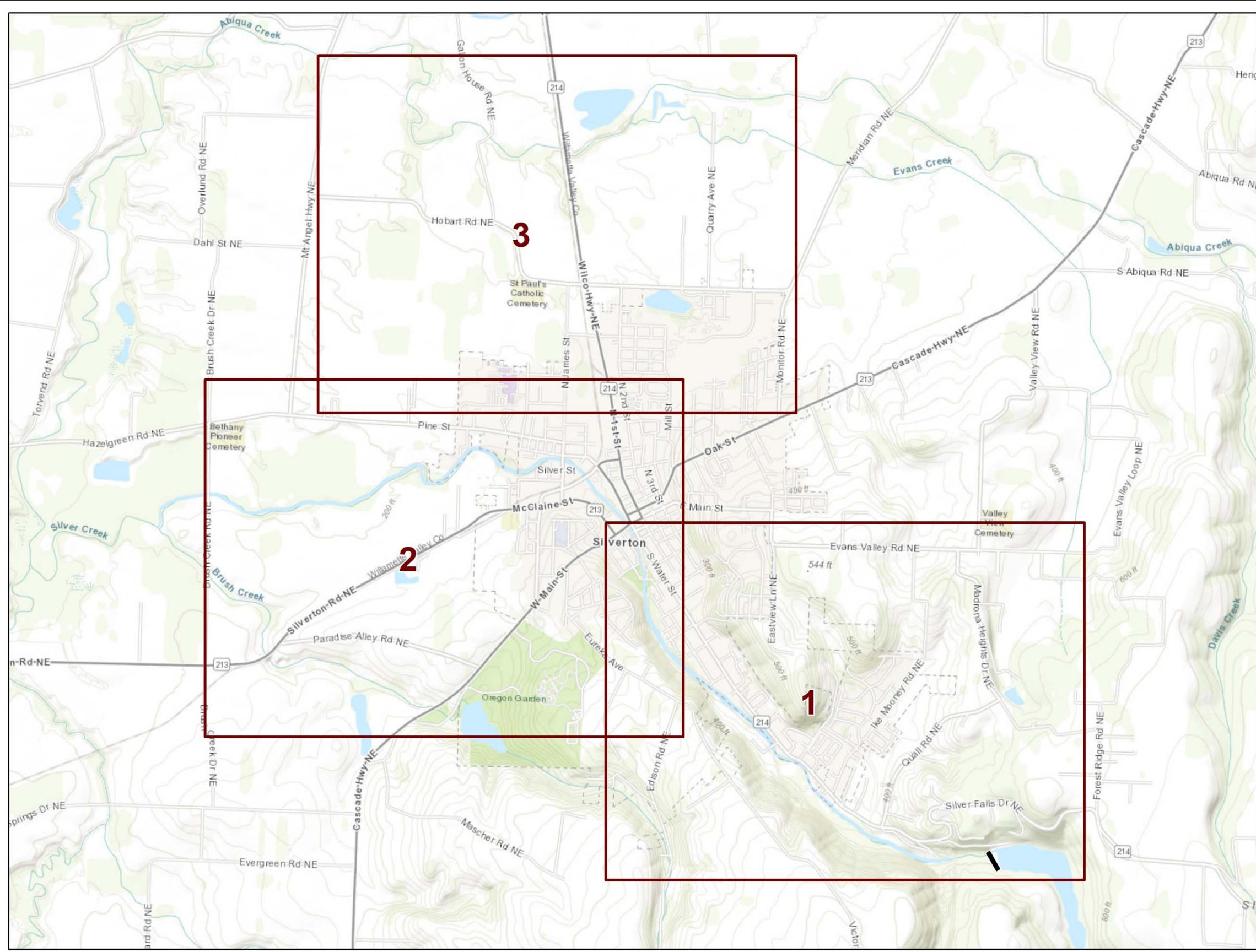


APPENDIX B



INUNDATION MAPPING



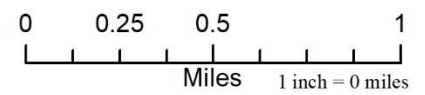
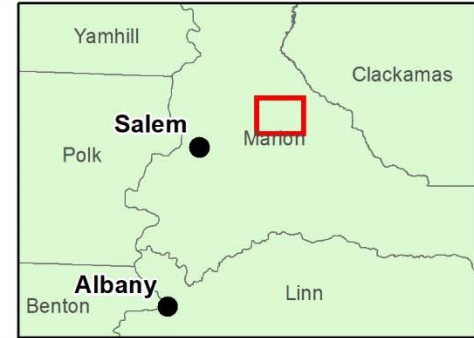
Map Index

City of Silverton Public Works Department Inundation Mapping for Hypothetical Dam Breach of the Silver Creek Dam

Legend

-  Silver Creek Dam
-  Map Panels

Study Area Shown in Red



November 2019
Data: USGS, Oregon
Geospatial Enterprise
Office, ESRI

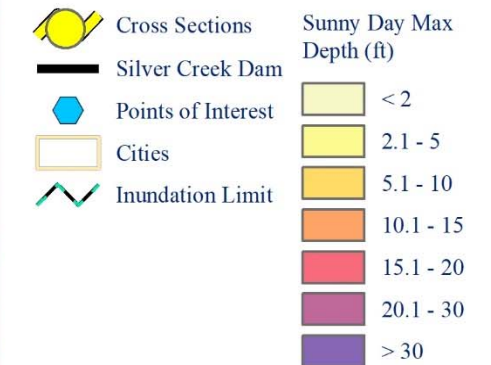
APPENDIX B.1

INUNDATION MAPPING *(SUNNY DAY SCENARIO)*

Map 1 Sunny Day Scenario

City of Silverton
Public Works Department
Inundation Mapping of Hypothetical

Silver Creek Dam Breach

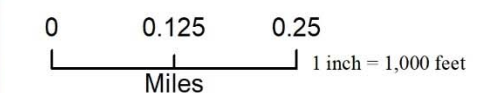
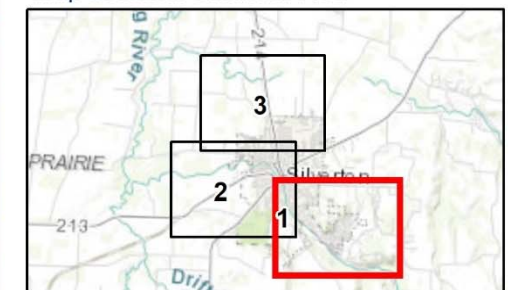


Definition of Terms

TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
TIME TO PEAK - Elapsed time after dam failure for arrival of the flood wave peak.
MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.
MAXIMUM DEPTH - The maximum flood depth.
PEAK FLOW - The maximum discharge of flood hydrograph.

NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red

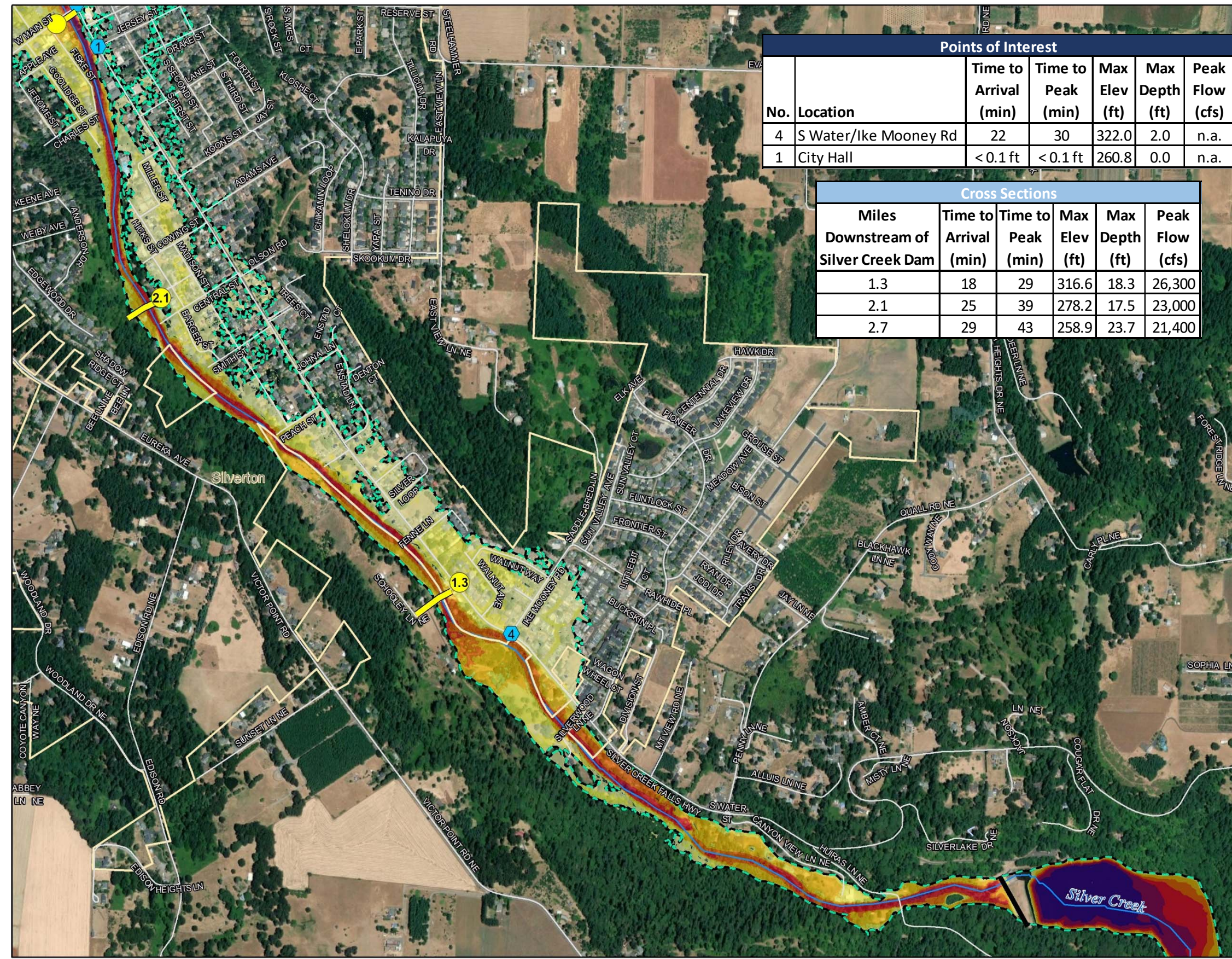


November 2019
Data: USGS,
Oregon Geospatial
Enterprise Office,
ESRI



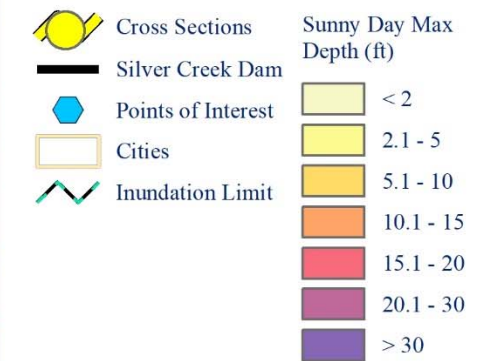
Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
4	S Water/Ike Mooney Rd	22	30	322.0	2.0	n.a.
1	City Hall	<0.1 ft	<0.1 ft	260.8	0.0	n.a.

Cross Sections						
Miles Downstream of Silver Creek Dam	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)	
1.3	18	29	316.6	18.3	26,300	
2.1	25	39	278.2	17.5	23,000	
2.7	29	43	258.9	23.7	21,400	



Map 2 Sunny Day Scenario

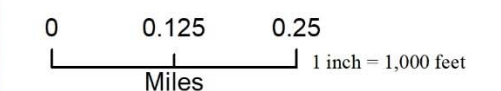
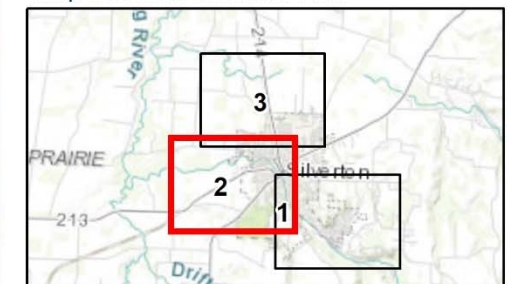
City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach



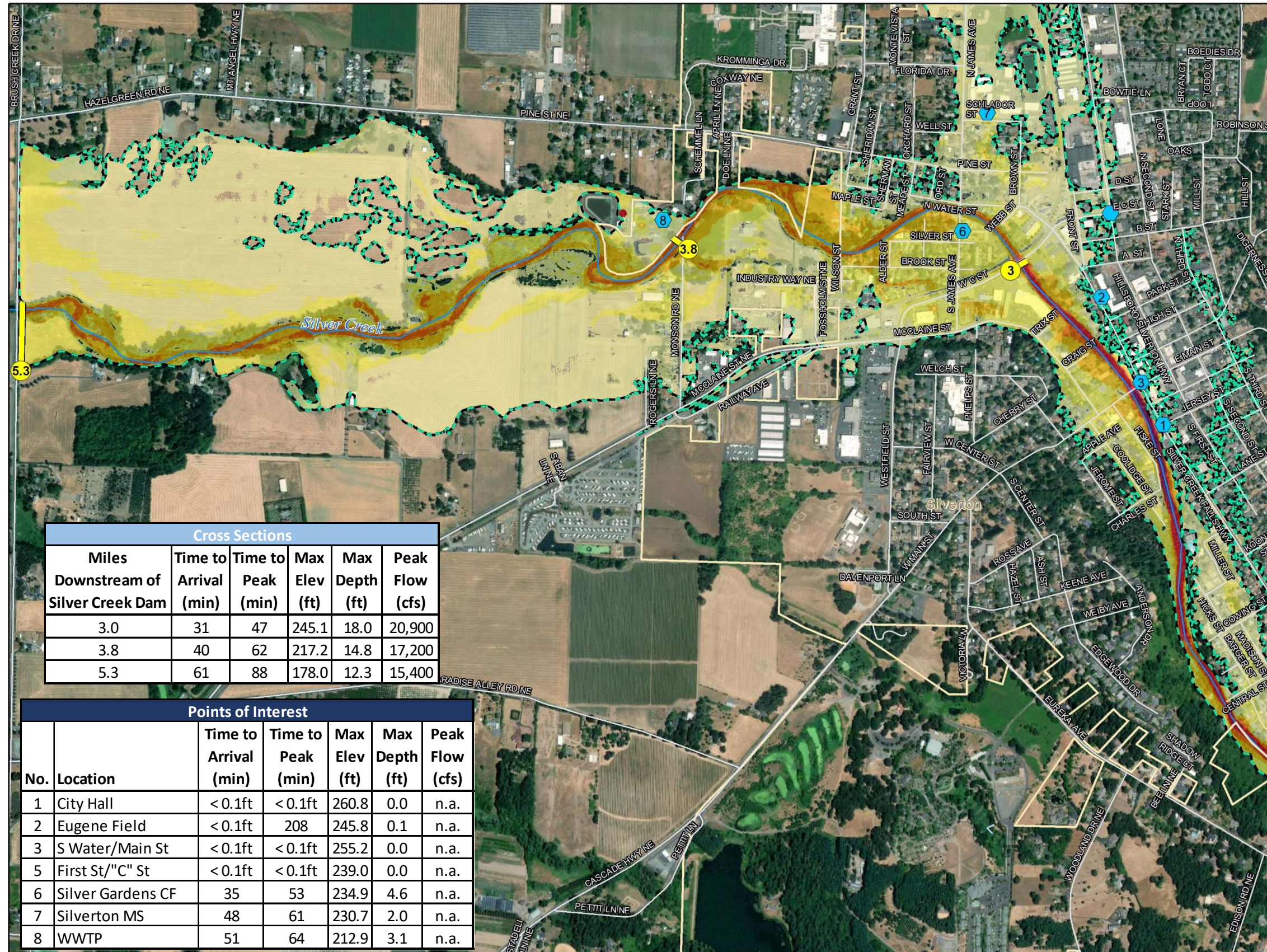
Definition of Terms
TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
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MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.
MAXIMUM DEPTH - The maximum flood depth.
PEAK FLOW - The maximum discharge of flood hydrograph.

NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red



November 2019
 Data: USGS,
 Oregon Geospatial
 Enterprise Office,
 ESRI



Cross Sections					
Miles Downstream of Silver Creek Dam	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
3.0	31	47	245.1	18.0	20,900
3.8	40	62	217.2	14.8	17,200
5.3	61	88	178.0	12.3	15,400

Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
1	City Hall	< 0.1ft	< 0.1ft	260.8	0.0	n.a.
2	Eugene Field	< 0.1ft	208	245.8	0.1	n.a.
3	S Water/Main St	< 0.1ft	< 0.1ft	255.2	0.0	n.a.
5	First St/"C" St	< 0.1ft	< 0.1ft	239.0	0.0	n.a.
6	Silver Gardens CF	35	53	234.9	4.6	n.a.
7	Silverton MS	48	61	230.7	2.0	n.a.
8	WWTP	51	64	212.9	3.1	n.a.

Map 3 Sunny Day Scenario

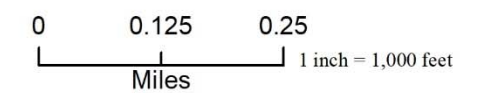
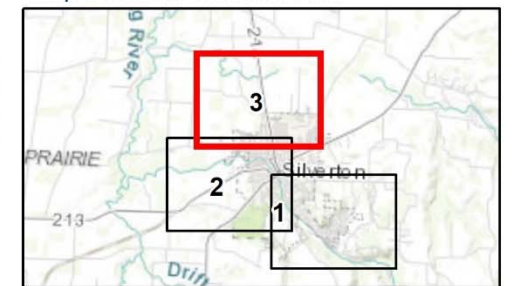
City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach

Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
9	Split Flow Reach	58	68	218.1	1.1	1,830

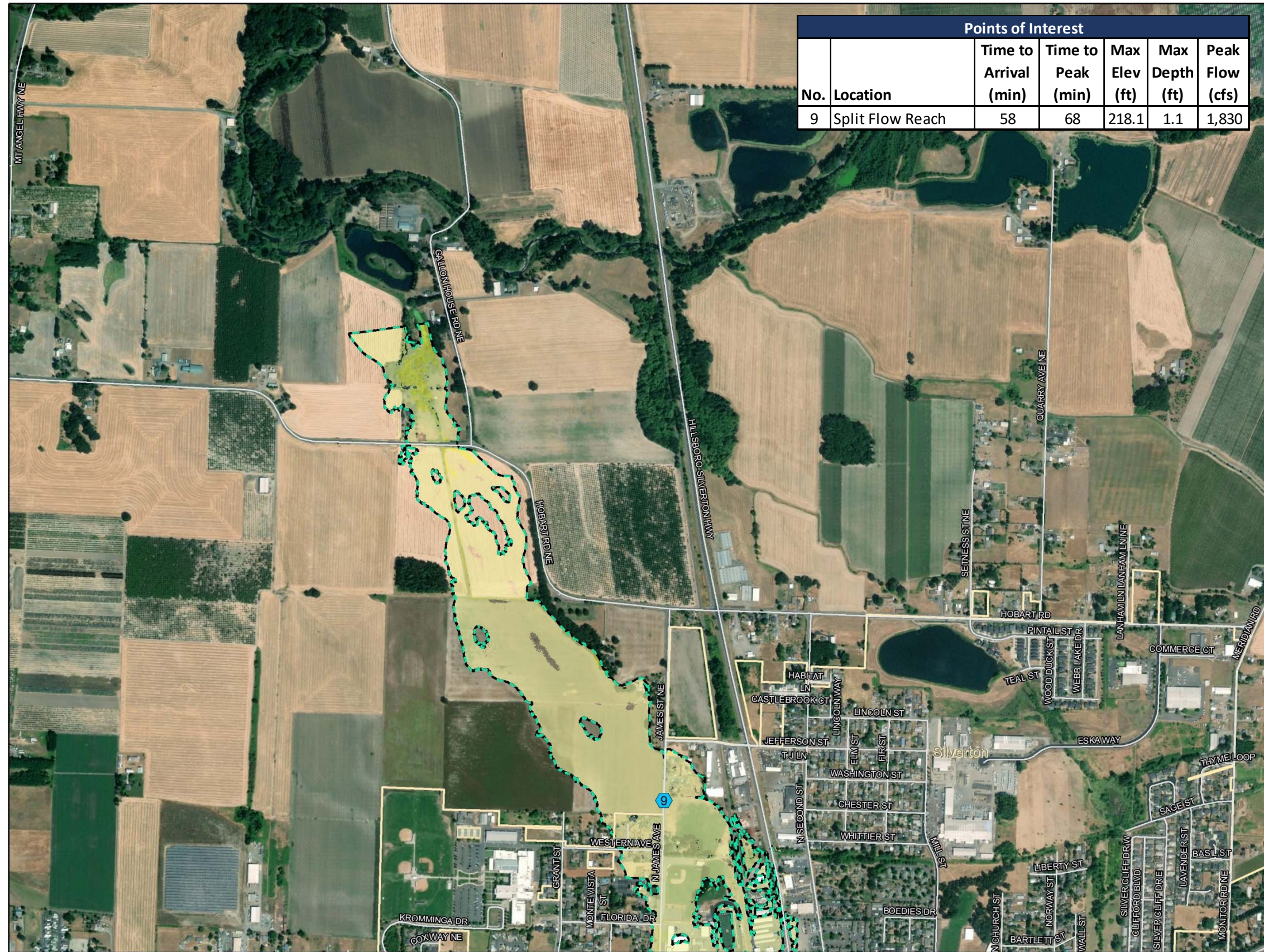
- Cross Sections
 - Silver Creek Dam
 - Points of Interest
 - Cities
 - Inundation Limit
- Sunny Day Max Depth (ft)
- < 2
 - 2.1 - 5
 - 5.1 - 10
 - 10.1 - 15
 - 15.1 - 20
 - 20.1 - 30
 - > 30

Definition of Terms
TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
TIME TO PEAK - Elapsed time after dam failure for arrival of the flood wave peak.
MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.
MAXIMUM DEPTH - The maximum flood depth.
PEAK FLOW - The maximum discharge of flood hydrograph.
NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red



November 2019
 Data: USGS,
 Oregon Geospatial
 Enterprise Office,
 ESRI

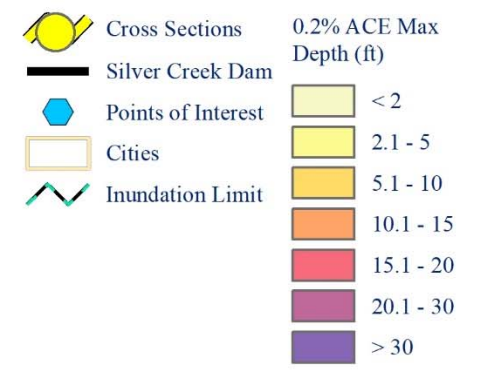


APPENDIX B.2

INUNDATION MAPPING *(0.2% ACE SCENARIO)*

Map 1 0.2% ACE Scenario

City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach

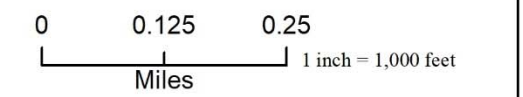
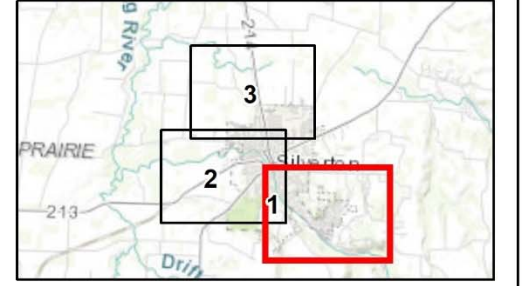


Definition of Terms

TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
 TIME TO PEAK - Elapsed time after dam failure for arrival of the flood wave peak.
 MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.
 MAXIMUM DEPTH - The maximum flood depth.
 PEAK FLOW - The maximum discharge of flood hydrograph.

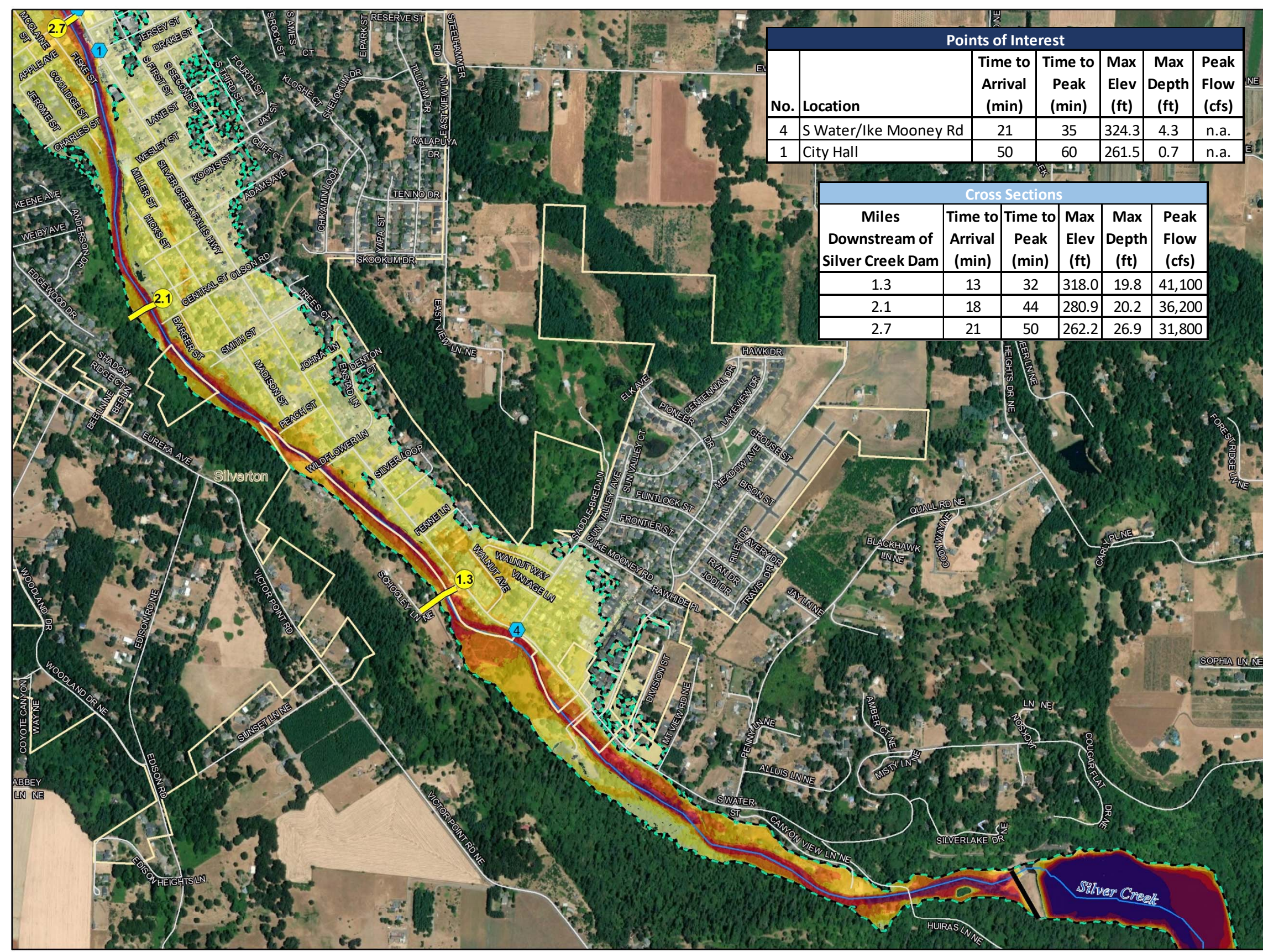
NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red



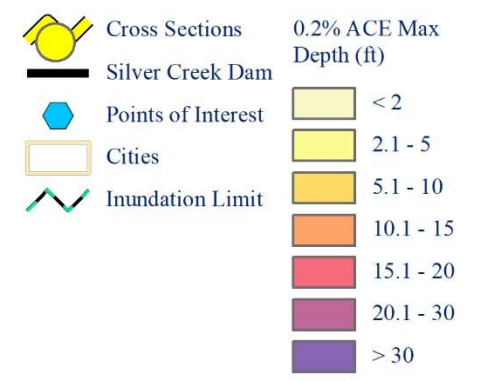
Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
4	S Water/Ike Mooney Rd	21	35	324.3	4.3	n.a.
1	City Hall	50	60	261.5	0.7	n.a.

Cross Sections					
Miles Downstream of Silver Creek Dam	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
1.3	13	32	318.0	19.8	41,100
2.1	18	44	280.9	20.2	36,200
2.7	21	50	262.2	26.9	31,800



Map 2 0.2% ACE Scenario

City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach

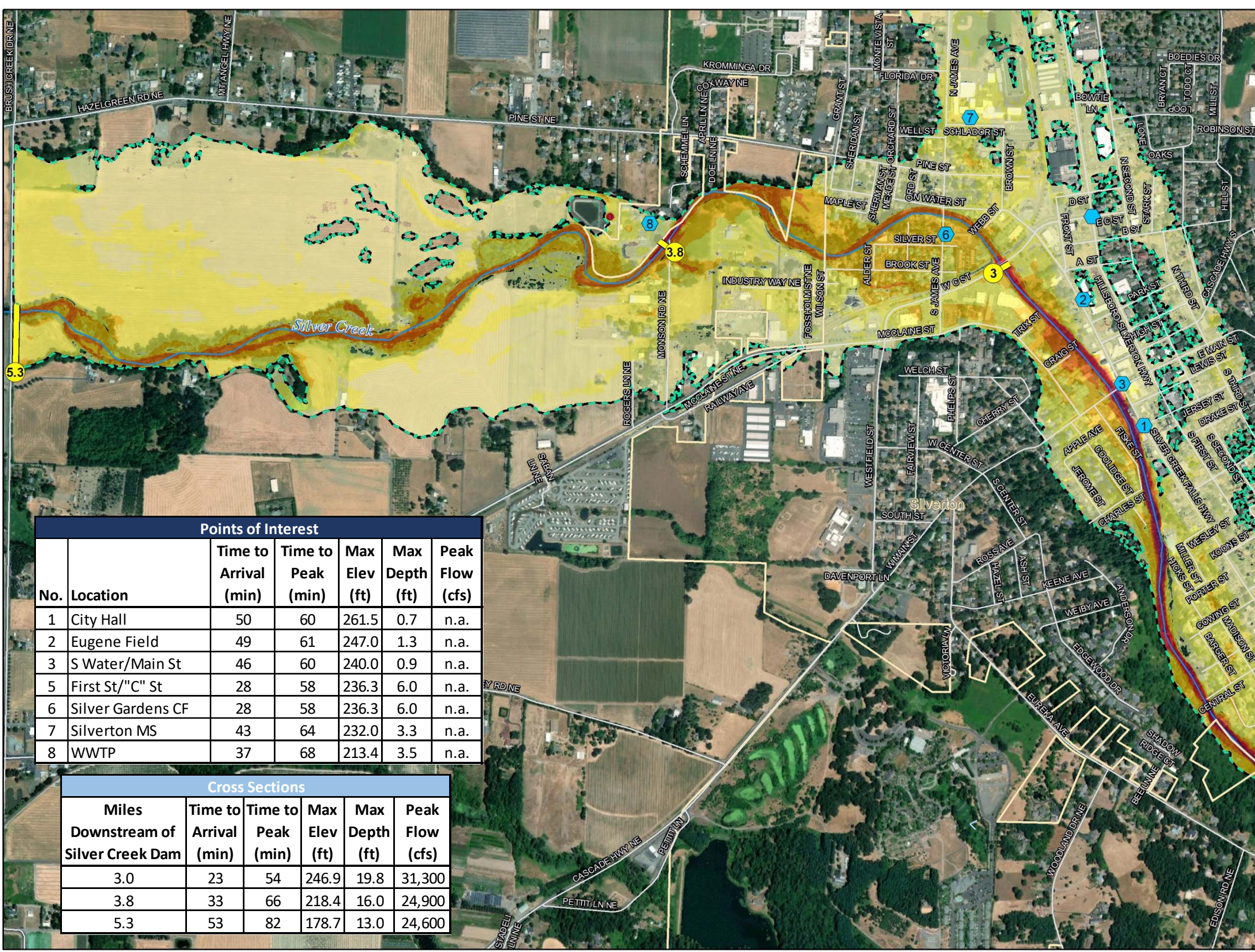
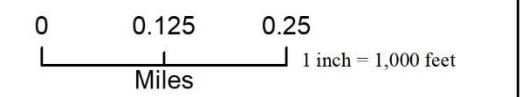
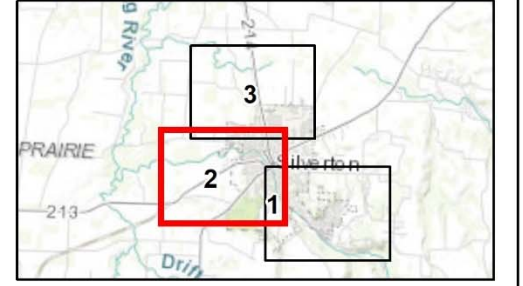


Definition of Terms

TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
 TIME TO PEAK - Elapsed time after dam failure for arrival of the flood wave peak.
 MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.
 MAXIMUM DEPTH - The maximum flood depth.
 PEAK FLOW - The maximum discharge of flood hydrograph.

NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red

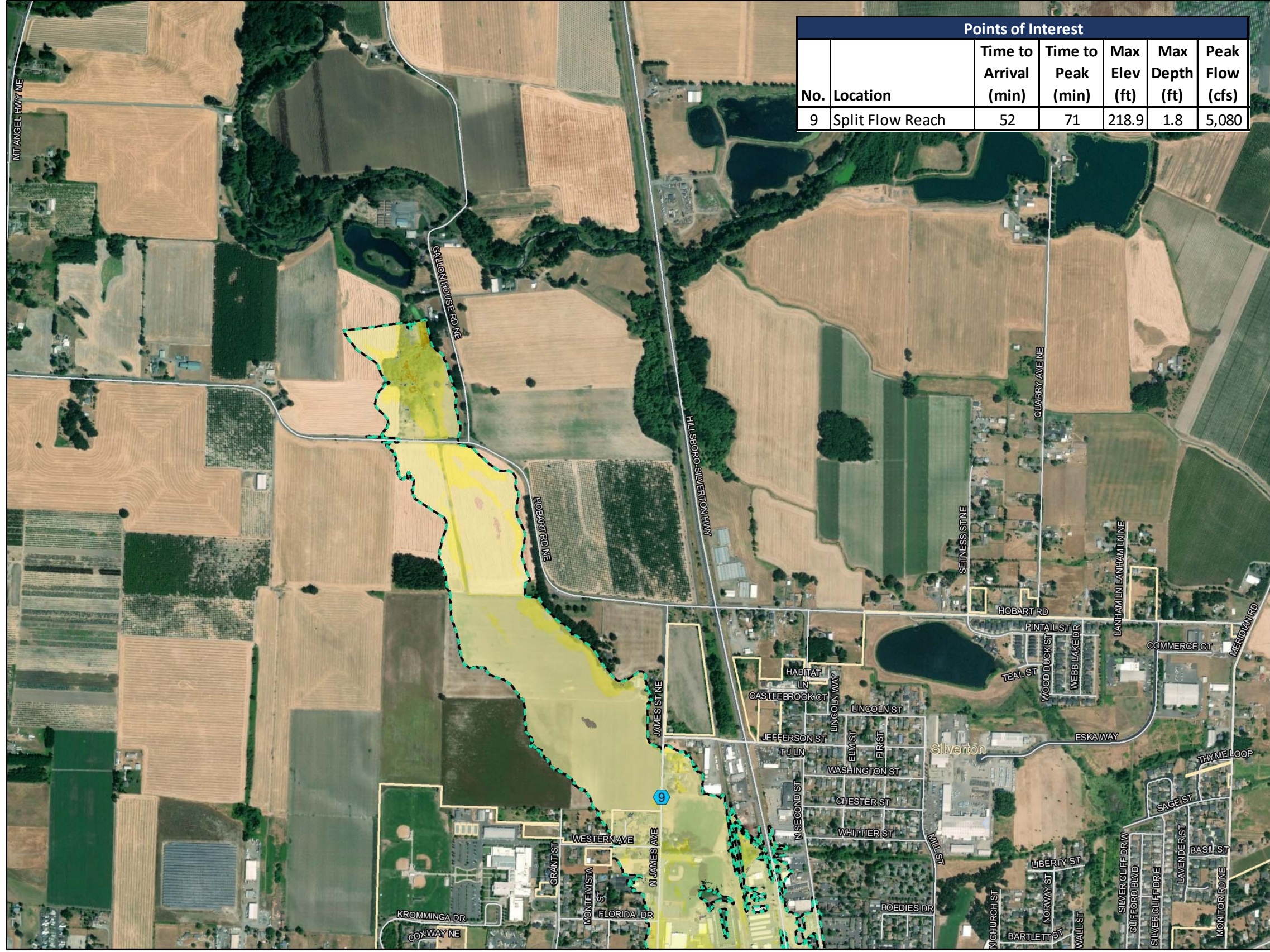


Points of Interest

No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
1	City Hall	50	60	261.5	0.7	n.a.
2	Eugene Field	49	61	247.0	1.3	n.a.
3	S Water/Main St	46	60	240.0	0.9	n.a.
5	First St/"C" St	28	58	236.3	6.0	n.a.
6	Silver Gardens CF	28	58	236.3	6.0	n.a.
7	Silverton MS	43	64	232.0	3.3	n.a.
8	WWTP	37	68	213.4	3.5	n.a.

Cross Sections

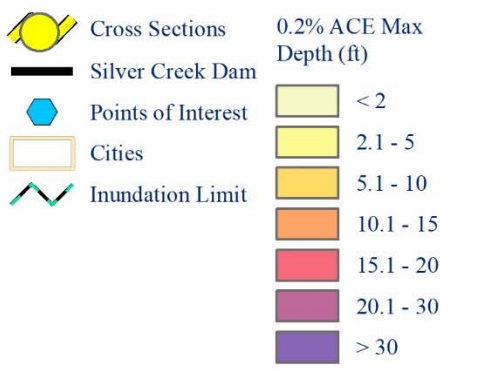
Miles Downstream of Silver Creek Dam	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
3.0	23	54	246.9	19.8	31,300
3.8	33	66	218.4	16.0	24,900
5.3	53	82	178.7	13.0	24,600



Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
9	Split Flow Reach	52	71	218.9	1.8	5,080

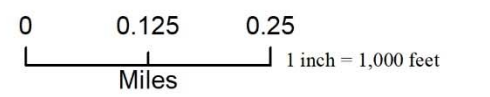
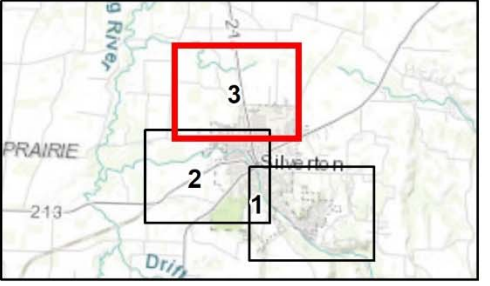
Map 3 0.2% ACE Scenario

City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach



Definition of Terms
TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
TIME TO PEAK - Elapsed time after dam failure for arrival of the flood wave peak.
MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.
MAXIMUM DEPTH - The maximum flood depth.
PEAK FLOW - The maximum discharge of flood hydrograph.
NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red

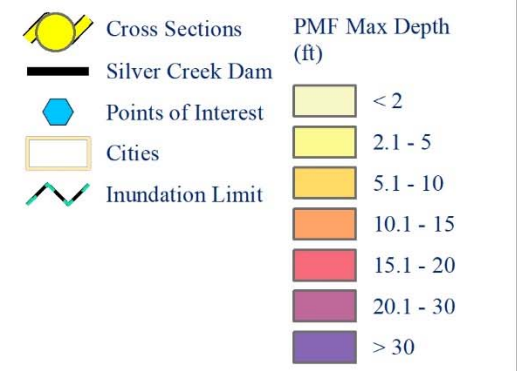


APPENDIX B.3

INUNDATION MAPPING *(PMF SCENARIO)*

Map 1 PMF Scenario

City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach



Definition of Terms

TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.

TIME TO PEAK - Elapsed time after dam failure for arrival of the flood wave peak.

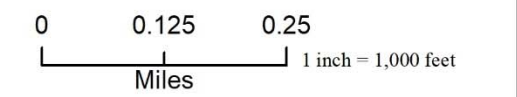
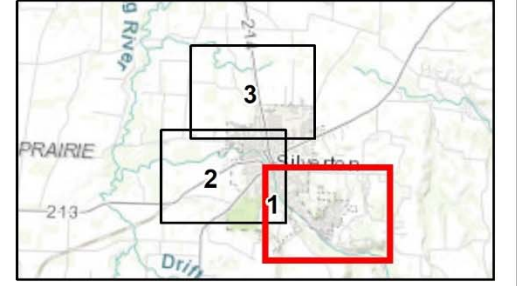
MAXIMUM ELEVATION - The greatest height of dam failure flooding relative to the North American Vertical Datum of 1988.

MAXIMUM DEPTH - The maximum flood depth.

PEAK FLOW - The maximum discharge of flood hydrograph.

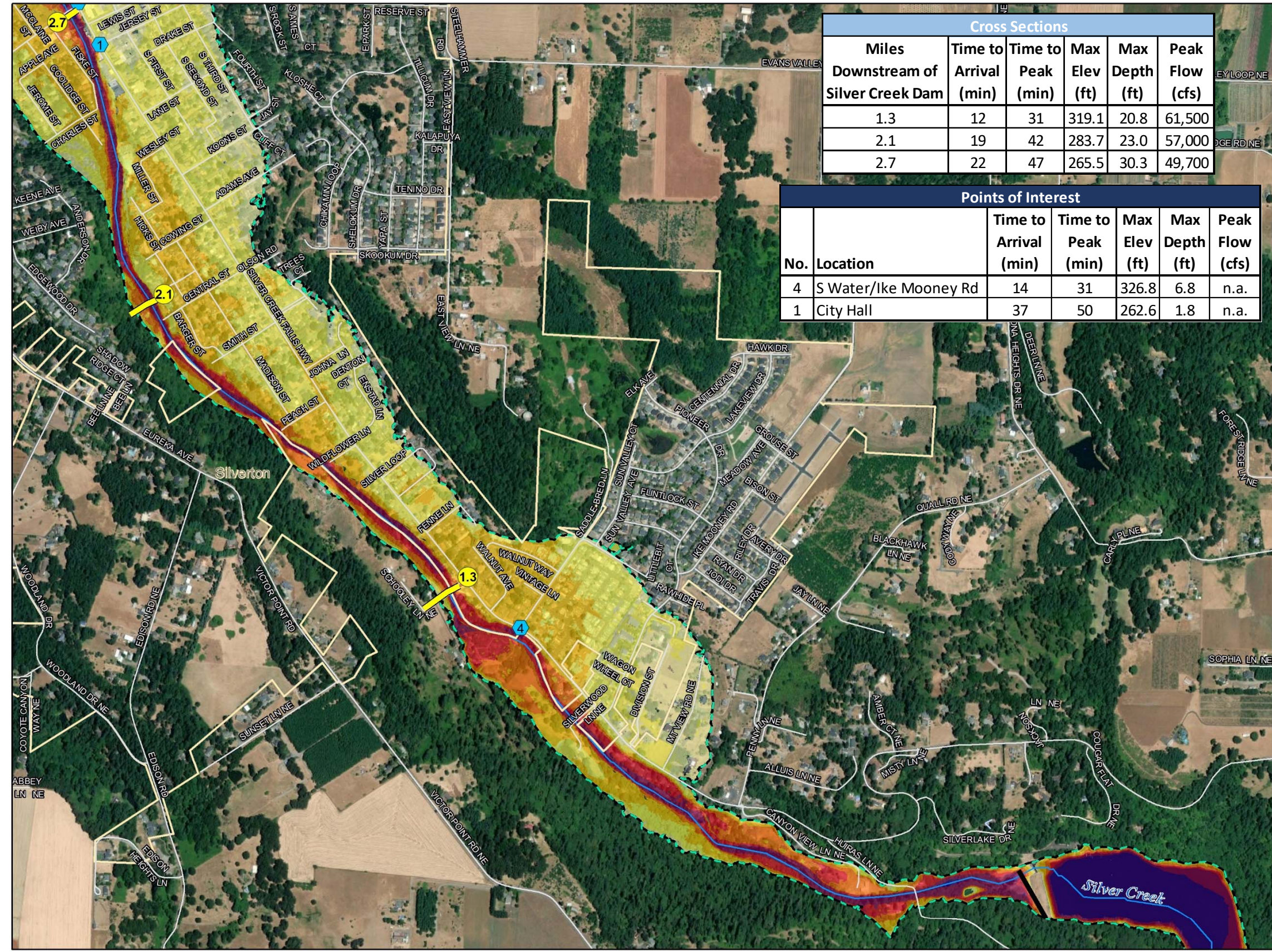
NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red



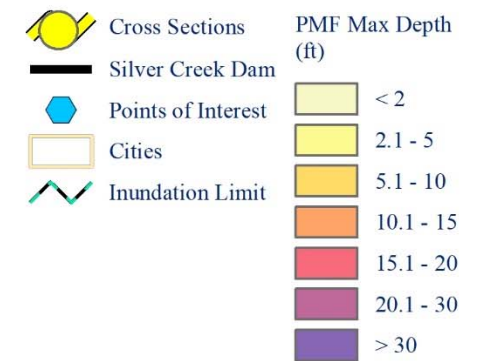
Cross Sections					
Miles Downstream of Silver Creek Dam	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
1.3	12	31	319.1	20.8	61,500
2.1	19	42	283.7	23.0	57,000
2.7	22	47	265.5	30.3	49,700

Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
4	S Water/Ike Mooney Rd	14	31	326.8	6.8	n.a.
1	City Hall	37	50	262.6	1.8	n.a.



Map 2 PMF Scenario

City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach

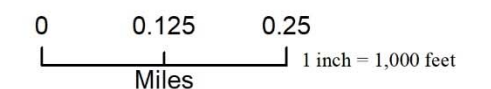
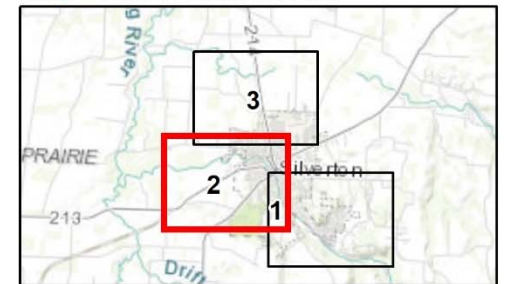


Definition of Terms

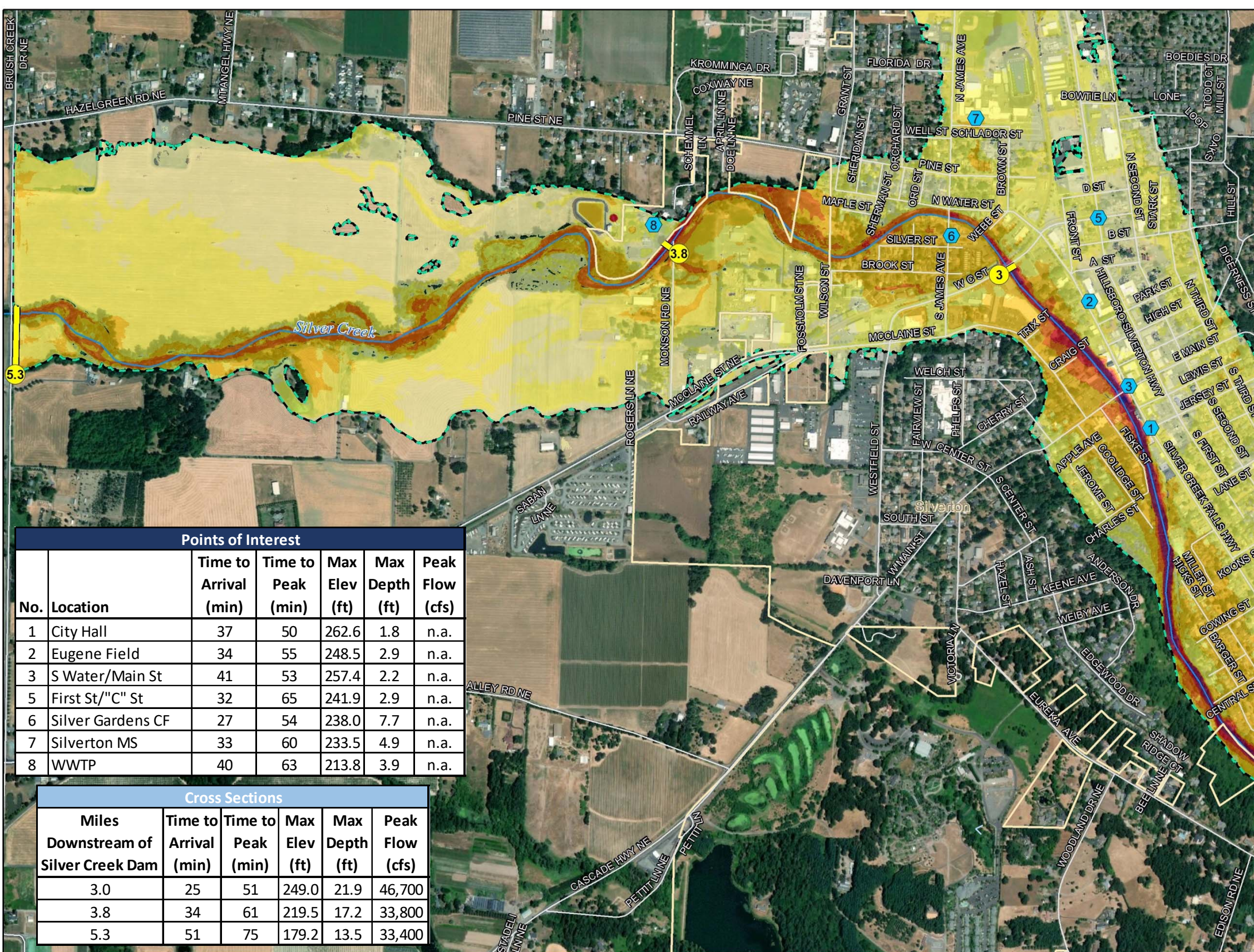
TIME TO ARRIVAL -- Elapsed time after dam failure for initial rise in flood level.
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 PEAK FLOW - The maximum discharge of flood hydrograph.

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Map Location Shown in Red



November 2019
 Data: USGS,
 Oregon Geospatial
 Enterprise Office,
 ESRI



Points of Interest

No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
1	City Hall	37	50	262.6	1.8	n.a.
2	Eugene Field	34	55	248.5	2.9	n.a.
3	S Water/Main St	41	53	257.4	2.2	n.a.
5	First St/"C" St	32	65	241.9	2.9	n.a.
6	Silver Gardens CF	27	54	238.0	7.7	n.a.
7	Silverton MS	33	60	233.5	4.9	n.a.
8	WWTP	40	63	213.8	3.9	n.a.

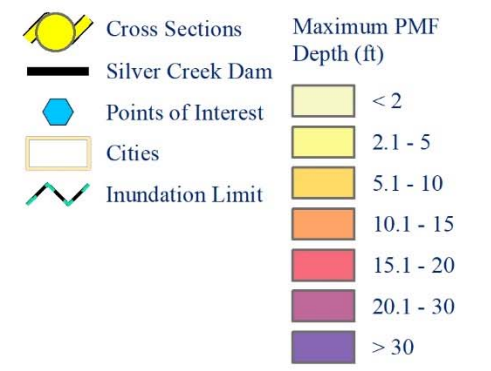
Cross Sections

Miles Downstream of Silver Creek Dam	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
3.0	25	51	249.0	21.9	46,700
3.8	34	61	219.5	17.2	33,800
5.3	51	75	179.2	13.5	33,400

Map 3 PMF Scenario

City of Silverton Public Works Department Inundation Mapping of Hypothetical Silver Creek Dam Breach

Points of Interest						
No.	Location	Time to Arrival (min)	Time to Peak (min)	Max Elev (ft)	Max Depth (ft)	Peak Flow (cfs)
9	Split Flow Reach	40	74	220.2	3.1	12,640



Definition of Terms

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PEAK FLOW - The maximum discharge of flood hydrograph.

NOTE: Map created for emergency planning only and not intended for flood insurance or other non-emergency preparedness purposes.

Map Location Shown in Red

