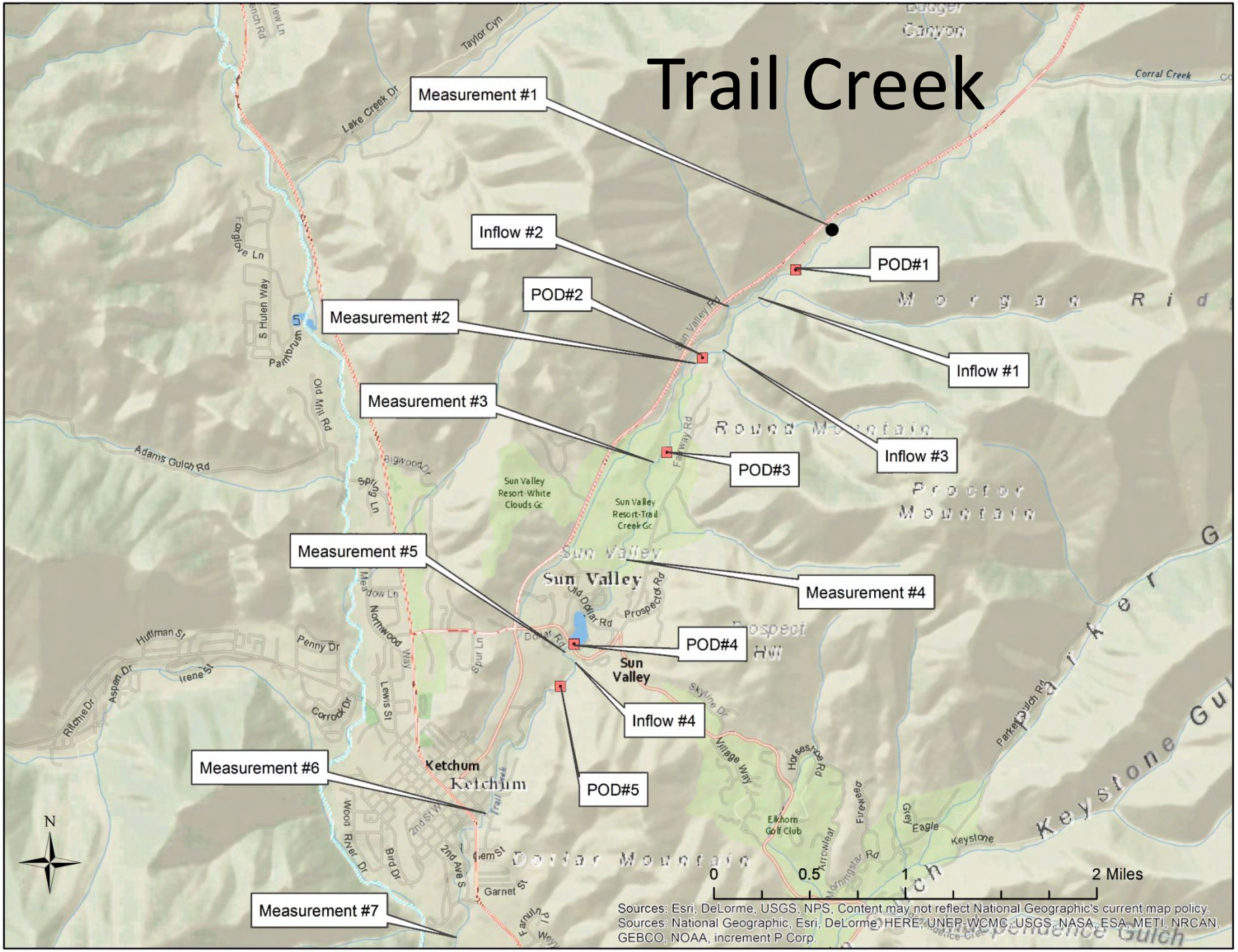
2018 Trail Creek Seepage Survey

Wood River MTAC

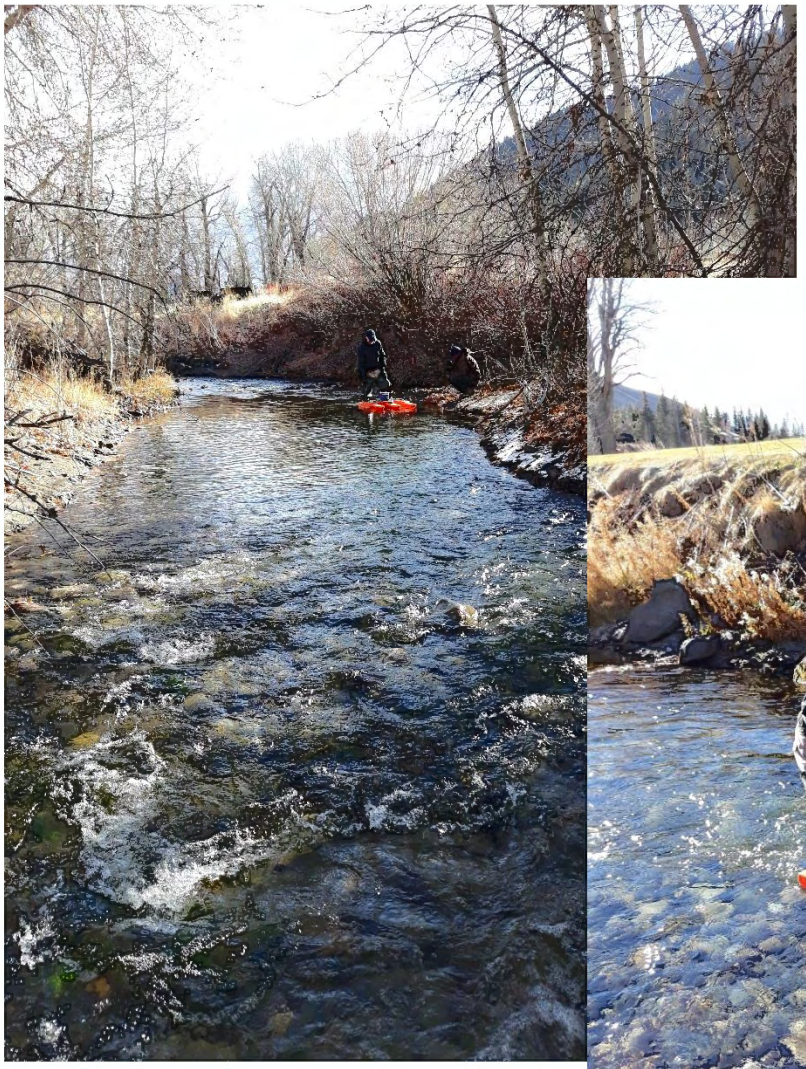
1/17/2019

2018
Trail Creek Seepage Survey

- Survey conducted on 11/06/2018 by D. Owsley and A. Wylie
- Lower 4 miles of Trail Creek
- No measurable diversions or returns.
- 7 measurement sites (same locations as 2017)
- Equipment: RDI Stream Pro ADCP
- Low/base flow conditions
- High quality data – 4 to 5.6% uncertainty
- Report is in development and will be posted to the IDWR website


Trail Creek
Measurement #1
Inflow #2
POD#1
POD#2
Measurement #2
Inflow #1
Measurement #3
Inflow #3
POD#3
Measurement #5
Measurement #4
POD#4
Inflow #4
POD#5
Measurement #6
Measurement #7
Sun Valley
Ketchum
Sun Valley Resort-White Clouds Gc
Sun Valley Resort-Trail Creek Gc
Round Mountain
Proctor Mountain
Dollar Mountain
Keystone Gulch
Morgan Ridge
Corral Creek
Lake Creek Dr
Taylor Cyn
Foxglove Ln
S Hulen Way
Paintbrush
Old Mill Rd
Adams Gulch Rd
Bigwood Dr
Spring Ln
Meadow Ln
Northwood Way
Spur Ln
Lewis St
Penny Dr
Irene St
Aspen Dr
Ritchie Dr
Huffman St
Corrock Dr
Wood River Dr
Bird Dr
2nd Ave S
Gem St
Garnet St
Sun Valley Rd
Fairway Rd
Old Dollar Rd
Prospector Rd
Dollar Rd
Skyline Dr
Village Way
Horseshoe Rd
Elkhorn Golf Club
Arrowleaf
Firewood
Morningstar Rd
Grey Eagle
Keystone
Parker Gulch Rd
N
0
0.5
1
2 Miles
Sources: Esri, DeLorme, USGS, NPS, Content may not reflect National Geographic's current map policy.
Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Trail Creek Measurements

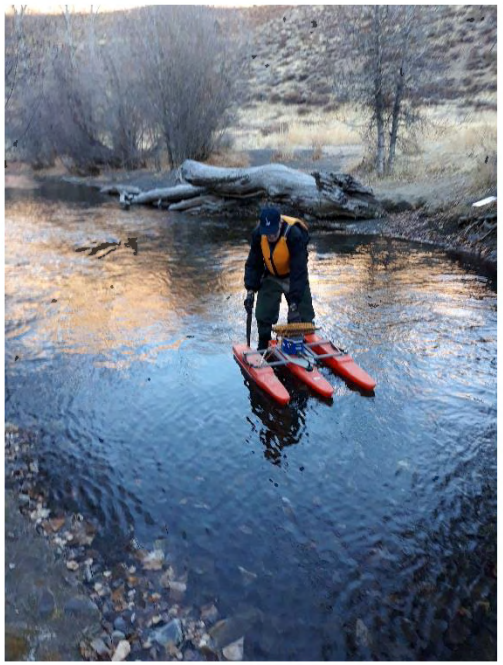


Trail Creek Measurements

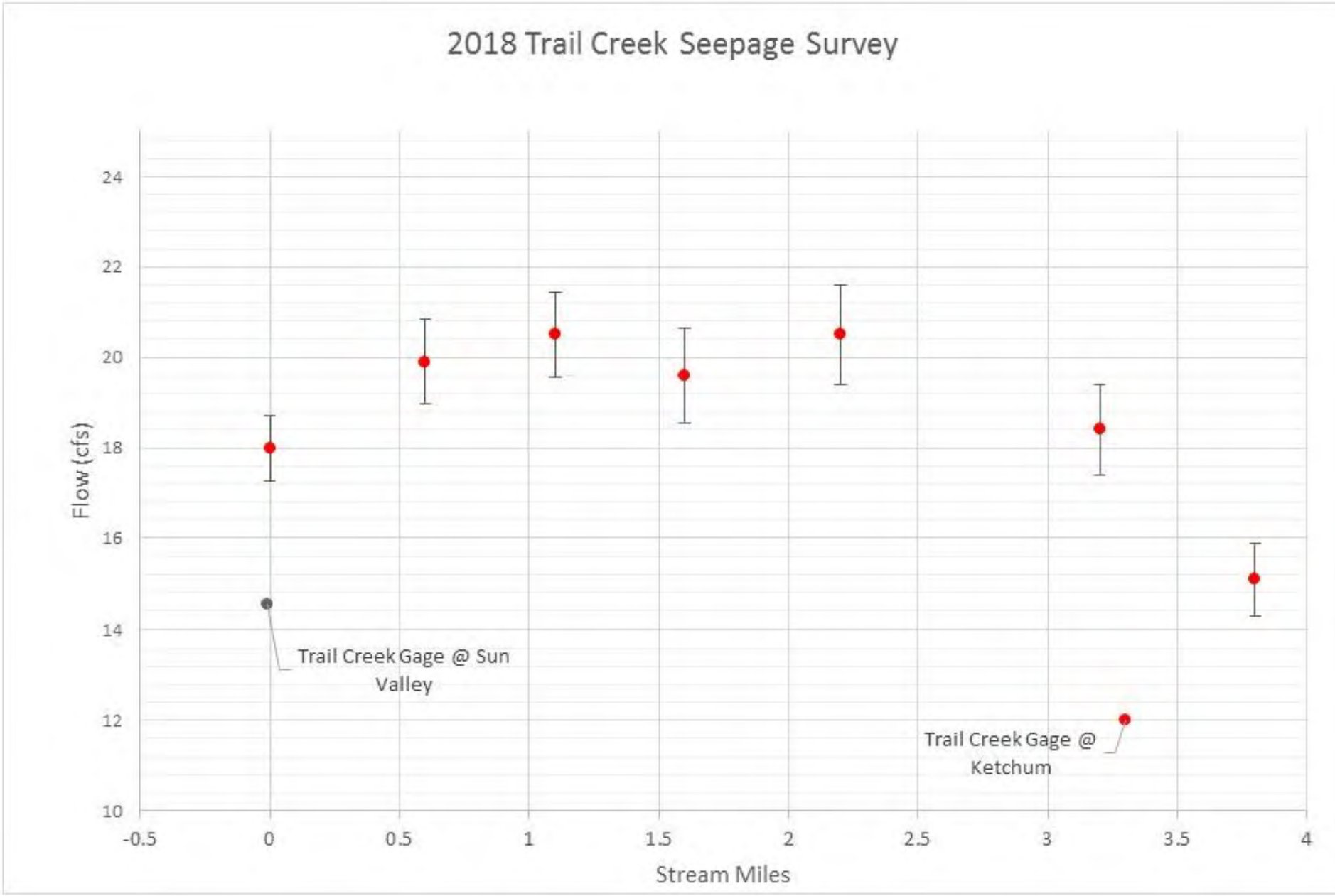
Trail Creek Diversions

USGS Gage Data

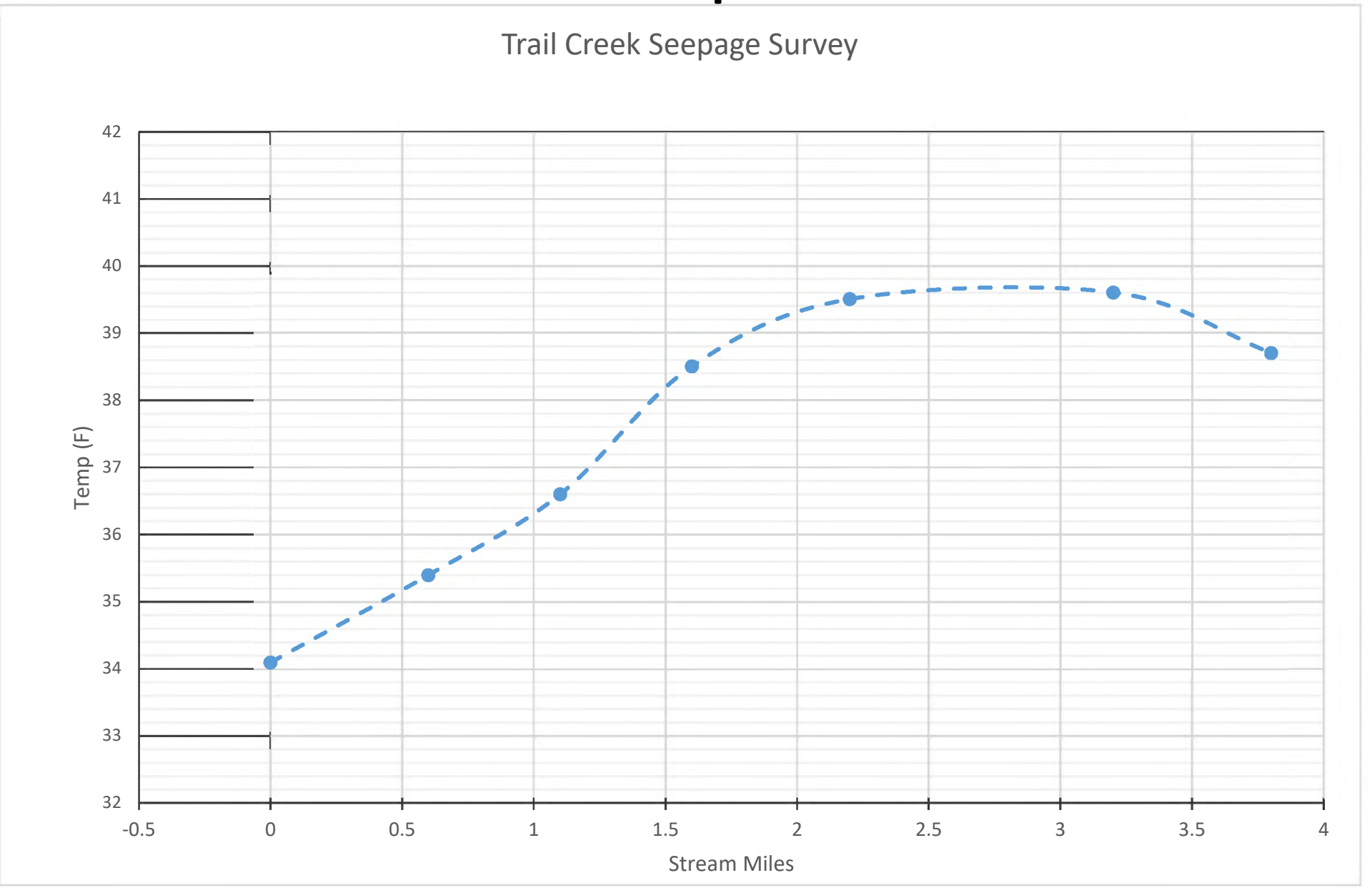
- USGS Gage Data
  - USGS Gage #13137300 near measurement #1
    - Q measured at 18.0 cfs
    - Gage flow reported at 14.0 to 15.1 cfs
  - USGS Gage #13137500 near measurement site #6
    - Average measured Q = 15.1 cfs
    - Gage flow reported at 12.0 cfs



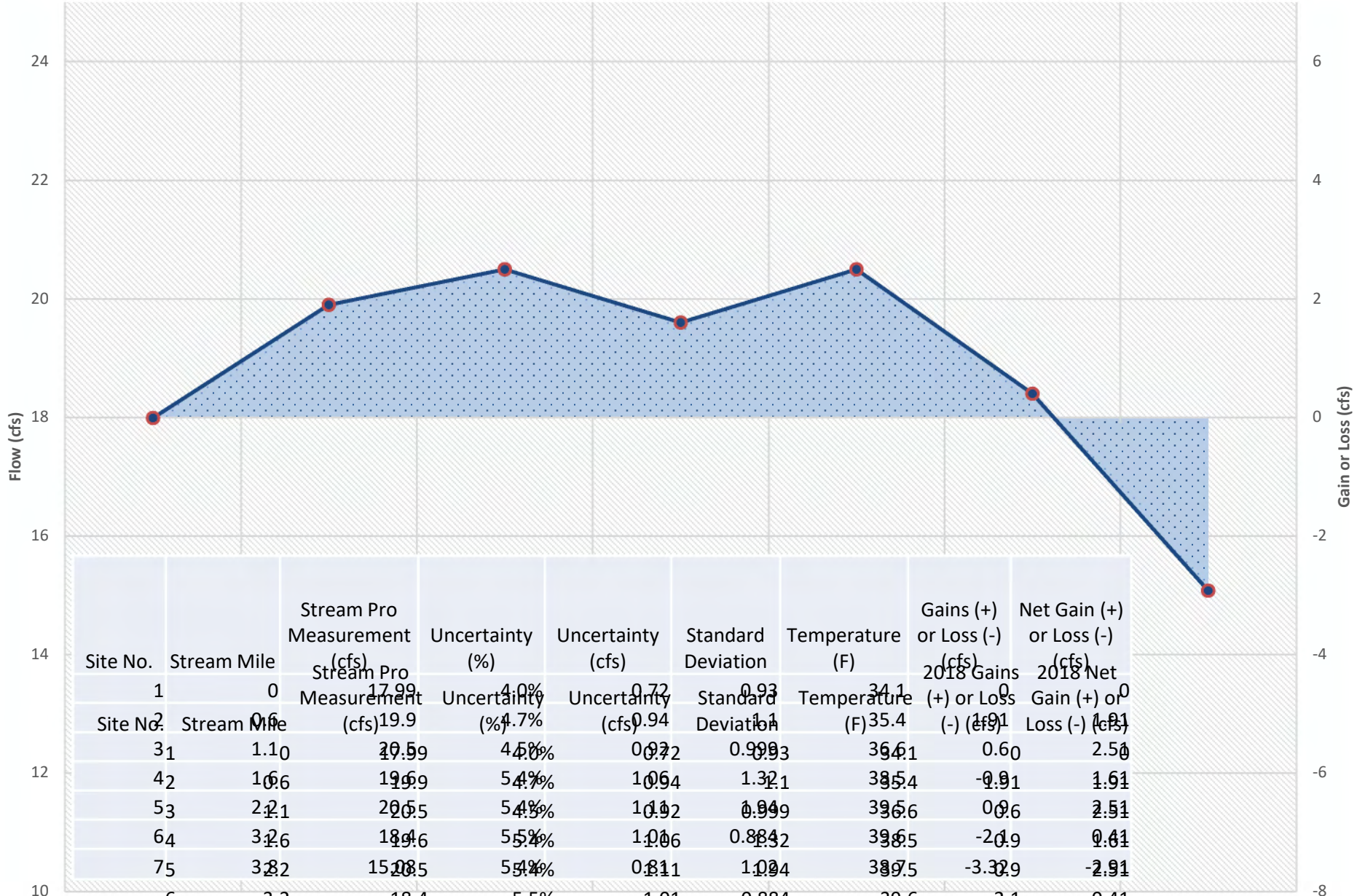
Trail Creek Flow Data



Trail Creek Temperature Data



2018 Trail Creek Seepage



Site No.	Stream Mile	Stream Pro Measurement (cfs)	Uncertainty (%)	Uncertainty (cfs)	Standard Deviation	Temperature (F)	Gains (+) or Loss (-) (cfs)	Net Gain (+) or Loss (-) (cfs)
1	0	17.99	4.0%	0.72	0.93	34.1	0	0
2	0.6	19.9	4.7%	0.94	1.1	35.4	1.91	1.91
3	1.1	20.5	4.5%	0.92	0.999	36.6	0.6	2.51
4	1.6	19.6	5.4%	1.06	1.32	38.5	-0.9	1.61
5	2.2	20.5	5.4%	1.11	1.94	39.5	0.9	2.51
6	3.2	18.4	5.5%	1.01	0.884	39.6	-2.1	0.41
7	3.8	15.08	5.4%	0.81	1.02	38.7	-3.32	-2.91

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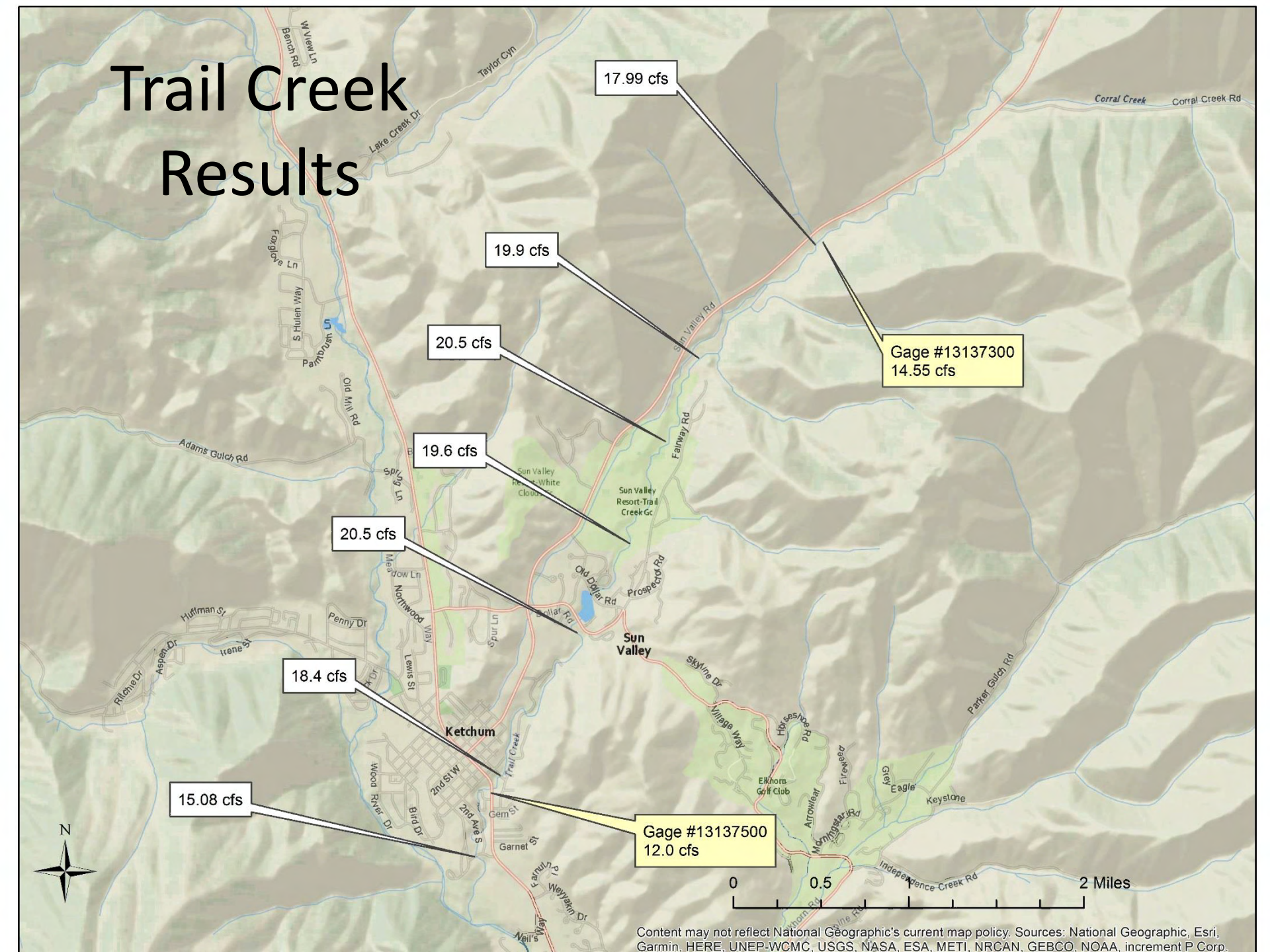
Trail Creek Results
17.99 cfs
19.9 cfs
20.5 cfs
19.6 cfs
20.5 cfs
18.4 cfs
15.08 cfs
Gage #13137300
14.55 cfs
Gage #13137500
12.0 cfs
Ketchum
Sun Valley
Sun Valley Resort-Trail Creek Gc
Elkhorn Golf Club
Corral Creek
Corral Creek Rd
Lake Creek Dr
Taylor Cyn
Bench Rd
W View Ln
Foxglove Ln
S Hulen Way
Paintbrush
Old Mill Rd
Adams Gulch Rd
Spring Ln
Fairway Rd
Meadow Ln
Northwood Way
Spur Ln
Old Dollar Rd
Prospector Rd
Dollar Rd
Huffman St
Penny Dr
Aspen Dr
Irene St
Ritchie Dr
Lewis St
Skyline Dr
Village Way
Horseshoe Rd
Parker Gulch Rd
Trail Creek
Wood River Dr
Bird Dr
2nd St W
2nd Ave S
Gem St
Garnet St
Weyakin Dr
Neil's Way
Arrowleaf
Morningstar Rd
Firewood
Grey Eagle
Keystone
Independence Creek Rd
N
0
0.5
2 Miles
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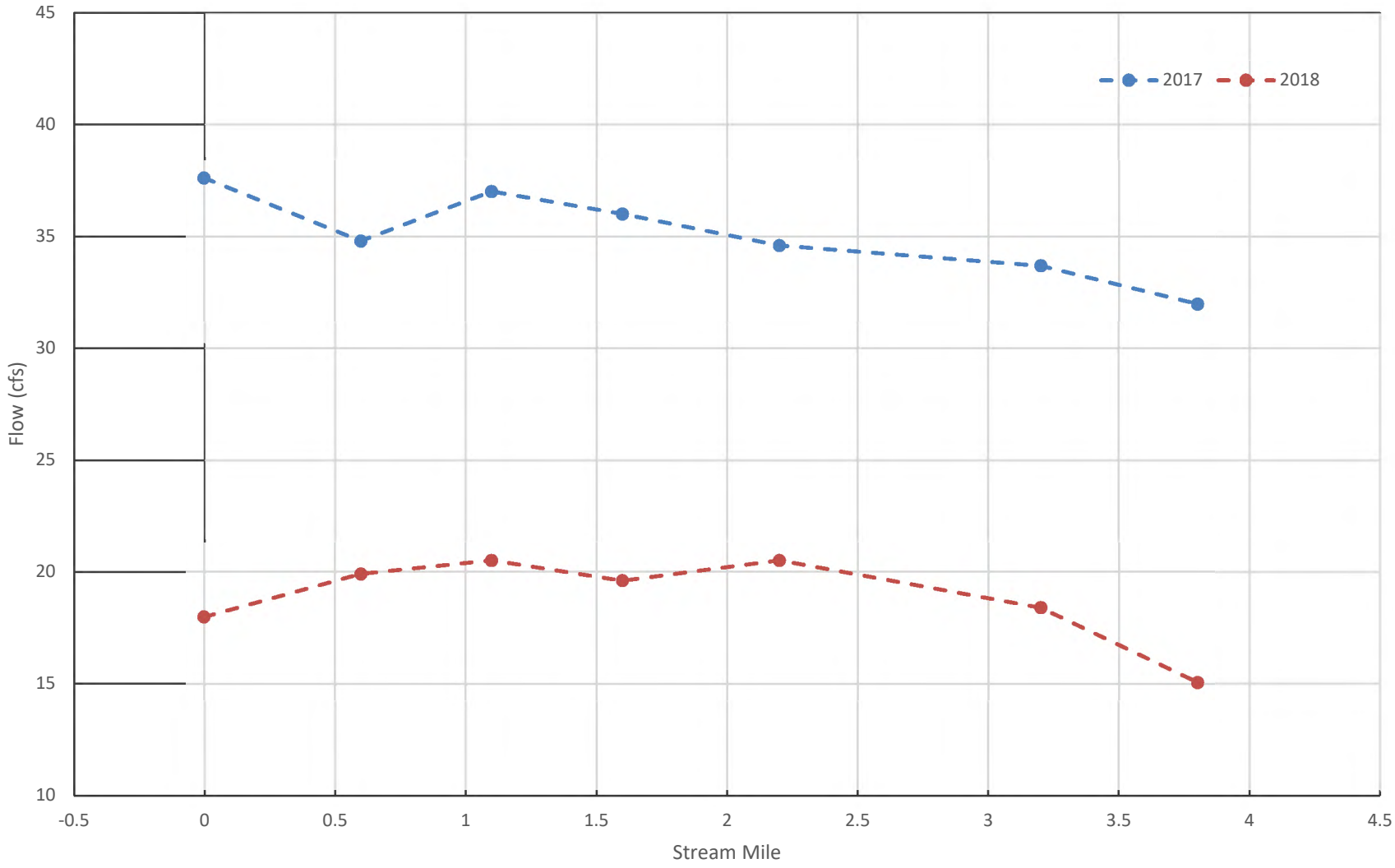
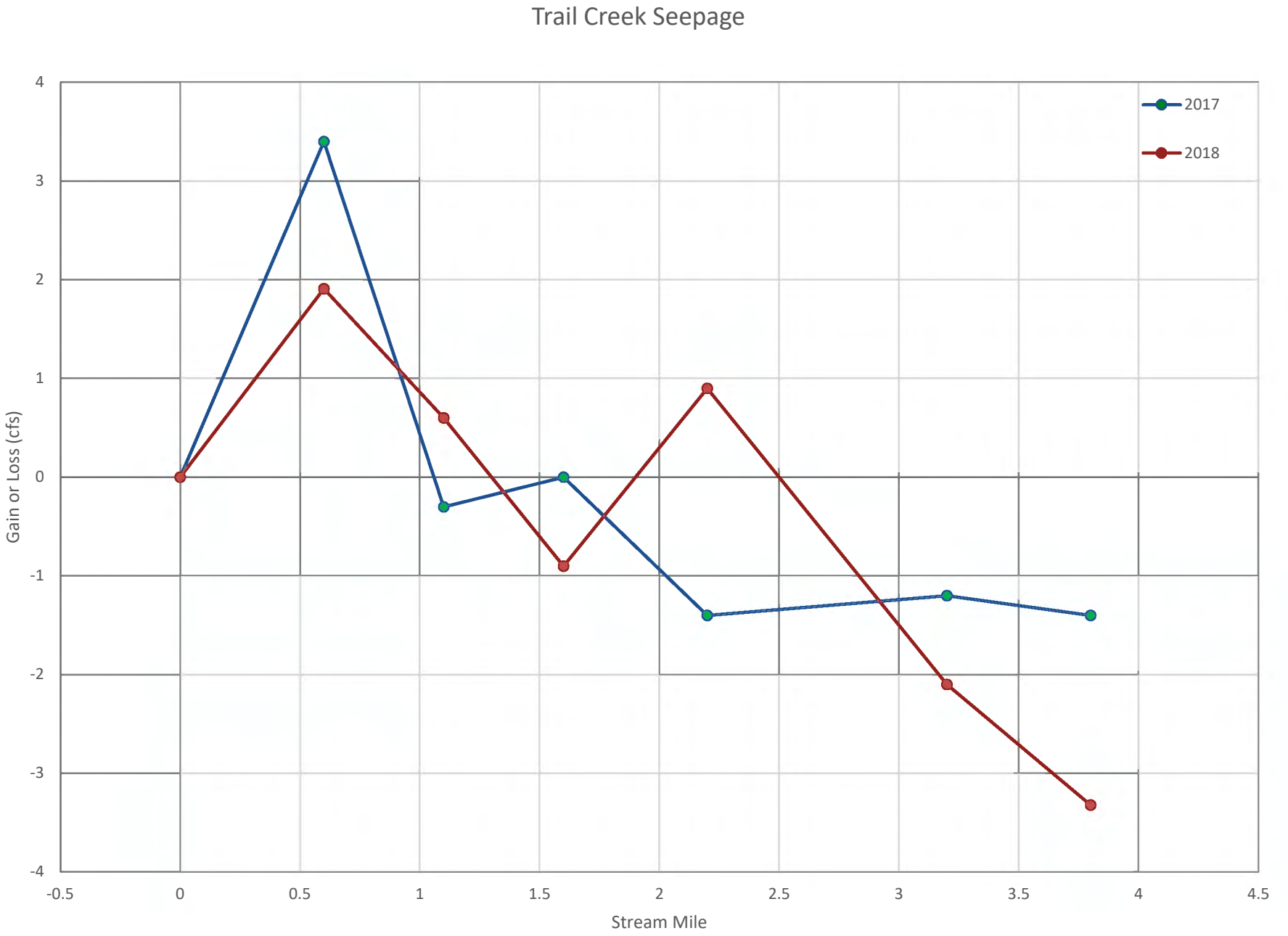
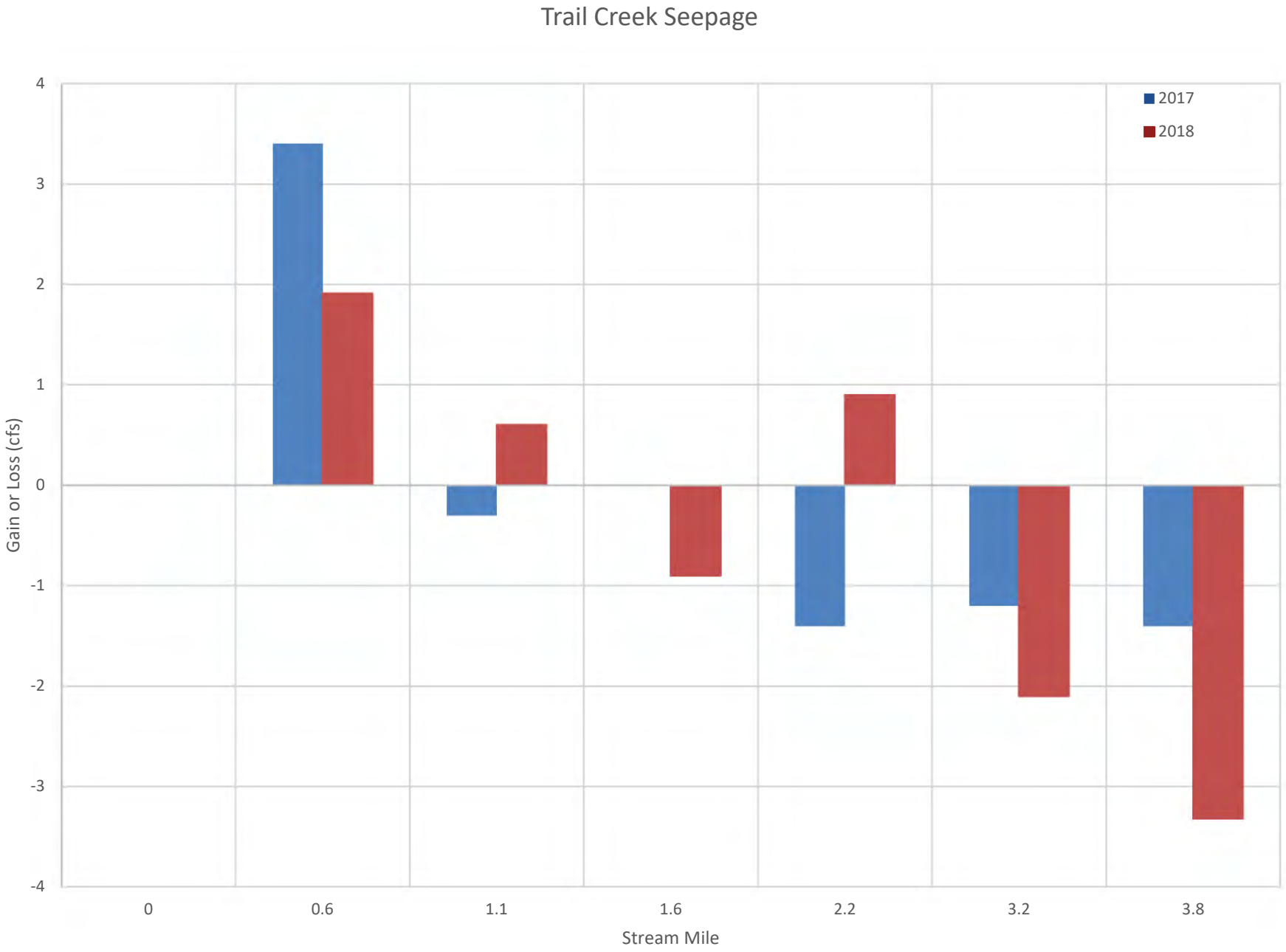
Trail Creek Seepage




Trail Creek Seepage
2017
2018
Gain or Loss (cfs)
Stream Mile
4
3
2
1
0
-1
-2
-3
-4
-0.5
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5


Trail Creek Seepage
2017
2018
Gain or Loss (cfs)
4
3
2
1
0
-1
-2
-3
-4
0
0.6
1.1
1.6
2.2
3.2
3.8
Stream Mile

Conclusions/Recommendations

- Uncertainties are generally within the gain/loss values.
- USGS data is provisional.
- **Continue with annual seepage runs on Trail Creek, preferably in early November**