

# Very Preliminary Groundwater Levels



Oregon Water Resources Department  
17 July 2018



# Very Preliminary Groundwater Levels

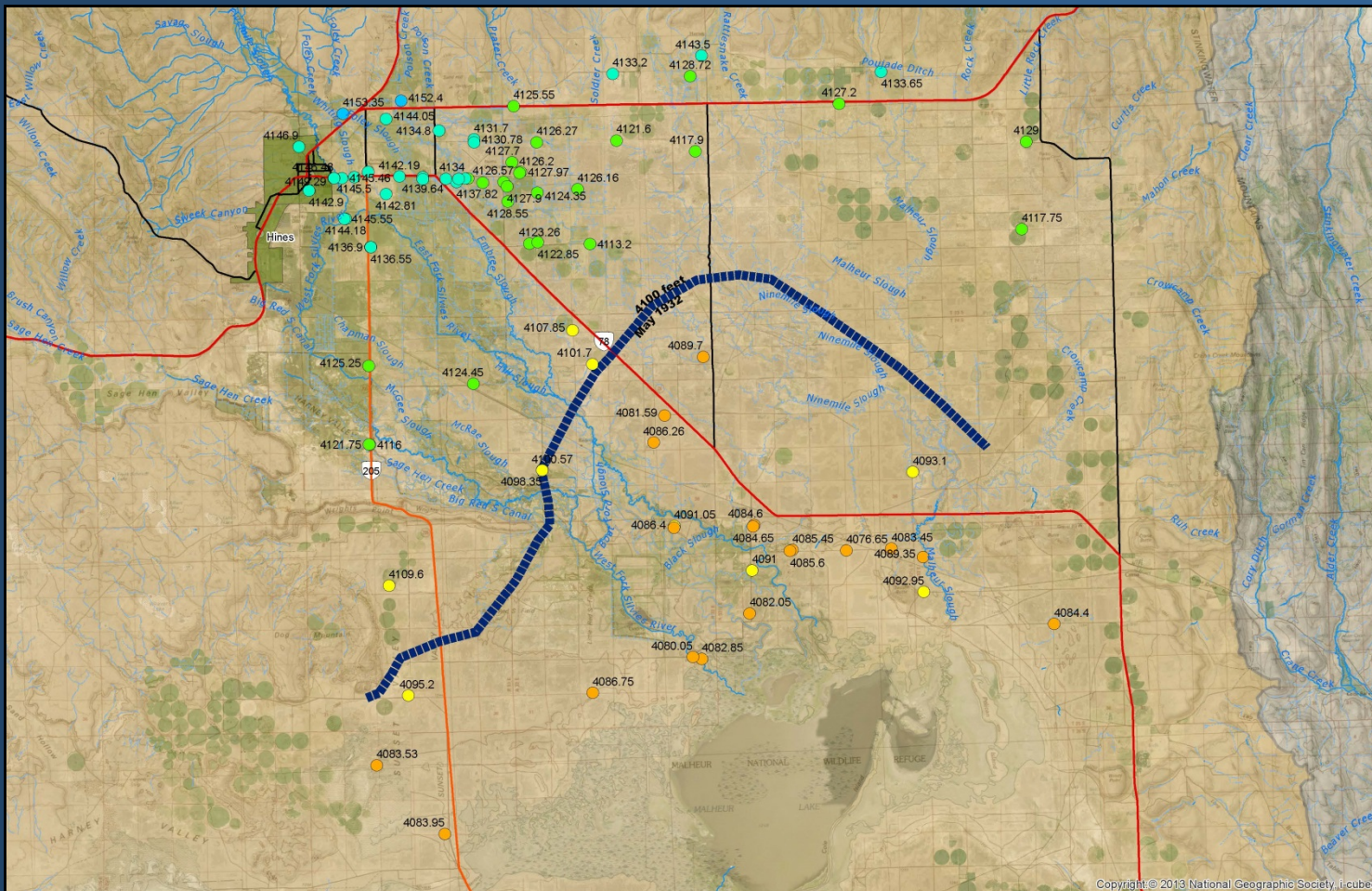
## Presentation Outline

- May 1932
- May 1969
- February-March 2018
- First Impressions
- Apparent Change from 1969 to 2018
- Northern Uplands
- Steens Mountain

**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**

# Very Preliminary Groundwater Levels

## May 1932



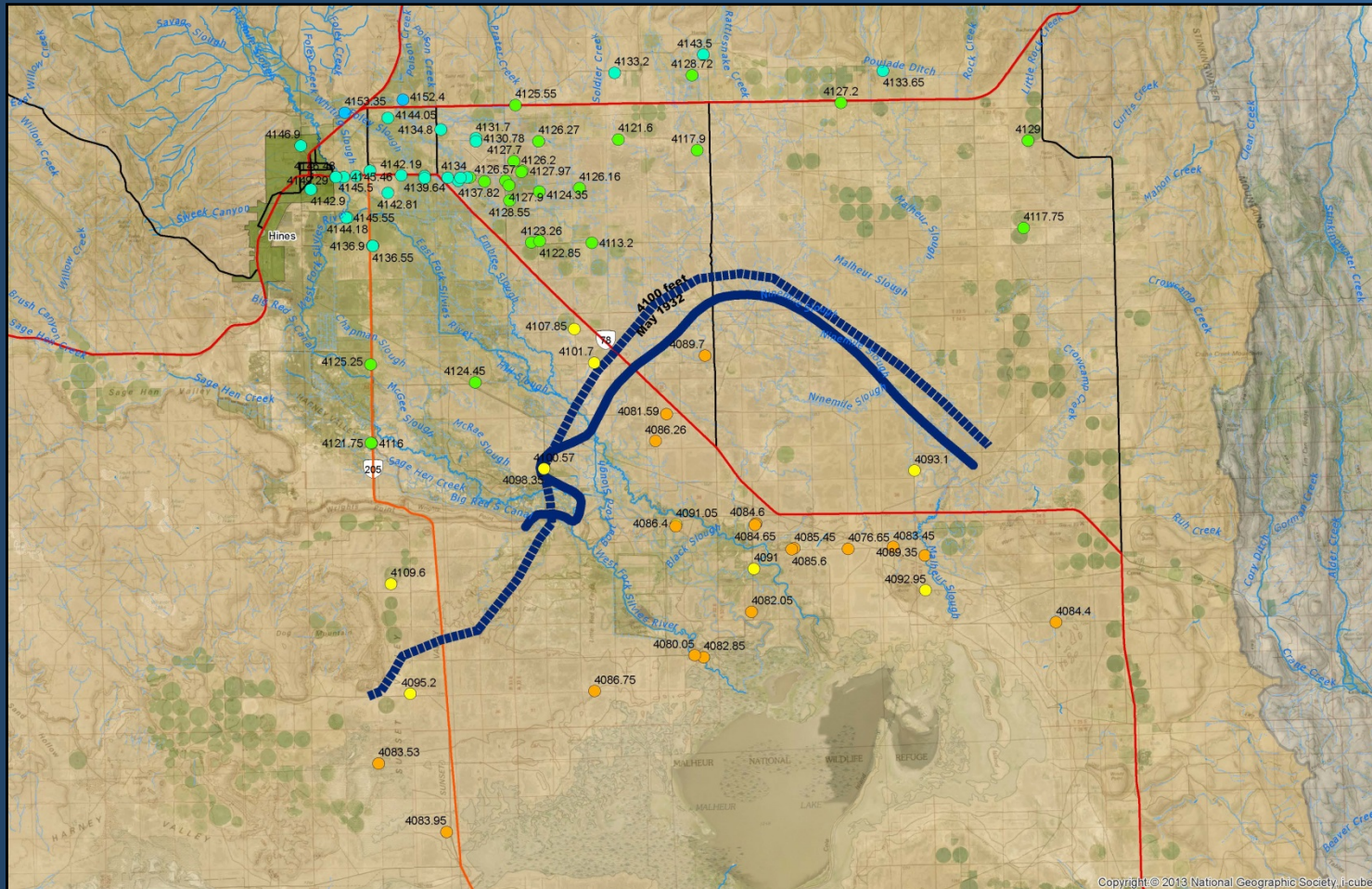
Groundwater Level Elevation	
●	3500 - 4000
●	4000 - 4050
●	4050 - 4070
●	4070 - 4090
●	4090 - 4110
●	4110 - 4130
●	4130 - 4150
●	4150 - 4175
●	4175 - 4200
●	4200 - 20000

**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

## May 1932



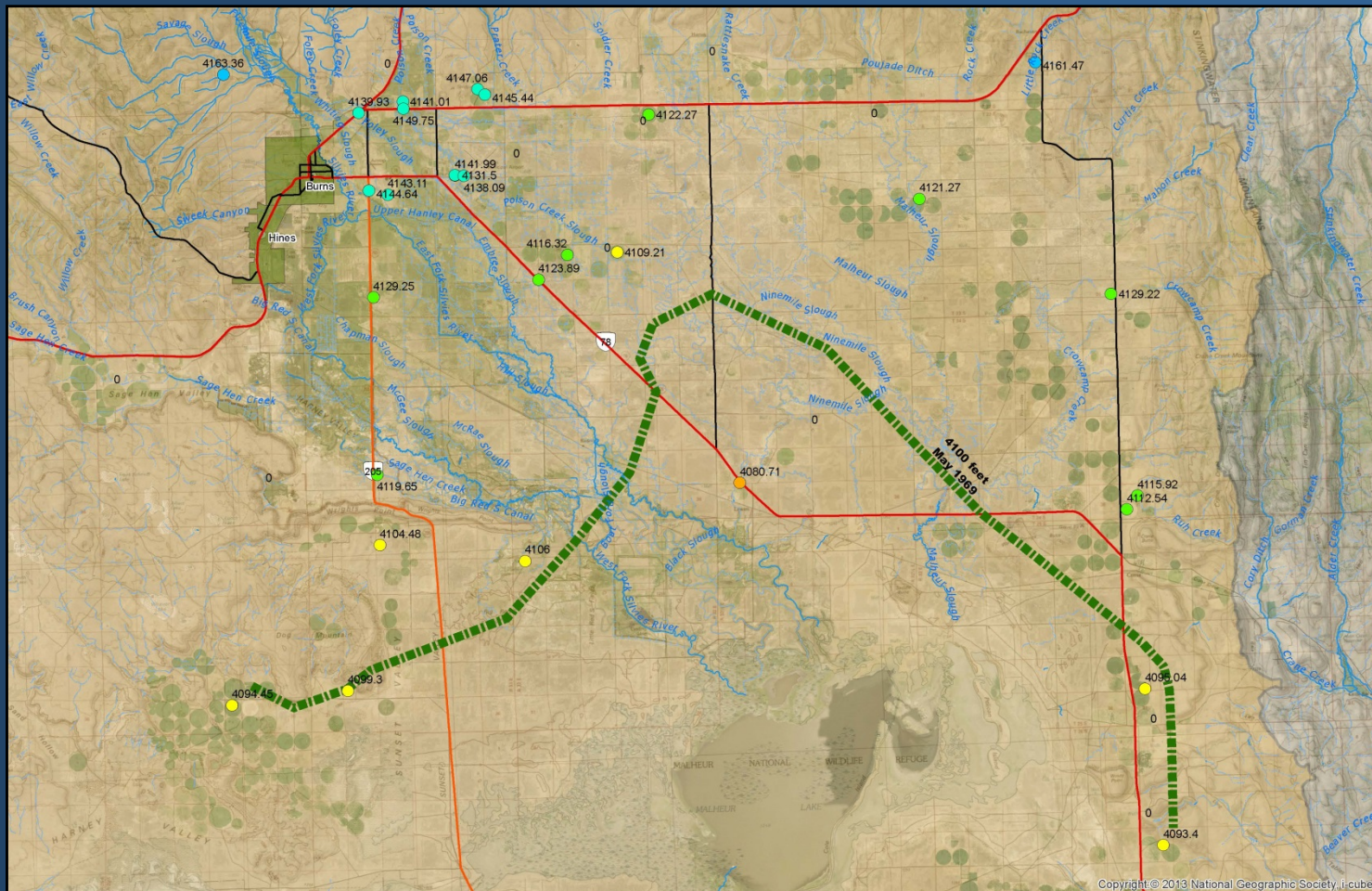
Groundwater Level Elevation	
●	3500 - 4000
●	4000 - 4050
●	4050 - 4070
●	4070 - 4090
●	4090 - 4110
●	4110 - 4130
●	4130 - 4150
●	4150 - 4175
●	4175 - 4200
●	4200 - 20000

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## May 1969



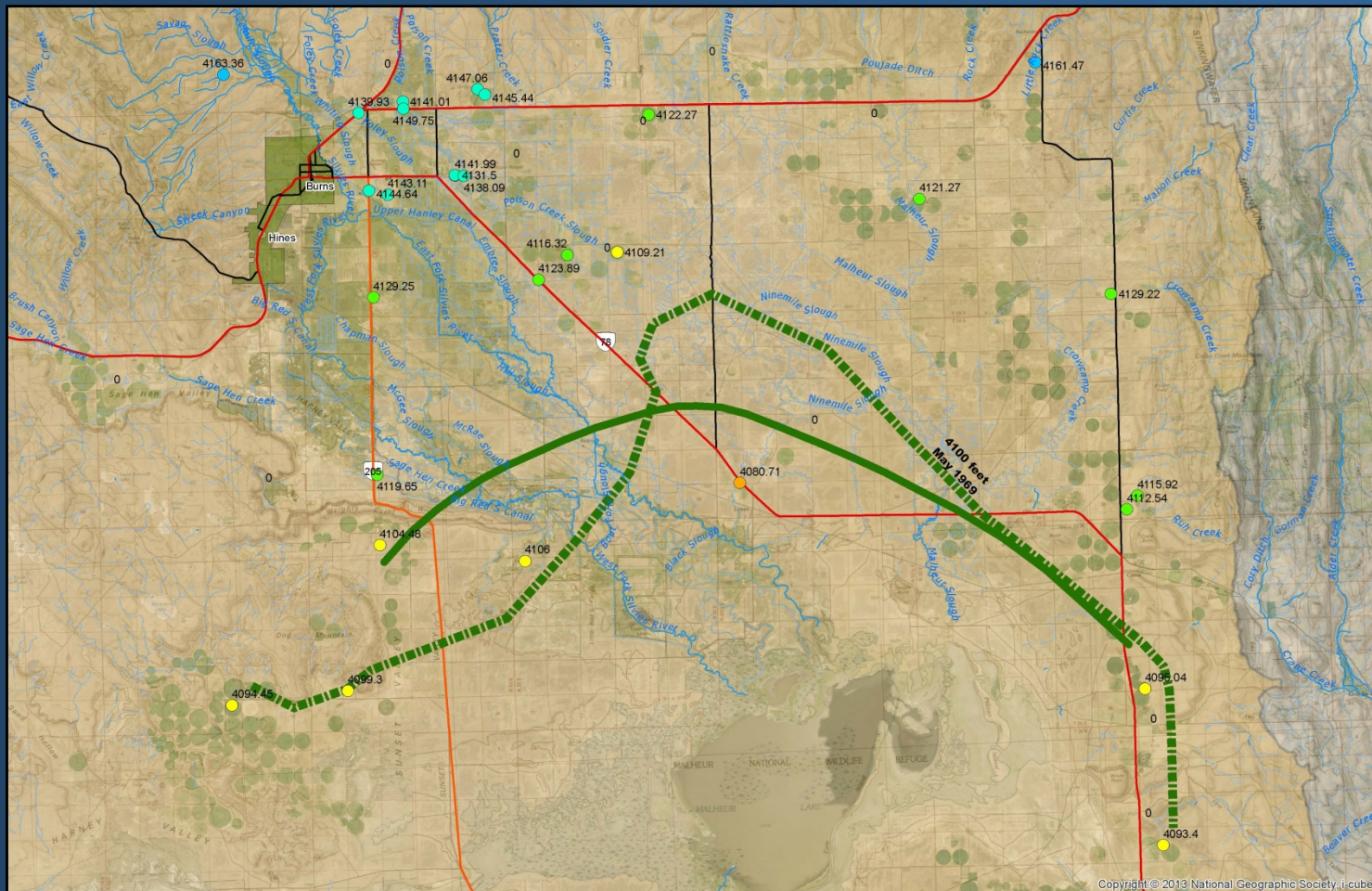
Groundwater Level Elevation	
●	3500 - 4000
●	4000 - 4050
●	4050 - 4070
●	4070 - 4090
●	4090 - 4110
●	4110 - 4130
●	4130 - 4150
●	4150 - 4175
●	4175 - 4200
●	4200 - 20000

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## May 1969



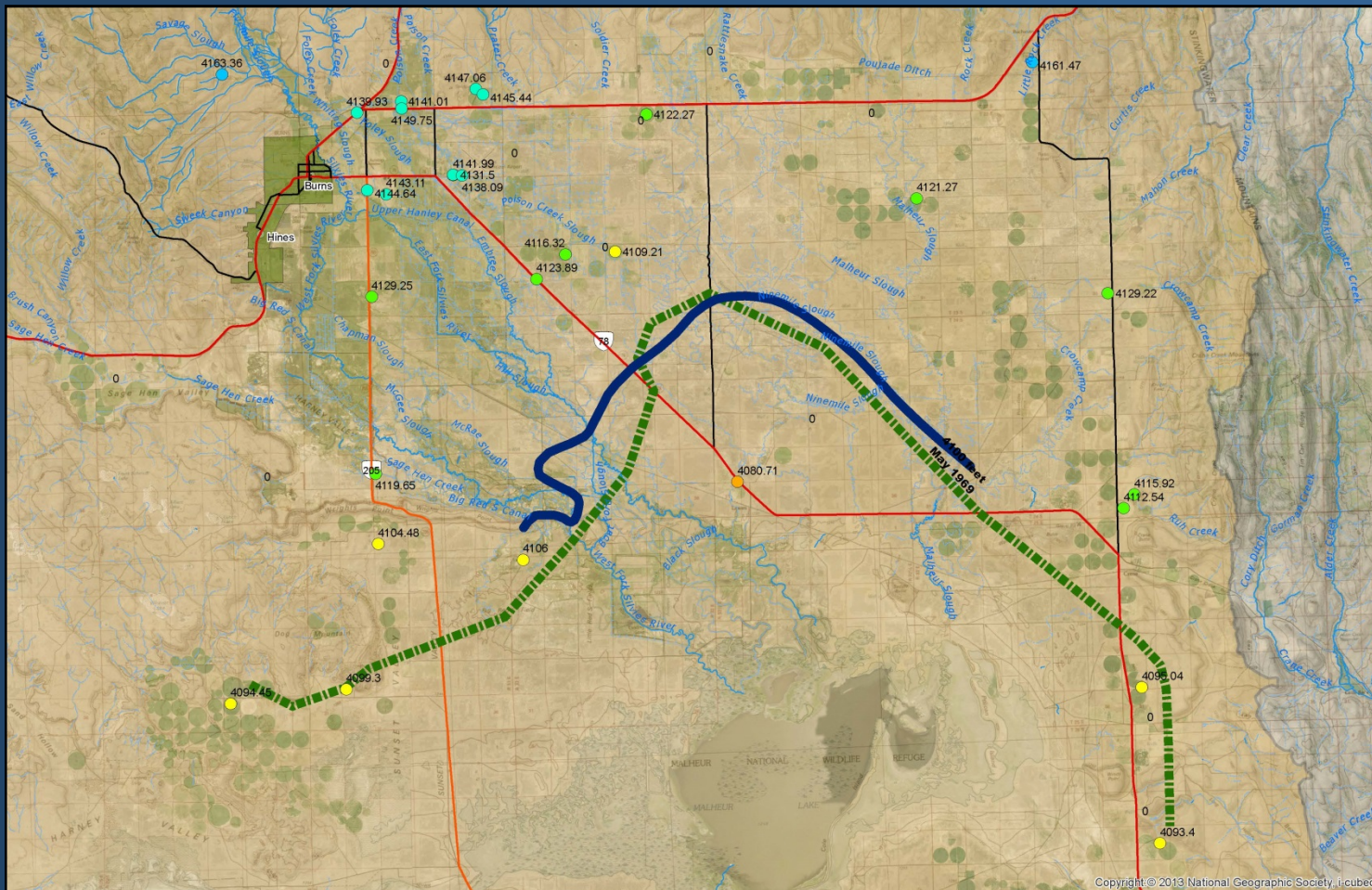
Groundwater Level Elevation	
●	3500 - 4000
●	4000 - 4050
●	4050 - 4070
●	4070 - 4090
●	4090 - 4110
●	4110 - 4130
●	4130 - 4150
●	4150 - 4175
●	4175 - 4200
●	4200 - 20000

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## May 1969



### Groundwater Level Elevation

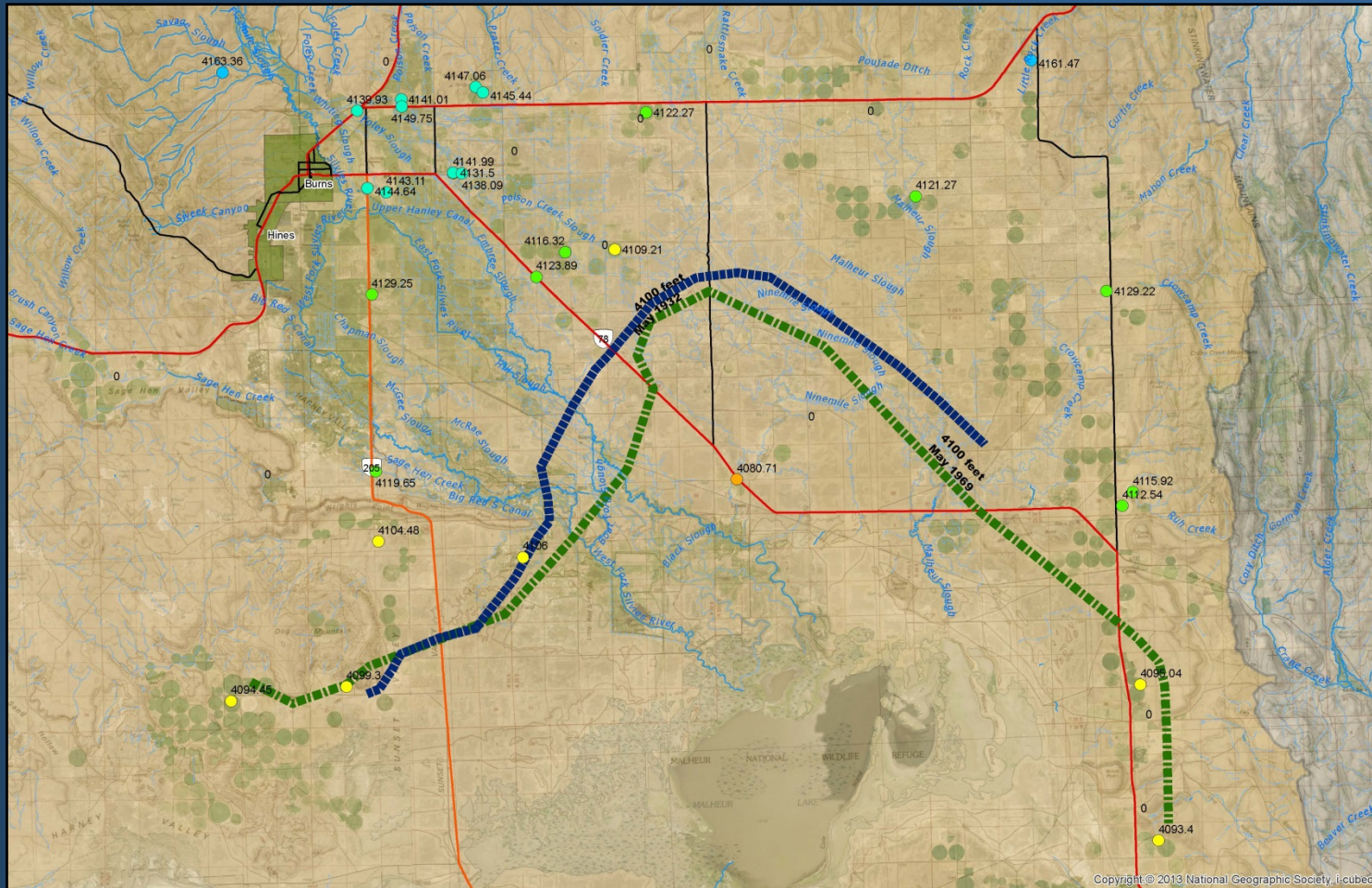
- 3500 - 4000
- 4000 - 4050
- 4050 - 4070
- 4070 - 4090
- 4090 - 4110
- 4110 - 4130
- 4130 - 4150
- 4150 - 4175
- 4175 - 4200
- 4200 - 20000

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## May 1969

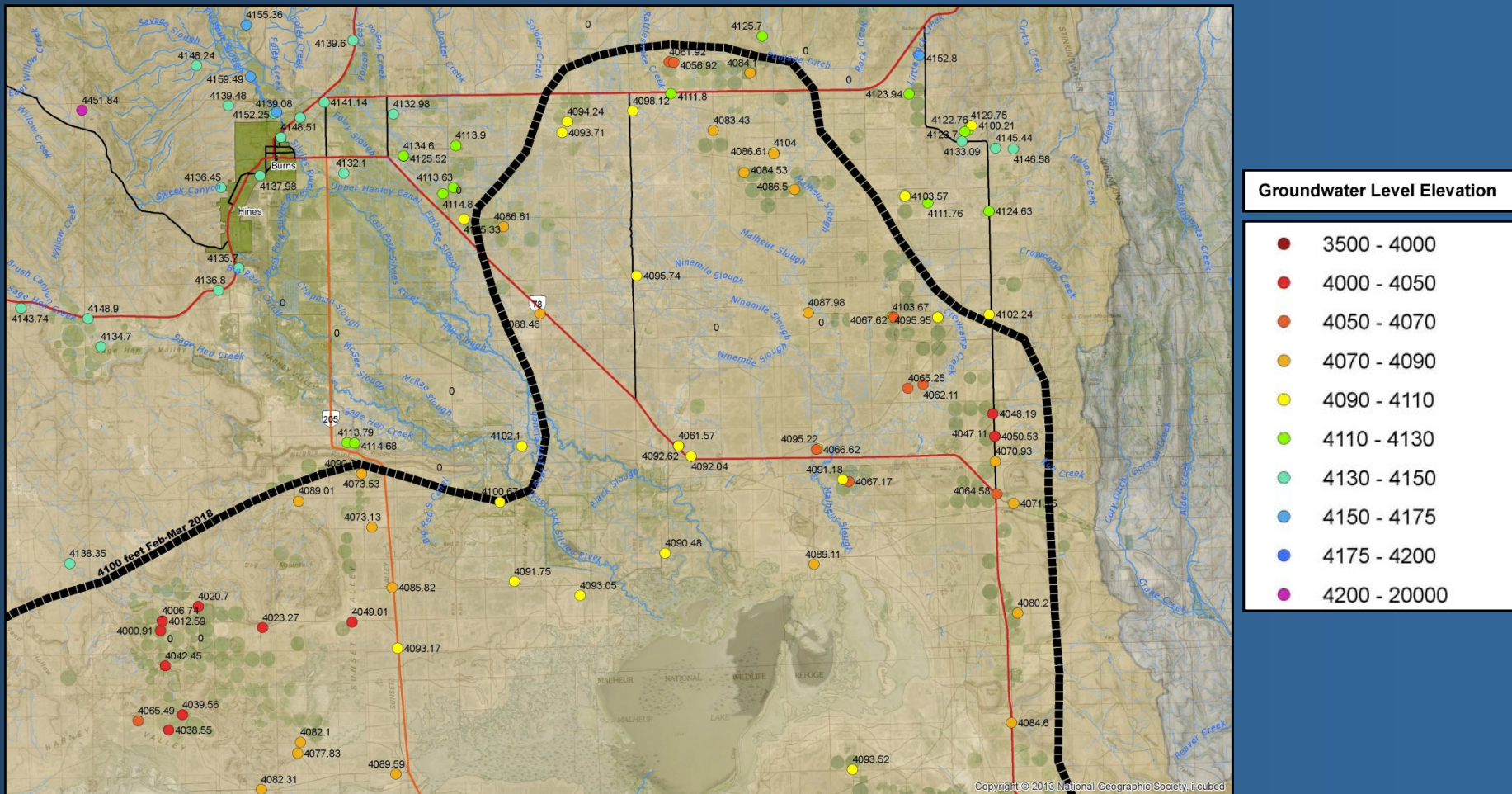


Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## February-March 2018

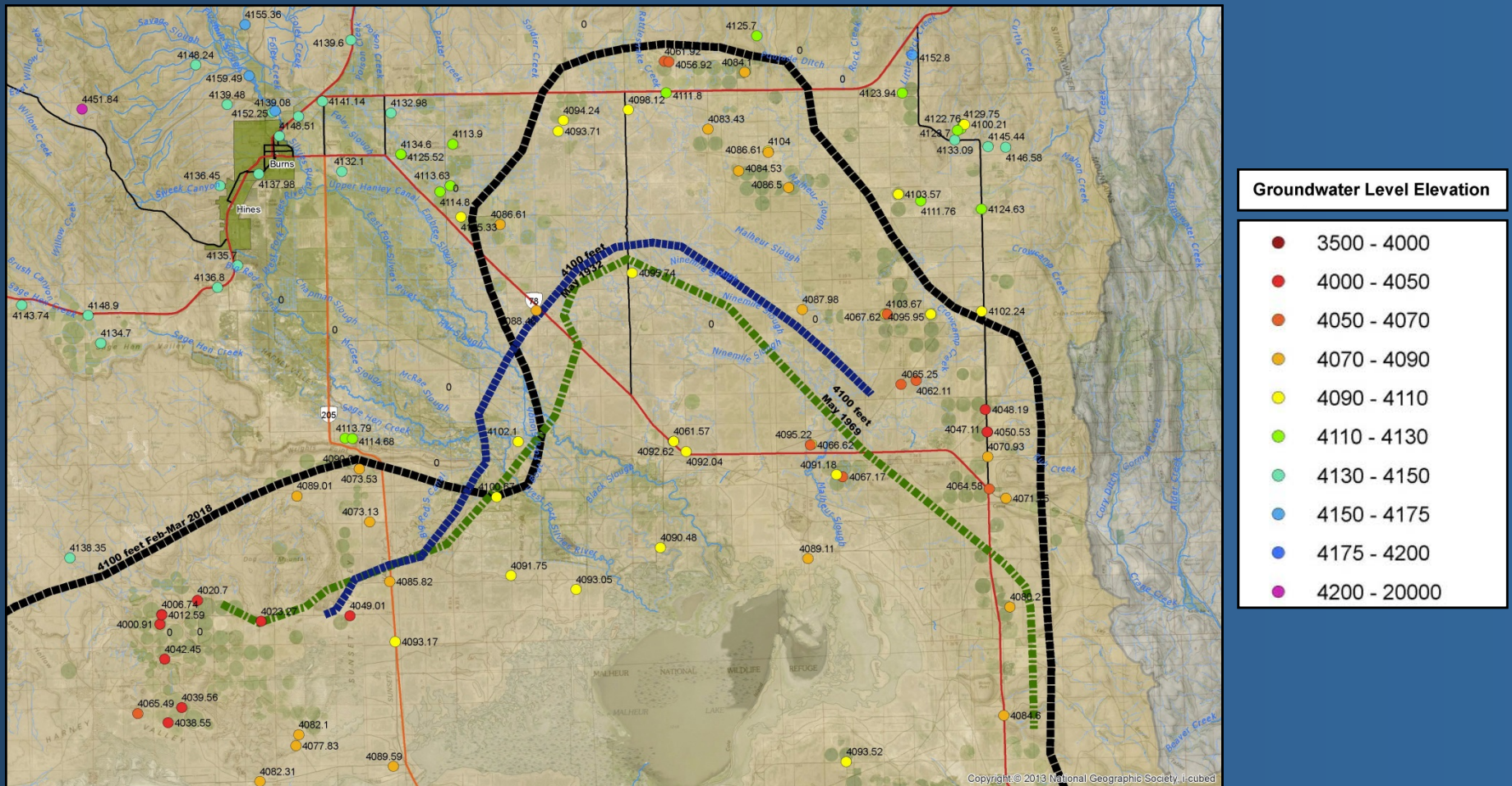


**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

## February-March 2018

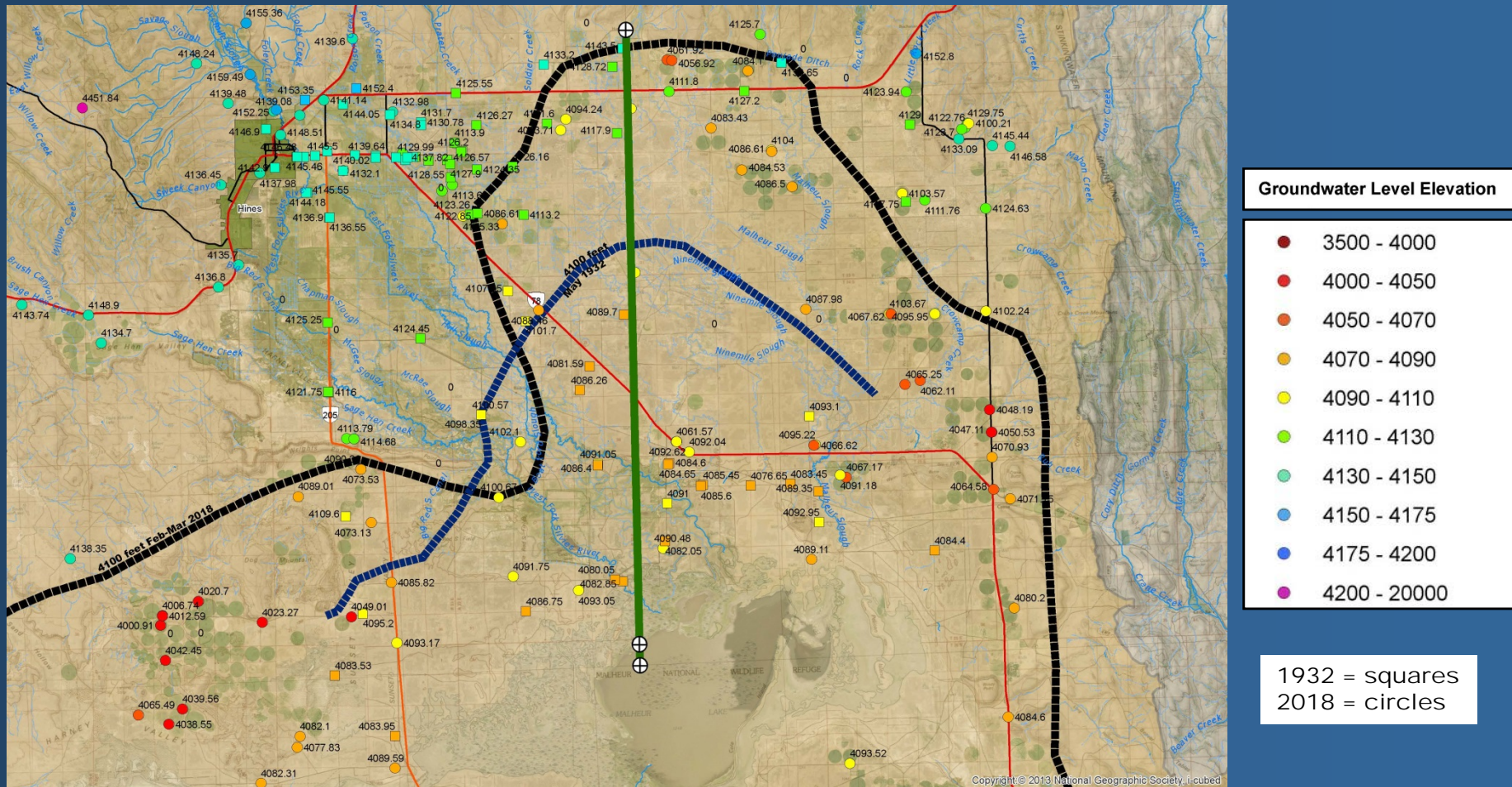


**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

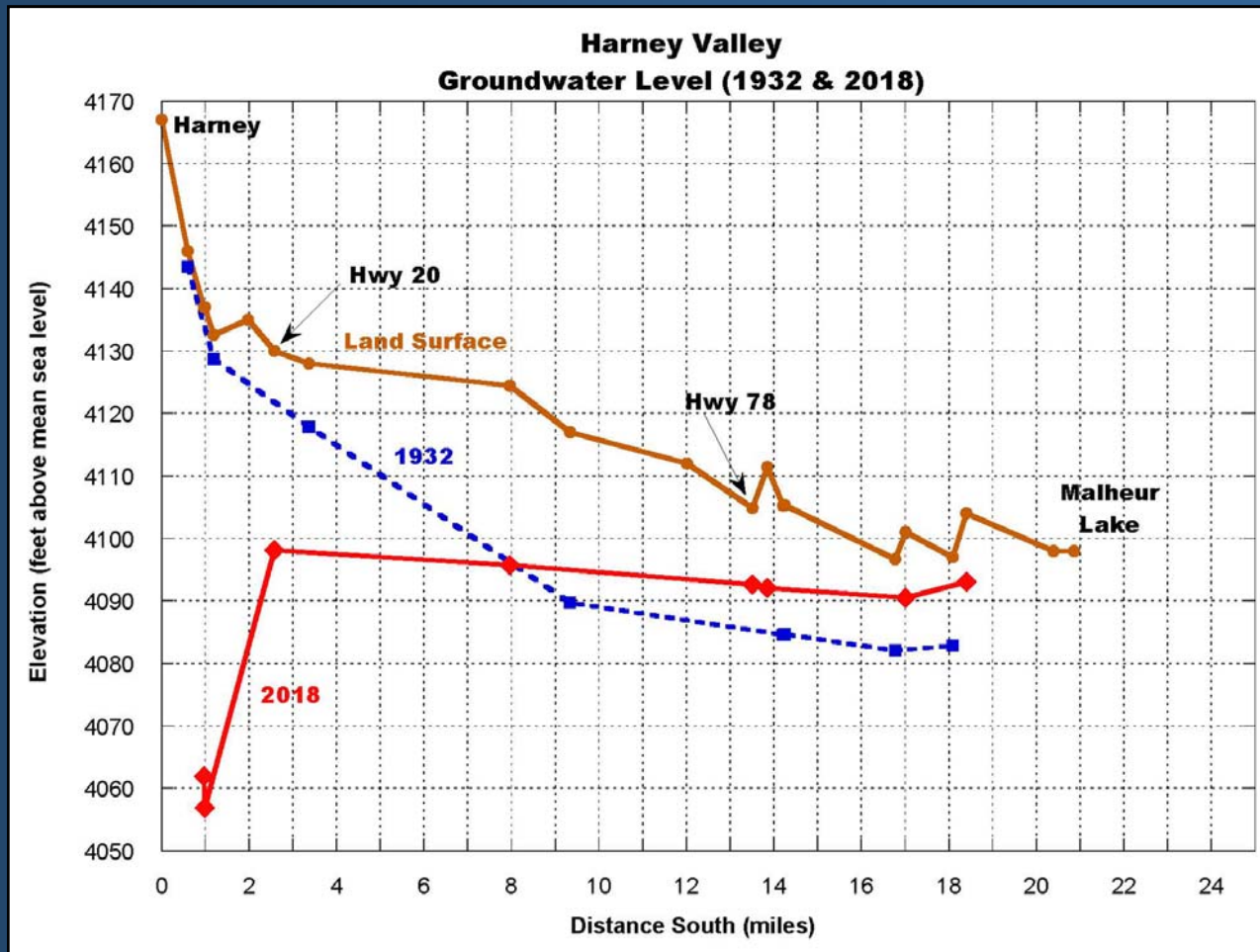
## May 1932 & February-March 2018



**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**

# Very Preliminary Groundwater Levels

## May 1932 & February-March 2018

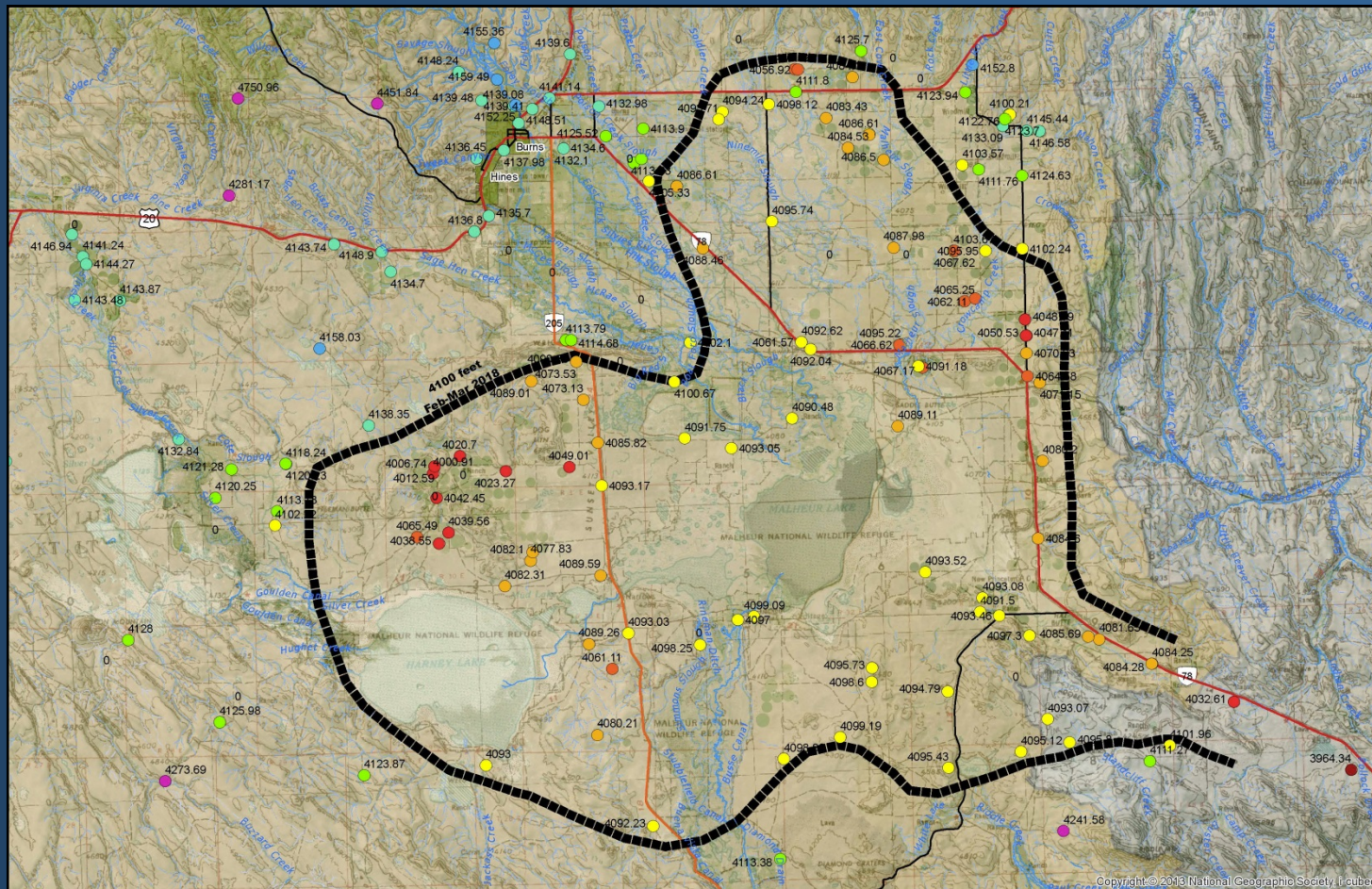


Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## February-March 2018

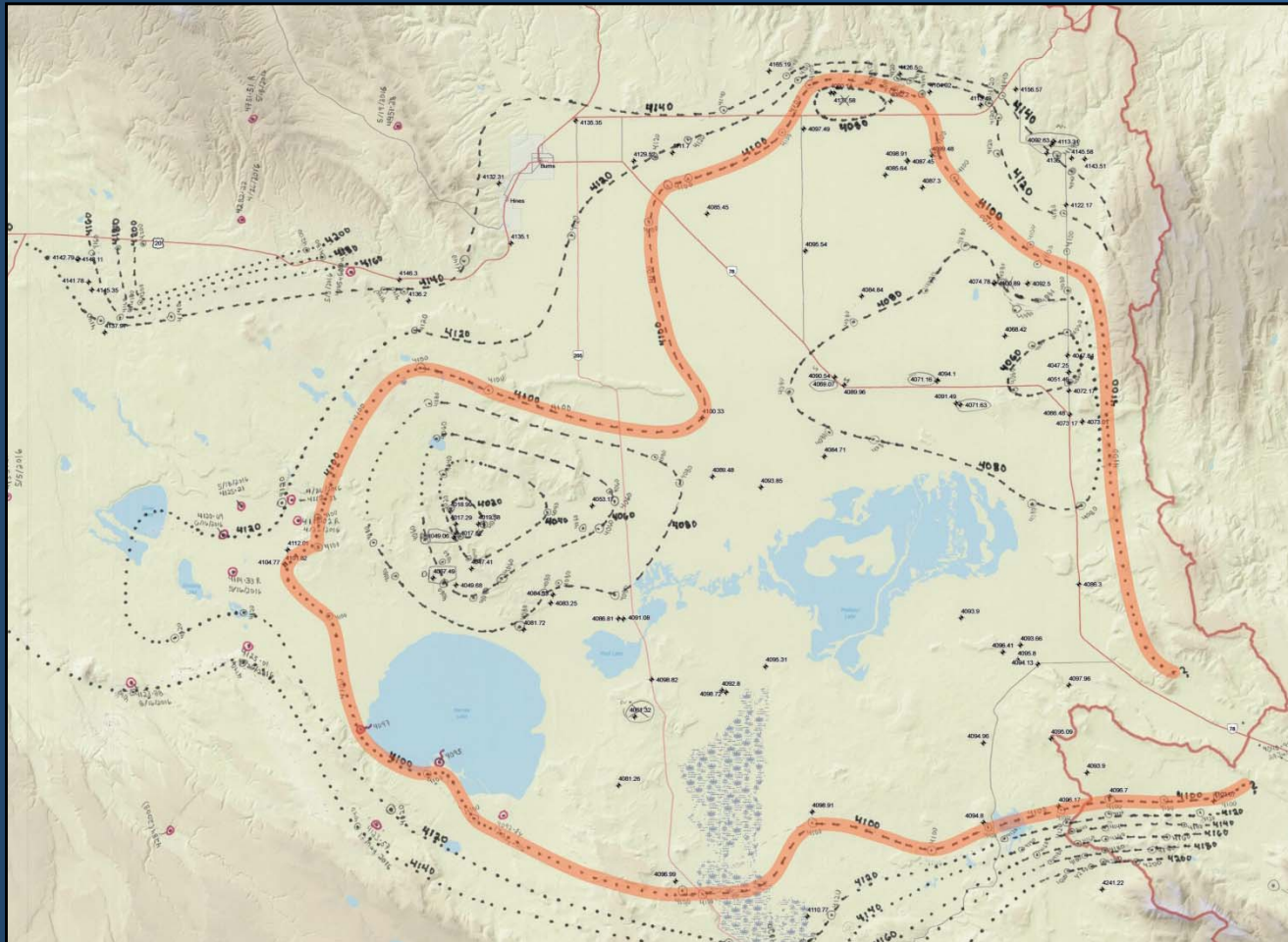


**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

## Spring 2016

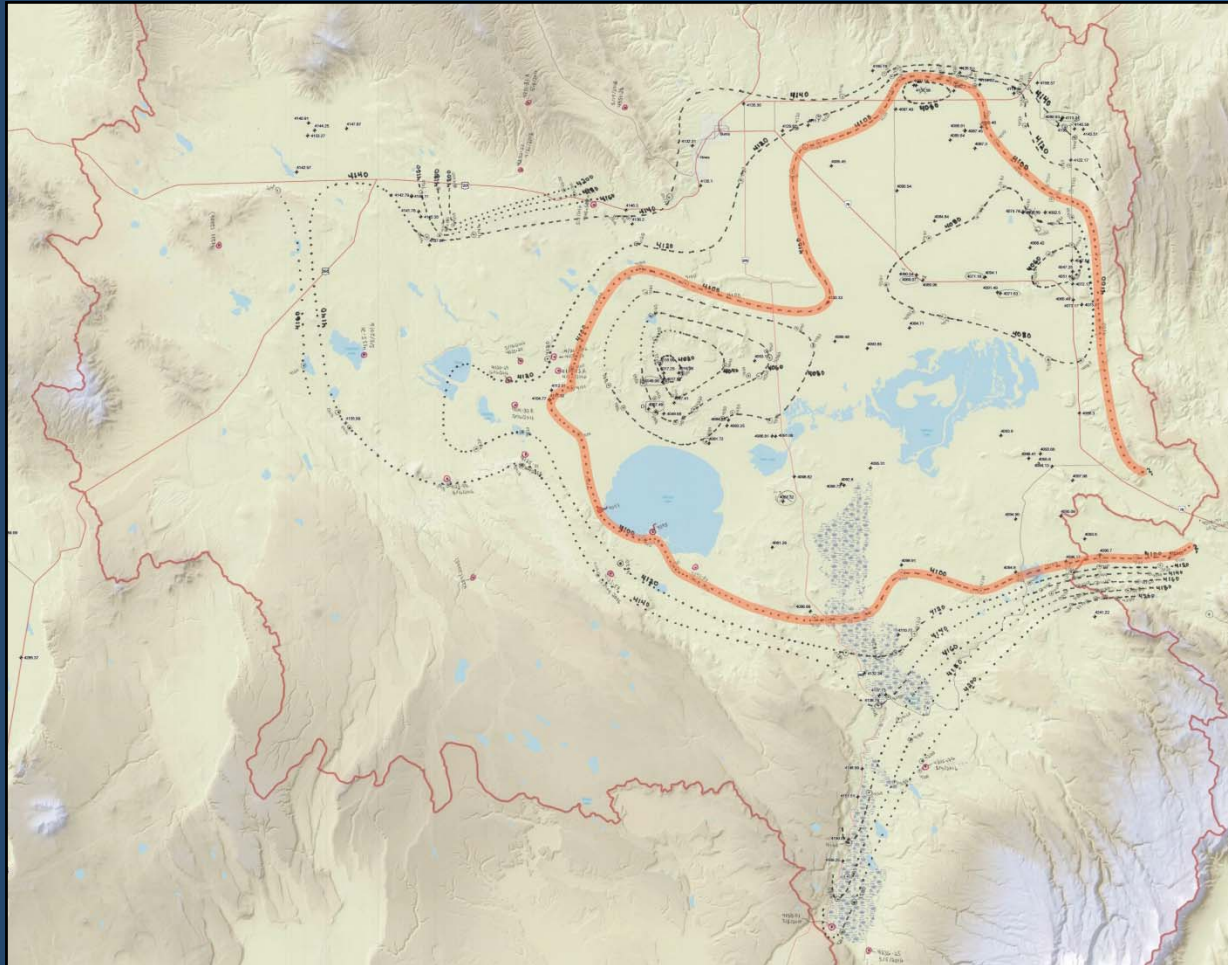


**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

**Spring 2016**



**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**

# Very Preliminary Groundwater Levels

## First Impressions

- Harney Valley GW Change Occurs 1969-2018
- GW Recharge: Silvies River Influence
- GW Discharge: Warm Springs Valley
- GW Discharge: Donner und Blitzen Valley
- GW Gradient from Harney Valley to Southeast
- GW Mound (15 to 25 feet): Palomino Plateau

**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

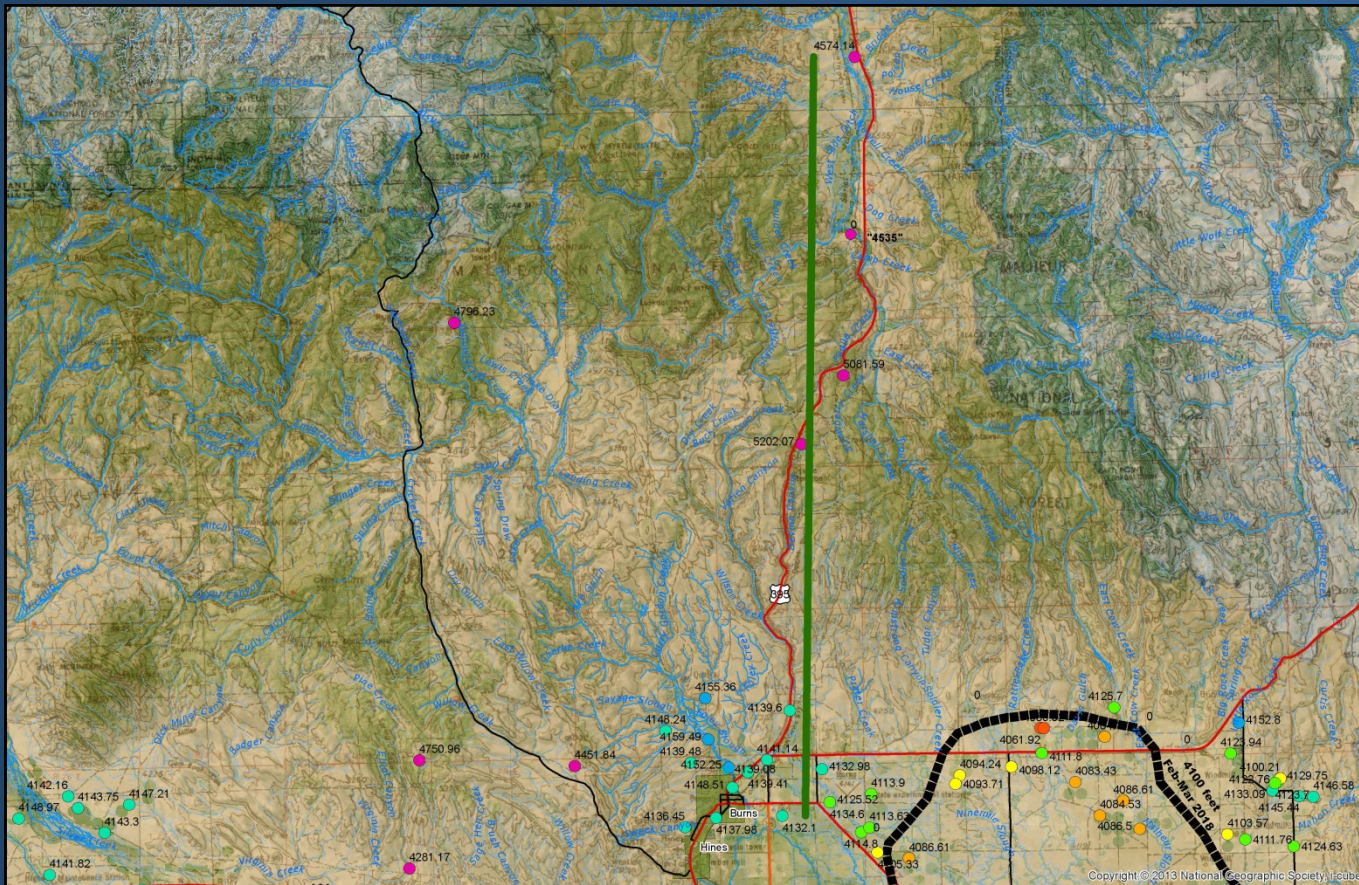
## Apparent Change from 1969 to 2018

- Harney Valley: 4100-foot contour retreat N & E
- Hwy 20 (E of Burns): Decline > 20 feet
- Crane: Decline > 30 feet
- Princeton: ~ 10 feet
- Weaver Springs: 25 to > 80 feet
- Riley: ~ 5 feet

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite

# Very Preliminary Groundwater Levels

## North Uplands – Hwy 395



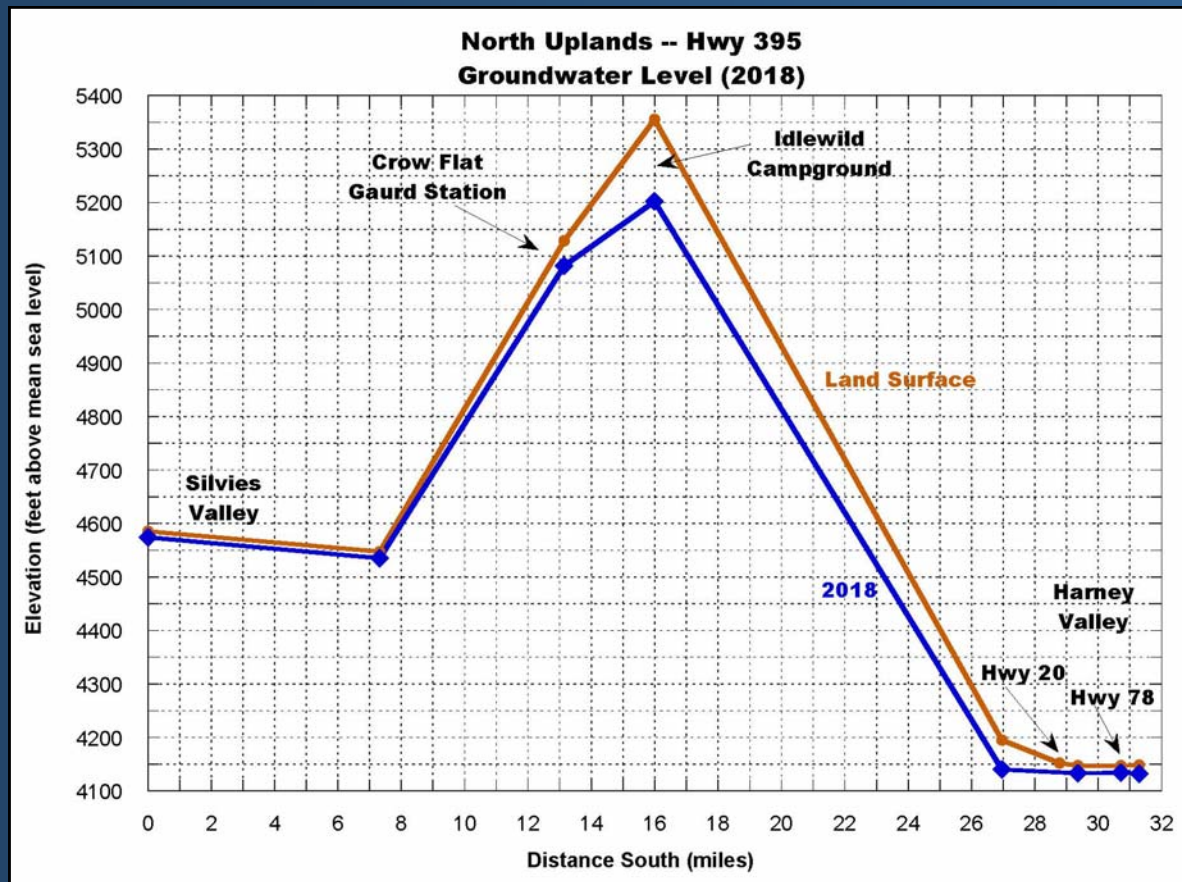
- Silvie's Valley
- Crow Flat Guard Station
- Idlewild Campground
- Hwy 20
- Hwy 78

**Very Preliminary...Subject to Likely Change...Do Not Quote or Cite**



# Very Preliminary Groundwater Levels

## North Uplands – Hwy 395

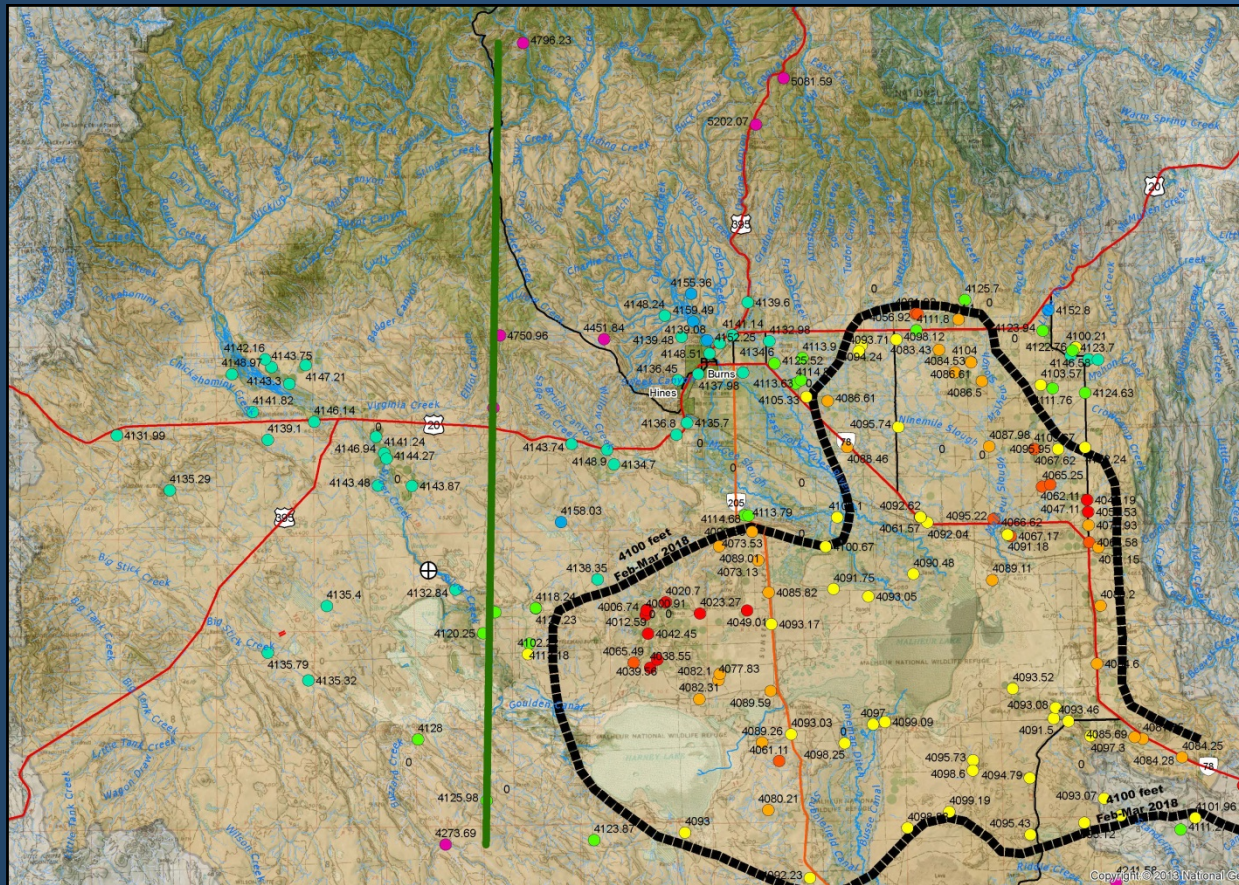


- Silvies Valley
- Crow Flat Guard Station
- Idlewild Campground
- Hwy 20
- Hwy 78

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite

# Very Preliminary Groundwater Levels

## North to South Uplands



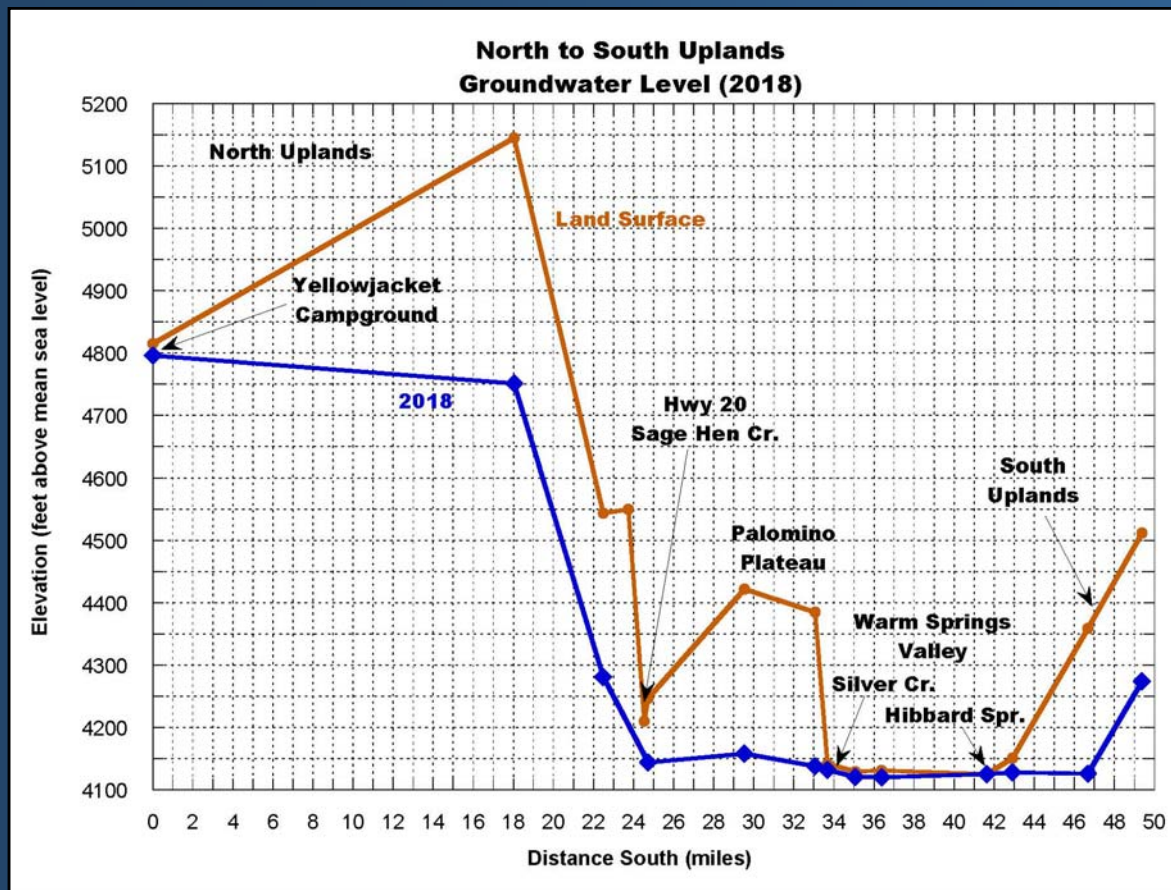
- Yellowjacket Campground
- Sage Hen - Double O Road
- Palomino Plateau
- Warm Springs Valley
- South Uplands

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

## North to South Uplands

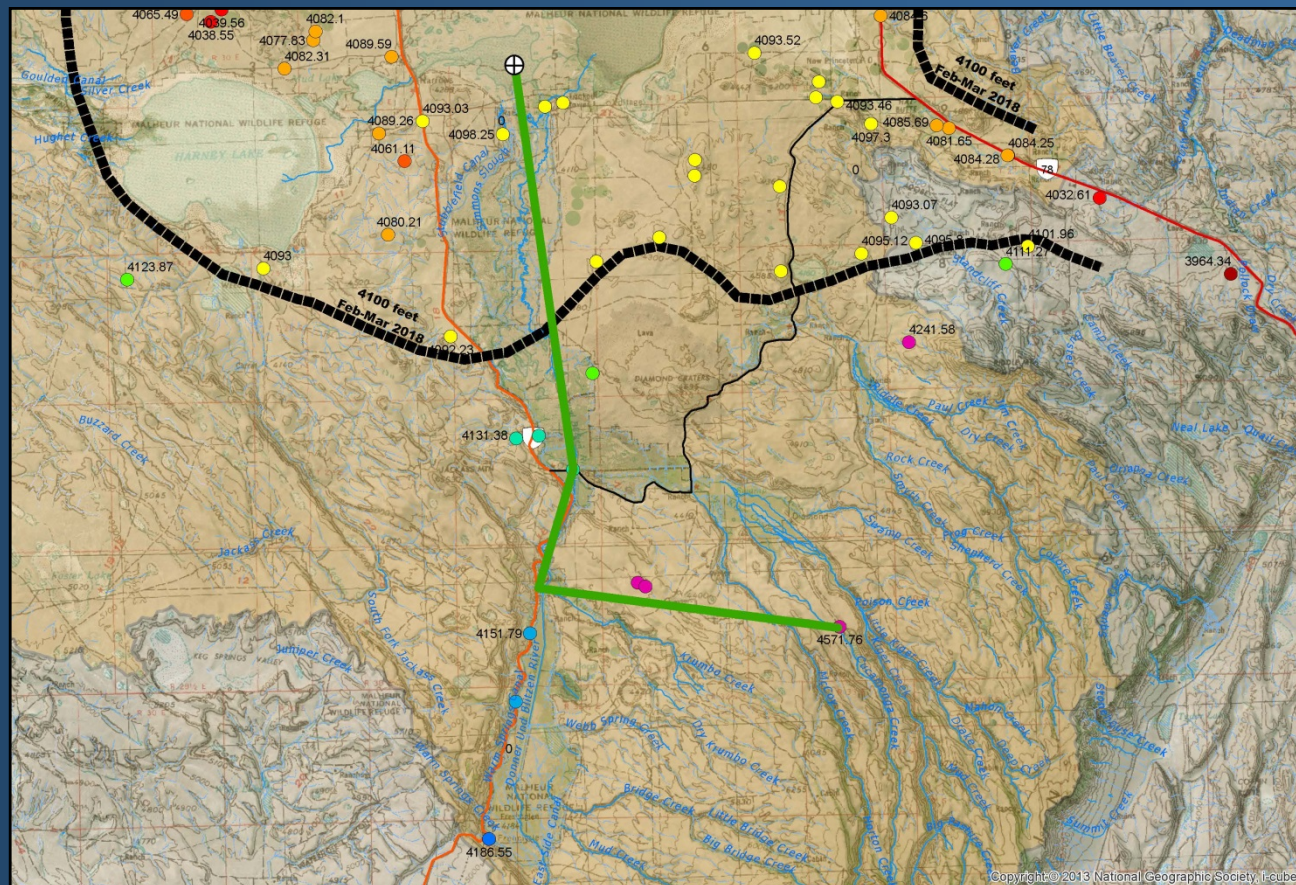


- Yellowjacket Campground
- Sage Hen - Double O Road
- Palomino Plateau
- Warm Springs Valley
- South Uplands

Very Preliminary...Subject to Likely Change...Do Not Quote or Cite

# Very Preliminary Groundwater Levels

## Steens Mountain



Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

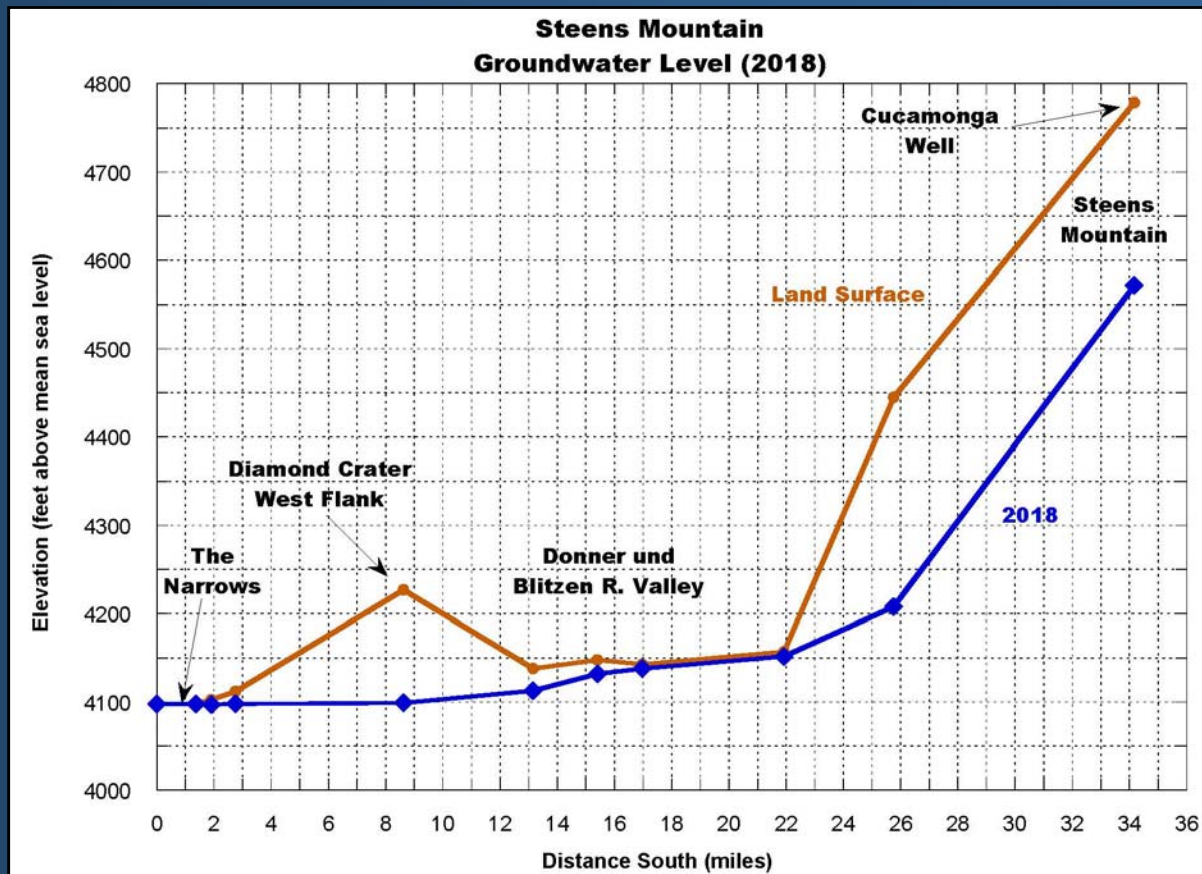
## Steens Mountain



Very Preliminary...Subject to Likely Change...Do Not Quote or Cite

# Very Preliminary Groundwater Levels

## Steens Mountain



Very Preliminary...Subject to Likely Change...Do Not Quote or Cite



# Very Preliminary Groundwater Levels

Questions & Thank You



Photo by Chad Sobotka