

# 2020 BLM Instream Flow Recommendations

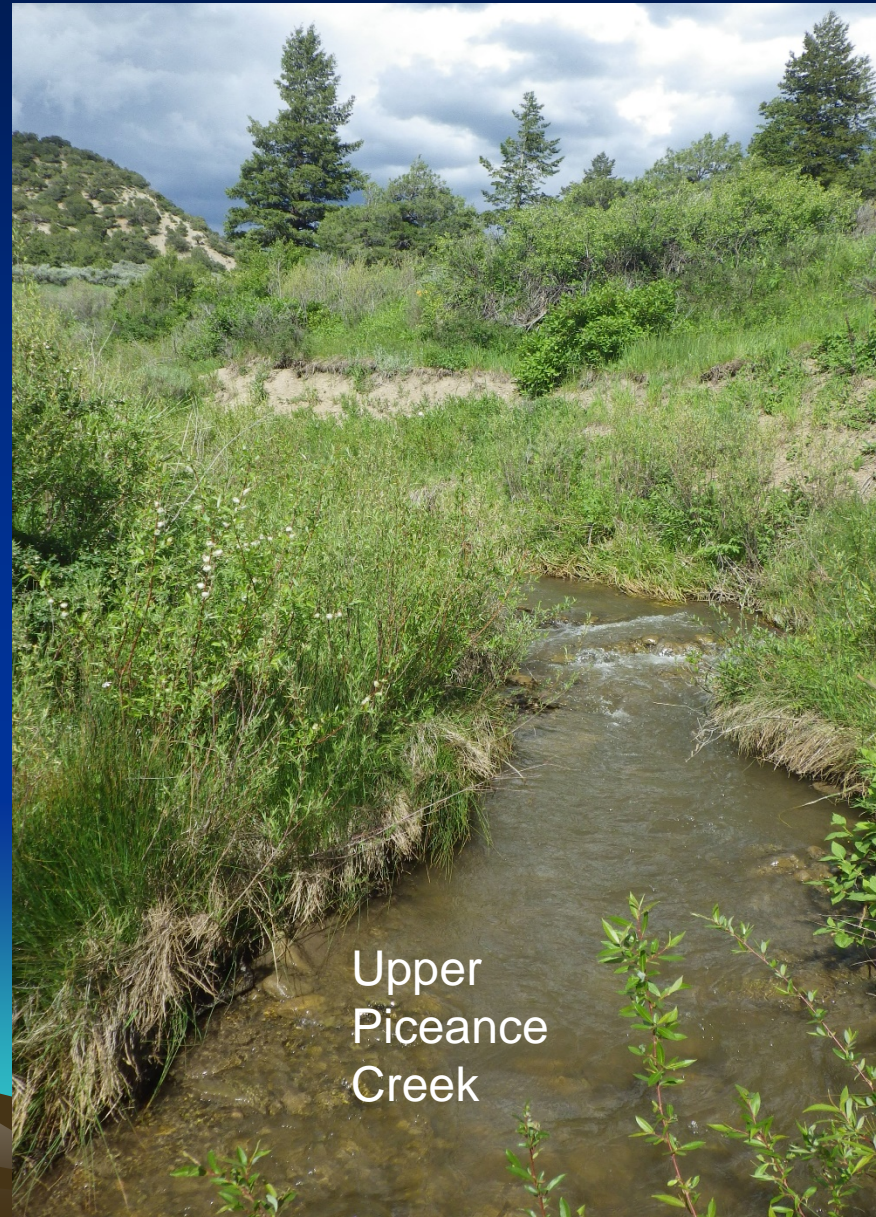


East Muddy Creek north  
of Paonia Reservoir



# 2020 Recommendations Emphasis

- Protect streams that provide habitat for sensitive and native fish species – work to prevent listing under Endangered Species Act
- Protect small streams that have been overlooked during previous protection efforts
- Complete work on previously submitted instream flow recommendations



Upper  
Piceance  
Creek



# Streams in Water Division 2



Arkansas  
River



# East Fork Arkansas River Location



Climax  
Mine

Lower Terminus:  
Confluence With  
Chalk Creek

Upper Terminus:  
Headwaters

Leadville

Google Earth



# East Fork Arkansas River



## Natural Environment:

### Fishery:

- Brook trout

### Water Quality:

- Consistently cold stream temperatures
- Ideal pH for salmonids
- Low TDS
- Some heavy metals from historic mining

### Riparian community:

- Spruce, willow, river birch



A photograph of a riverbed composed of numerous small, rounded, reddish-brown rocks. A white measuring tape is stretched diagonally across the frame from the top left towards the bottom left, providing a sense of scale. The background shows some green vegetation along the riverbank.

# East Fork Arkansas River

Proposed Flow Rates:

7.0 cfs May 1 – Jul 31

2.8 cfs Aug 1 – Sep 30

1.2 cfs Oct 1 – Apr 30

A stylized, dark brown silhouette of a mountain range with jagged peaks, positioned at the bottom of the slide against a teal background.



# East Fork Arkansas River



## Water Availability:

- Snowmelt hydrograph
- At top of watershed
- Existing ISF right located downstream, starting at Chalk Creek -- 15 cfs, year round
- Gage data available downstream

## Water Rights:

- None



# East Fork Arkansas River



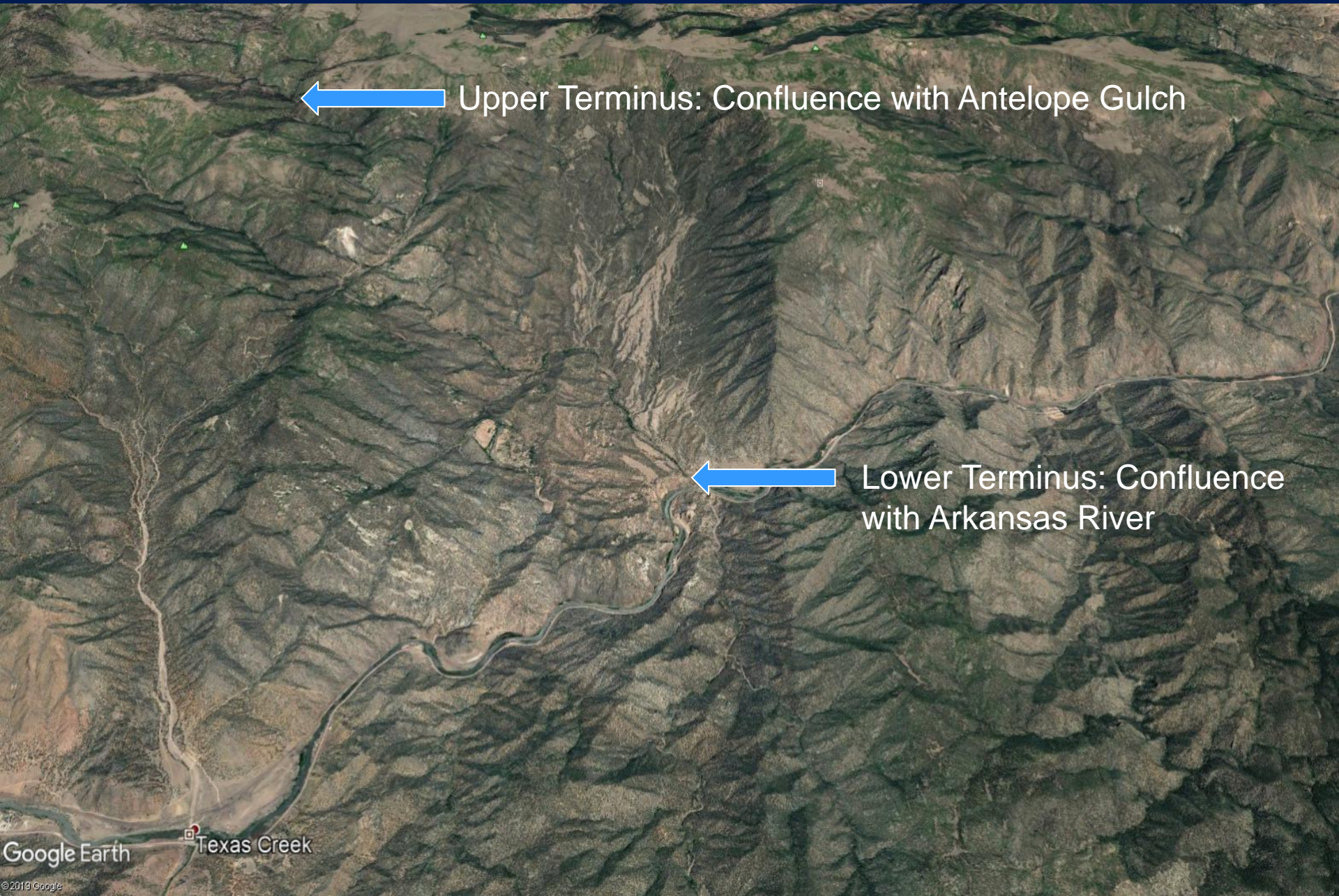
## Stakeholders:

- Upper Arkansas Water Conservancy District
- Lake County
- Private landowners
- US Forest Service
- Climax Molybdenum Mine

Next Steps: Analyze data from temporary stream gage; complete outreach to private landowners.



# East Gulch Location



← Upper Terminus: Confluence with Antelope Gulch

← Lower Terminus: Confluence with Arkansas River



# East Gulch



## Natural Environment

Good condition globally vulnerable riparian communities:

- Narrowleaf cottonwood – river birch
- Narrowleaf cottonwood – Douglas Fir

Good condition globally secure communities:

- Narrowleaf cottonwood – coyote willow
- Coyote willow – mesic graminoids shrubland





# East Gulch

Proposed Flow  
Rates:

1.35 cfs April 1 –  
June 30

0.45 cfs July 1 –  
March 31





# East Gulch



## Water Availability:

- Snowmelt hydrograph supported by numerous springs
- Reach is in lower portion of watershed
- No gage data available

## Water Rights:

- None



# East Gulch

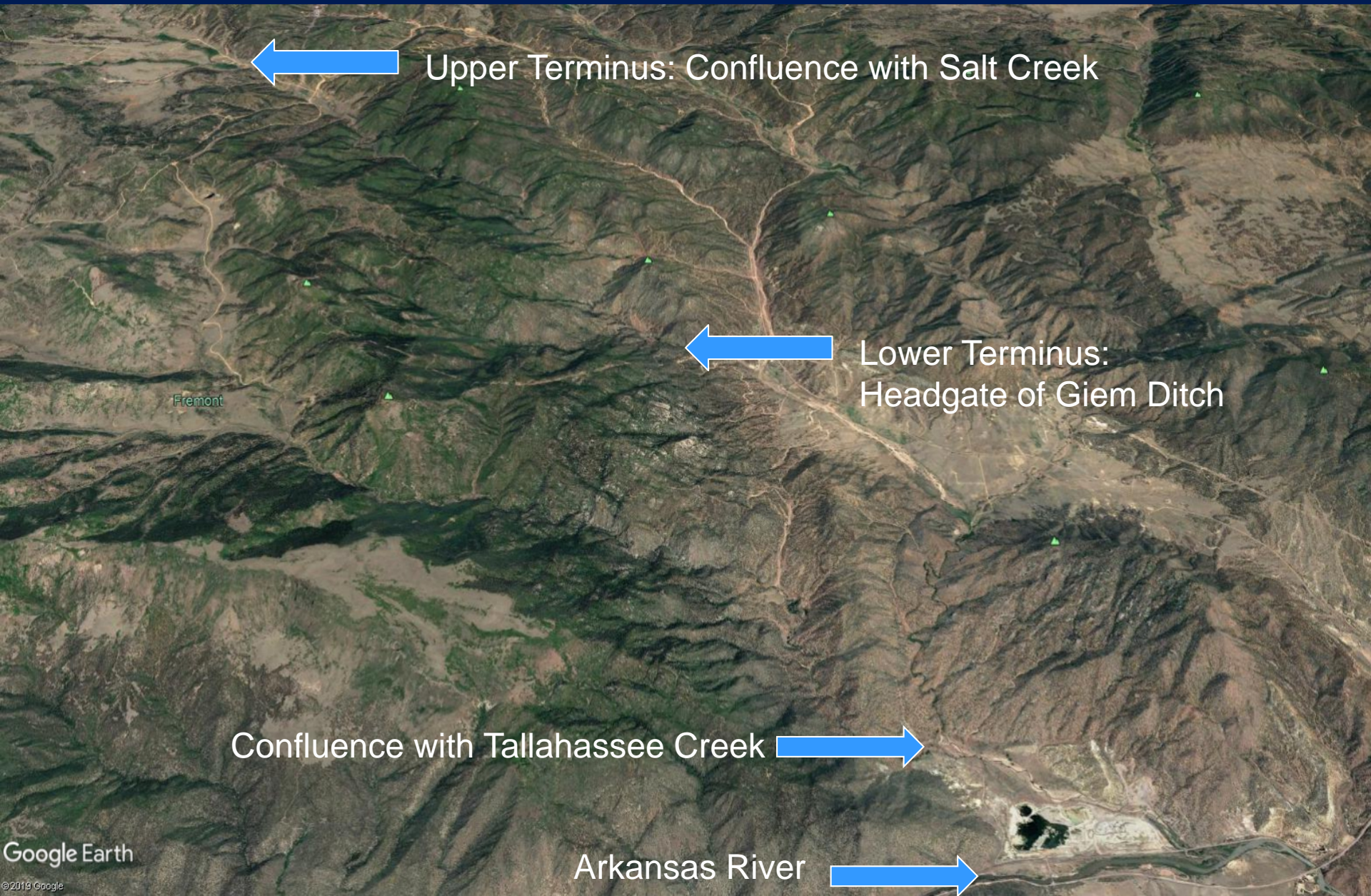


## Stakeholders:

- Upper Arkansas Water Conservancy District
- Fremont County
- Private landowners
- Parties interested in Wild & Scenic Rivers analysis process



# Cottonwood Creek Location





# Cottonwood Creek



## Natural Environment

- Good condition globally vulnerable riparian community comprised of narrowleaf cottonwood – Rocky Mountain juniper
- Good condition globally secure riparian community comprised of narrowleaf cottonwood – coyote willow.



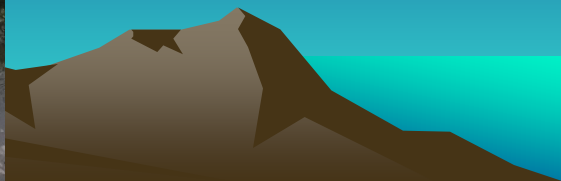


# Cottonwood Creek

Proposed Flow  
Rates:

1.25 cfs April 1 –  
June 30

0.80 cfs July 1 –  
March 31





# Cottonwood Creek



## Water Availability:

- Snowmelt hydrograph supported by springs
- Reach is in lower portion of watershed
- No gage data available

## Water Rights:

- Two small ditches within reach
- 14 water rights upstream totaling approximately 14 cfs



# Cottonwood Creek



## Stakeholders:

- Upper Arkansas Water Conservancy District
- Fremont County
- Private landowners
- Upstream water right owners
- Parties interested in Wild & Scenic Rivers analysis process



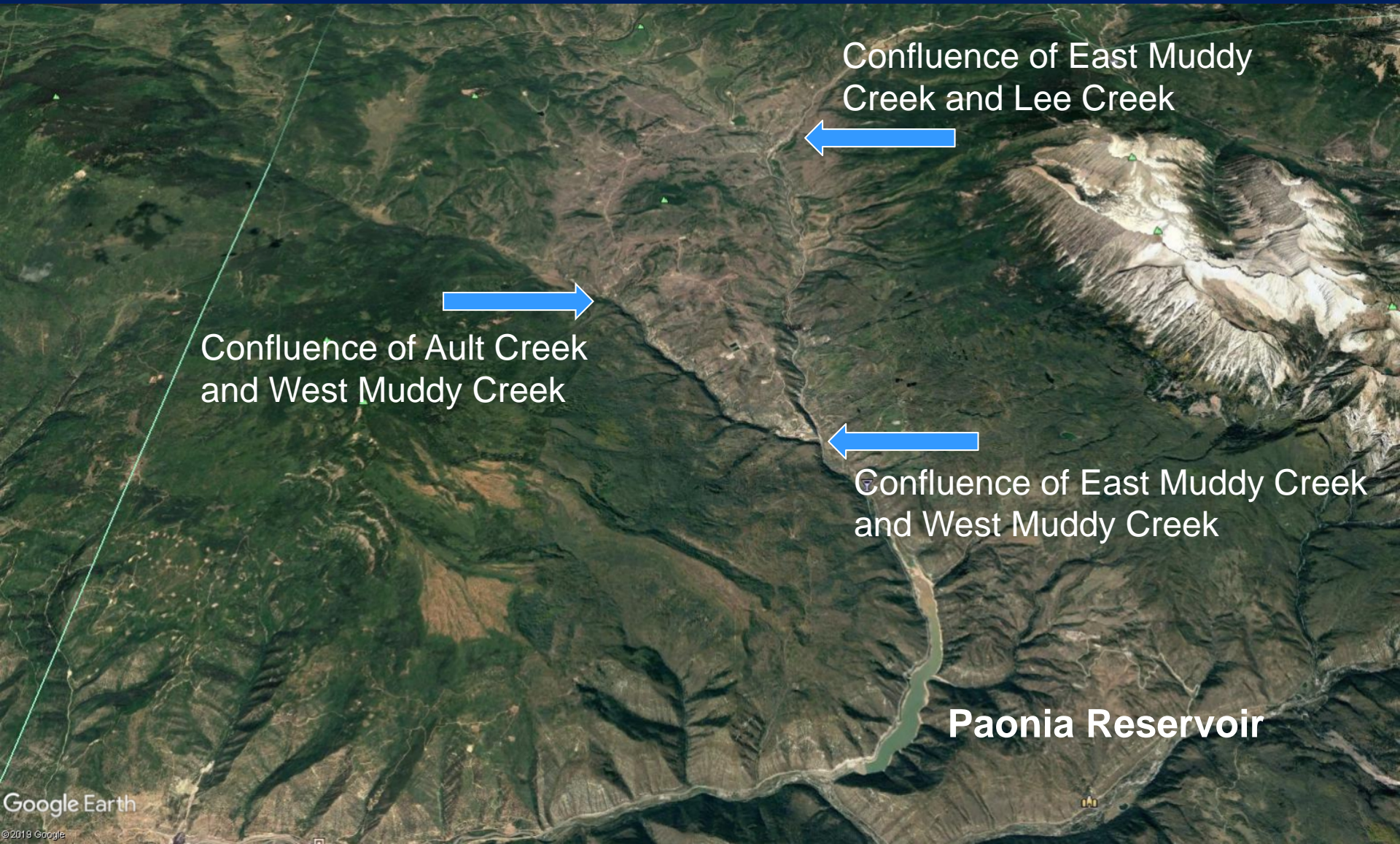
# Streams in Water Division 4



Gunnison River  
South of Grand  
Junction



# East Muddy Creek and West Muddy Creek - Location





# East Muddy Creek



## Natural Environment:

- Native fish species: bluehead suckers, speckled dace, mottled sculpin
- Nonnative fish species: rainbow trout, fathead minnow, white sucker
- Macros: mayfly, caddisfly, stonefly
- Riparian community: willow, alder, spruce, narrowleaf cottonwood



# East Muddy Creek



## **Proposed Flow Rates:**

**35.0 cfs April 1 – July 15**

**17.0 cfs July 16 – November 30**

**14.8 cfs December 1 – February 29**

**19.0 cfs March 1 – March 31**



# East Muddy Creek



## Water Availability:

- Snowmelt driven hydrology
- No large reservoirs or water exports upstream
- Exercise of water rights limited by calls from downstream senior rights

## Water Rights:

- 1 water right within reach
- More than 25 surface diversions upstream, totaling approximately 100 cfs



# East Muddy Creek



## Stakeholders:

- Land and water rights owners along the creek
- Gunnison County
- Mine and natural gas well owners





# West Muddy Creek



## Natural Environment:

- Native fish species: speckled dace, mottled sculpin
- Macros: mayfly, caddisfly, stonefly
- Riparian community: willow, alder, spruce.



# West Muddy Creek



**Proposed Flow Rates:**  
**(Subject to additional data collection.)**  
**14.0 cfs April 1- July 15**  
**6.0 cfs July 16 – November 30**  
**4.0 cfs December 1 – February 29**  
**5.5 cfs March 1 – March 31**



# West Muddy Creek

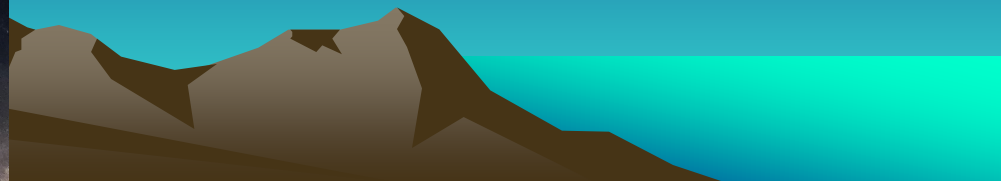


## Water Availability:

- Snowmelt driven hydrology
- Overland Reservoir is only major storage in watershed
- Exercise of water rights limited by calls from downstream senior rights

## Water Rights:

- No water rights within reach
- More than 13 surface diversions upstream, totaling approximately 63 cfs





# West Muddy Creek



## Stakeholders:

- Land and water rights owners along the creek
- Gunnison County
- Mine and natural gas well owners
- Overland Ditch and Reservoir Company – irrigates 5,000 acres in Delta County



# Naturita Creek Location



Lower Terminus:  
San Miguel River

Break Between Reaches:  
Norwood Road Crossing

**Existing ISF Right  
In Upper Reach:  
3.0 cfs, year round**

Upper Terminus: East  
& West Naturita Creek

Google earth



# Naturita Creek



## Natural Environment:

- Fishery: bluehead suckers, speckled dace
- Macros: mayfly, caddisfly, stonefly
- Riparian community: cottonwood, willow, box elder, red osier dogwood



# Naturita Creek

## Proposed Flow Rates

### Upper Reach:

Field Work In 2020 to  
evaluate adequacy of  
3.0 cfs ISF right

### Lower Reach:

11.7 cfs April 1-June 30

6.5 cfs July 1 – Sept 30

1.25 cfs Oct 1 – Mar 31



# Naturita Creek



## Water Availability:

- Hydrology is complex and highly altered
- Snowmelt driven base hydrology
- Upper reach depleted by diversions and storage
- Lower reach augmented by imported irrigation return flows

## Water Rights:

- 3 water rights in upper reach
- 6 water rights in lower reach



# Naturita Creek



## Stakeholders:

- Land and water rights owners along the creek
- Montrose and Gunnison Counties
- Lone Cone Ditch and Reservoir Company – Cone Reservoir
- Farmer's Development Company – Gurley Reservoir

Next Steps: Analyze data from temporary stream gage; complete outreach to water right owners.



# Streams in Water Division 6



Yampa River near Maybell

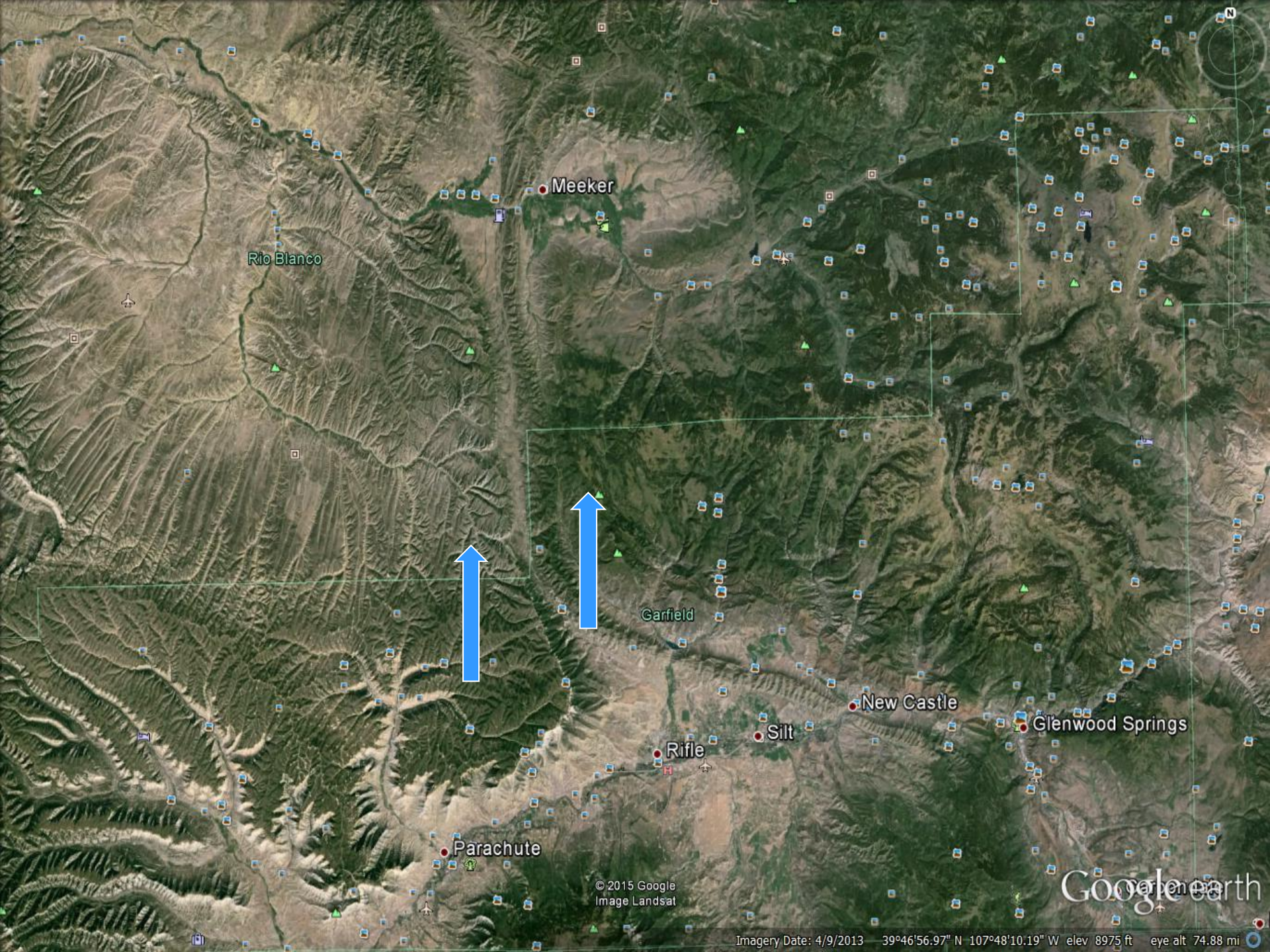


# Upper Piceance Creek

## Rio Blanco and Garfield Counties







Meeker

Rio Blanco

Garfield

Rifle

Parachute

Silt

New Castle

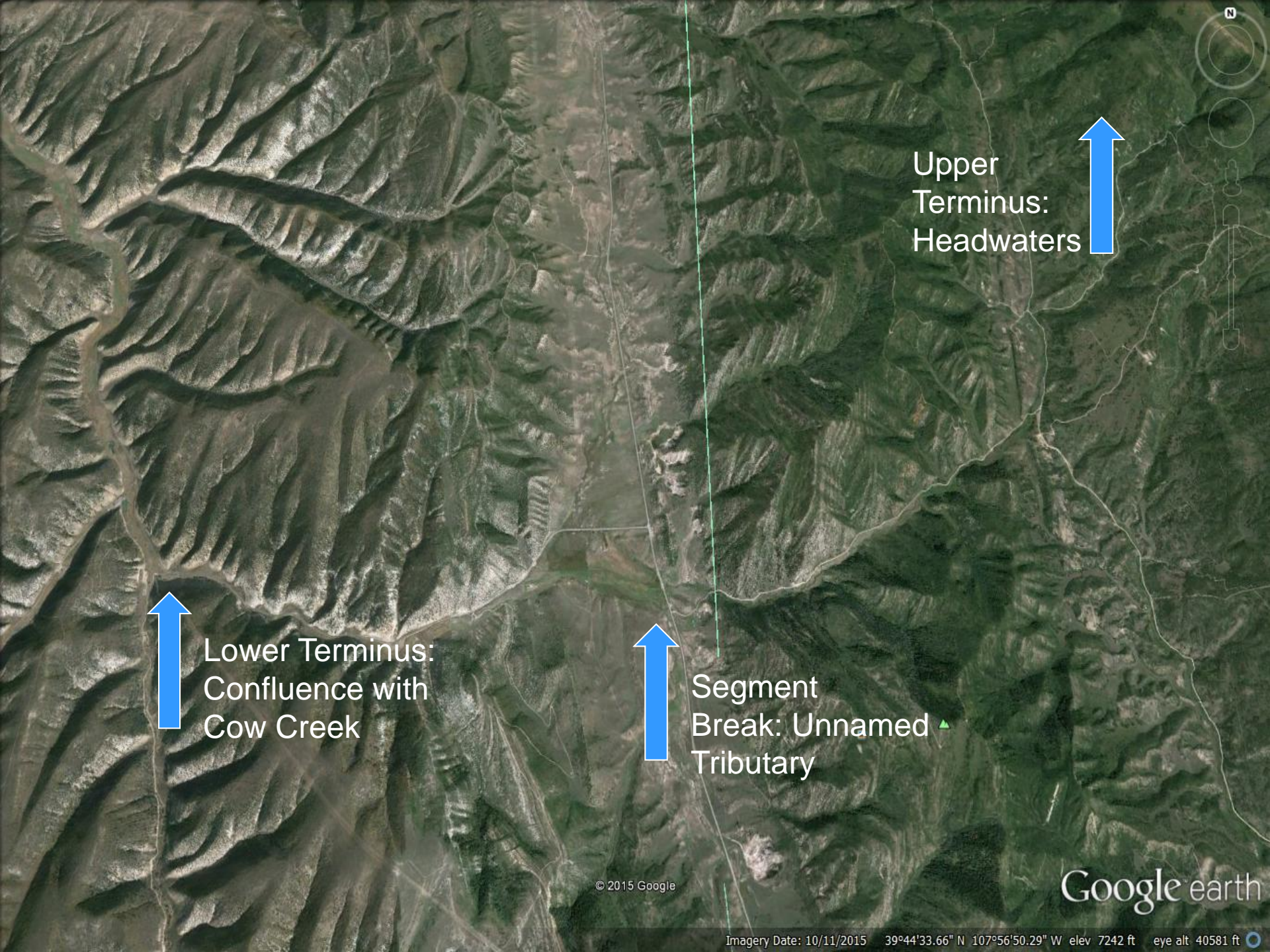
Glenwood Springs

© 2015 Google  
Image Landsat

Google earth

Imagery Date: 4/9/2013 — 39°46'56.97" N 107°48'10.19" W elev 8975 ft eye alt 74.88 mi





Lower Terminus:  
Confluence with  
Cow Creek



Segment  
Break: Unnamed  
Tributary



Upper  
Terminus:  
Headwaters



# Upper Piceance Creek



## Natural Environment:

- Native Fishery: Speckled Dace, Mountain Suckers
- Riparian community: coyote willow, Geyer's willow, blue spruce, aspen, alder, sedges, rushes



# Upper Piceance Creek



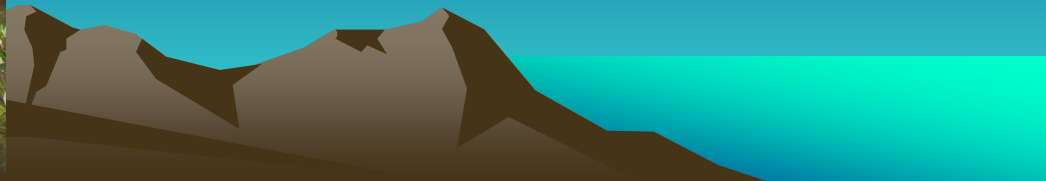
## Proposed ISF Rates:

### *Headwaters to Highway 13*

- 1.5 cfs Apr 1 to Oct 15
- 0.65 cfs Oct 16 to Mar 31

### *Highway 13 to Cow Creek*

- 2.5 cfs Apr 1 to Oct 15
- 1.7 cfs Oct 16 to Mar 31





# Upper Piceance Creek



## Water Availability:

- Headwaters stream
- Snowmelt driven hydrograph
- No gage date available
- Installed pressure transducer to gather additional data

## Water Rights:

- 5 ditches totaling 5.3 cfs



# Upper Piceance Creek

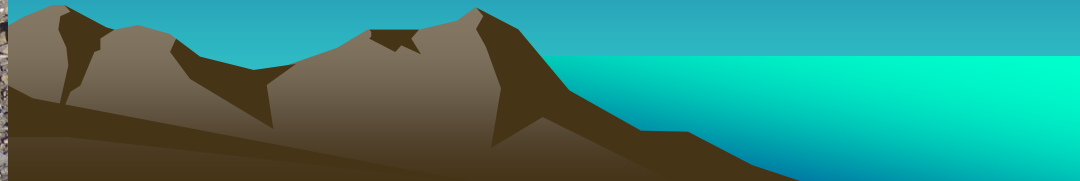


## Stakeholders:

- Big Mountain Ranch
- Water rights owners
- Rio Blanco and Garfield Counties

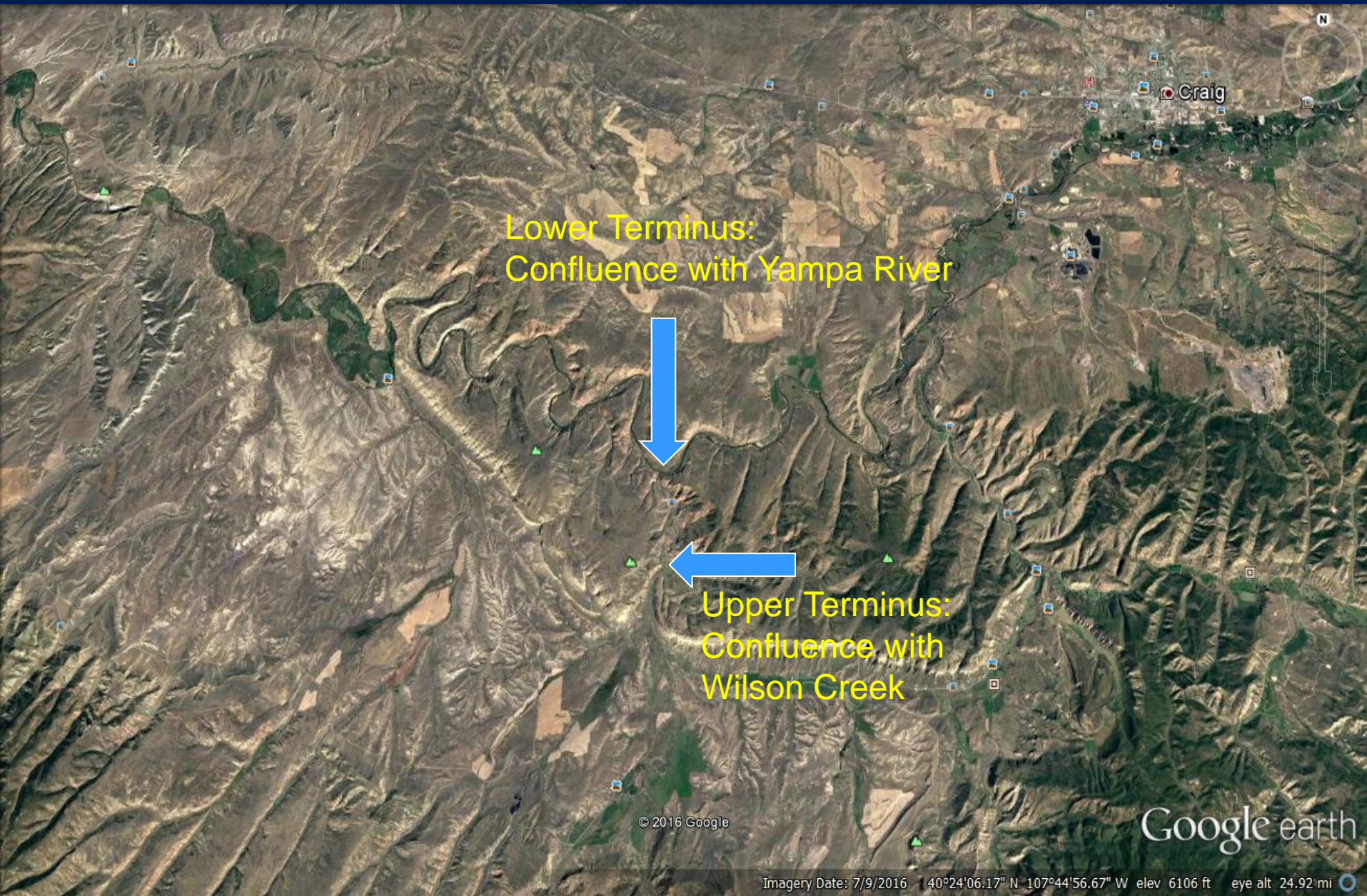
## Next Steps:

- Collect data from temporary stream gage for additional year to better define water availability.





# Milk Creek Location





# Milk Creek



Riparian community: willow, sedges, and rushes with remnant cottonwoods on an upward trend

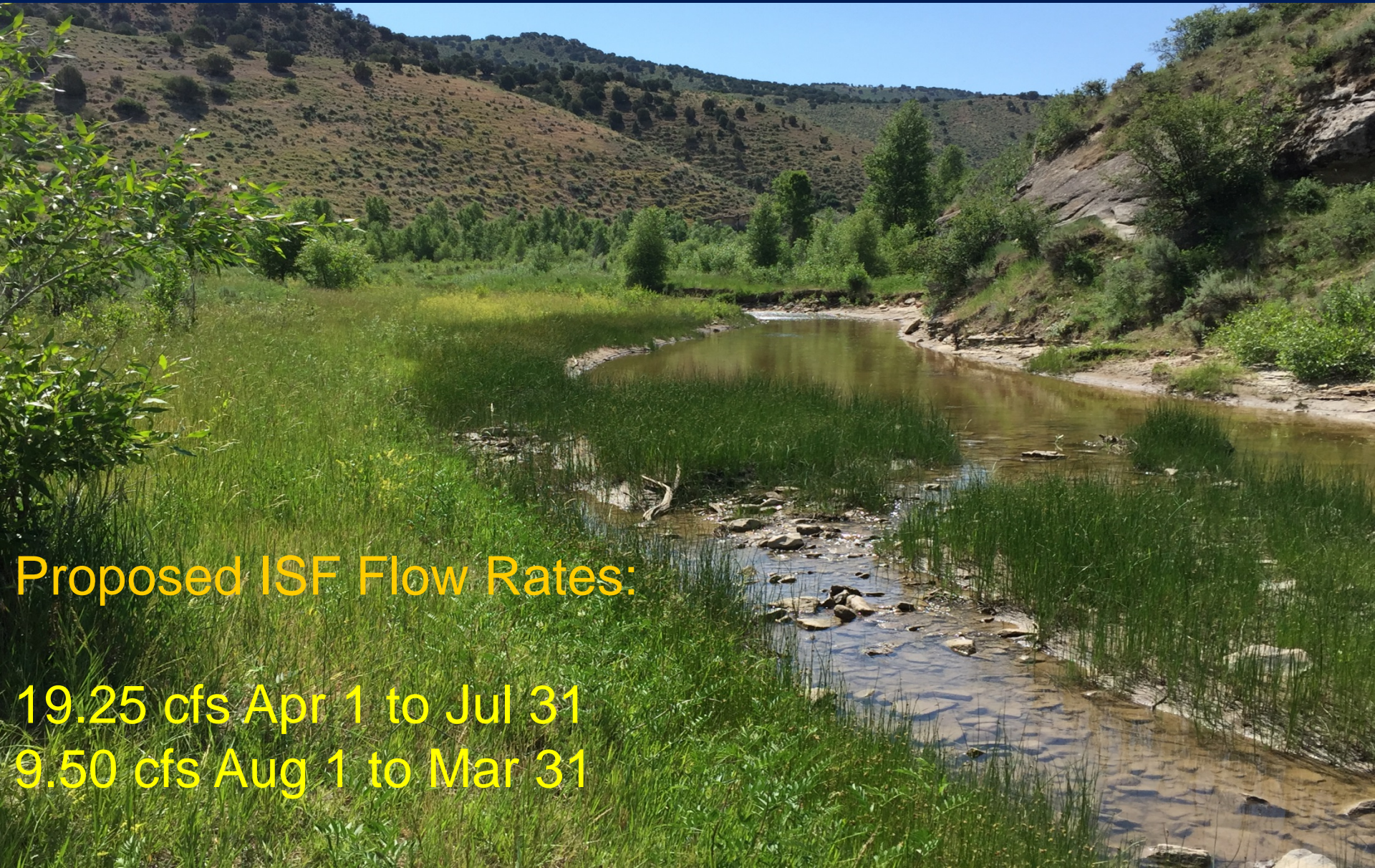
## Natural Environment:

### Fishery:

- Native – flannelmouth sucker, bluehead sucker, roundtail chub, speckled dace
- Non-native – redside shiners, black bullhead, Johnny darter, plains killifish, bluegill sunfish
- CPW are stocking bluehead suckers to benefit Yampa River population



# Milk Creek



Proposed ISF Flow Rates:

19.25 cfs Apr 1 to Jul 31

9.50 cfs Aug 1 to Mar 31



# Milk Creek



## Water Availability:

- Snowmelt driven hydrograph
- Low but reliable base flows
- At bottom of very large watershed
- Gage data is available

## Water Rights:

- Very large number of upstream water rights
- No water rights within reach



# Milk Creek



Next Steps: Collect data from temporary stream gage for additional year to better define water availability.

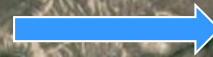
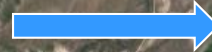
## Stakeholders:

- Water rights owners within watershed
- Private landowners along reach
- Colowyo Coal Company
- Moffat County
- Colorado Parks and Wildlife



# Watson Creek Location

Lower Terminus:  
Hardscrabble Ditch



Upper Terminus:  
Moody Creek

Rte-17

17

Yampa

131

N

Survey

© 2017 Google

Google earth

Imagery Date: 6/18/2014 40°07'41.90" N 106°58'25.74" W elev 8289 ft eye alt 48198 ft



# Watson Creek



## Natural Environment:

- Fishery: longnose suckers, whitehead suckers, creek chub
- Macros: mayfly, caddisfly and other species typical of cool to warm water
- Riparian community: willow, sedges, rushes



# Watson Creek



**Proposed Flow Rates**  
**1.90 cfs Apr 1 – Oct 31**  
**1.05 cfs Nov 1 – Mar 31**



# Watson Creek



## Water Availability:

- Reach in middle of watershed
- Snowmelt driven hydrograph
- No gage data available
- Affected by diversion and return flows

## Water Rights:

- 6 ditches and 1 reservoir upstream
- 4 ditches in recommended reach



# Watson Creek



## Stakeholders:

- Routt County
- Upper Yampa Water Conservancy District
- Water right and landowners along the creek

## Next Steps:

- Collect data from temporary stream gage for additional year



# Questions for BLM?

Contact Roy Smith at [r20smith@blm.gov](mailto:r20smith@blm.gov) or 303-239-3940



Big Dominguez Creek  
near Grand Junction