

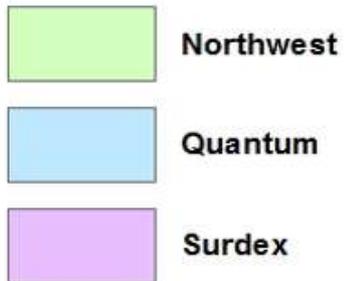
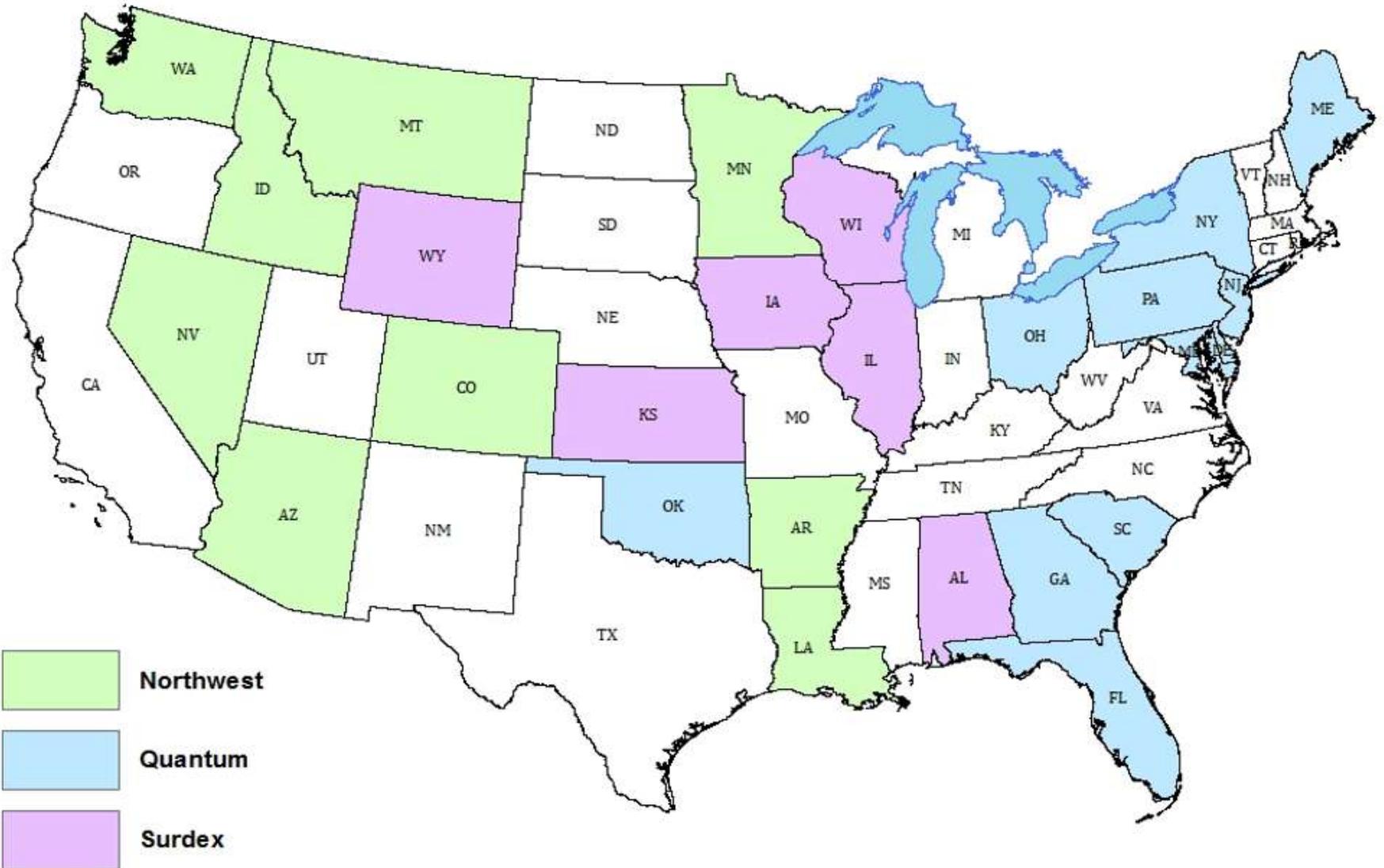
# 2015 National Agriculture Imagery Program

- 26 states awarded in two phases
  - 119,593 DOQQs for total of \$15.2M (~\$131 per QQ)
  - \$5.1M from four Federal partners

|                            |          |
|----------------------------|----------|
| DOI                        | \$1,900k |
| Forest Service             | \$1,300k |
| IBWC (Department of State) | \$24k    |
| NRCS                       | \$1,900k |

- \$348k for WY buy-up (1/2m, stereo pairs, point cloud data)
- 1/2m imagery for NY and WY (remaining 24 states are 1m)

# 2015 NAIP Contractors



# Early Access Web Services (EAWS)

- NAIP imagery can be available for use through image web services weeks or even months before the final products are delivered.
- This data may not have the tonal or accuracy qualities of the final products but does allow for earlier viewing of the imagery.
- Farm Service Agency's state and county offices will use the web service, by means of standard GIS desktop or web-based applications, to allow for visual verification of current field conditions prior to crop harvesting in support of farm related programs.
- The EAWS are provided by the NAIP vendors as part of the task order.

# Early Access Web Services (EAWS)

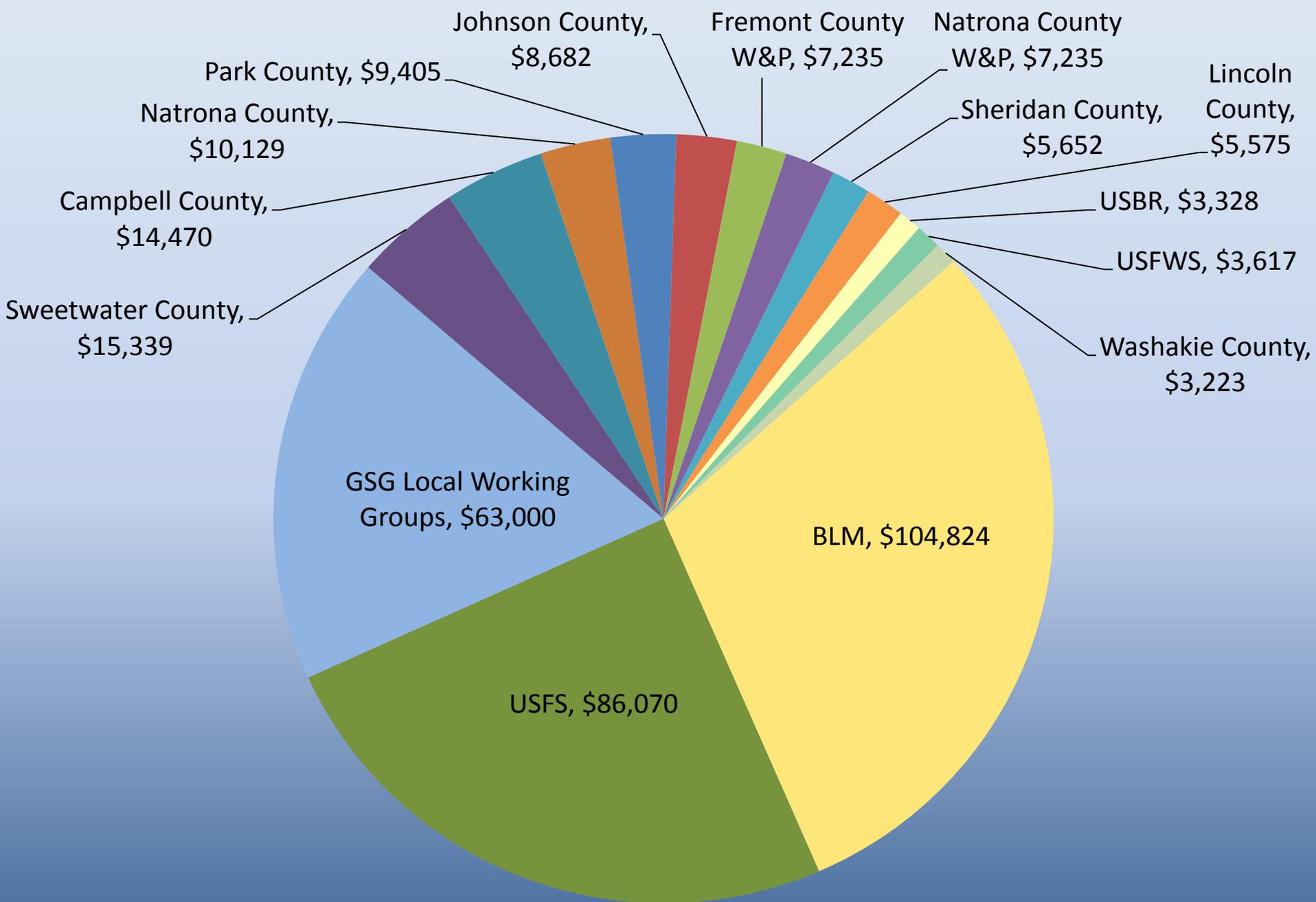
- All 2015 NAIP states will have EAWS. There will be two separate services:
- Provisional
  - Imagery is available on average five business days after acquisition.
  - Orthorectified, 10-m horizontal accuracy, color corrected/adjusted to allow reasonable determination of field conditions.
  - Operational from first day of the acquisition period until 30 days after production service completely loaded.
- Production
  - Composed of the final DOQQ production imagery (6-m accuracy).
  - The services shall be operational from the date of the first incremental DOQQ production imagery delivery (max 30 days after end of acquisition season) until March 31, 2016.
  - Exact same final imagery that is delivered to APFO
  - Continuously updated as APFO receives incremental production deliveries

# NAIP 2015

- 1-meter, 4-band base product
- Funded by fed agencies ~\$1.2 million (\$12/mi<sup>2</sup>)
  - Used for Crop subsidy compliance, Surface disturbance monitoring, Realty assessment, Project planning, Vegetation mapping, Forest monitoring, others.

Optional:

- Wyoming  $\frac{1}{2}$ -meter buy-up
  - USDA Estimate: \$550,000 (\$6/mi<sup>2</sup>)
  - Actual cost: \$267,574 (\$2.73/mi<sup>2</sup>)

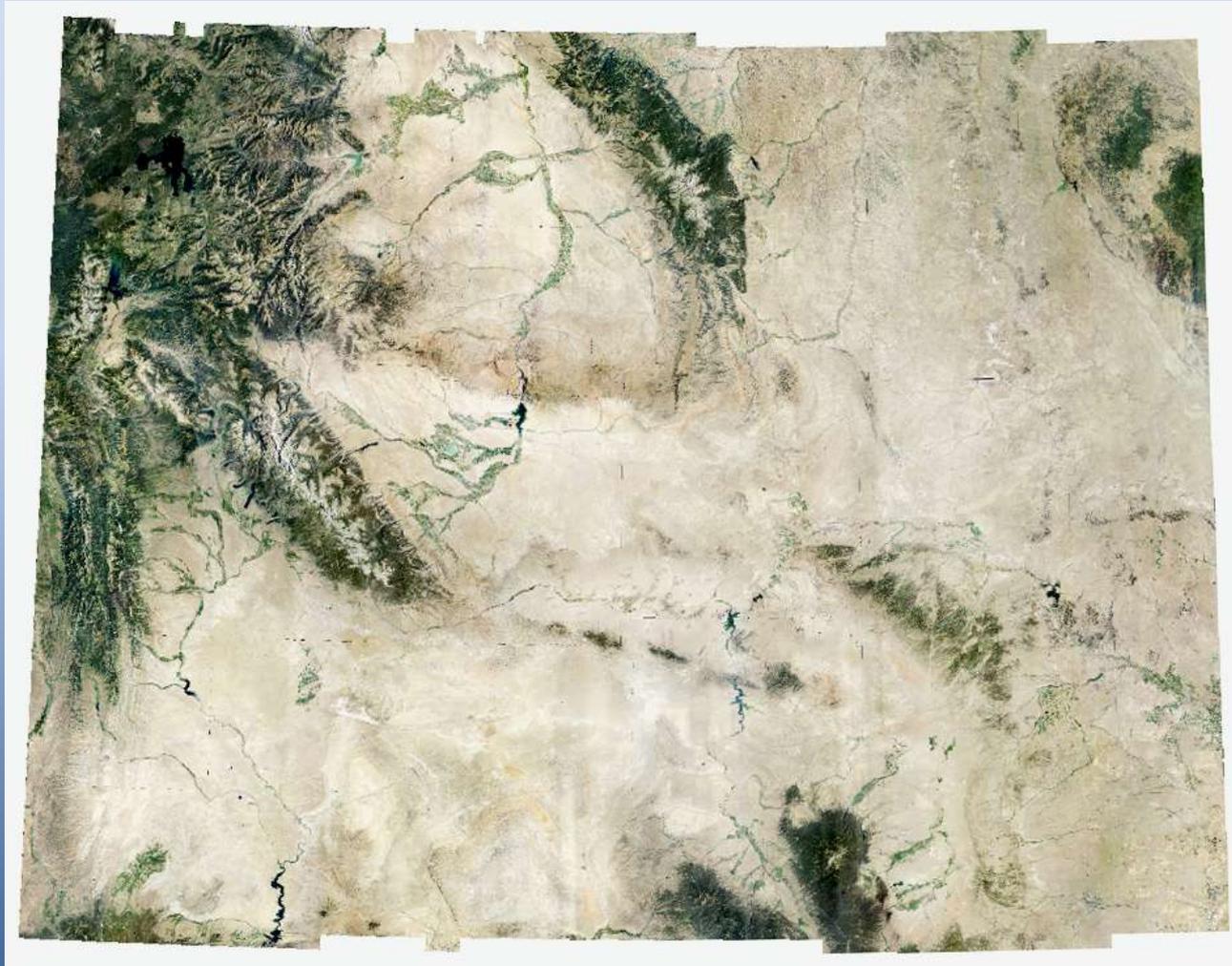


**Total Contribution**

# In addition...

- Stereo frames with block files (\$60,000)
  - Height measurements
  - Enhanced qualitative analysis via stereo
  - Digital Surface Modelling using traditional photogrammetric workflows
  - Lidar-like point cloud generation with RGB values

# 1.01 Trillion pixels to cover Wyoming

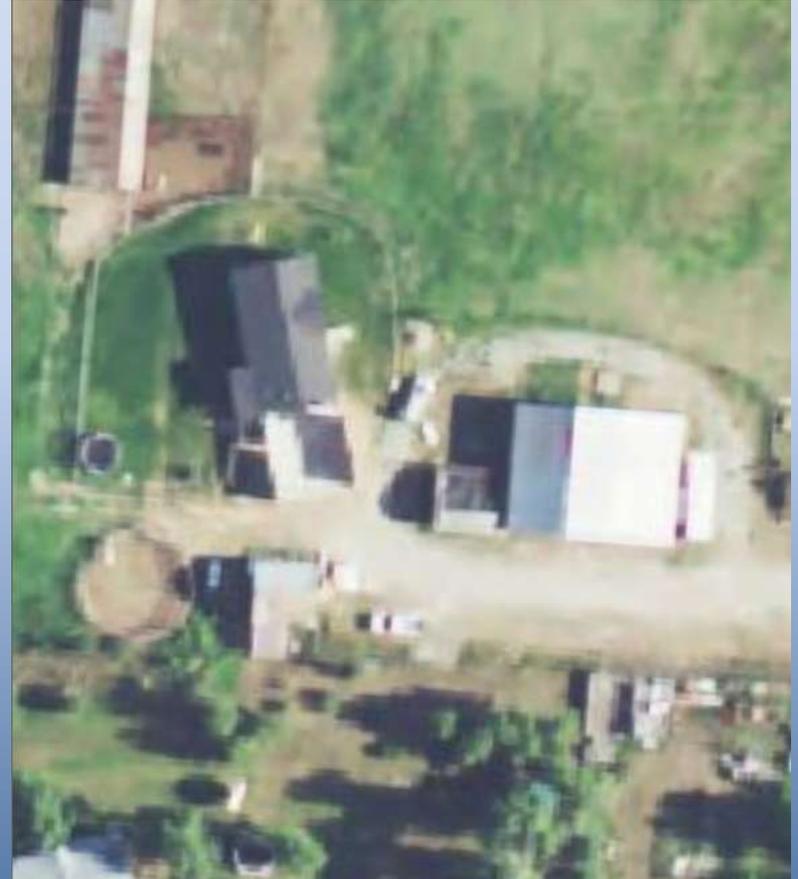


# Why half-meter NAIP?

1-meter



half-meter



# Why stereo NAIP?

Perspective

Point Cloud derived from  
Half-meter stereo imagery  
Buy-up was \$20,000.00 ?

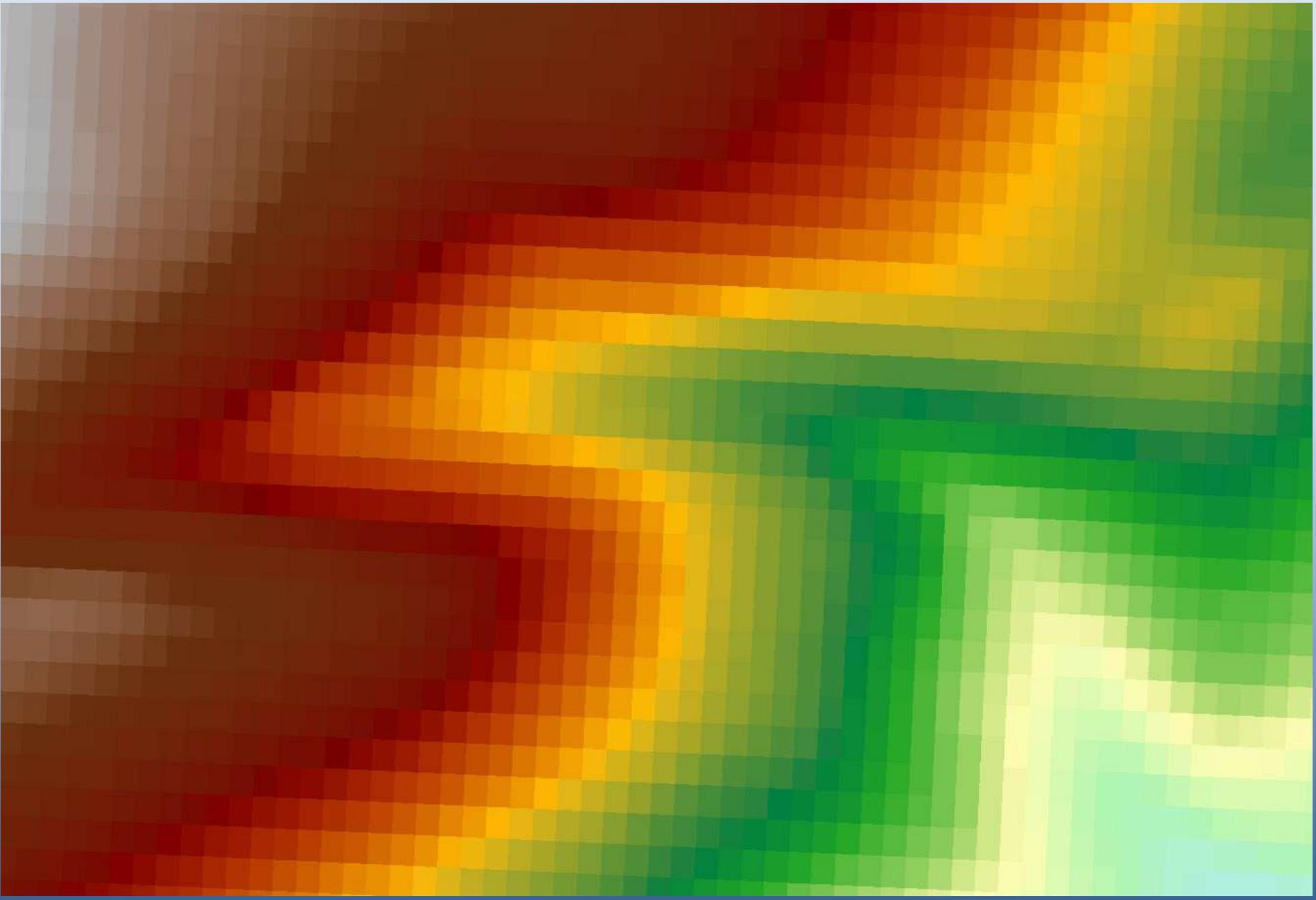


Terrain models, Point Clouds, DEM generation

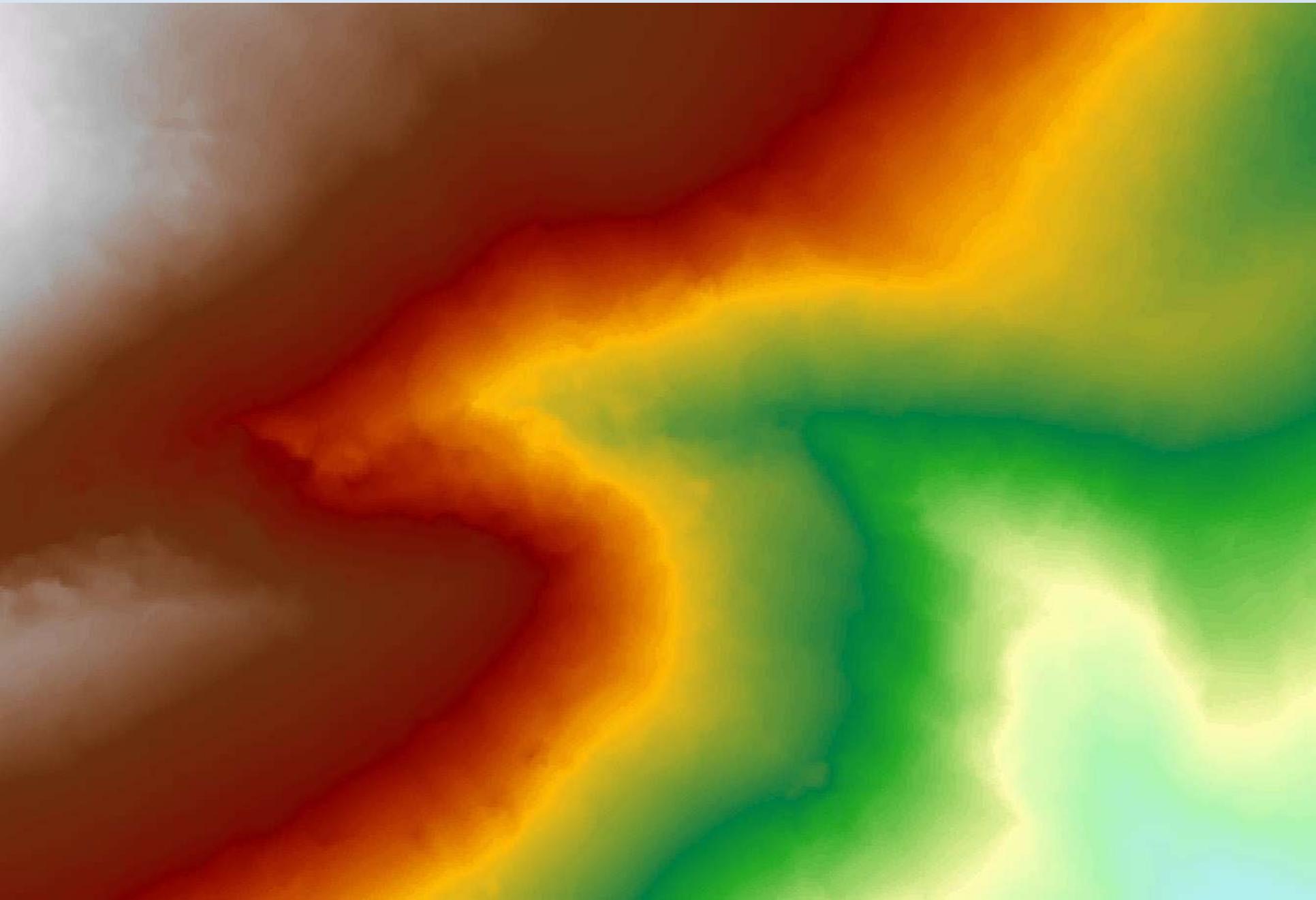
# Textured Surface Model derived from Half-meter stereo imagery



# 10m USGS Digital Elevation Model (DEM)



1m Digital Surface Model (DSM) derived from Half-meter stereo image



# Deliverables

- Stereo Frames (14 bit) = 15TB
- Stereo Block Files
- DOQQs (8 bit)= 4 TB
- Compressed County Mosaics = 200GB
- All files with FGDC-compliant metadata

# Next...

- NAIP contract was awarded to Surdex (St Louis, MO)
- Imagery acquired June–August 2015
- Imagery ready for public consumption ~January 2016.
- Imagery available to anyone via:
  - BLM
  - NRCS
  - Wyoming GeoHub