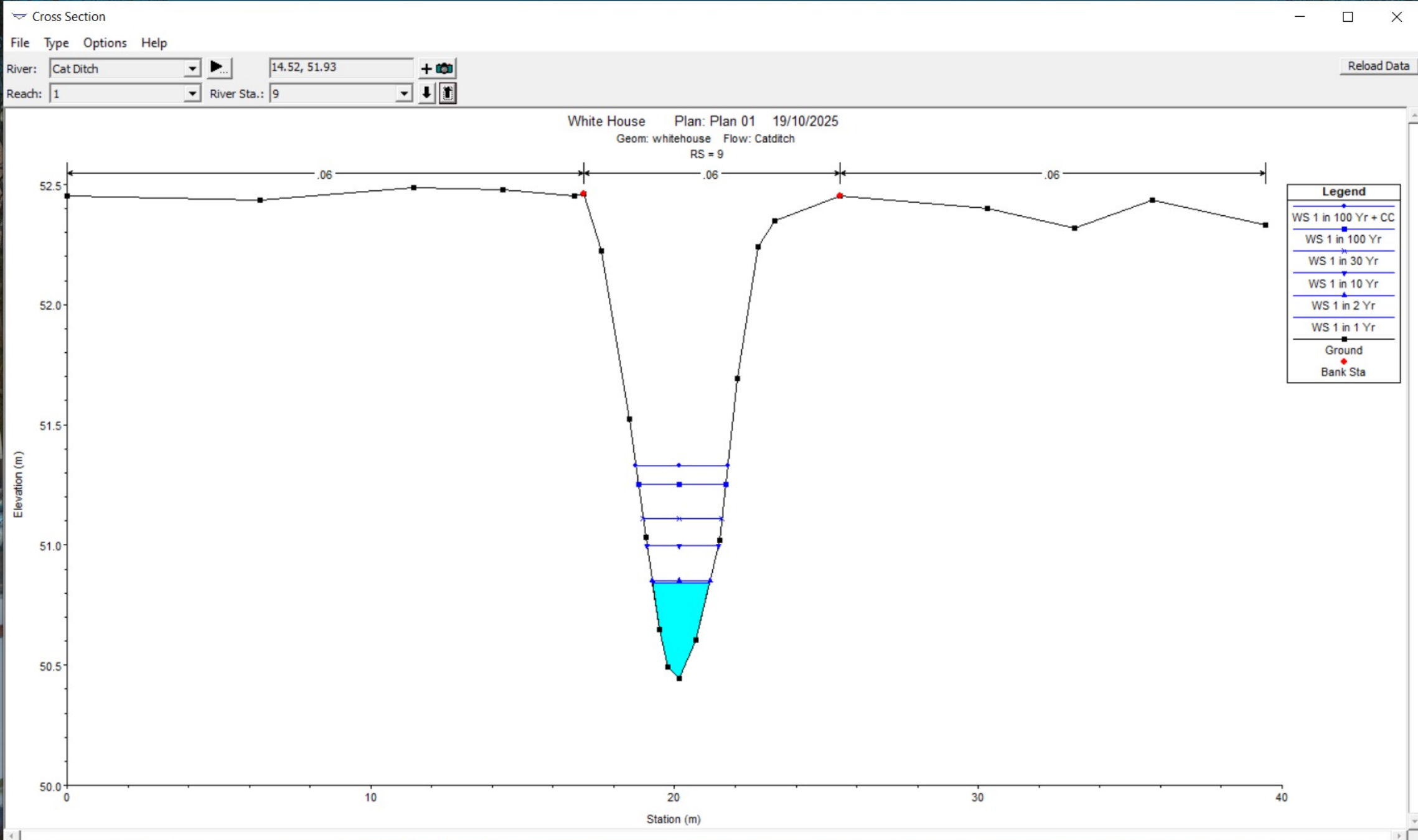
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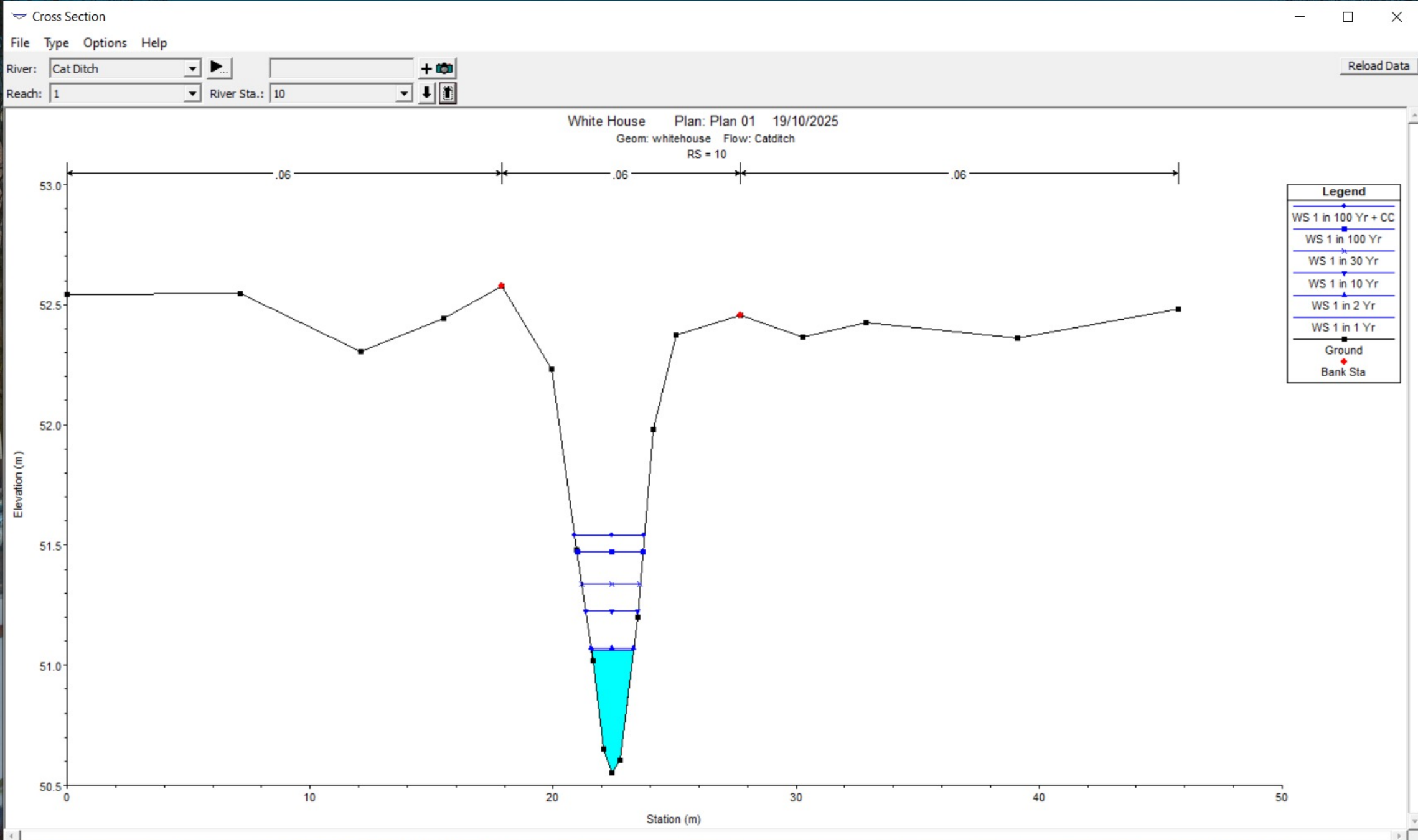
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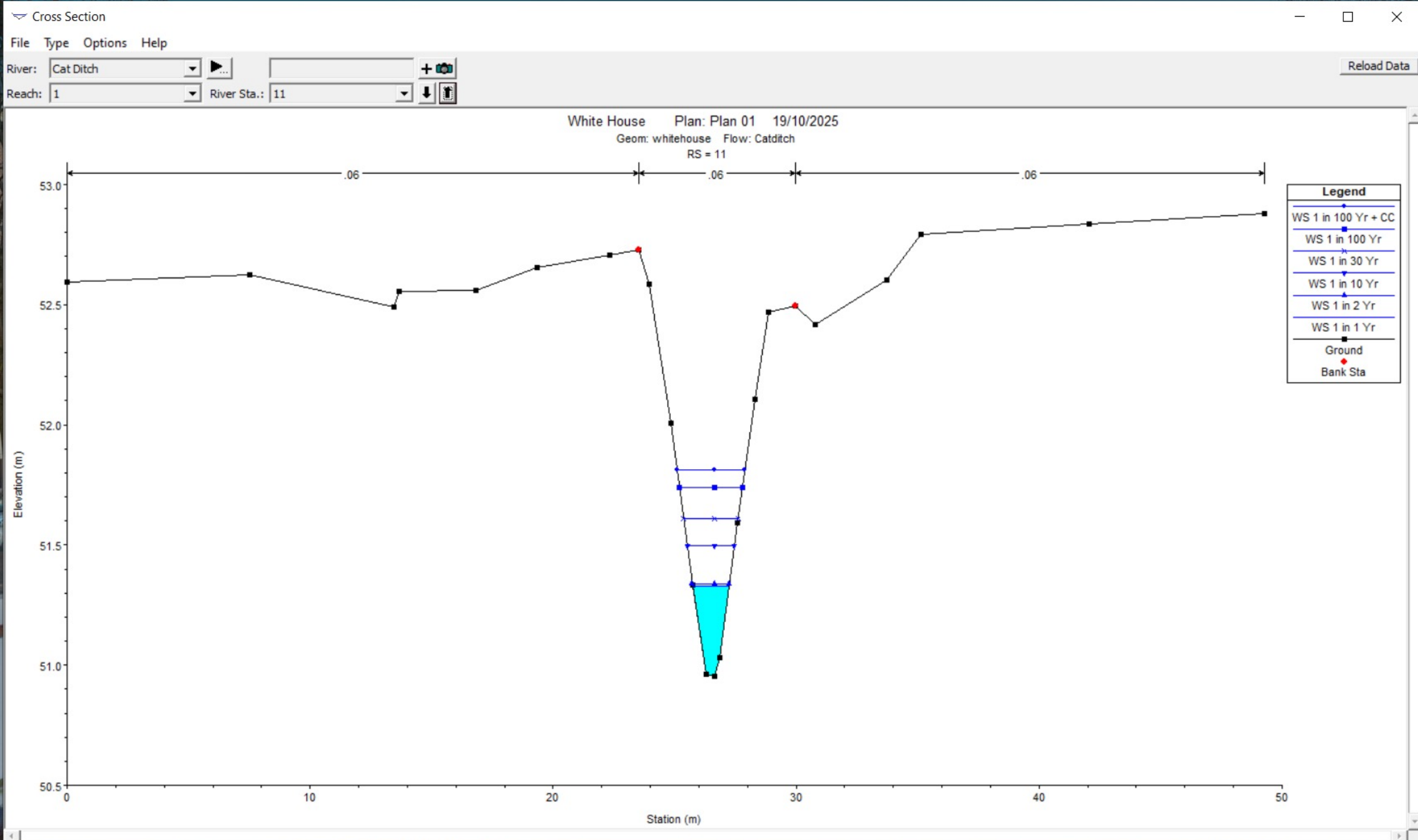
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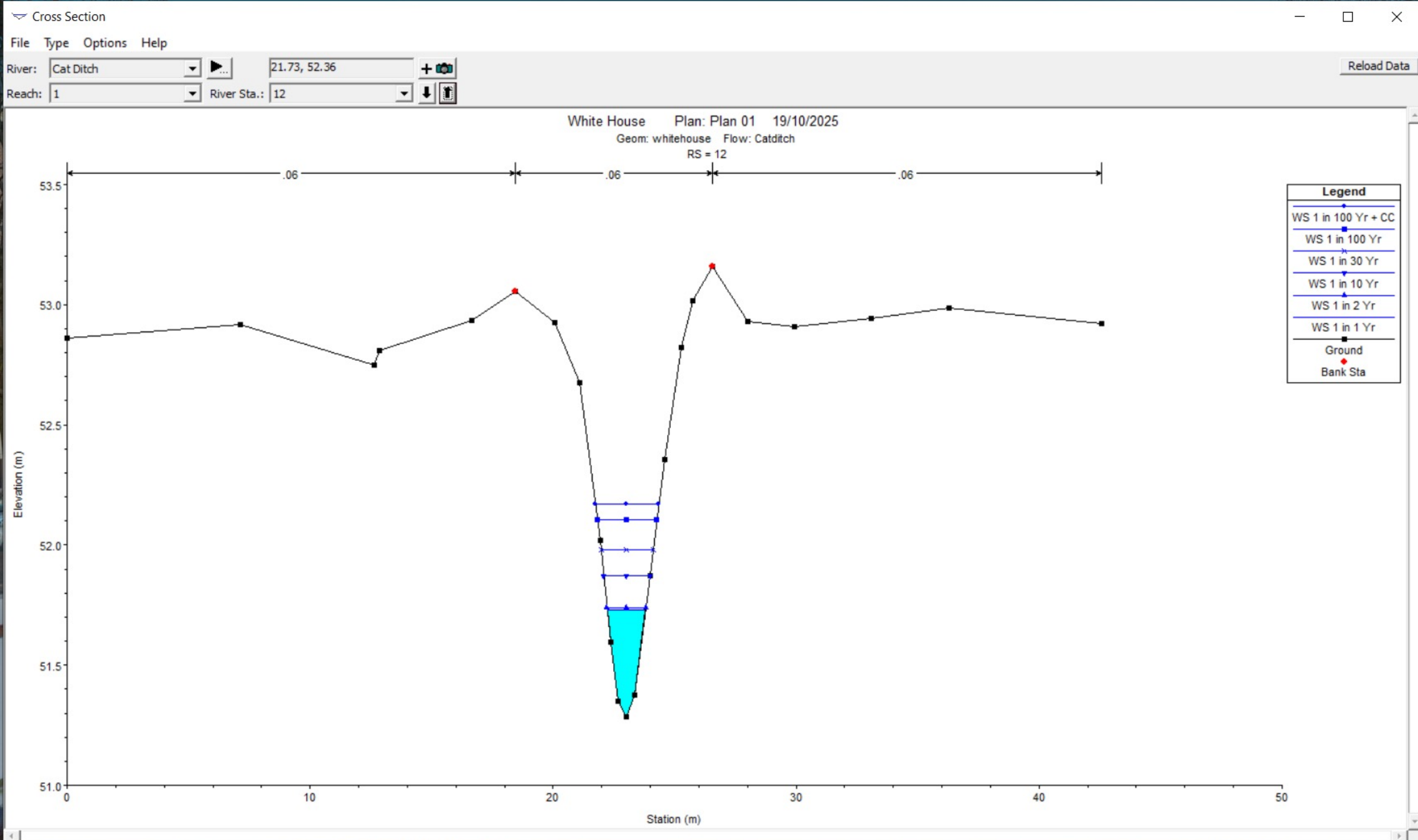
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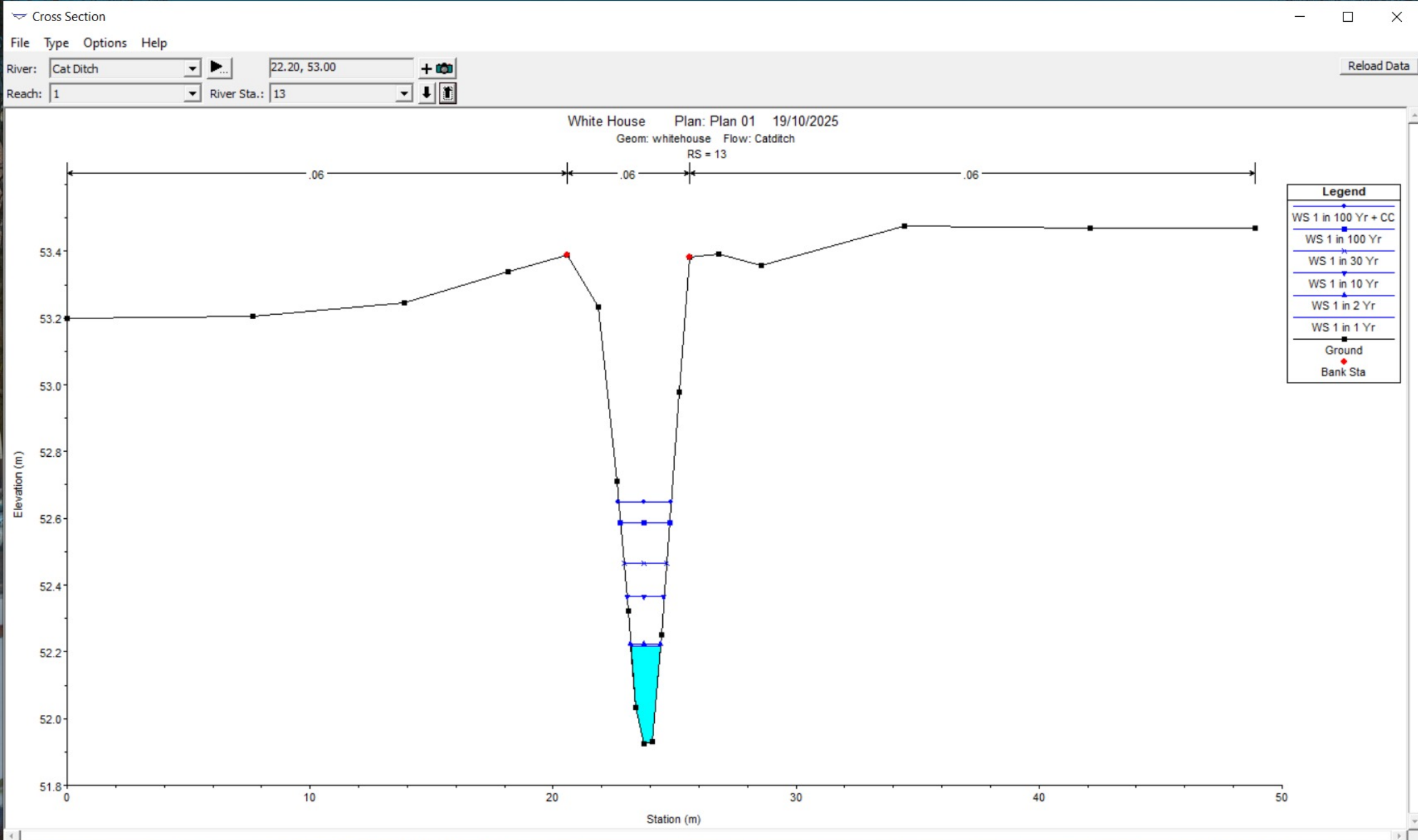
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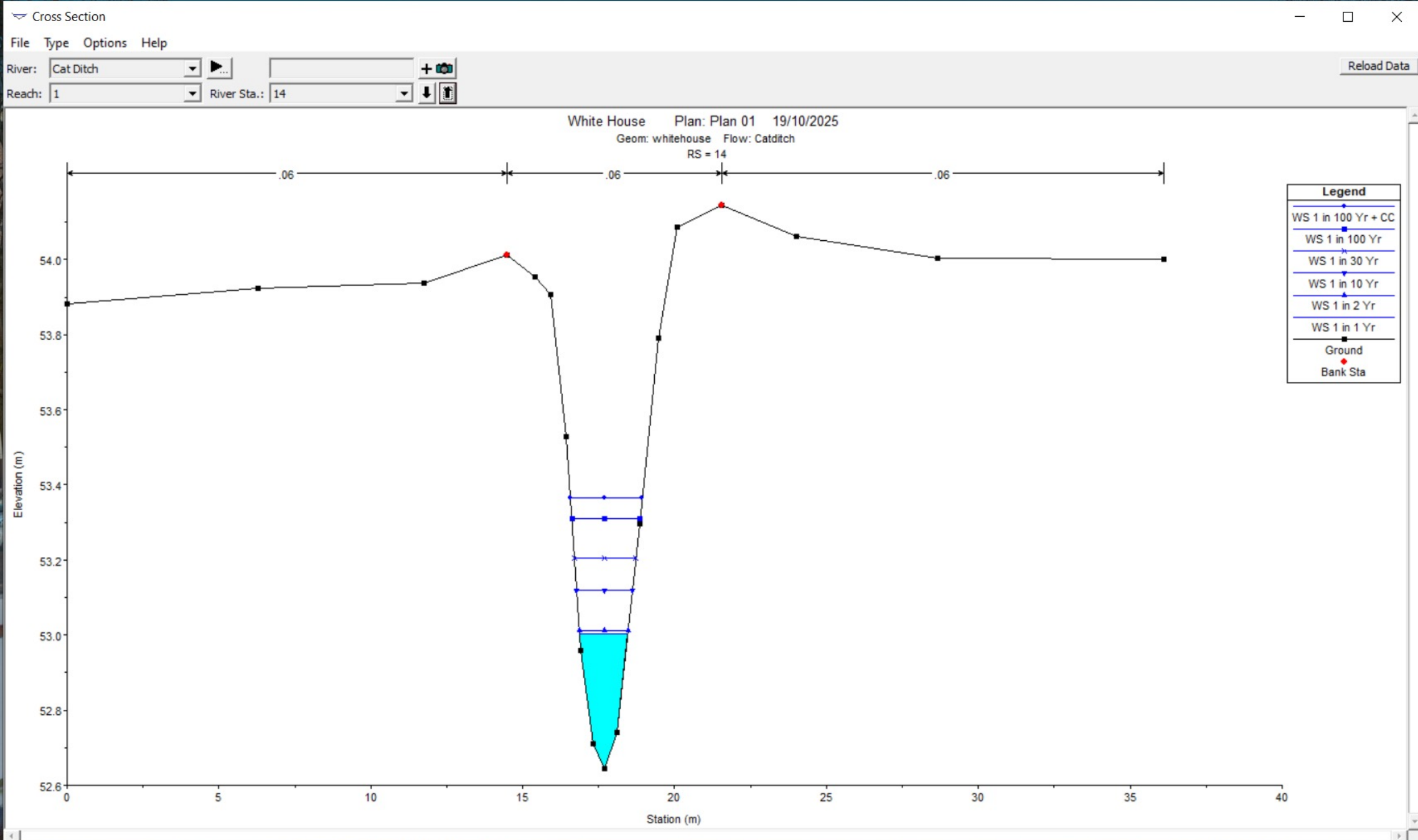
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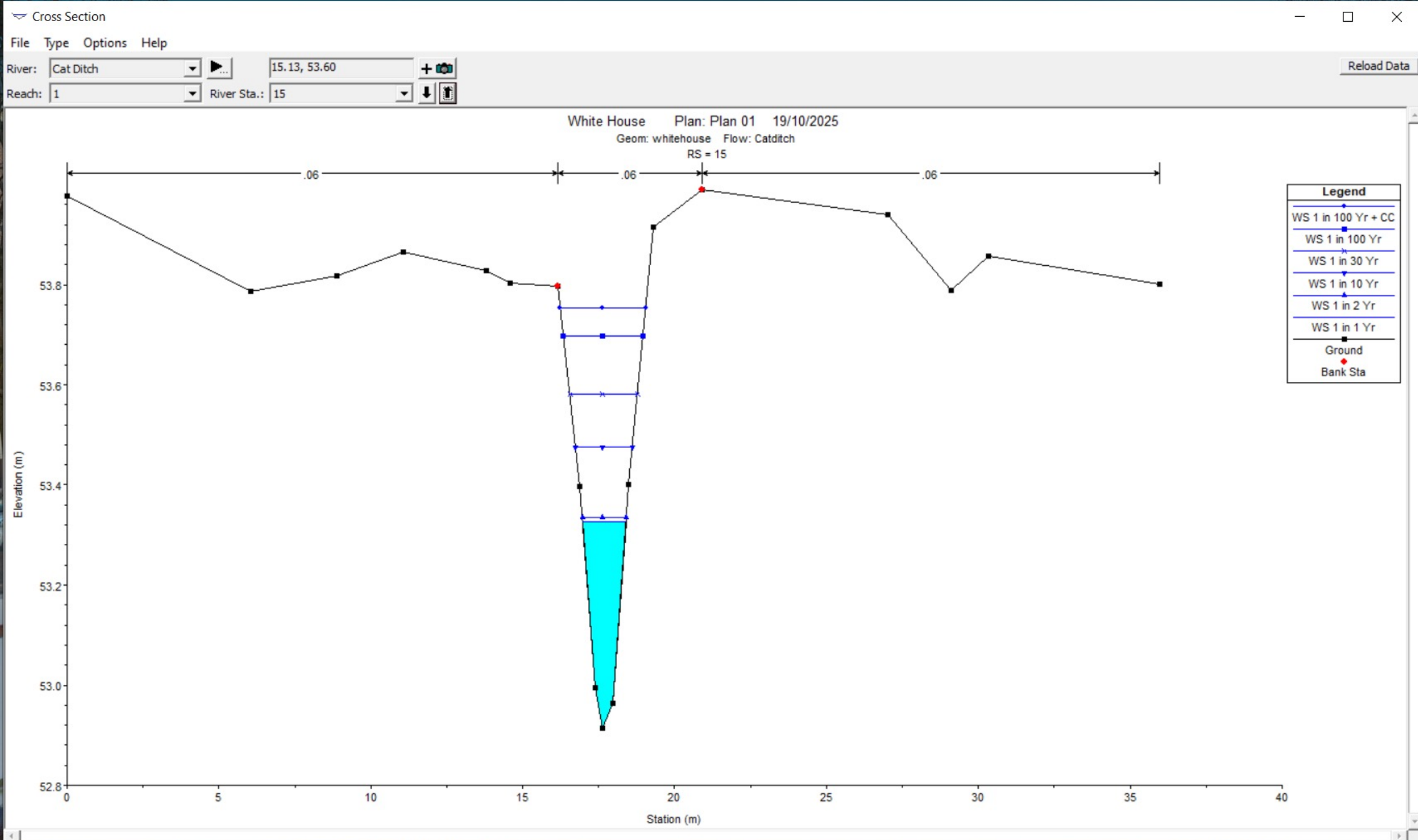
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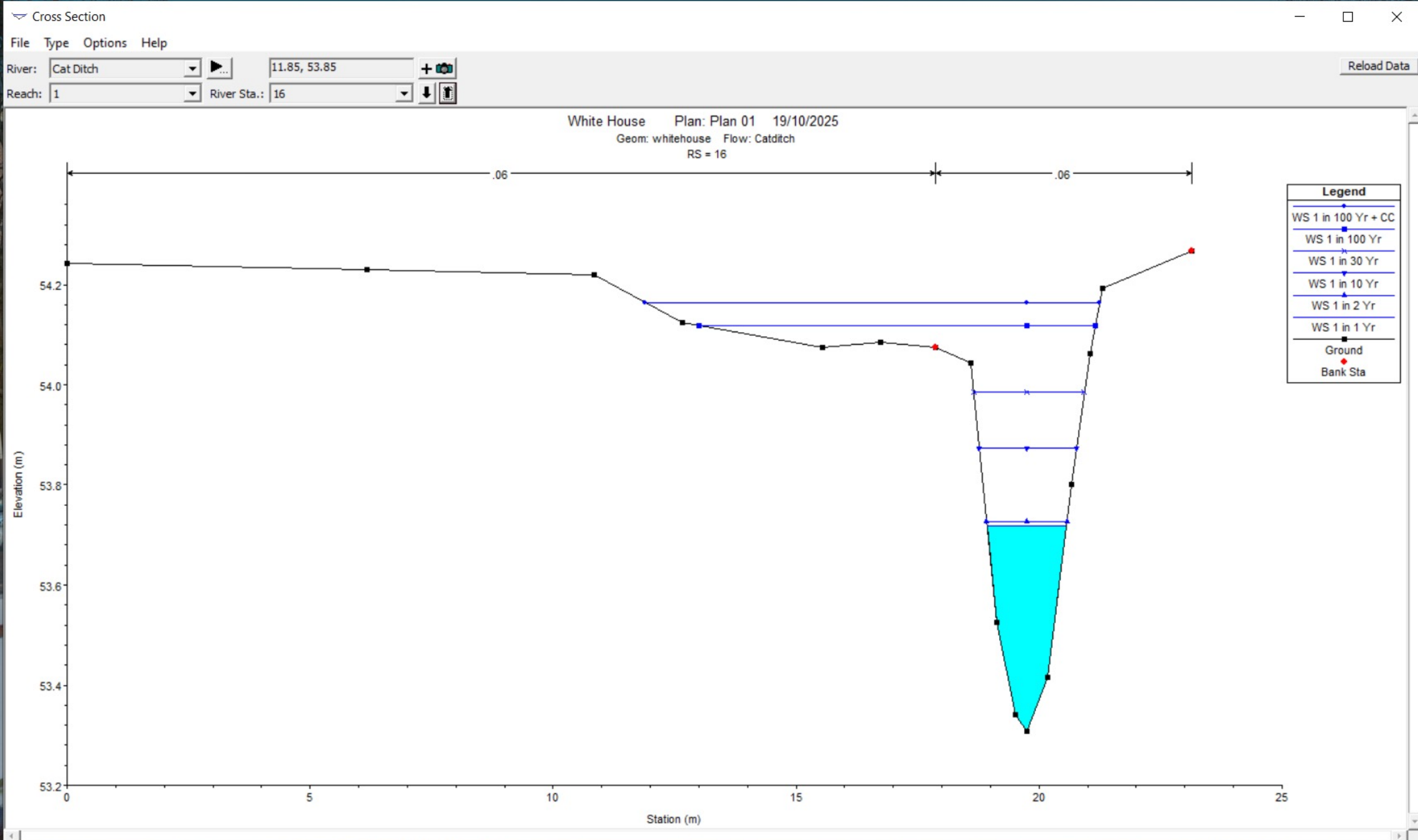
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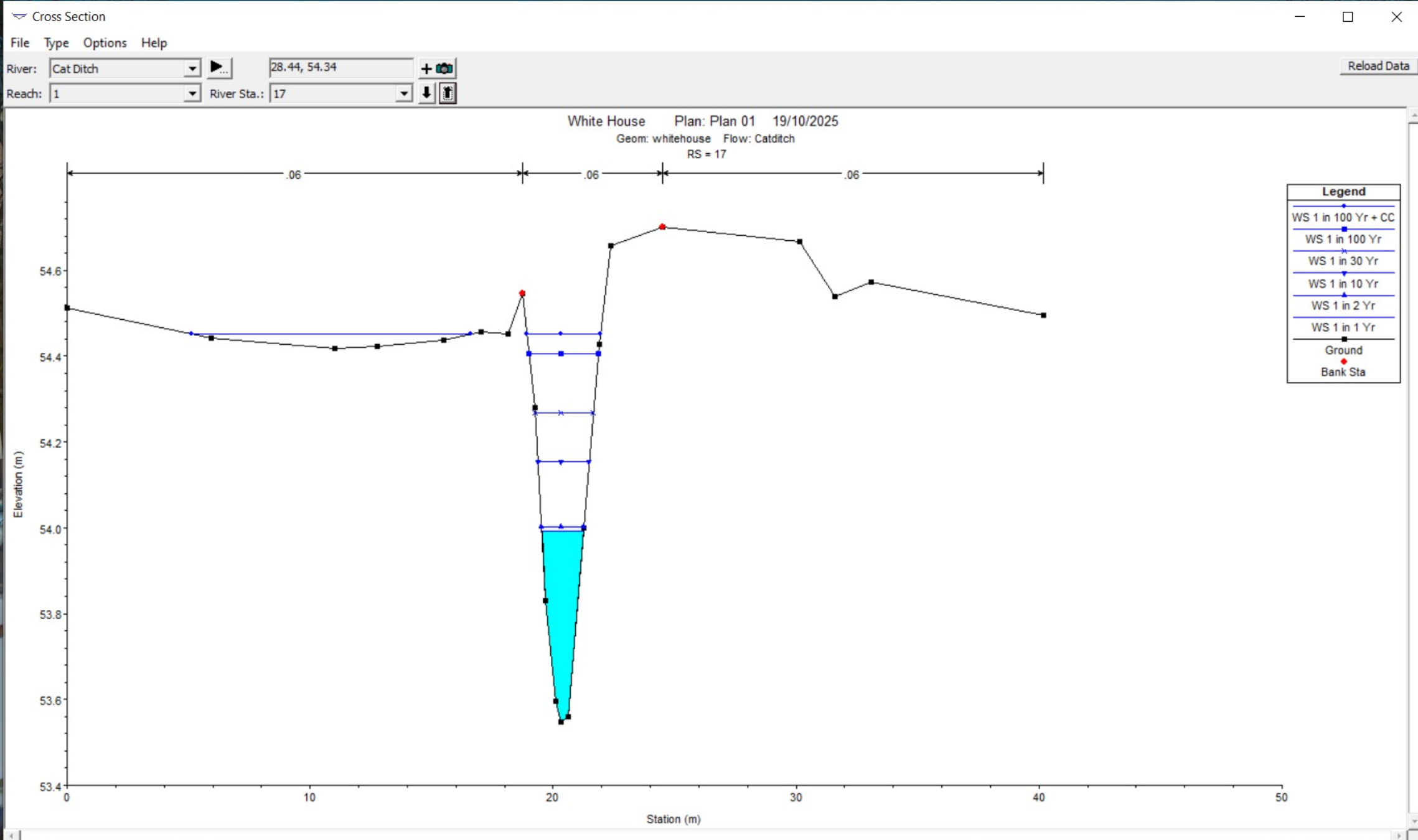
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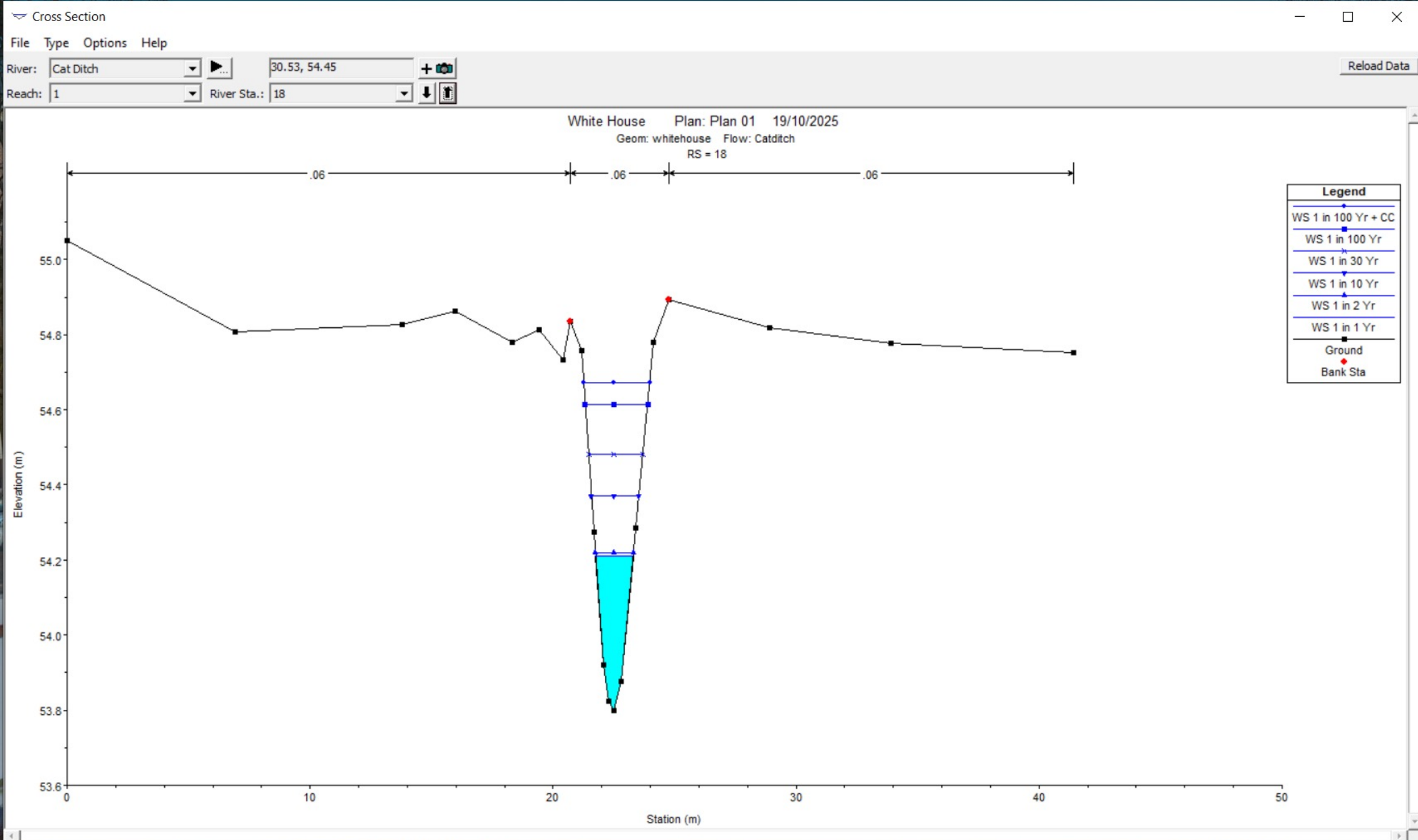
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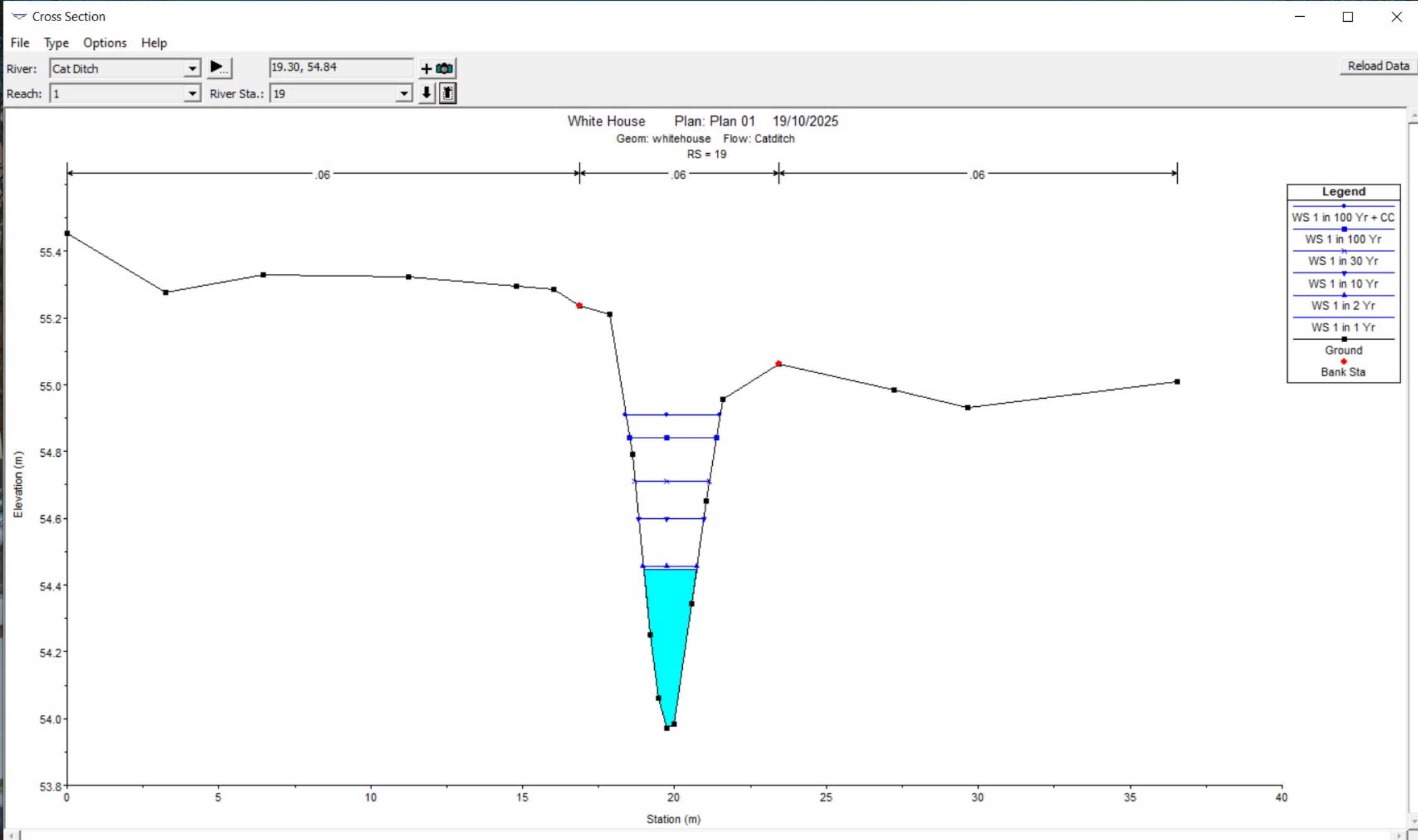
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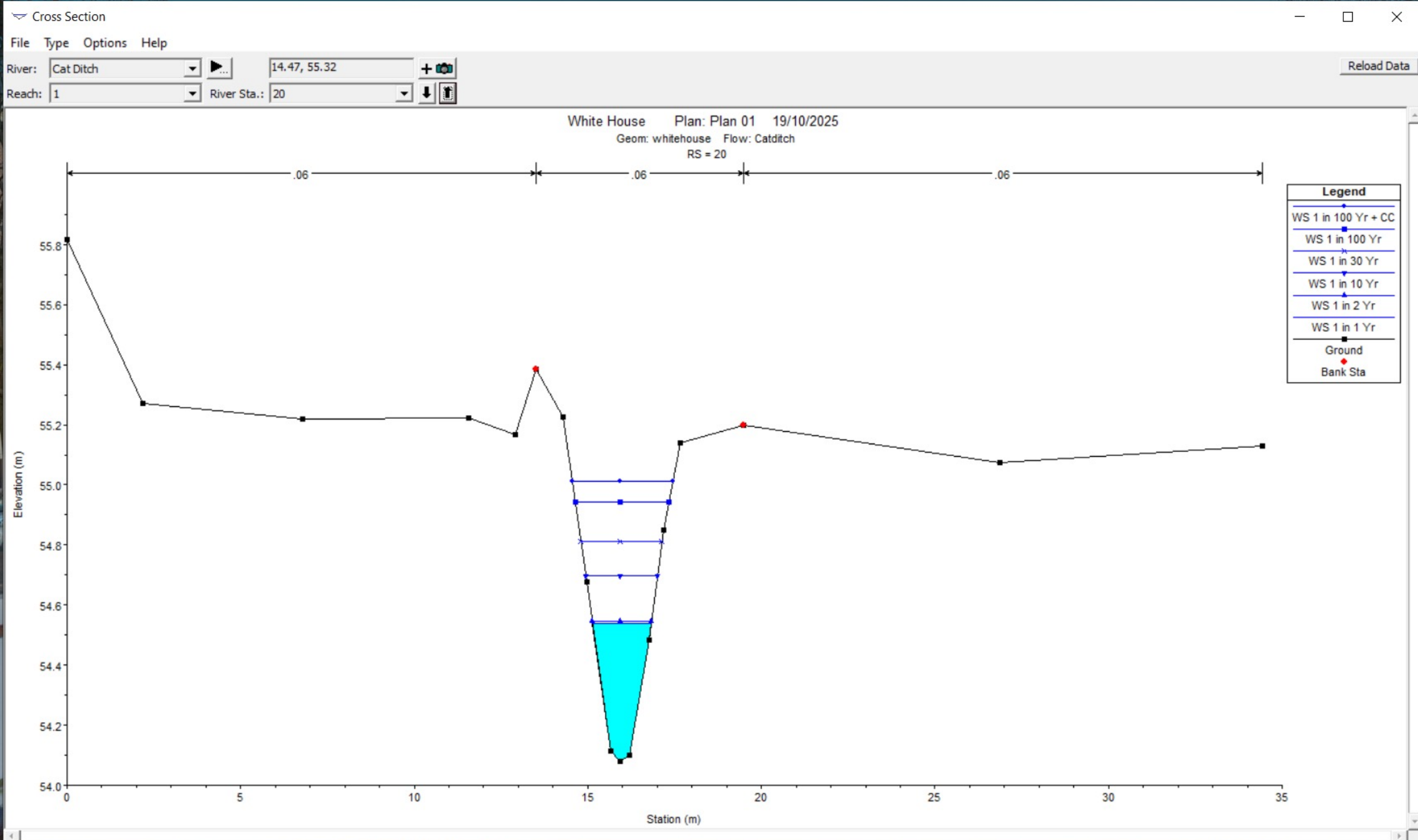
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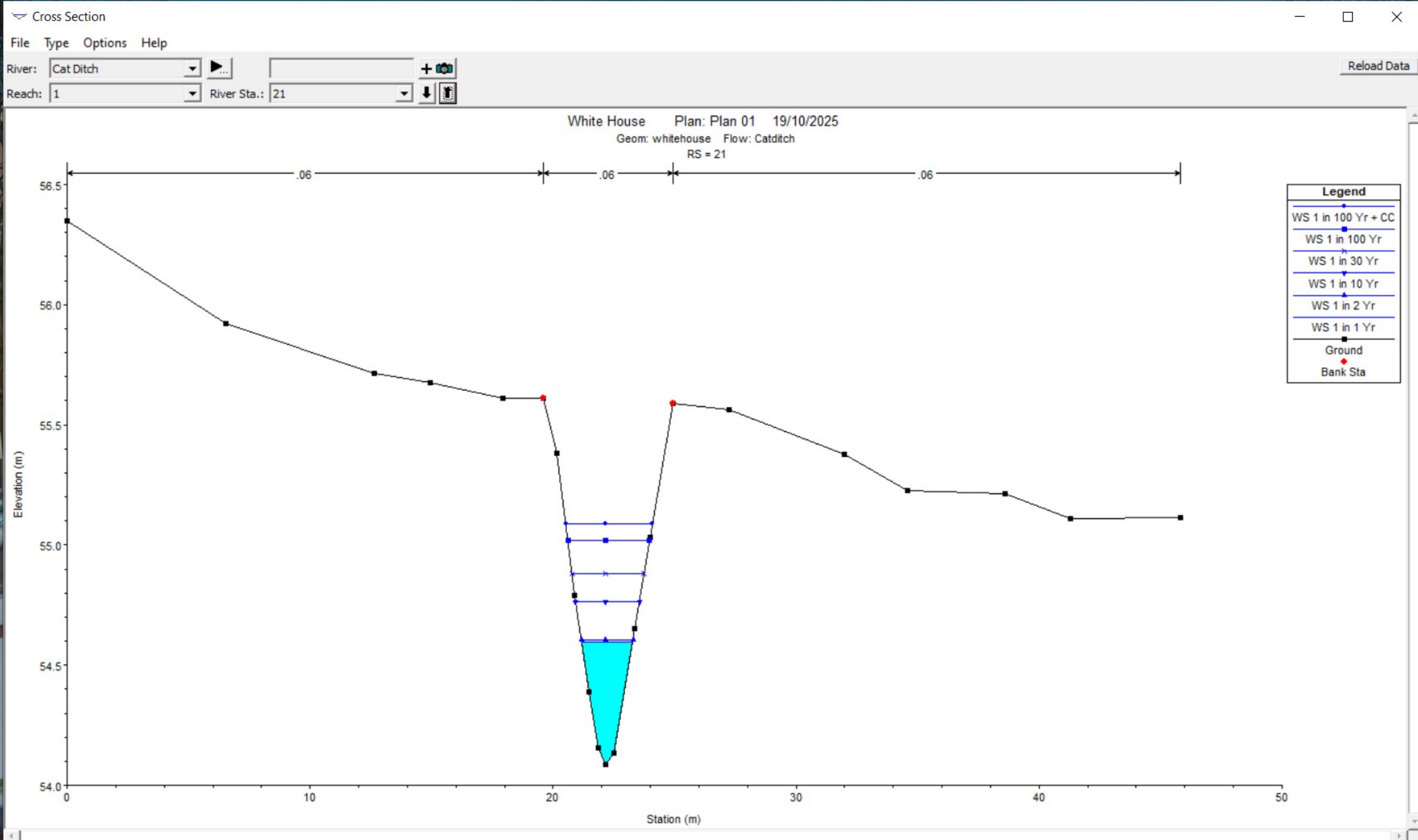
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