Appendix A: Maximum Likely Inundation Maps

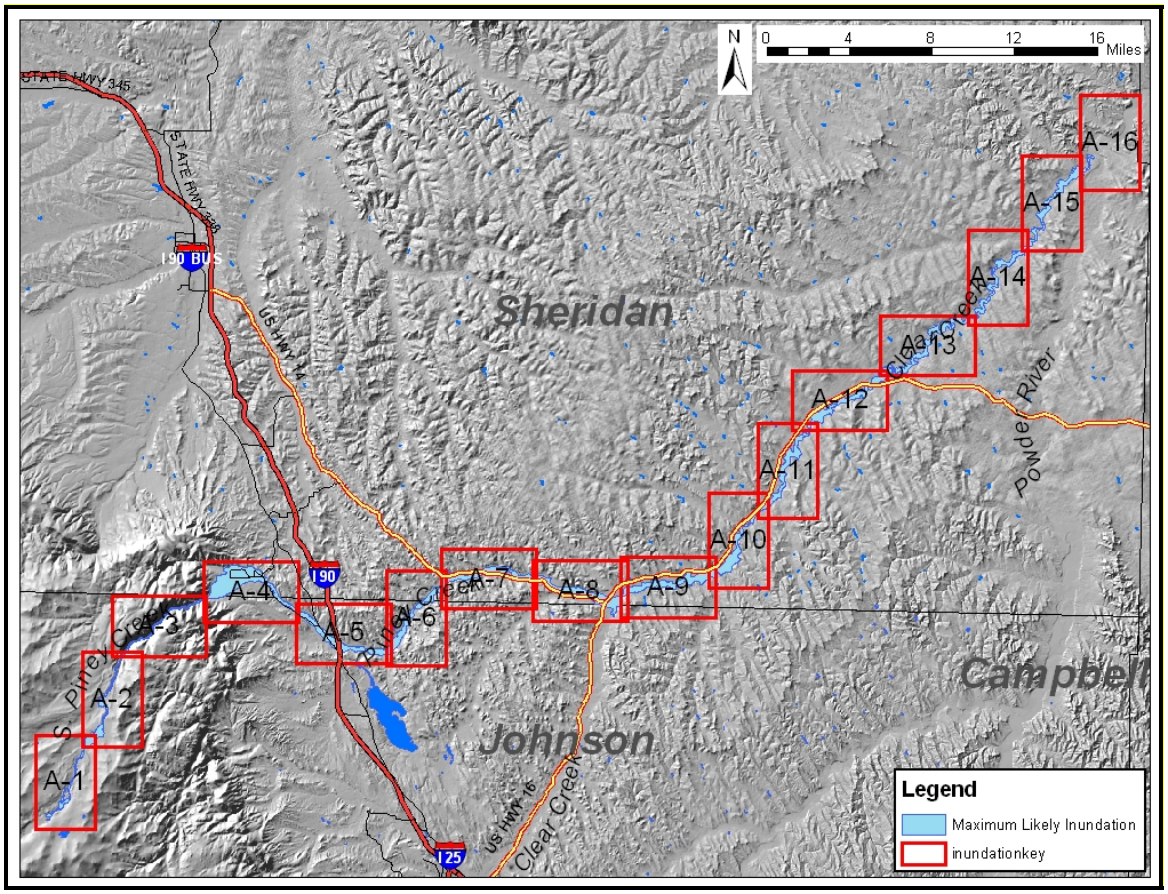
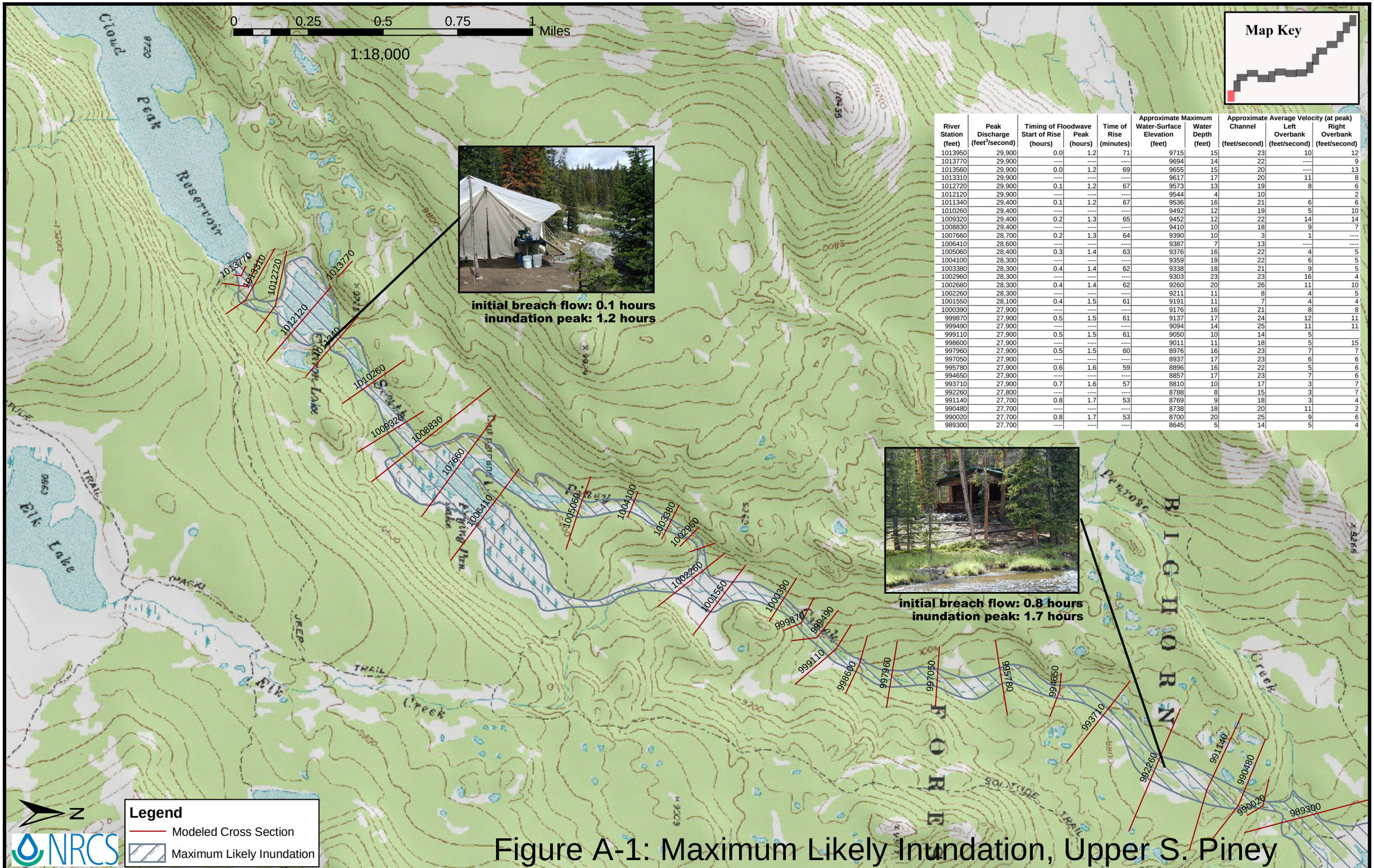


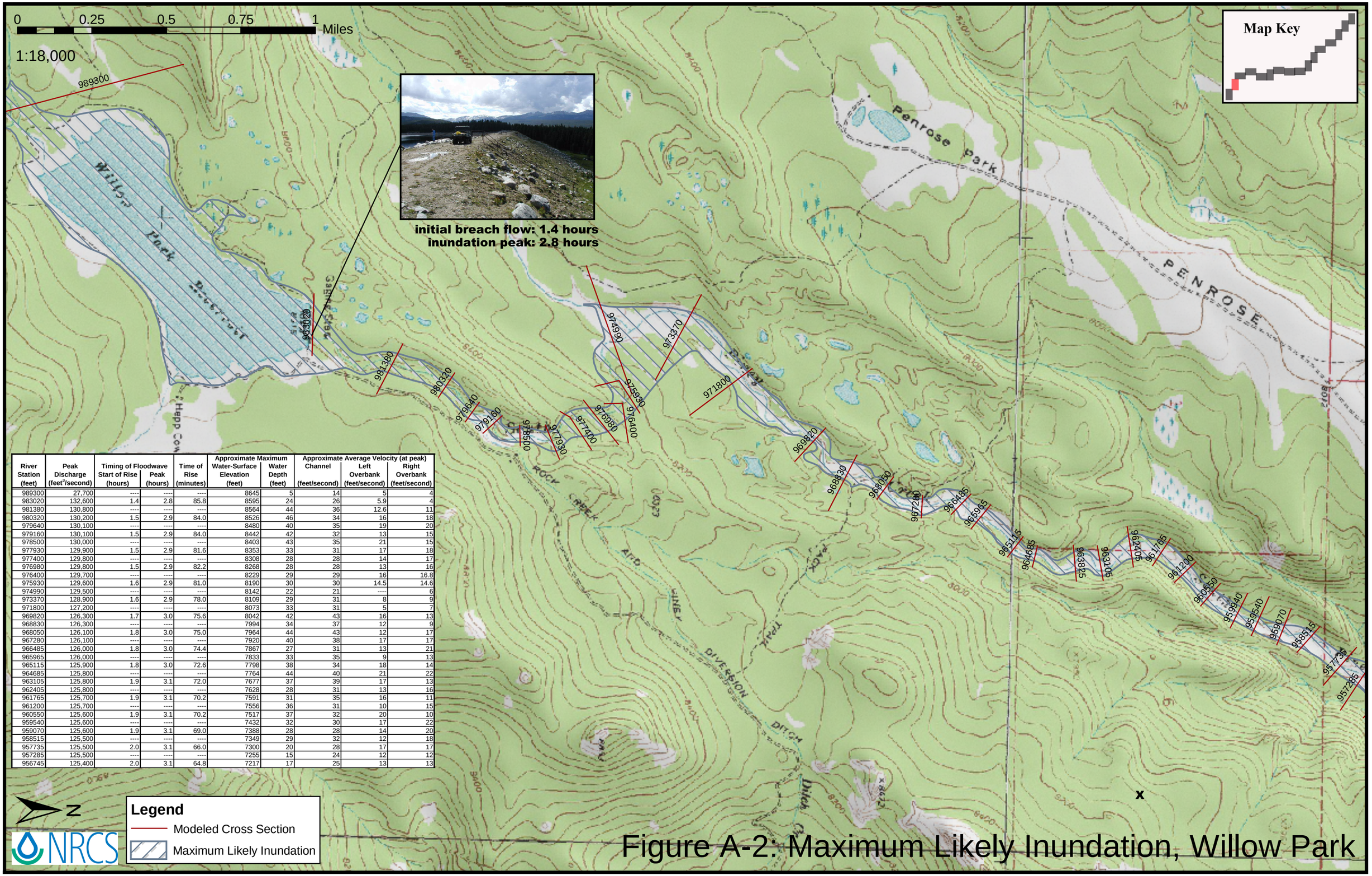
FIGURE KEY

Figure A-1: Maximum Likely Inundation, Upper S. Piney.
A-2: Maximum Likely Inundation, Willow Park.
A-3: Maximum Likely Inundation, S. Piney Canyon
A-4: Maximum Likely Inundation, Story
A-5: Maximum Likely Inundation, I-90
A-6: Maximum Likely Inundation, Piney Creek
A-7: Maximum Likely Inundation, Piney Creek
A-8: Maximum Likely Inundation, Lower Piney Creek
A-9: Maximum Likely Inundation, Clear Creek
A-10: Maximum Likely Inundation, Clear Creek
A-11: Maximum Likely Inundation, Clearmont
A-12: Maximum Likely Inundation, Clear Creek
A-13: Maximum Likely Inundation, Clear Creek
A-14: Maximum Likely Inundation, Lower Clear Creek
A-15: Maximum Likely Inundation, Lower Clear Creek
A-16: Maximum Likely Inundation, Powder River



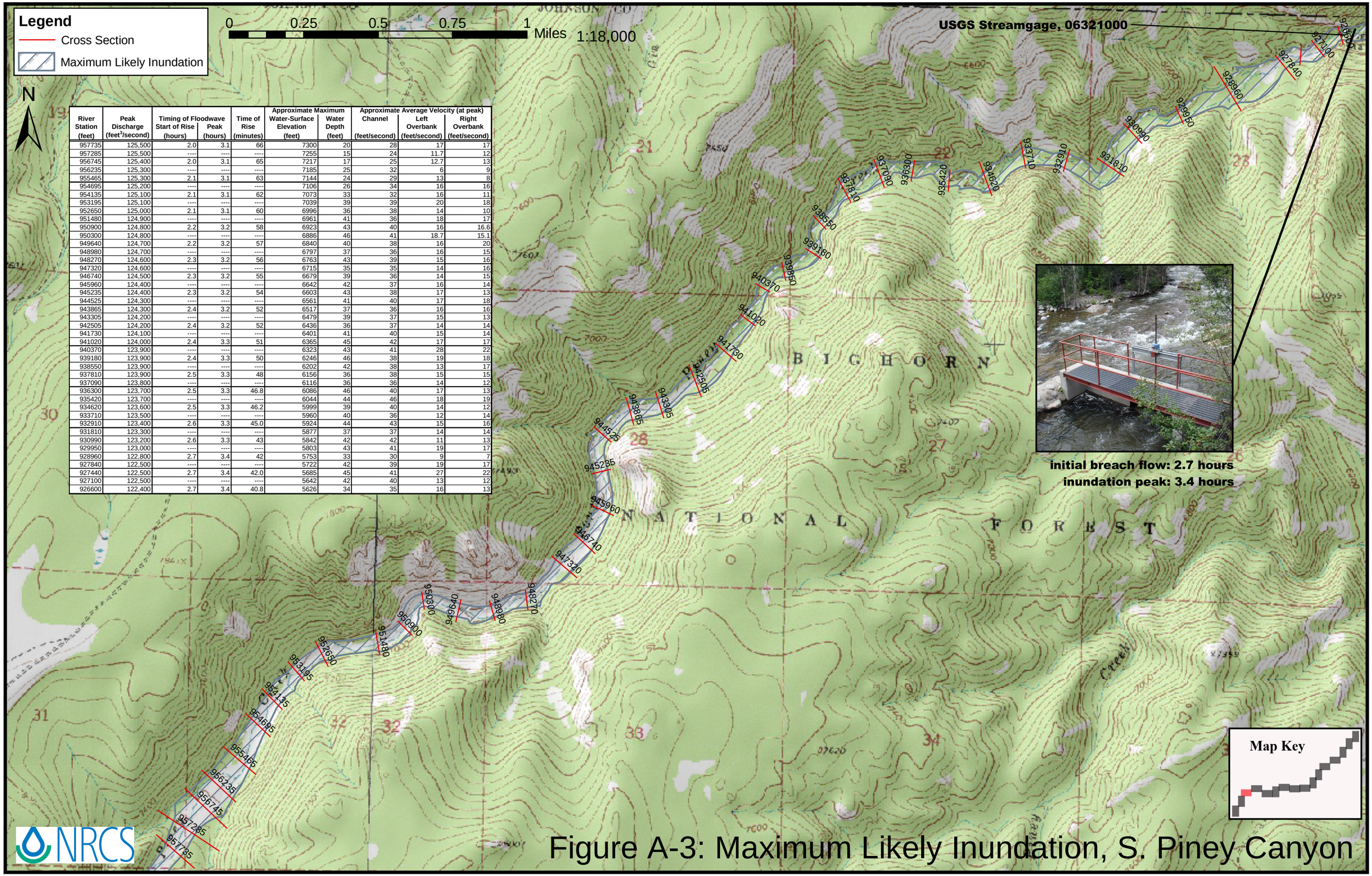
River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
1013950	29,900	0.0	1.2	71	9715	15	23	10	12
1013770	29,900	----	----	----	9694	14	22	----	9
1013560	29,900	0.0	1.2	69	9655	15	20	----	13
1013310	29,900	----	----	----	9617	17	20	11	8
1012720	29,900	0.1	1.2	67	9573	13	19	8	6
1012120	29,900	----	----	----	9544	4	10		2
1011340	29,400	0.1	1.2	67	9536	16	21	6	6
1010260	29,400	----	----	----	9492	12	19	5	10
1009320	29,400	0.2	1.3	65	9452	12	22	14	14
1008830	29,400	----	----	----	9410	10	18	9	7
1007660	28,700	0.2	1.3	64	9390	10	3	1	----
1006410	28,600	----	----	----	9387	7	13	----	----
1005060	28,400	0.3	1.4	63	9376	16	22	4	5
1004100	28,300	----	----	----	9359	19	22	6	5
1003380	28,300	0.4	1.4	62	9338	18	21	9	5
1002960	28,300	----	----	----	9303	23	23	16	4
1002680	28,300	0.4	1.4	62	9260	20	26	11	10
1002260	28,300	----	----	----	9211	11	8	4	5
1001550	28,100	0.4	1.5	61	9191	11	7	4	4
1000390	27,900	----	----	----	9176	16	21	8	8
999870	27,900	0.5	1.5	61	9137	17	24	12	11
999490	27,900	----	----	----	9094	14	25	11	11
999110	27,900	0.5	1.5	61	9050	10	14	5	
998600	27,900	----	----	----	9011	11	18	5	15
997960	27,900	0.5	1.5	60	8976	16	23	7	7
997050	27,900	----	----	----	8937	17	23	6	6
995780	27,900	0.6	1.6	59	8896	16	22	5	6
994650	27,900	----	----	----	8857	17	23	7	6
993710	27,900	0.7	1.6	57	8810	10	17	3	7
992260	27,800	----	----	----	8788	8	15	3	7
991140	27,700	0.8	1.7	53	8769	9	18	3	4
990480	27,700	----	----	----	8738	18	20	11	2
990020	27,700	0.8	1.7	53	8700	20	25	9	6
989300	27,700	----	----	----	8645	5	14	5	4

Figure A-1: Maximum Likely Inundation, Upper S. Piney



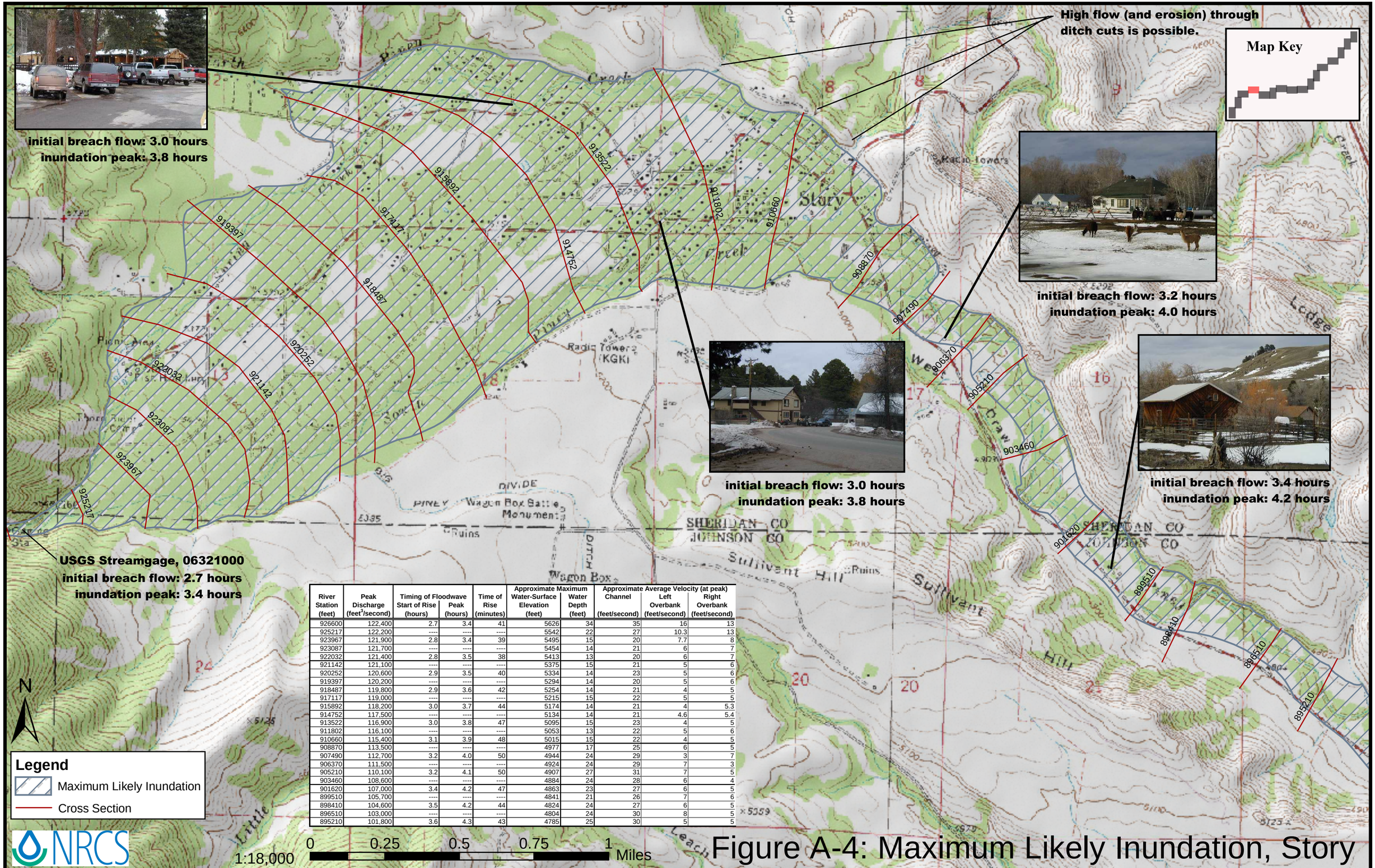
River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
989300	27,700	----	----	----	8645	5	14	5	4
983020	132,600	1.4	2.8	85.8	8595	24	26	5.9	4
981380	130,800	----	----	----	8564	44	36	12.6	11
980320	130,200	1.5	2.9	84.0	8526	46	34	16	18
979640	130,100	----	----	----	8480	40	35	19	20
979160	130,100	1.5	2.9	84.0	8442	42	32	13	15
978500	130,000	----	----	----	8403	43	35	21	15
977930	129,900	1.5	2.9	81.6	8353	33	31	17	18
977400	129,800	----	----	----	8308	28	28	14	17
976980	129,800	1.5	2.9	82.2	8268	28	28	13	16
976400	129,700	----	----	----	8229	29	29	16	16.8
975930	129,600	1.6	2.9	81.0	8190	30	30	14.5	14.6
974990	129,500	----	----	----	8142	22	21	----	6
973370	128,900	1.6	2.9	78.0	8109	29	31	8	9
971800	127,200	----	----	----	8073	33	31	5	7
969820	126,300	1.7	3.0	75.6	8042	42	43	16	13
968830	126,300	----	----	----	7994	34	37	12	9
968050	126,100	1.8	3.0	75.0	7964	44	43	12	17
967280	126,100	----	----	----	7920	40	38	17	17
966485	126,000	1.8	3.0	74.4	7867	27	31	13	21
965965	126,000	----	----	----	7833	33	35	9	13
965115	125,900	1.8	3.0	72.6	7798	38	34	18	14
964685	125,800	----	----	----	7764	44	40	21	22
963105	125,800	1.9	3.1	72.0	7677	37	39	17	13
962405	125,800	----	----	----	7628	28	31	13	16
961765	125,700	1.9	3.1	70.2	7591	31	35	16	11
961200	125,700	----	----	----	7556	36	31	10	15
960550	125,600	1.9	3.1	70.2	7517	37	32	20	10
959540	125,600	----	----	----	7432	32	30	17	22
959070	125,600	1.9	3.1	69.0	7388	28	28	14	20
958515	125,500	----	----	----	7349	29	32	12	18
957735	125,500	2.0	3.1	66.0	7300	20	28	17	17
957285	125,500	----	----	----	7255	15	24	12	12
956745	125,400	2.0	3.1	64.8	7217	17	25	13	13

Figure A-2: Maximum Likely Inundation, Willow Park



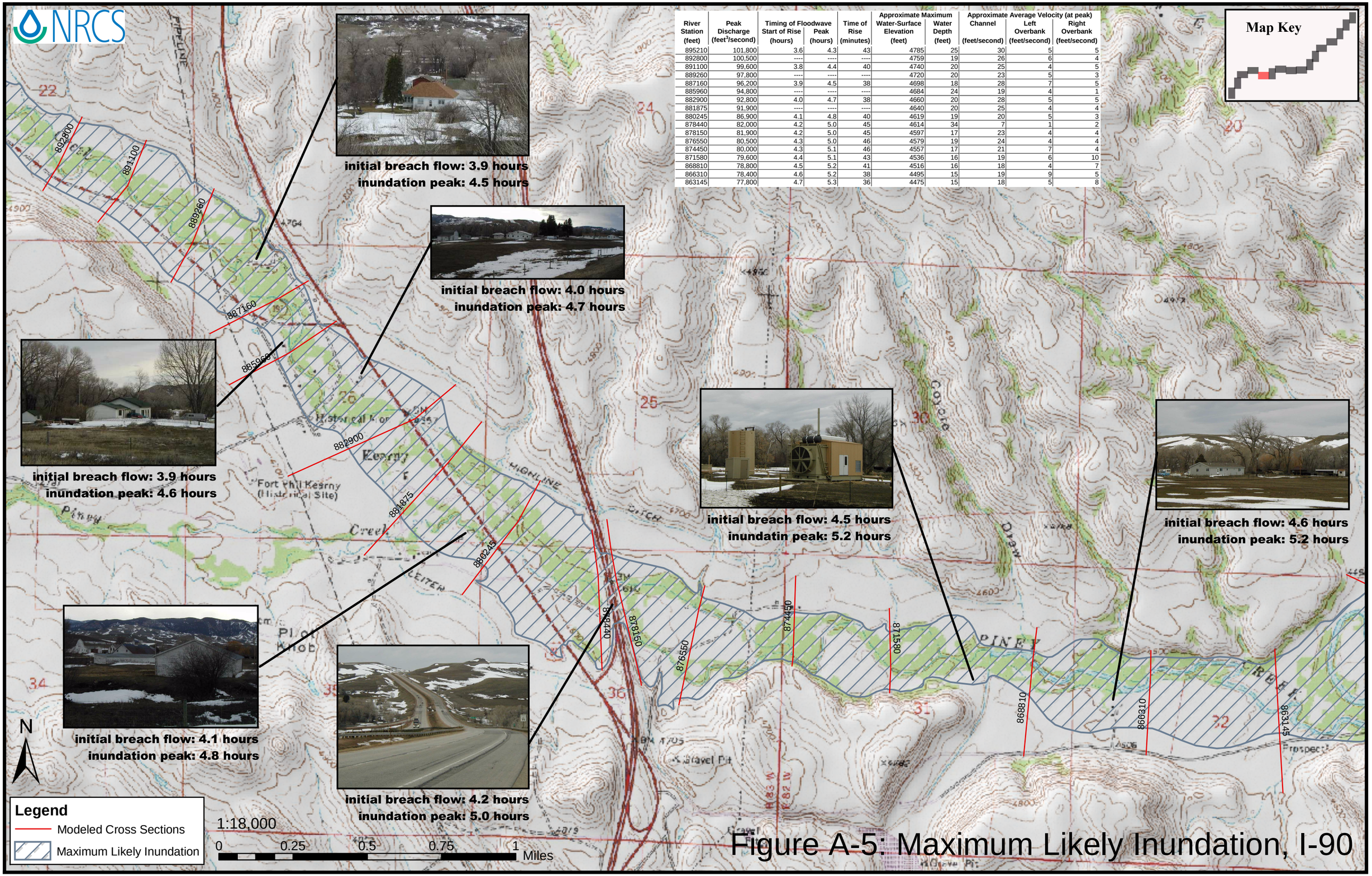
River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
957735	125,500	2.0	3.1	66	7300	20	28	17	17
957285	125,500	----	----	----	7255	15	24	11.7	12
956745	125,400	2.0	3.1	65	7217	17	25	12.7	13
956235	125,300	----	----	----	7185	25	32	6	9
955465	125,300	2.1	3.1	63	7144	24	29	13	8
954695	125,200	----	----	----	7106	26	34	16	16
954135	125,100	2.1	3.1	62	7073	33	32	16	11
953195	125,100	----	----	----	7039	39	39	20	18
952650	125,000	2.1	3.1	60	6996	36	38	14	10
951480	124,900	----	----	----	6961	41	36	18	17
950900	124,800	2.2	3.2	58	6923	43	40	16	16.6
950300	124,800	----	----	----	6886	46	41	18.7	15.1
949640	124,700	2.2	3.2	57	6840	40	38	16	20
948980	124,700	----	----	----	6797	37	36	16	15
948270	124,600	2.3	3.2	56	6763	43	39	15	16
947320	124,600	----	----	----	6715	35	35	14	16
946740	124,500	2.3	3.2	55	6679	39	36	14	15
945960	124,400	----	----	----	6642	42	37	16	14
945235	124,400	2.3	3.2	54	6603	43	38	17	13
944525	124,300	----	----	----	6561	41	40	17	18
943865	124,300	2.4	3.2	52	6517	37	36	16	16
943305	124,200	----	----	----	6479	39	37	15	13
942505	124,200	2.4	3.2	52	6436	36	37	14	14
941730	124,100	----	----	----	6401	41	40	15	14
941020	124,000	2.4	3.3	51	6365	45	42	17	17
940370	123,900	----	----	----	6323	43	41	28	22
939180	123,900	2.4	3.3	50	6246	46	38	19	18
938550	123,900	----	----	----	6202	42	38	13	17
937810	123,900	2.5	3.3	48	6156	36	38	15	15
937090	123,800	----	----	----	6116	36	36	14	12
936300	123,700	2.5	3.3	46.8	6086	46	40	17	13
935420	123,700	----	----	----	6044	44	46	18	19
934620	123,600	2.5	3.3	46.2	5999	39	40	14	12
933710	123,500	----	----	----	5960	40	36	12	14
932910	123,400	2.6	3.3	45.0	5924	44	43	15	16
931810	123,300	----	----	----	5877	37	37	14	14
930990	123,200	2.6	3.3	43	5842	42	42	11	13
929950	123,000	----	----	----	5803	43	41	19	17
928960	122,800	2.7	3.4	42	5753	33	30	9	7
927840	122,500	----	----	----	5722	42	39	19	17
927440	122,500	2.7	3.4	42.0	5685	45	41	27	22
927100	122,500	----	----	----	5642	42	40	13	12
926600	122,400	2.7	3.4	40.8	5626	34	35	16	13

Figure A-3: Maximum Likely Inundation, S. Piney Canyon



River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
926600	122,400	2.7	3.4	41	5626	34	35	16	13
925217	122,200	----	----	----	5542	22	27	10.3	13
923967	121,900	2.8	3.4	39	5495	15	20	7.7	8
923087	121,700	----	----	----	5454	14	21	6	7
922032	121,400	2.8	3.5	38	5413	13	20	6	7
921142	121,100	----	----	----	5375	15	21	5	6
920252	120,600	2.9	3.5	40	5334	14	23	5	6
919397	120,200	----	----	----	5294	14	20	5	6
918487	119,800	2.9	3.6	42	5254	14	21	4	5
917117	119,000	----	----	----	5215	15	22	5	5
915892	118,200	3.0	3.7	44	5174	14	21	4	5.3
914752	117,500	----	----	----	5134	14	21	4.6	5.4
913522	116,900	3.0	3.8	47	5095	15	23	4	5
911802	116,100	----	----	----	5053	13	22	5	6
910660	115,400	3.1	3.9	48	5015	15	22	4	5
908870	113,500	----	----	----	4977	17	25	6	5
907490	112,700	3.2	4.0	50	4944	24	29	3	7
906370	111,500	----	----	----	4924	24	29	7	3
905210	110,100	3.2	4.1	50	4907	27	31	7	5
903460	108,600	----	----	----	4884	24	28	6	4
901620	107,000	3.4	4.2	47	4863	23	27	6	5
899510	105,700	----	----	----	4841	21	26	7	6
898410	104,600	3.5	4.2	44	4824	24	27	6	5
896510	103,000	----	----	----	4804	24	30	8	5
895210	101,800	3.6	4.3	43	4785	25	30	5	5

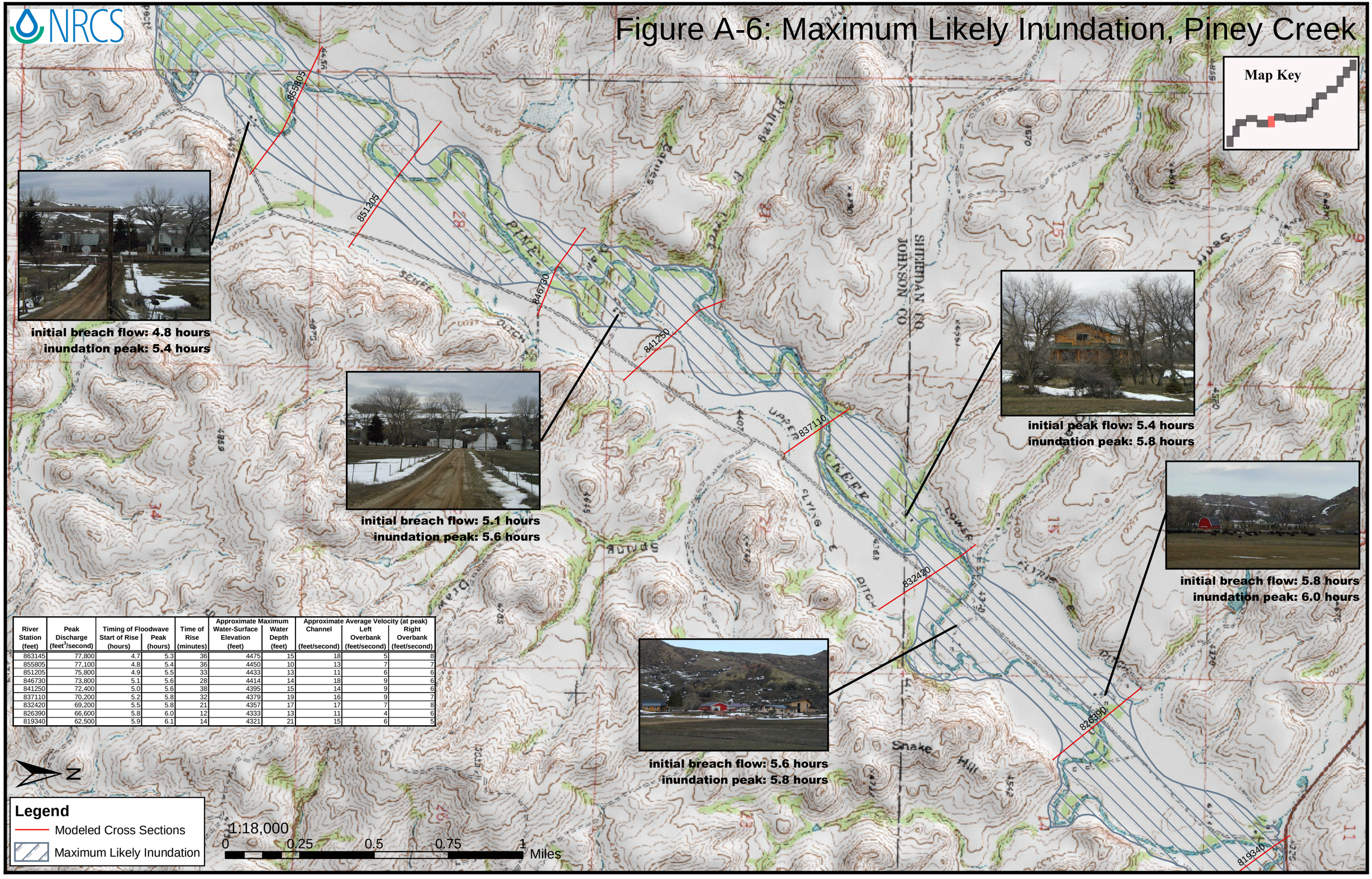
Figure A-4: Maximum Likely Inundation, Story



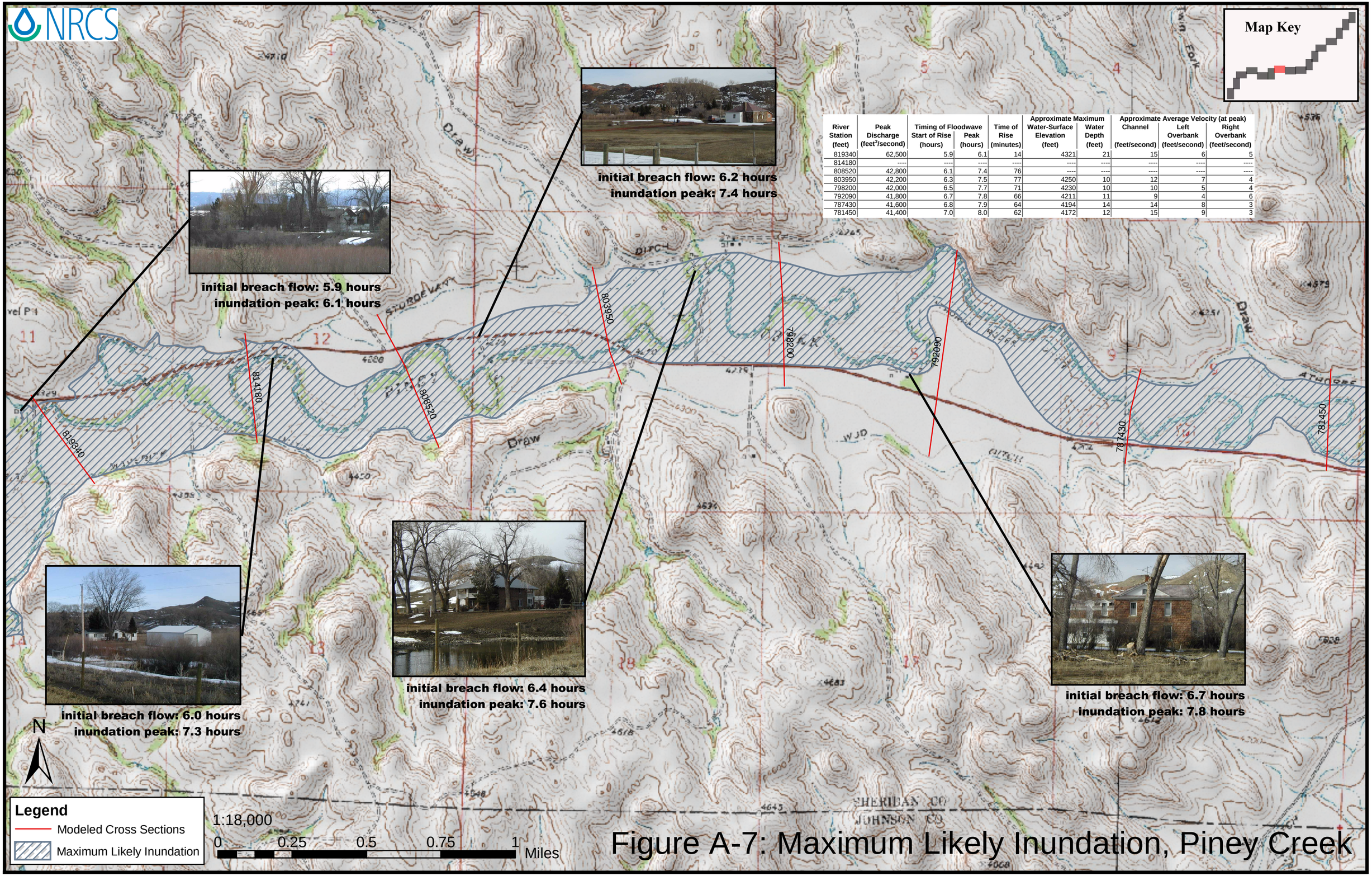
River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
895210	101,800	3.6	4.3	43	4785	25	30	5	5
892800	100,500	----	----	----	4759	19	26	6	4
891100	99,600	3.8	4.4	40	4740	20	25	4	5
889260	97,800	----	----	----	4720	20	23	5	3
887160	96,200	3.9	4.5	38	4698	18	28	7	5
885960	94,800	----	----	----	4684	24	19	4	1
882900	92,800	4.0	4.7	38	4660	20	28	5	5
881875	91,900	----	----	----	4640	20	25	4	4
880245	86,900	4.1	4.8	40	4619	19	20	5	3
878440	82,000	4.2	5.0	45	4614	34	7	1	2
878150	81,900	4.2	5.0	45	4597	17	23	4	4
876550	80,500	4.3	5.0	46	4579	19	24	4	4
874450	80,000	4.3	5.1	46	4557	17	21	7	4
871580	79,600	4.4	5.1	43	4536	16	19	6	10
868810	78,800	4.5	5.2	41	4516	16	18	4	7
866310	78,400	4.6	5.2	38	4495	15	19	9	5
863145	77,800	4.7	5.3	36	4475	15	18	5	8

Figure A-5: Maximum Likely Inundation, I-90

Figure A-6: Maximum Likely Inundation, Piney Creek



River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
863145	77,800	4.7	5.3	36	4475	15	18	5	8
855805	77,100	4.8	5.4	36	4450	10	13	7	7
851205	75,800	4.9	5.5	33	4433	13	11	6	6
846730	73,800	5.1	5.6	28	4414	14	18	9	6
841250	72,400	5.0	5.6	38	4395	15	14	9	6
837110	70,200	5.2	5.8	32	4379	19	16	9	7
832420	69,200	5.5	5.8	21	4357	17	17	7	8
826390	66,600	5.8	6.0	12	4333	13	11	4	6
819340	62,500	5.9	6.1	14	4321	21	15	6	5

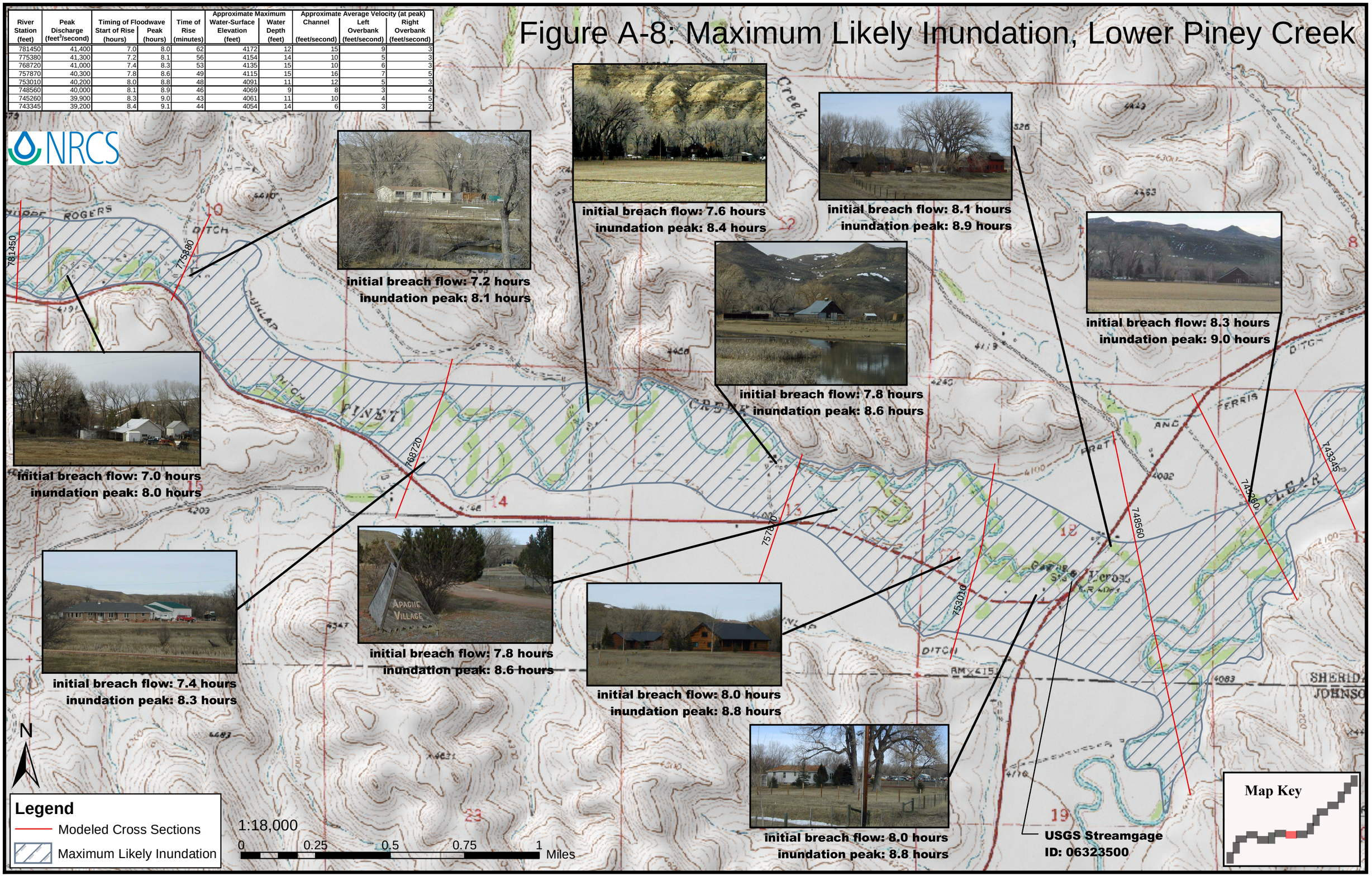


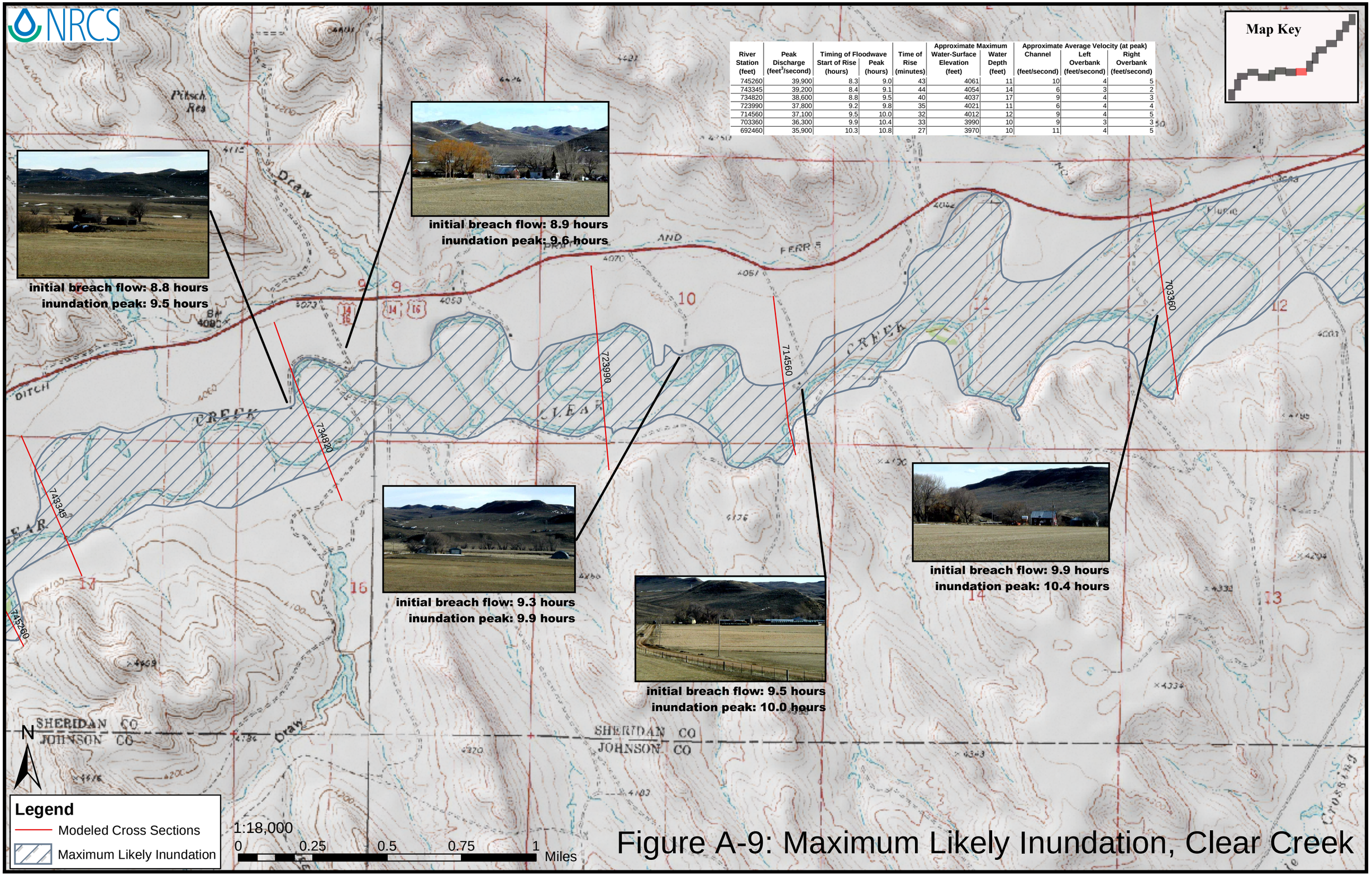
River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
819340	62,500	5.9	6.1	14	4321	21	15	6	5
814180	----	----	----	----	----	----	----	----	----
808520	42,800	6.1	7.4	76	----	----	----	----	----
803950	42,200	6.3	7.5	77	4250	10	12	7	4
798200	42,000	6.5	7.7	71	4230	10	10	5	4
792090	41,800	6.7	7.8	66	4211	11	9	4	6
787430	41,600	6.8	7.9	64	4194	14	14	8	3
781450	41,400	7.0	8.0	62	4172	12	15	9	3

Figure A-7: Maximum Likely Inundation, Piney Creek

Figure A-8: Maximum Likely Inundation, Lower Piney Creek

River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
781450	41,400	7.0	8.0	62	4172	12	15	9	3
775380	41,300	7.2	8.1	56	4154	14	10	5	3
768720	41,000	7.4	8.3	53	4135	15	10	6	3
757870	40,300	7.8	8.6	49	4115	15	16	7	5
753010	40,200	8.0	8.8	48	4091	11	12	5	3
748560	40,000	8.1	8.9	46	4069	9	8	3	4
745260	39,900	8.3	9.0	43	4061	11	10	4	5
743345	39,200	8.4	9.1	44	4054	14	6	3	2

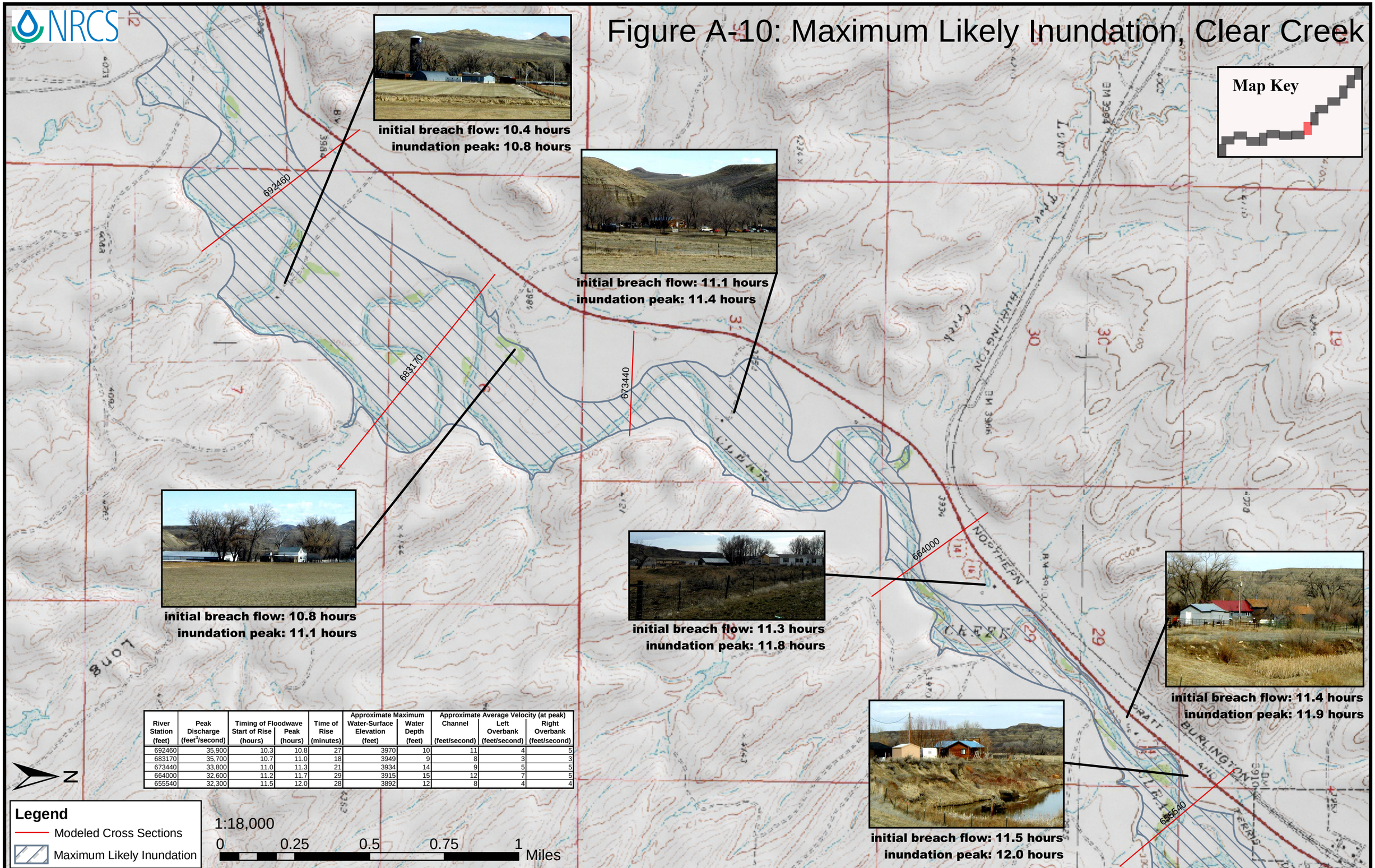




River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
745260	39,900	8.3	9.0	43	4061	11	10	4	5
743345	39,200	8.4	9.1	44	4054	14	6	3	2
734820	38,600	8.8	9.5	40	4037	17	9	4	3
723990	37,800	9.2	9.8	35	4021	11	6	4	4
714560	37,100	9.5	10.0	32	4012	12	9	4	5
703360	36,300	9.9	10.4	33	3990	10	9	3	3
692460	35,900	10.3	10.8	27	3970	10	11	4	5

Figure A-9: Maximum Likely Inundation, Clear Creek

Figure A-10: Maximum Likely Inundation, Clear Creek



River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
692460	35,900	10.3	10.8	27	3970	10	11	4	5
683170	35,700	10.7	11.0	18	3949	9	8	3	3
673440	33,800	11.0	11.3	21	3934	14	9	5	5
664000	32,600	11.2	11.7	29	3915	15	12	7	5
655540	32,300	11.5	12.0	28	3892	12	8	4	4

River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
655540	32,300	11.5	12.0	28	3892	12	8	4	4
648390	31,300	11.8	12.3	30	3882	12	7	3	3
642100	29,700	12.0	12.6	37	3872	12	6	3	4
635440	29,100	12.3	12.9	38	3863	13	10	4	5
627800	29,000	12.6	13.2	34	3848	8	11	4	4
622090	27,900	12.8	13.3	30	3831	11	3	1	2
613940	26,800	13.0	13.7	42	3812	12	4	2	1

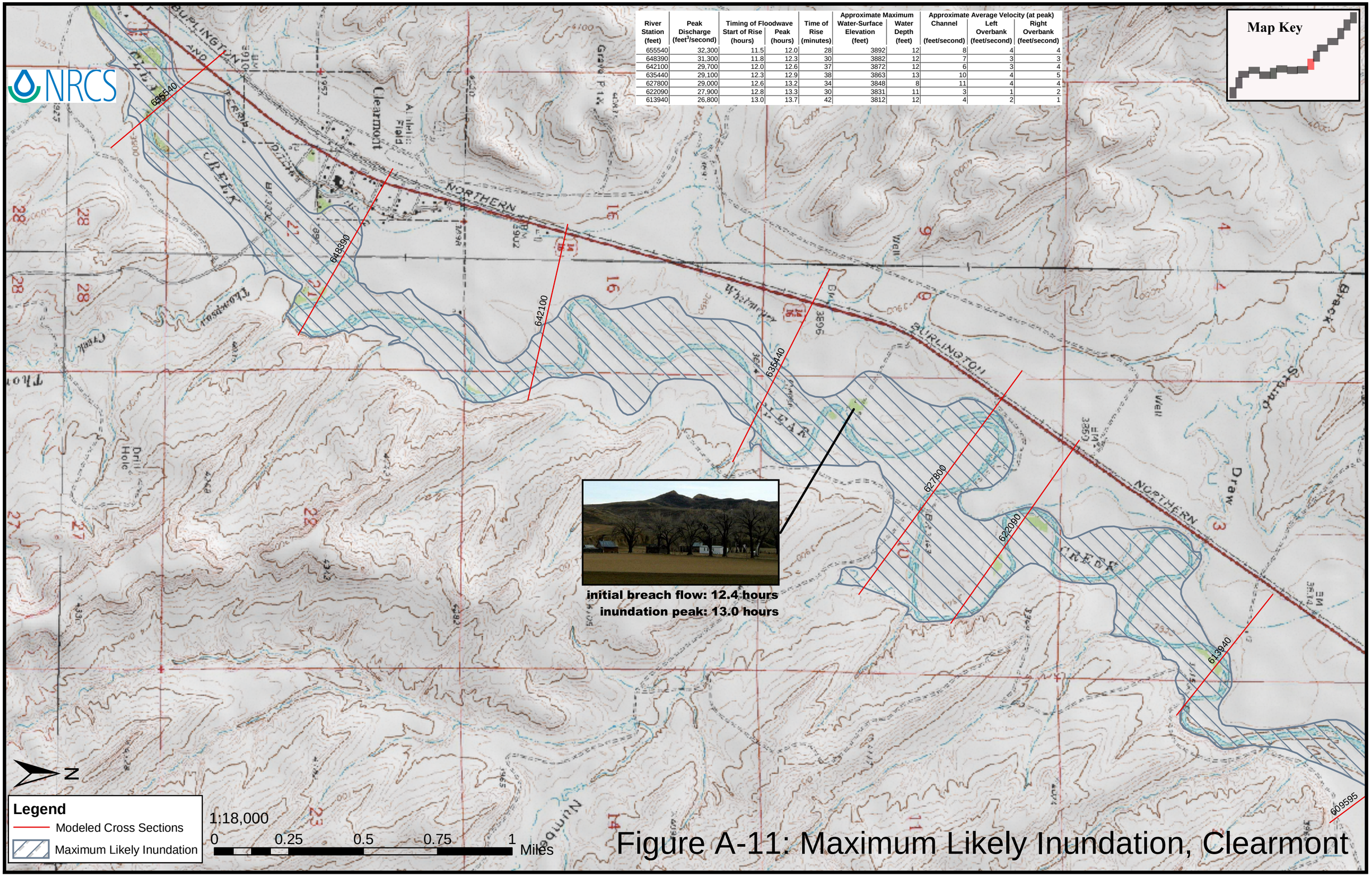
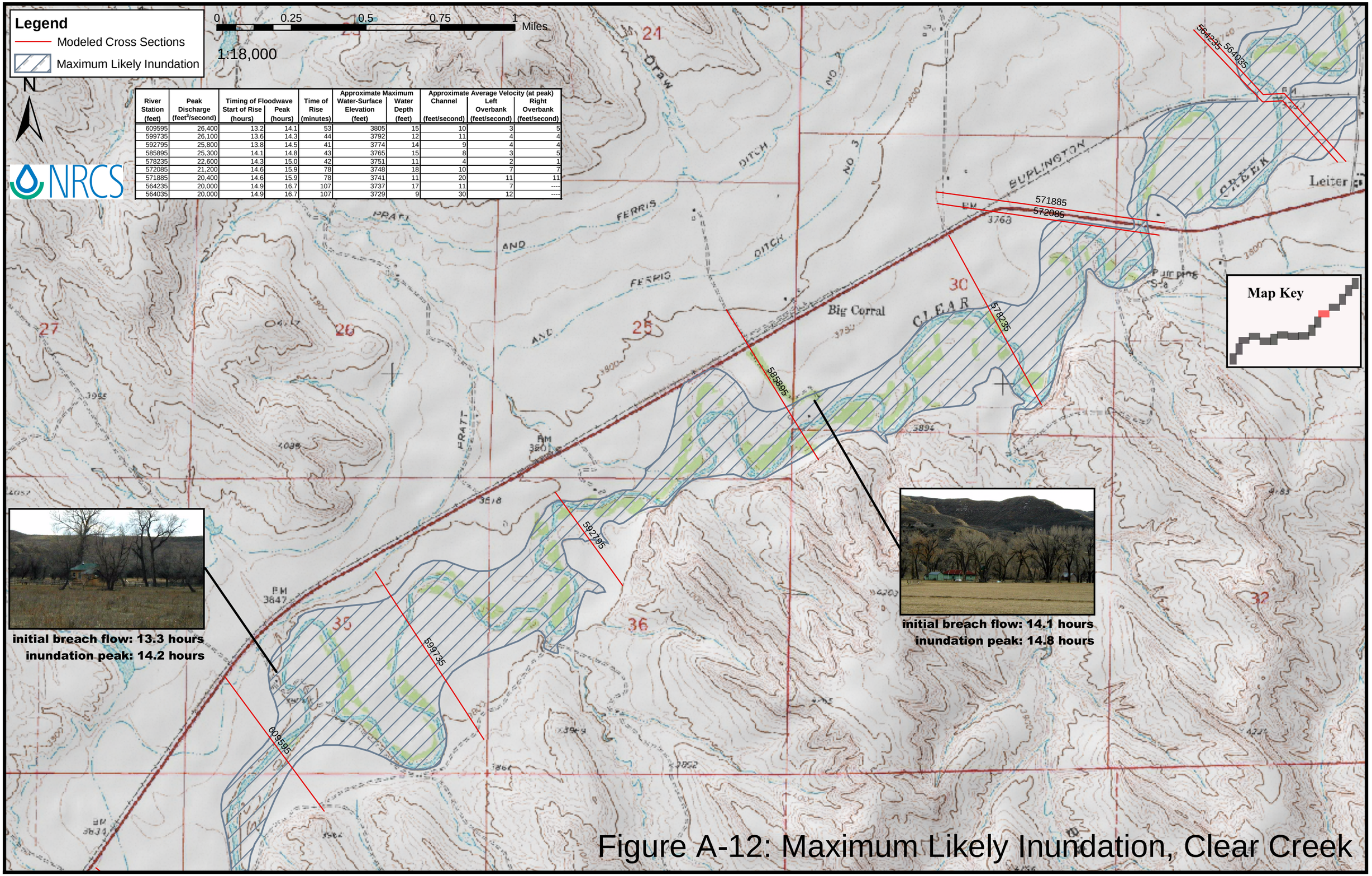
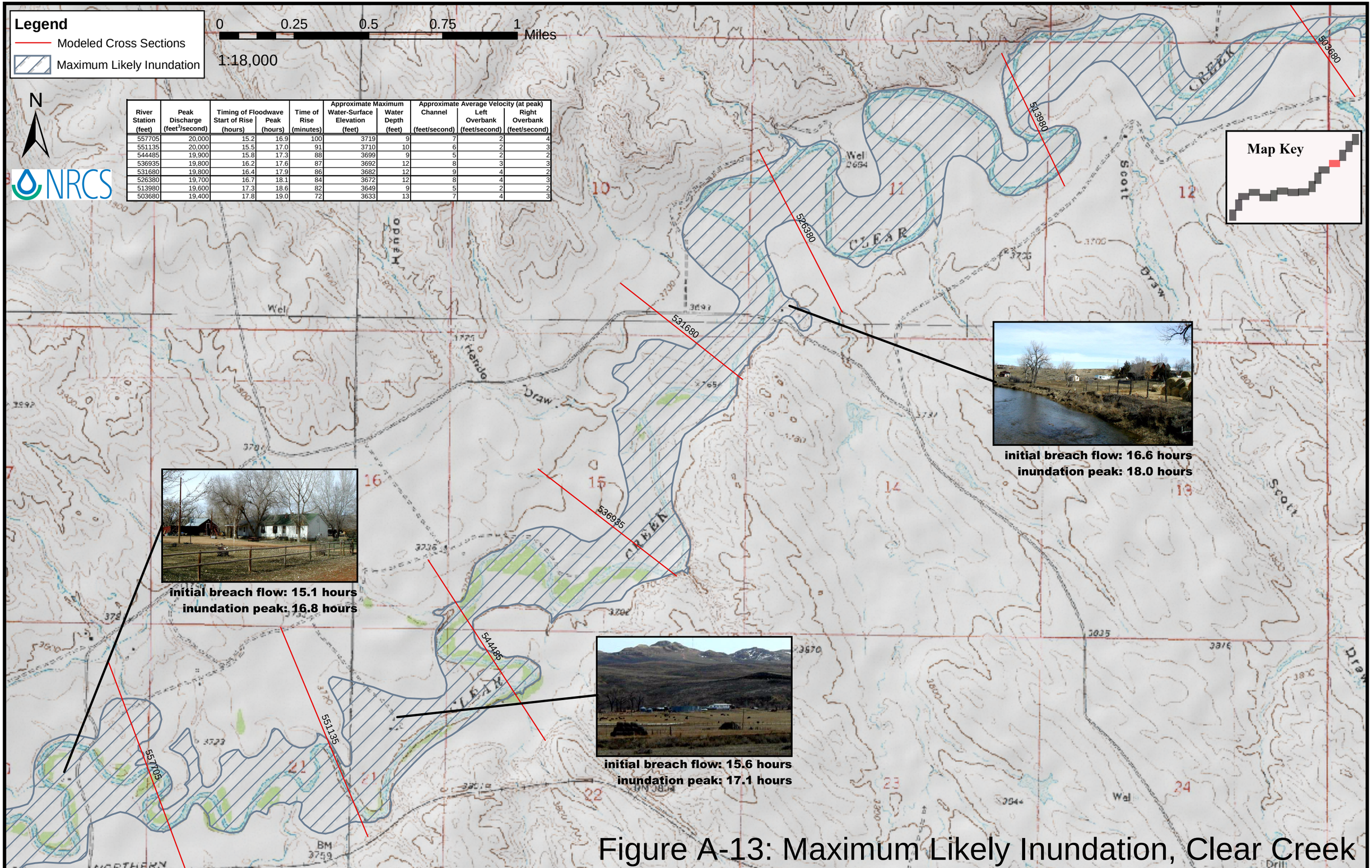


Figure A-11: Maximum Likely Inundation, Clearmont



River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
609595	26,400	13.2	14.1	53	3805	15	10	3	5
599735	26,100	13.6	14.3	44	3792	12	11	4	4
592795	25,800	13.8	14.5	41	3774	14	9	4	4
585895	25,300	14.1	14.8	43	3765	15	8	3	5
578235	22,600	14.3	15.0	42	3751	11	4	2	1
572085	21,200	14.6	15.9	78	3748	18	10	7	7
571885	20,400	14.6	15.9	78	3741	11	20	11	11
564235	20,000	14.9	16.7	107	3737	17	11	7	----
564035	20,000	14.9	16.7	107	3729	9	30	12	----

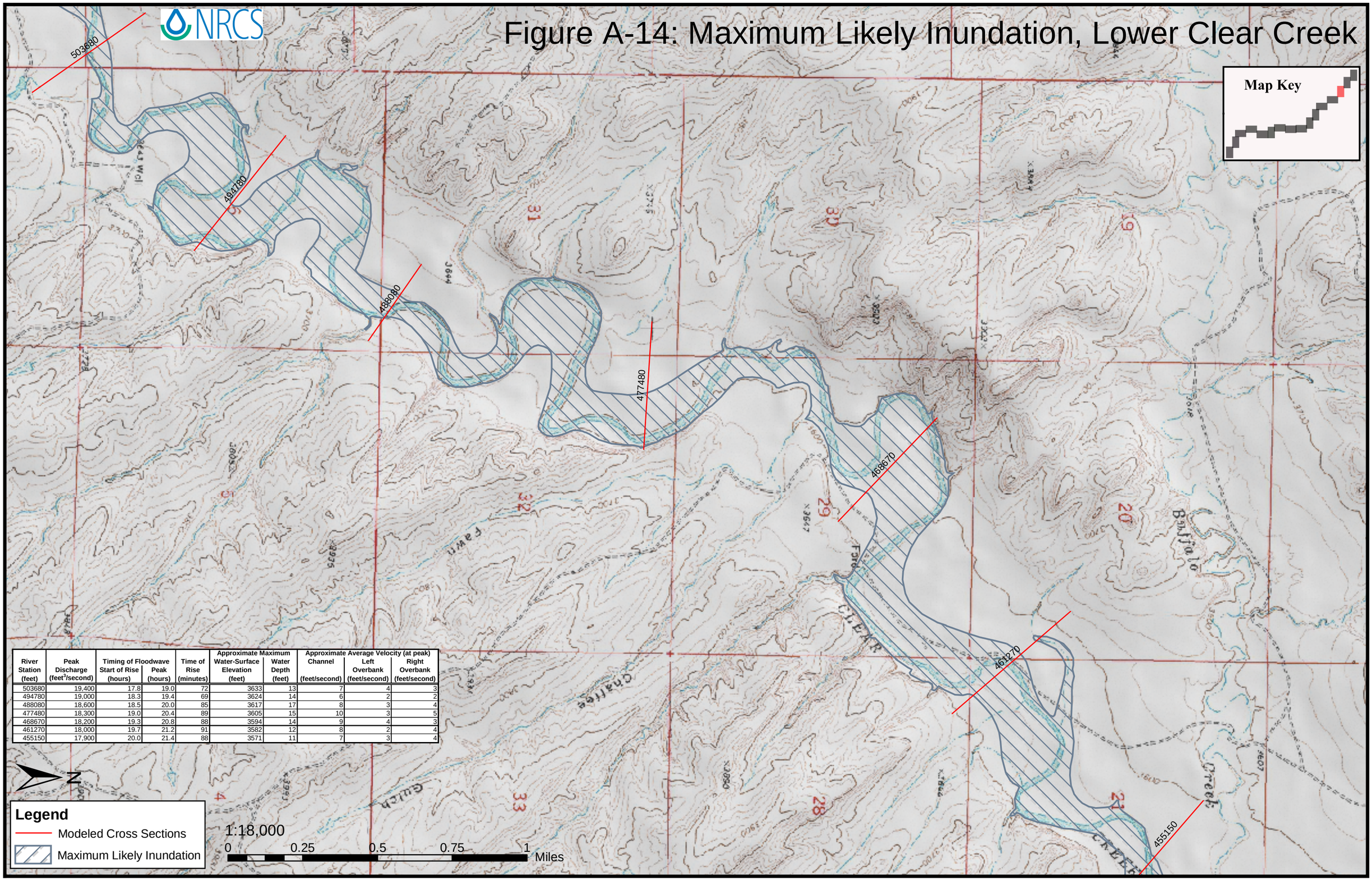
Figure A-12: Maximum Likely Inundation, Clear Creek



River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
557705	20,000	15.2	16.9	100	3719	9	7	2	4
551135	20,000	15.5	17.0	91	3710	10	6	2	3
544485	19,900	15.8	17.3	88	3699	9	5	2	2
536935	19,800	16.2	17.6	87	3692	12	8	3	3
531680	19,800	16.4	17.9	86	3682	12	9	4	2
526380	19,700	16.7	18.1	84	3672	12	8	4	3
513980	19,600	17.3	18.6	82	3649	9	5	2	2
503680	19,400	17.8	19.0	72	3633	13	7	4	3

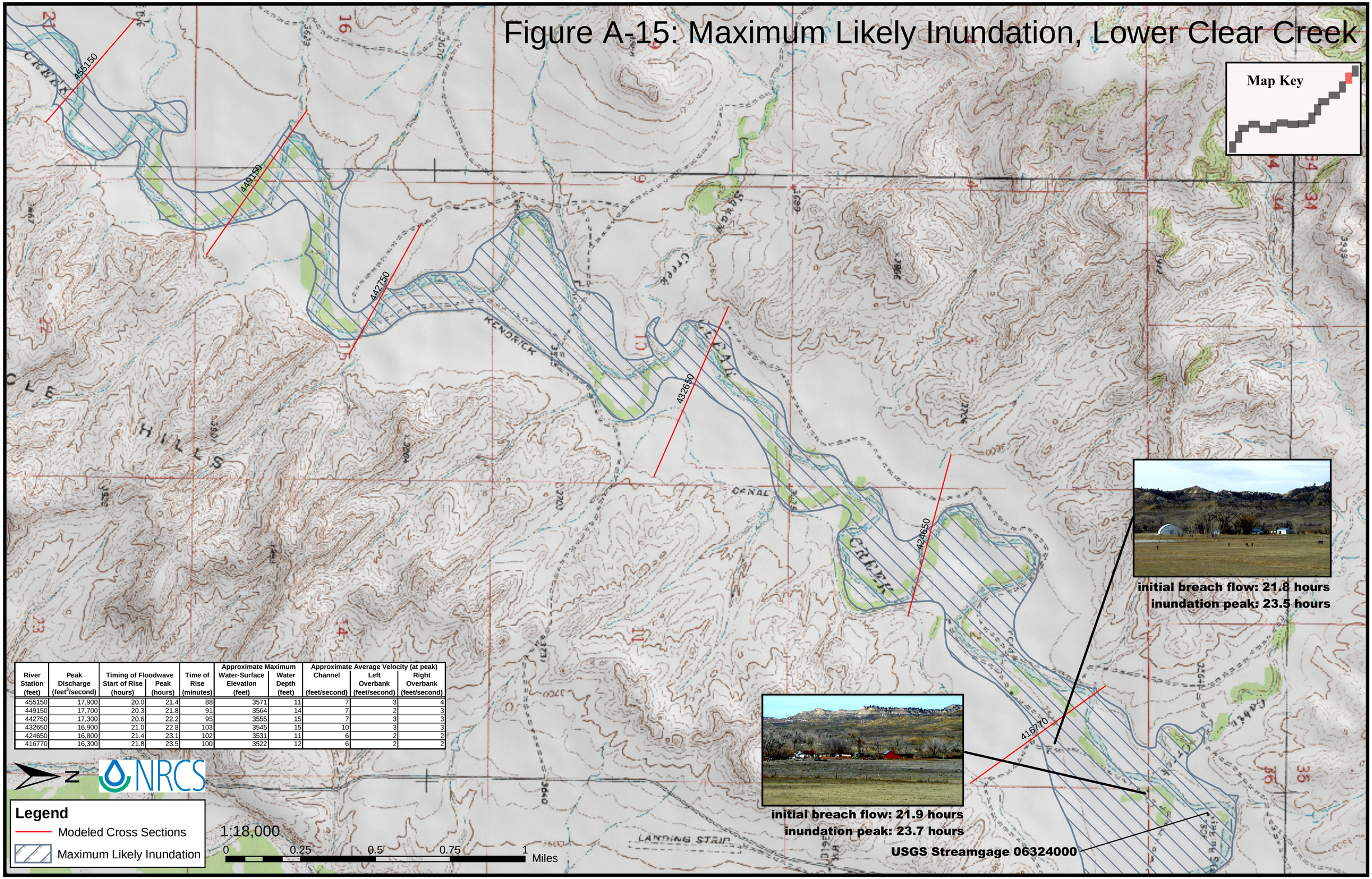
Figure A-13: Maximum Likely Inundation, Clear Creek

Figure A-14: Maximum Likely Inundation, Lower Clear Creek

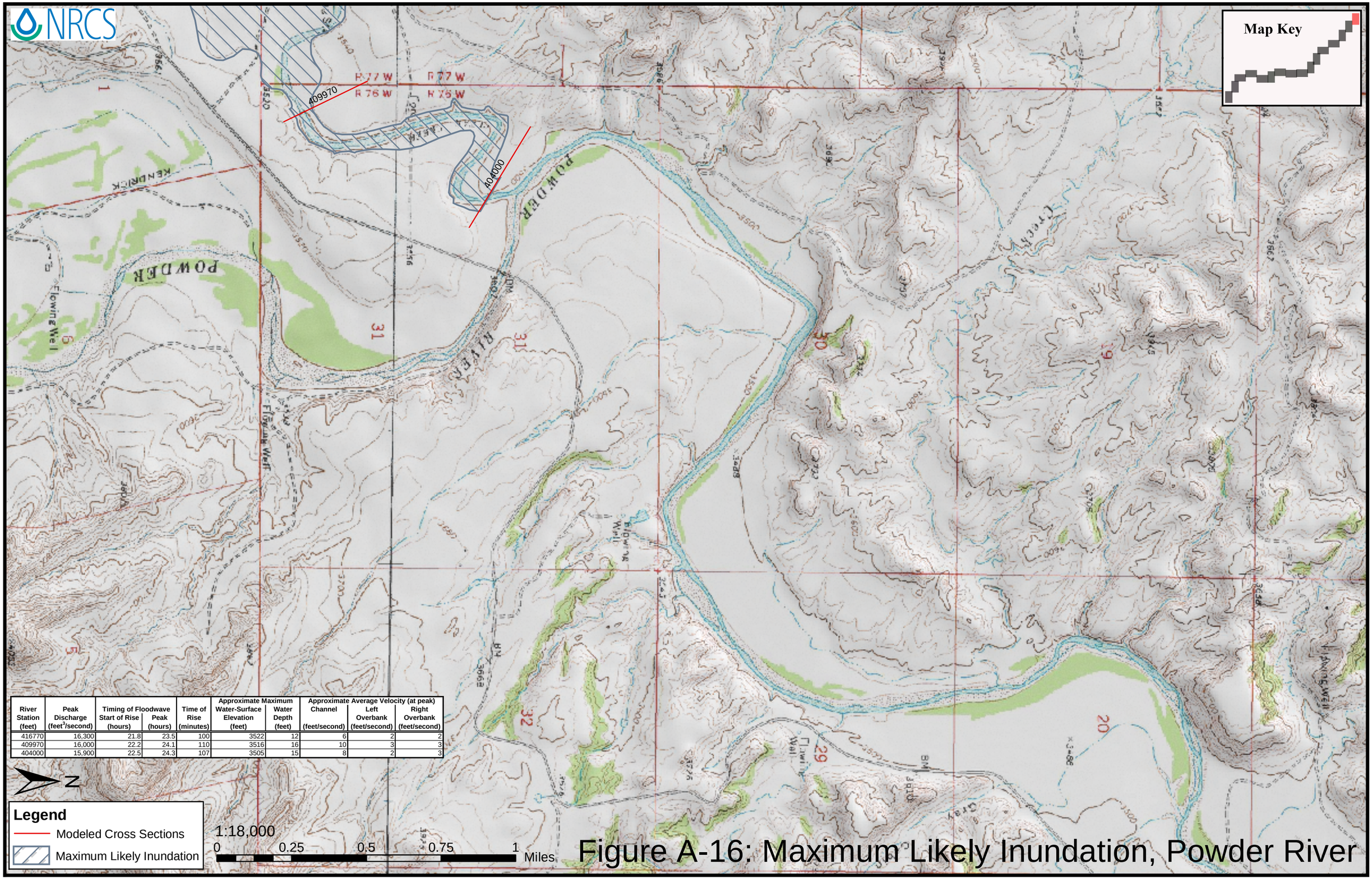


River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave: Start of Rise (hours)	Timing of Floodwave: Peak (hours)	Time of Rise (minutes)	Approximate Maximum: Water-Surface Elevation (feet)	Approximate Maximum: Water Depth (feet)	Approximate Average Velocity (at peak): Channel (feet/second)	Approximate Average Velocity (at peak): Left Overbank (feet/second)	Approximate Average Velocity (at peak): Right Overbank (feet/second)
503680	19,400	17.8	19.0	72	3633	13	7	4	3
494780	19,000	18.3	19.4	69	3624	14	6	2	2
488080	18,600	18.5	20.0	85	3617	17	8	3	4
477480	18,300	19.0	20.4	89	3605	15	10	3	5
468670	18,200	19.3	20.8	88	3594	14	9	4	3
461270	18,000	19.7	21.2	91	3582	12	8	2	4
455150	17,900	20.0	21.4	88	3571	11	7	3	4

Figure A-15: Maximum Likely Inundation, Lower Clear Creek



River Station (feet)	Peak Discharge (feet³/second)	Timing of Floodwave: Start of Rise (hours)	Timing of Floodwave: Peak (hours)	Time of Rise (minutes)	Approximate Maximum: Water-Surface Elevation (feet)	Approximate Maximum: Water Depth (feet)	Approximate Average Velocity (at peak): Channel (feet/second)	Approximate Average Velocity (at peak): Left Overbank (feet/second)	Approximate Average Velocity (at peak): Right Overbank (feet/second)
455150	17,900	20.0	21.4	88	3571	11	7	3	4
449150	17,700	20.3	21.8	91	3564	14	7	2	3
442750	17,300	20.6	22.2	95	3555	15	7	3	3
432650	16,900	21.0	22.8	103	3545	15	10	3	3
424650	16,800	21.4	23.1	102	3531	11	6	2	2
416770	16,300	21.8	23.5	100	3522	12	6	2	2



River Station (feet)	Peak Discharge (feet^3/second)	Timing of Floodwave Start of Rise (hours)	Timing of Floodwave Peak (hours)	Time of Rise (minutes)	Approximate Maximum Water-Surface Elevation (feet)	Approximate Maximum Water Depth (feet)	Approximate Average Velocity (at peak) Channel (feet/second)	Approximate Average Velocity (at peak) Left Overbank (feet/second)	Approximate Average Velocity (at peak) Right Overbank (feet/second)
416770	16,300	21.8	23.5	100	3522	12	6	2	2
409970	16,000	22.2	24.1	110	3516	16	10	3	3
404000	15,900	22.5	24.3	107	3505	15	8	2	3

Figure A-16: Maximum Likely Inundation, Powder River