



Sheeprock SGMA update

FEBRUARY 16TH, 2017

MELISSA CHELAK

TERRY MESSMER



Capture Numbers 2016

40 Birds relocated

- 30 females:
 - 8 GPS backpacks
 - 20 Radio collars
 - 2 without collars
- 10 males:
 - 2 GPS backpacks
 - 6 Radio collars
 - 2 without collars

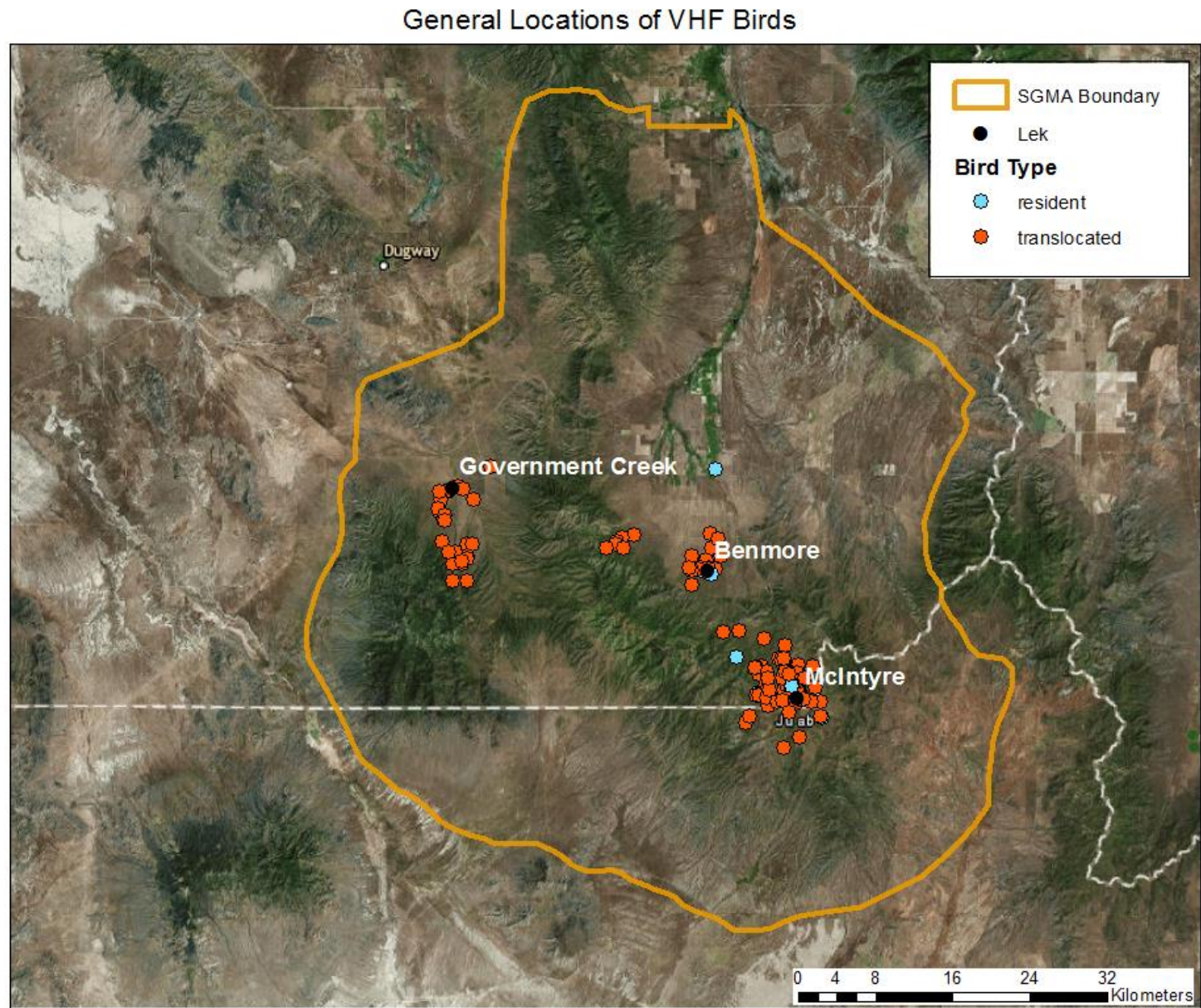
7 Resident birds captured

- 2 males:
 - 2 GPS backpacks
- 5 females:
 - 2 GPS
 - 3 radio collars

43 marked birds

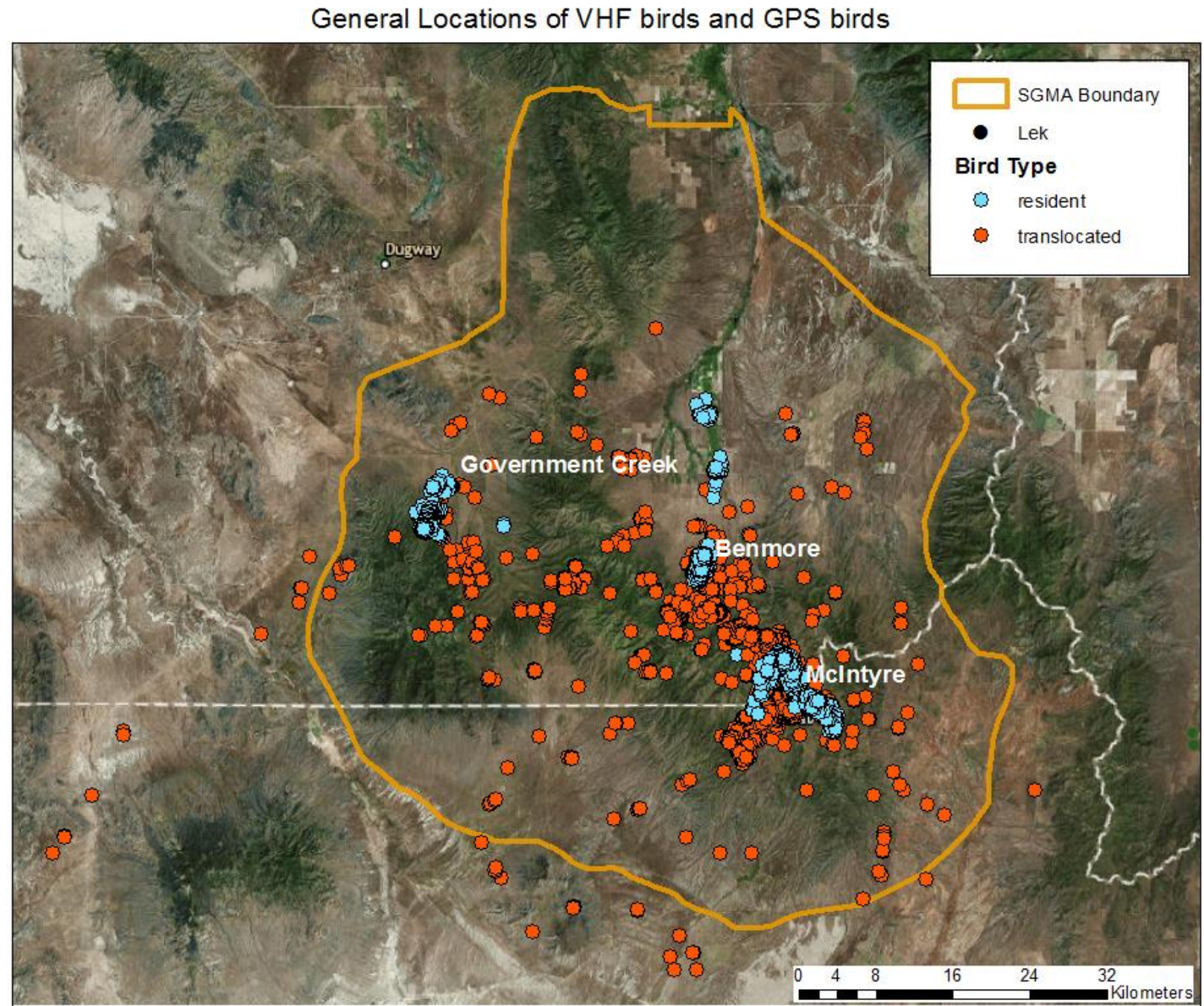


Radio-collared
transmitter
birds (VHF
radio collars)



Sources: ESRI, USU,
USGS, DWR

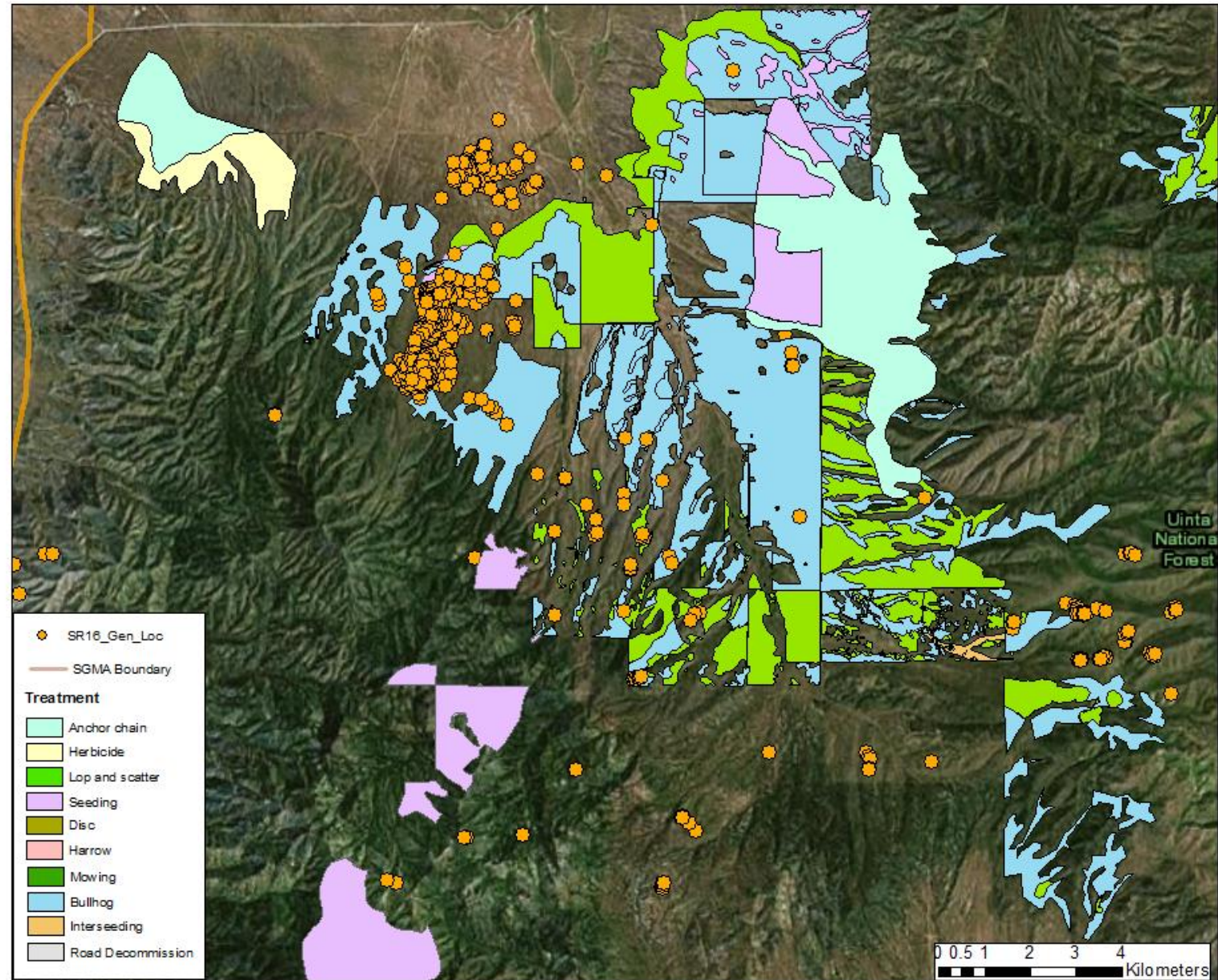
VHF and GPS- marked backpack transmitter birds



Sources: ESRI, USU,
USGS, DWR

Use of Treatments Near Government Lek

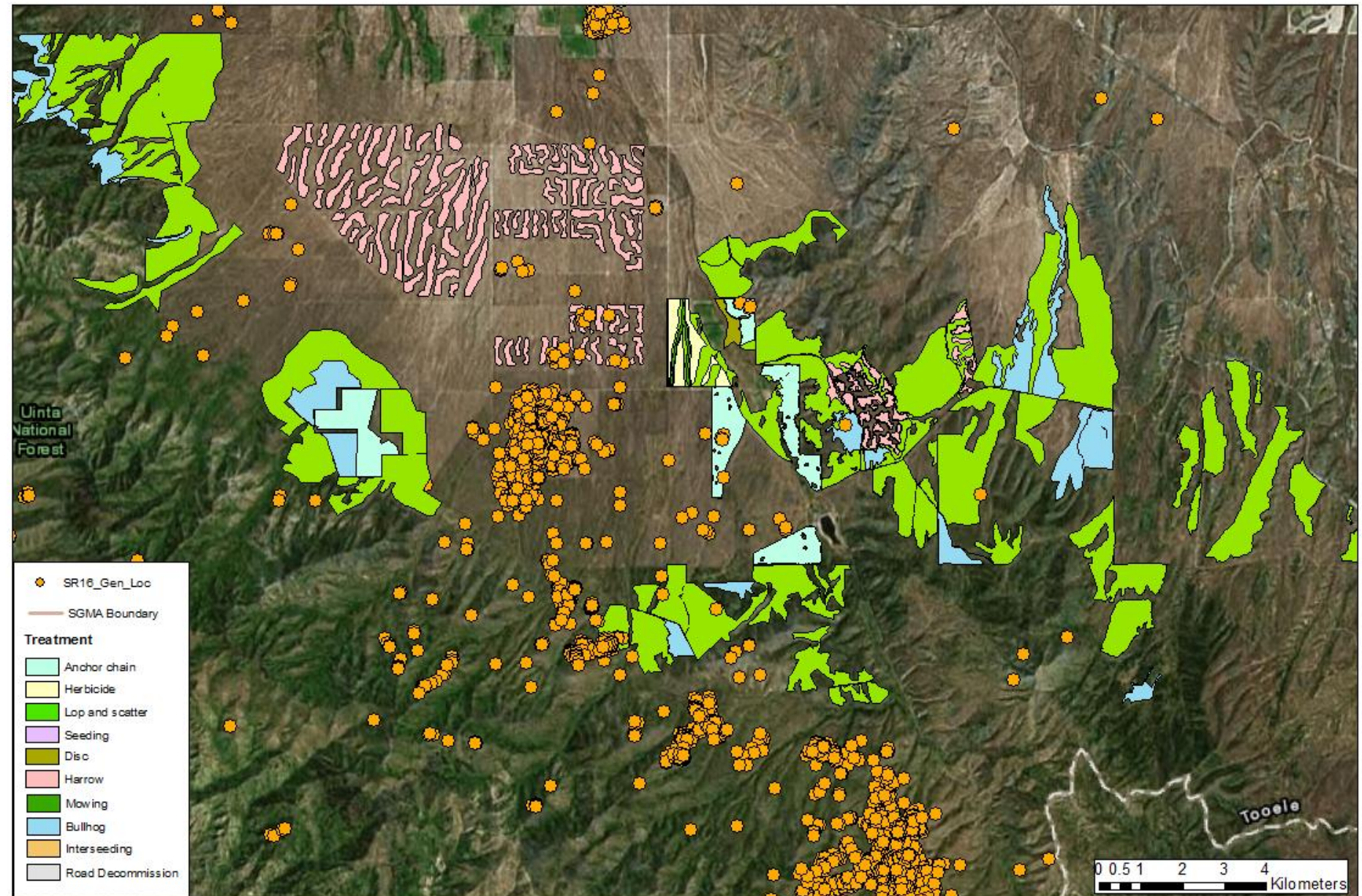
WRI Projects with
general locations from
March to October in
Government Creek
lekking area



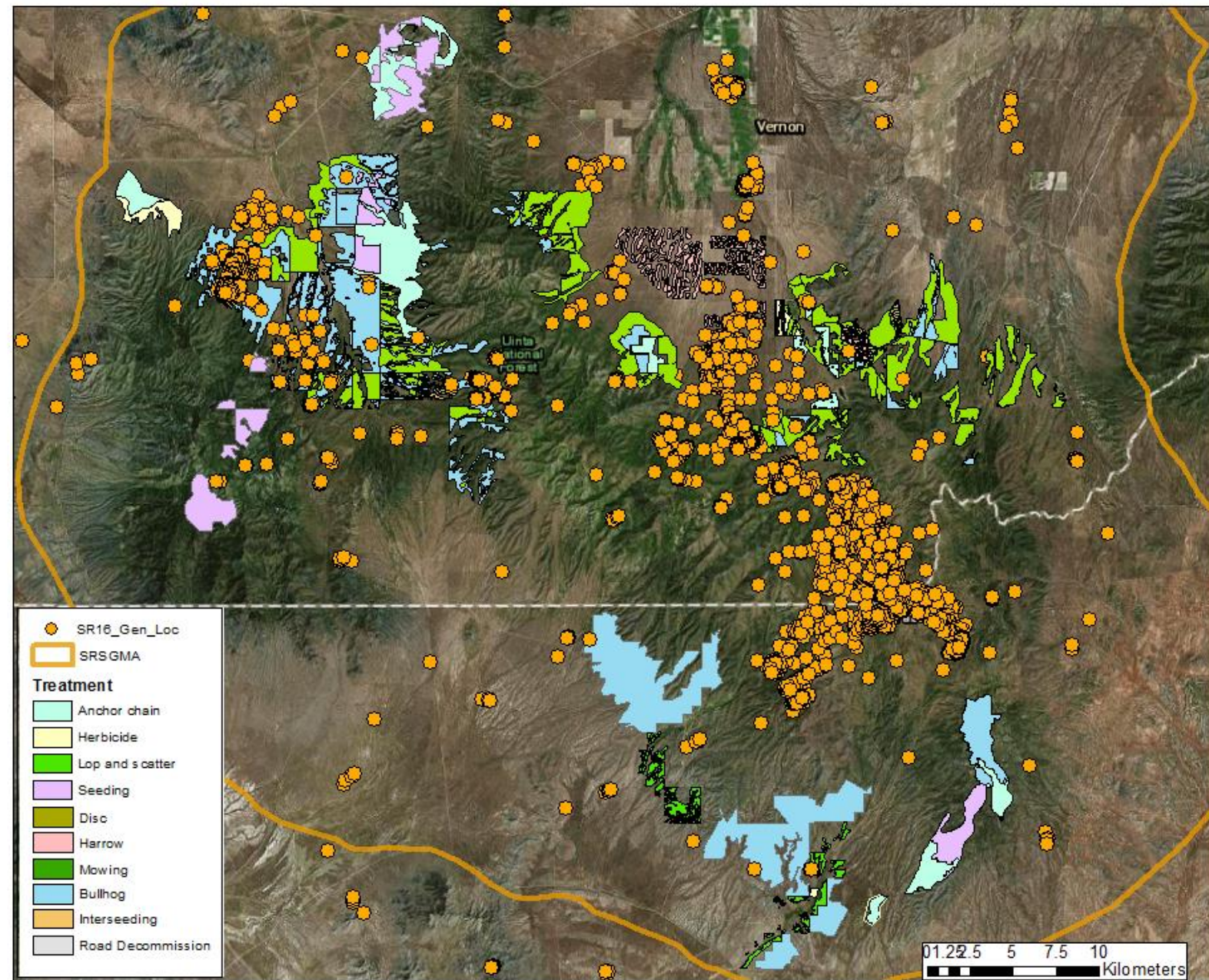
Sources: ESRI, USU,
USGS, DWR, WRI

Use of Treatments Near Benmore Lek

WRI Projects
with general
locations from
March to
October at the
Benmore lek

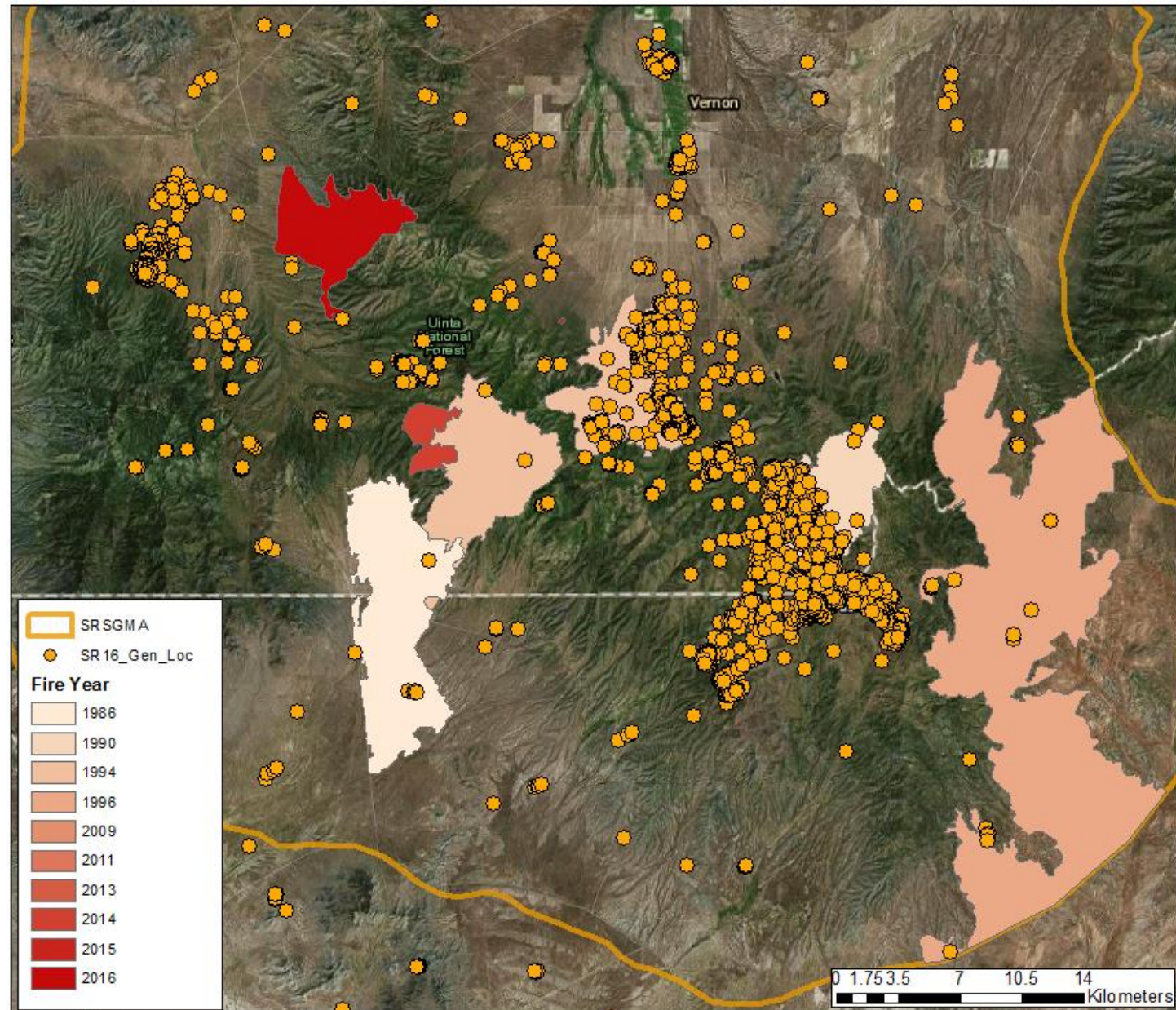


WRI Projects
located in the
Sheeprock
SGMA



Grouse Locations and Fires

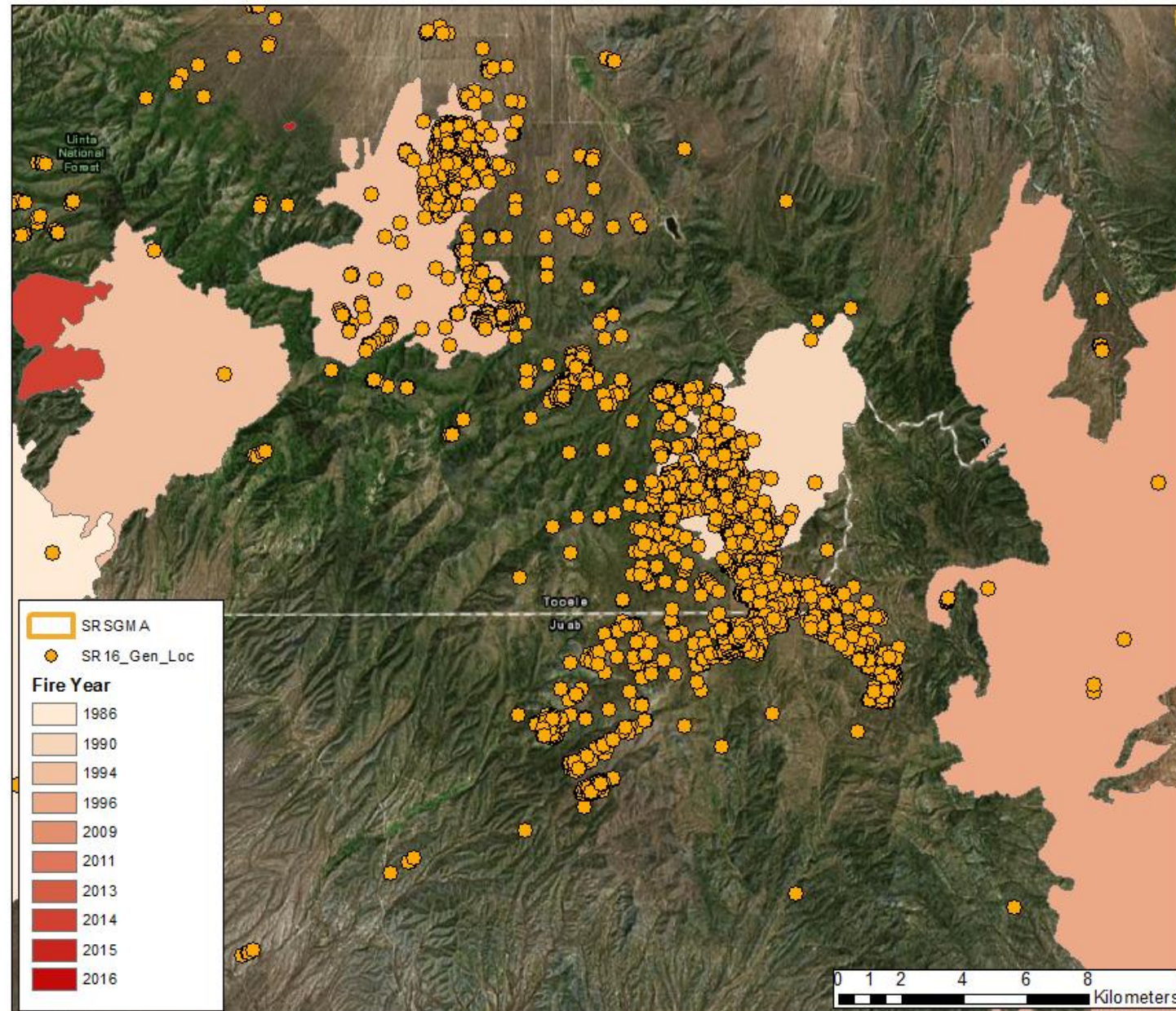
Use of historic
and recent fire
areas with
general locations
of grouse from
March to October



Sources: ESRI, USU,
USGS, DWR, WRI

Grouse Locations and Fires

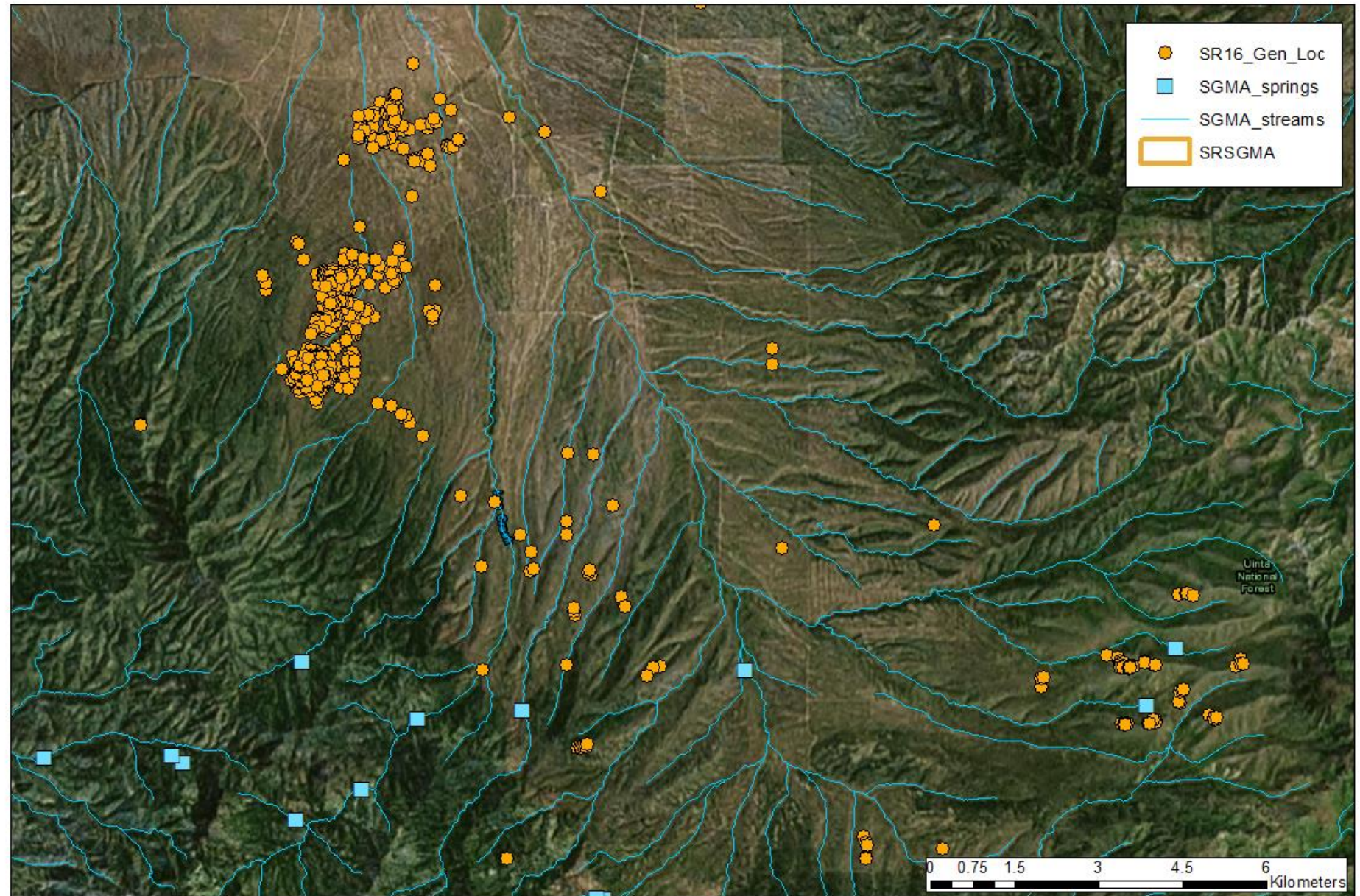
Use of historic
and recent fire
areas, Zoomed
Into Benmore and
McIntyre lek
areas



Sources: ESRI, USU,
USGS, DWR, WRI

Grouse Locations Near Streams in Government Creek

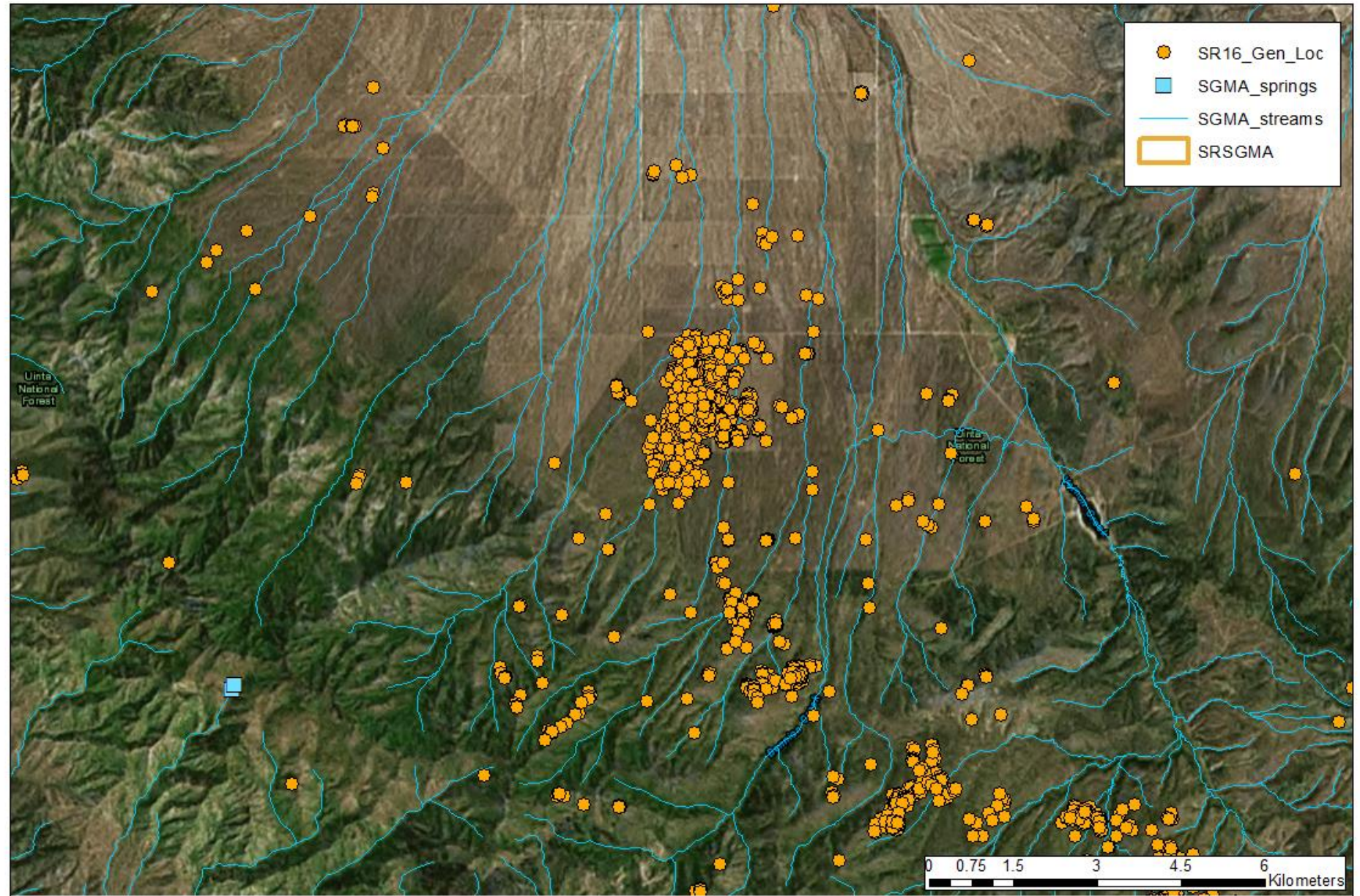
Grouse locations
with streams and
springs in the
Government lek



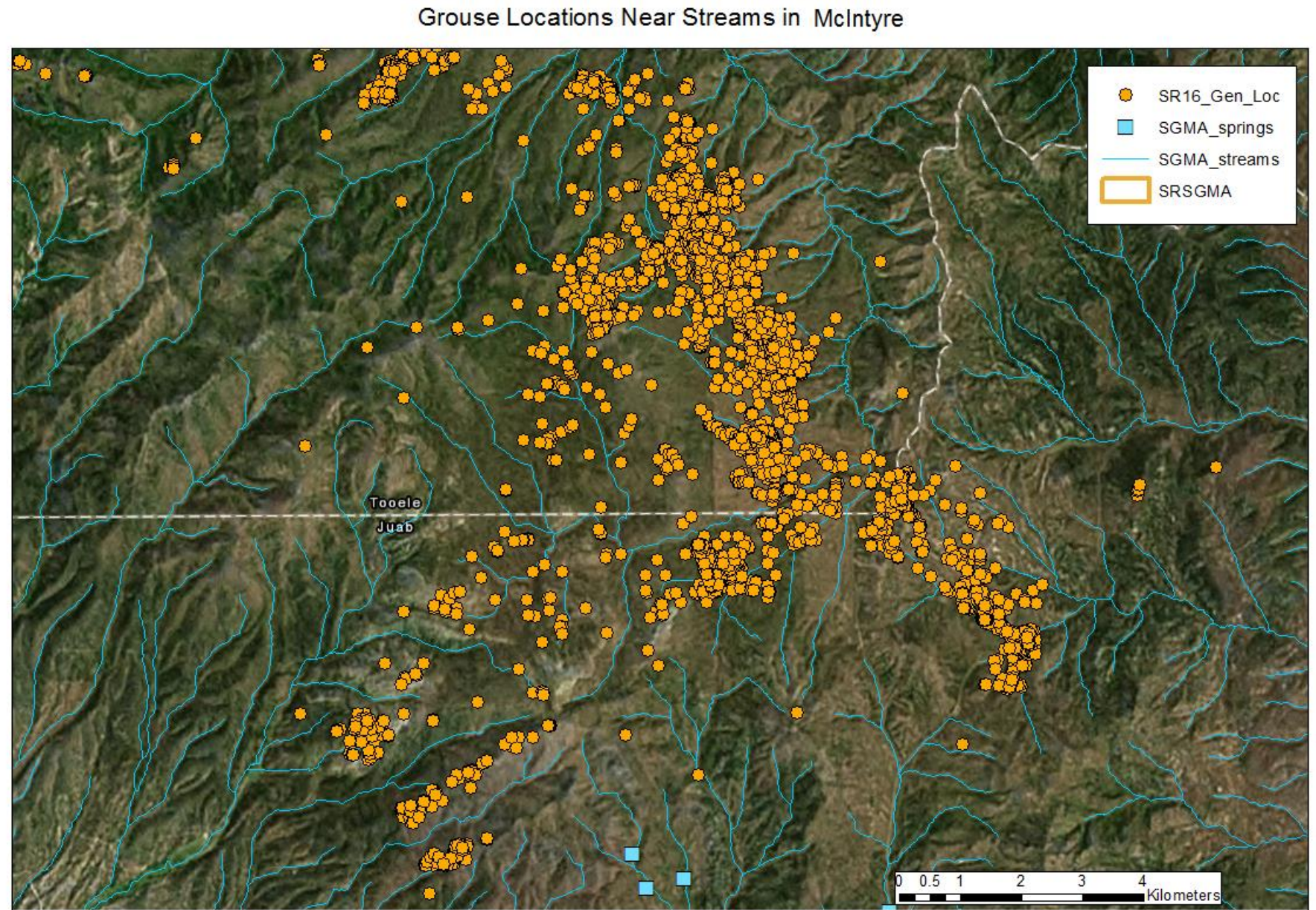
Sources: ESRI, USU,
USGS, DWR, WRI

Grouse Locations Near Streams in Benmore

Grouse locations with
springs and streams
in the Benmore lek



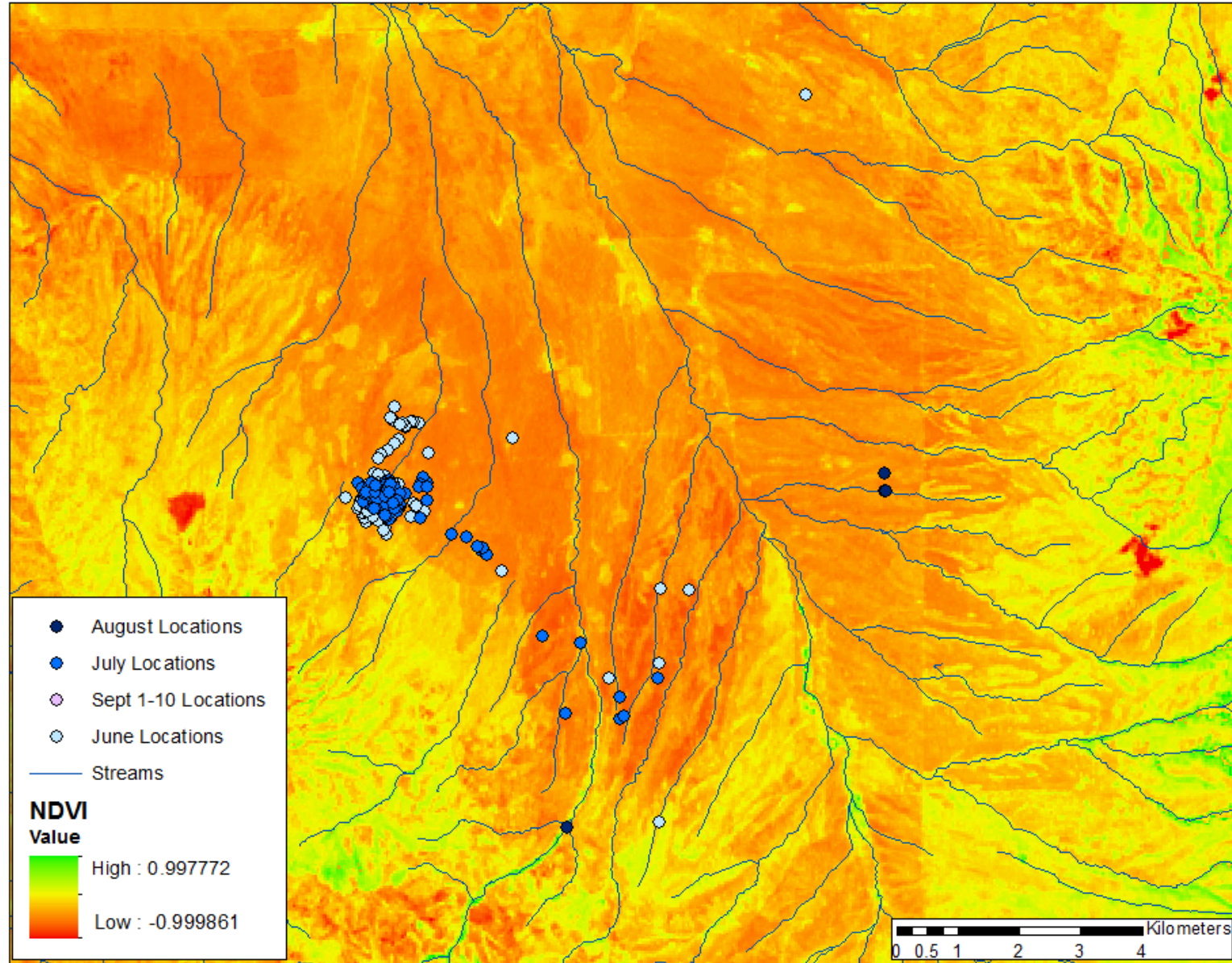
Grouse locations with
springs and streams
in the McIntyre lek



Sources: ESRI, USU,
USGS, DWR, WRI

Summer (June-Early September) locations of sage-grouse in
Government overlayed on an NDVI with streams included

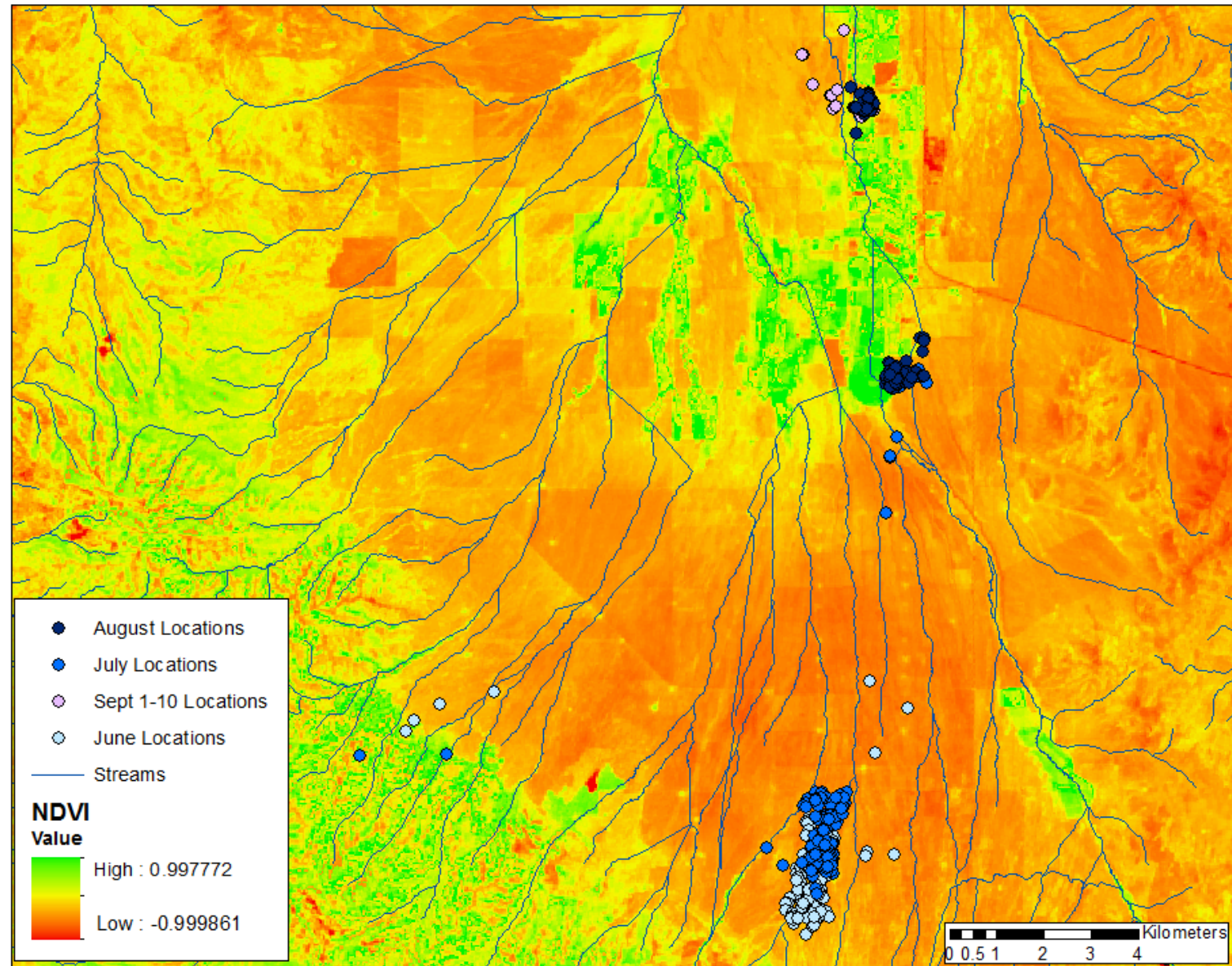
Summer
Locations
and NDVI
with
ephemeral
streams



Sources: ESRI, USU,
USGS, DWR

Summer (June-Early September) locations of sage-grouse in Benmore
overlayed on an NDVI with streams included

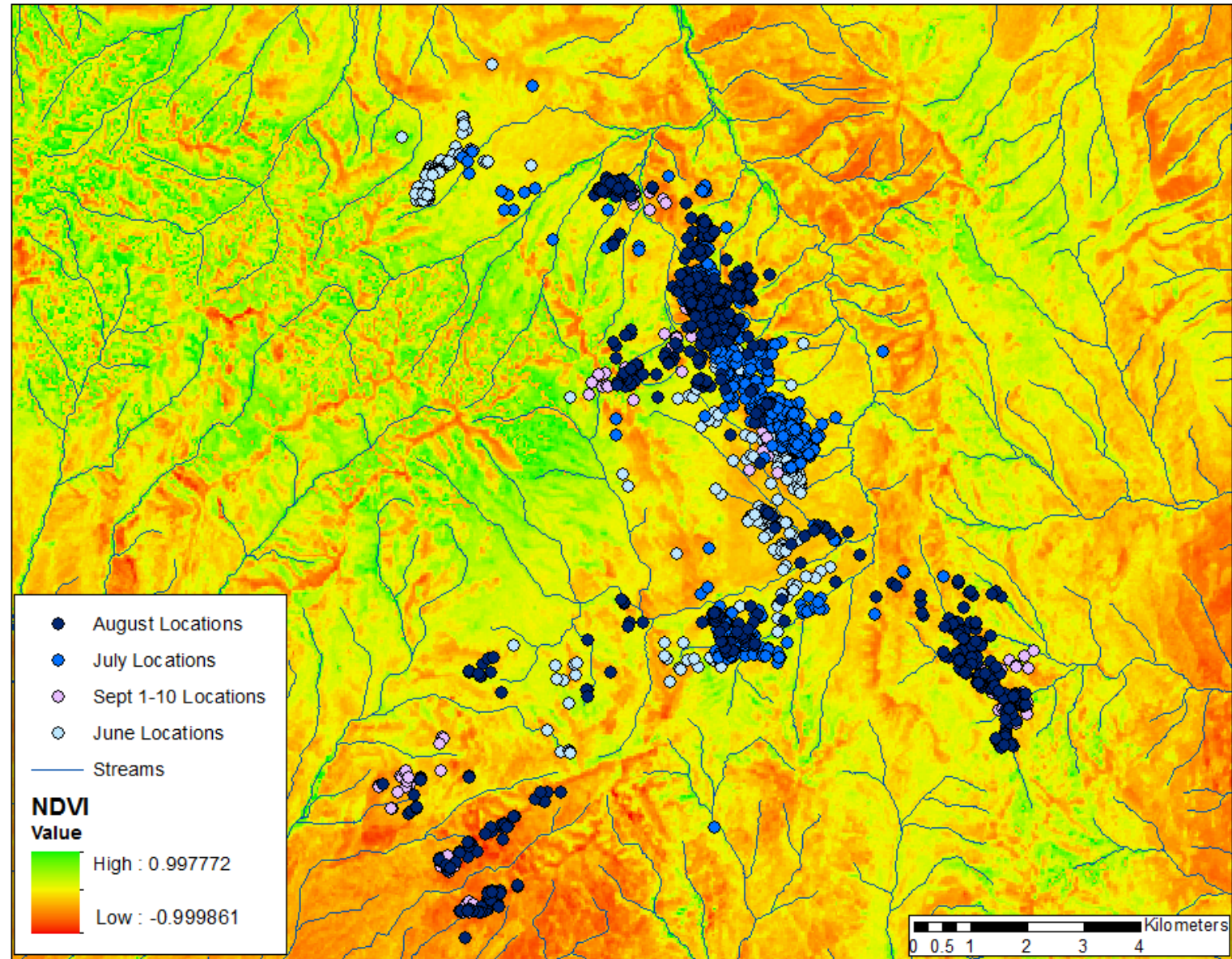
Summer
Locations
and NDVI
with
ephemeral
streams



Sources: ESRI, USU,
USGS, DWR

Summer (June-Early September) locations of sage-grouse in McIntyre and Little Valley overlaid on an NDVI with streams included

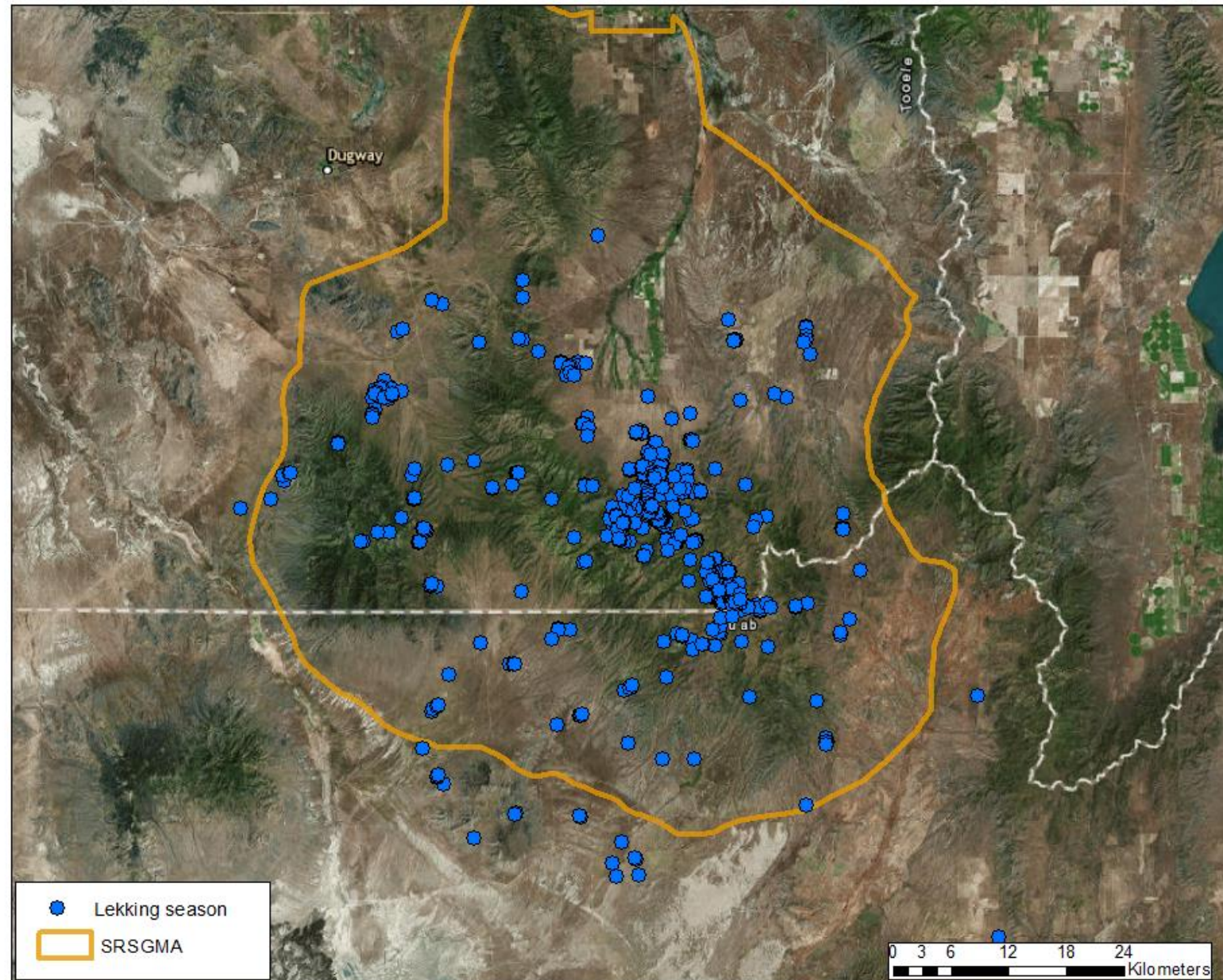
Summer
Locations
and NDVI
with
ephemeral
streams



Sources: ESRI, USU,
USGS, DWR

Grouse Locations during the Lekking Season

Locations by
season:
Lekking
March-May



Sources: ESRI, USU,
USGS, DWR, WRI

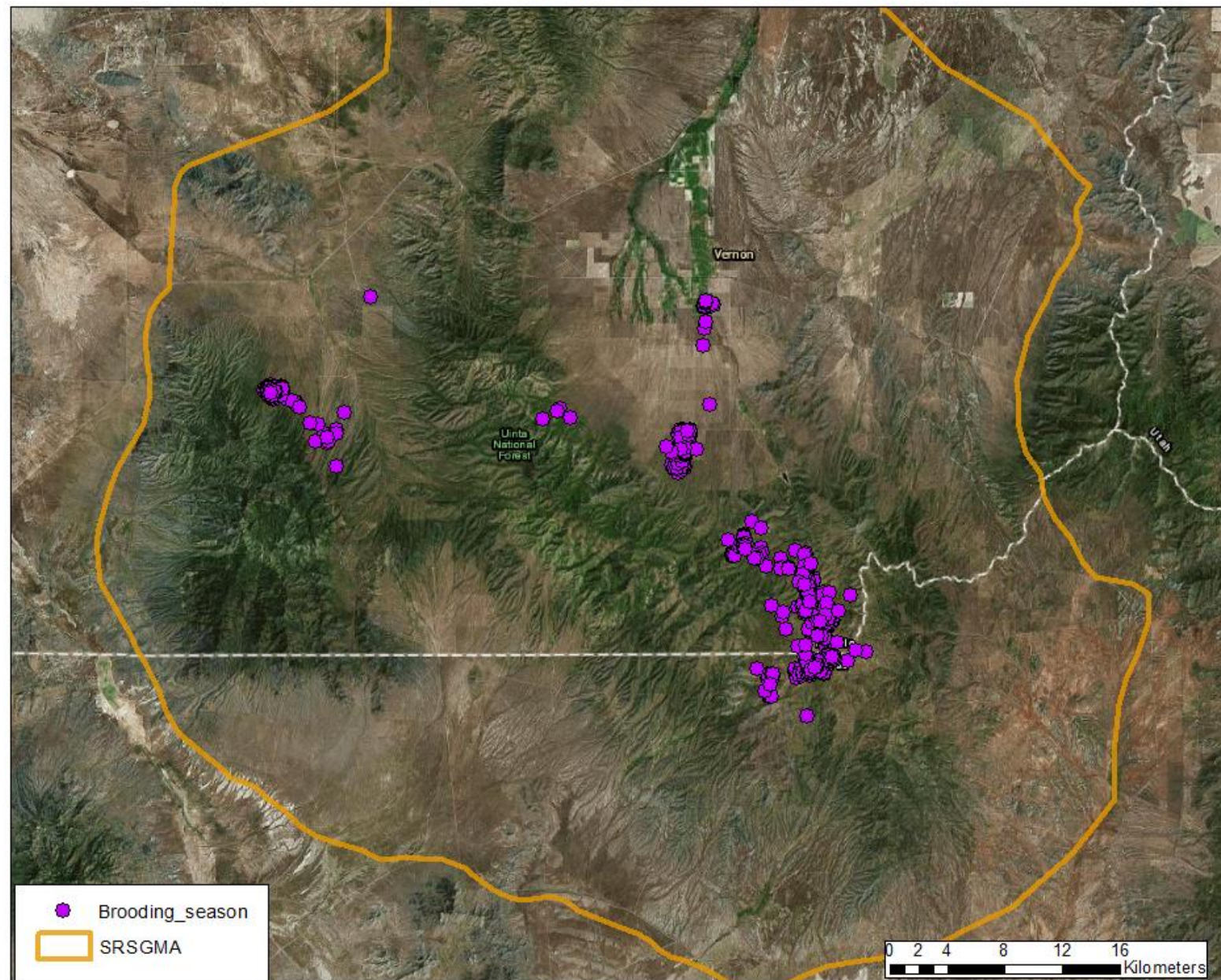
Locations by
season:
Nesting
May-June



Sources: ESRI, USU,
USGS, DWR, WRI

Grouse Locations during the Brooding Period

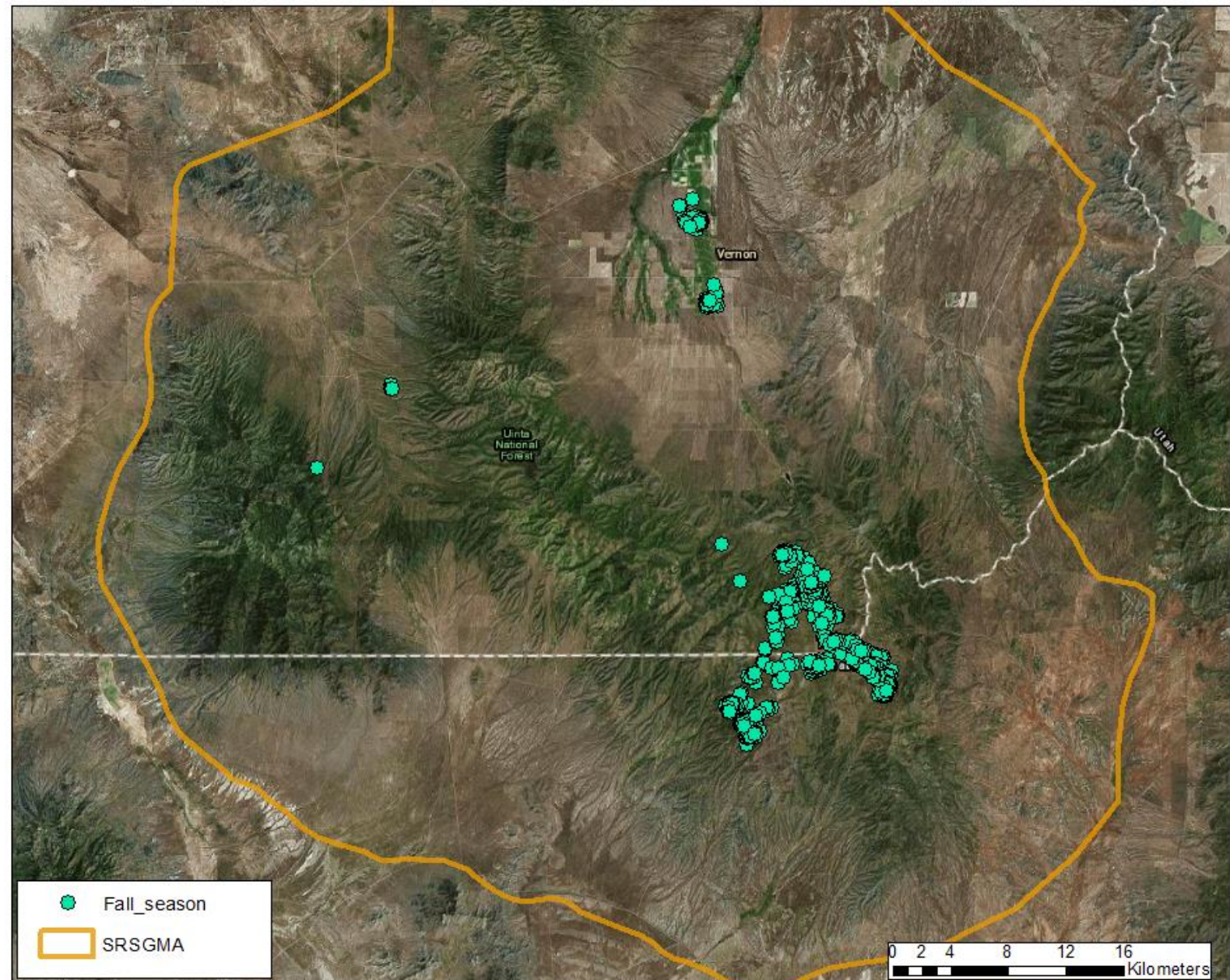
Locations by
season:
Brooding
June-August



Sources: ESRI, USU,
USGS, DWR, WRI

Grouse Location during Late Summer and Fall

Locations by
season:
Late Summer- Fall
August-October



Sources: ESRI, USU,
USGS, DWR, WRI

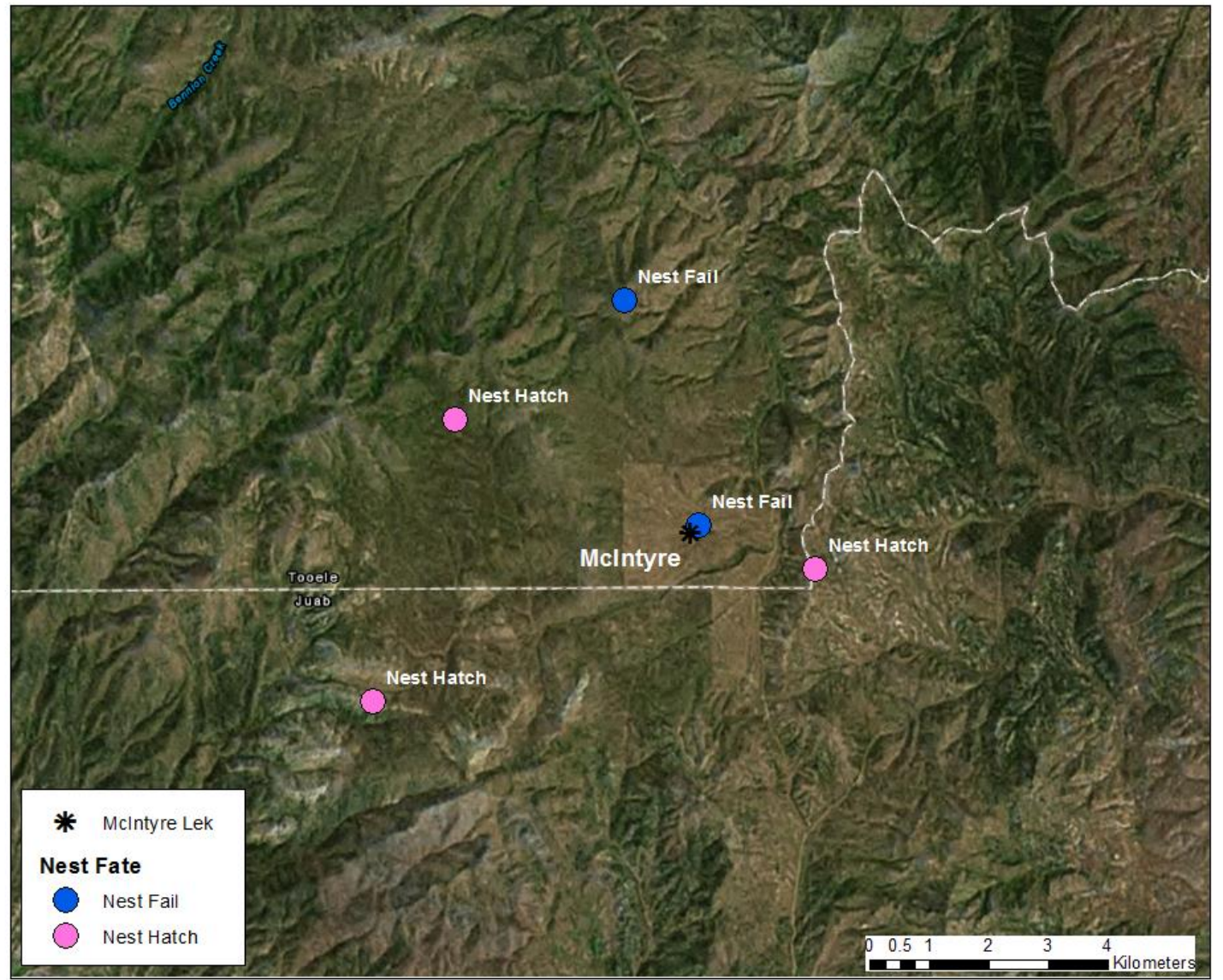
Nests

5 nests

- 4 translocated female nests
 - 50% success
 - 3 Parker Mt, 1 Park Valley
- 1 resident female
 - 100% success
- 16 chicks



Nesting Locations



Sources: ESRI, USU,
USGS, DWR

Broods

3 broods

- 2 translocated
 - 50% success
- 1 resident female
 - 100% success

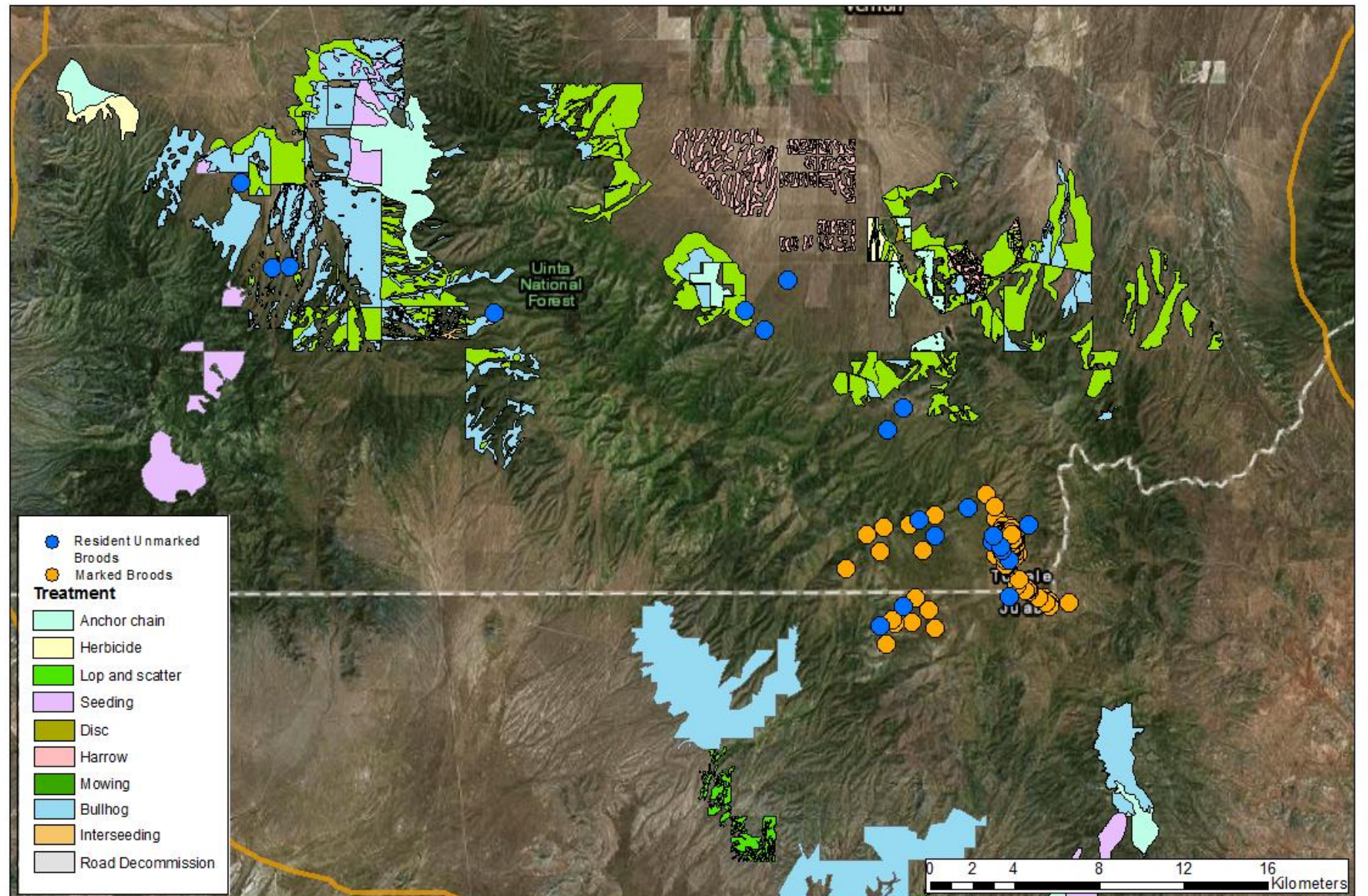
- 4 chicks at 50-day brood survey
 - 25% survival rate



Photo courtesy
www.wyofile.com

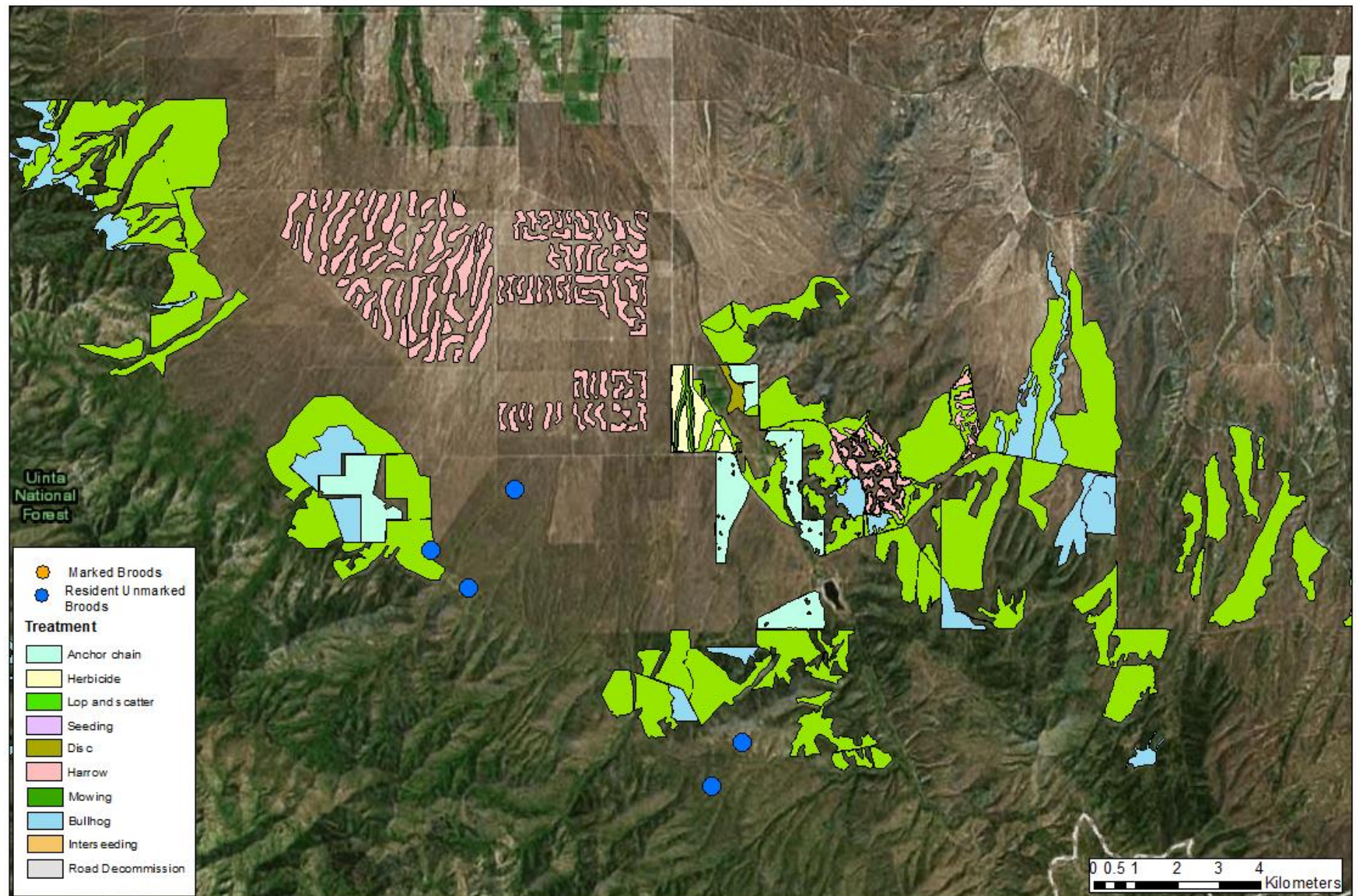
Brood locations

Locations of marked translocated, resident, and unmarked resident broods encountered from June through August



Brood Use Near Benmore Lek

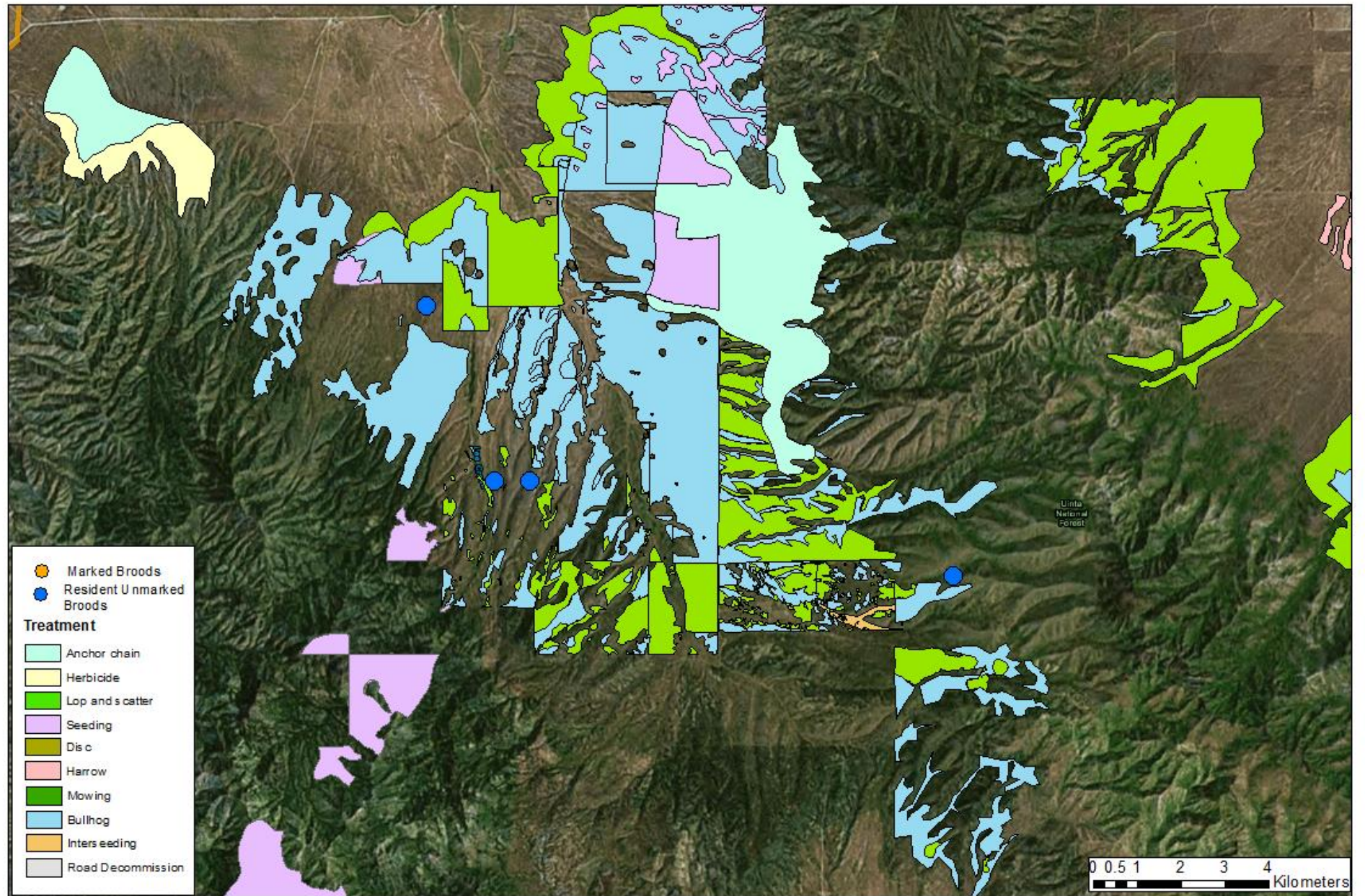
WRI and Brood
Locations
June to August
near the
Benmore lek



Sources: ESRI, USU,
USGS, DWR, WRI

Brood Use Near Government Lek

WRI and Brood
Locations
June to August
In the
Government lek

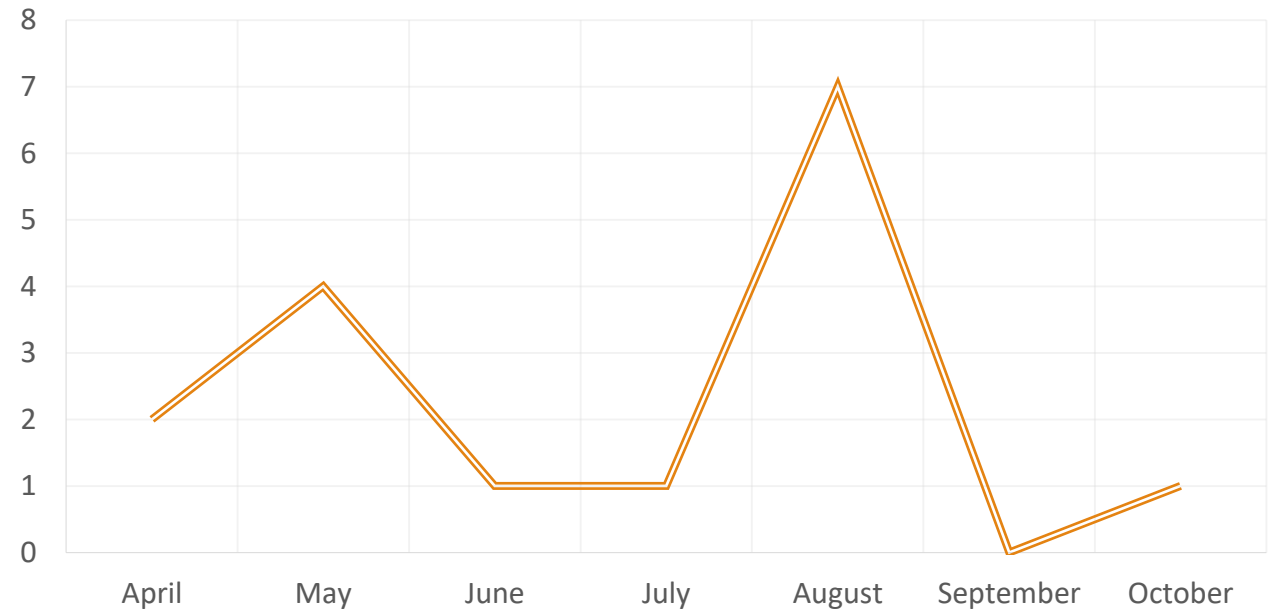


Mortalities

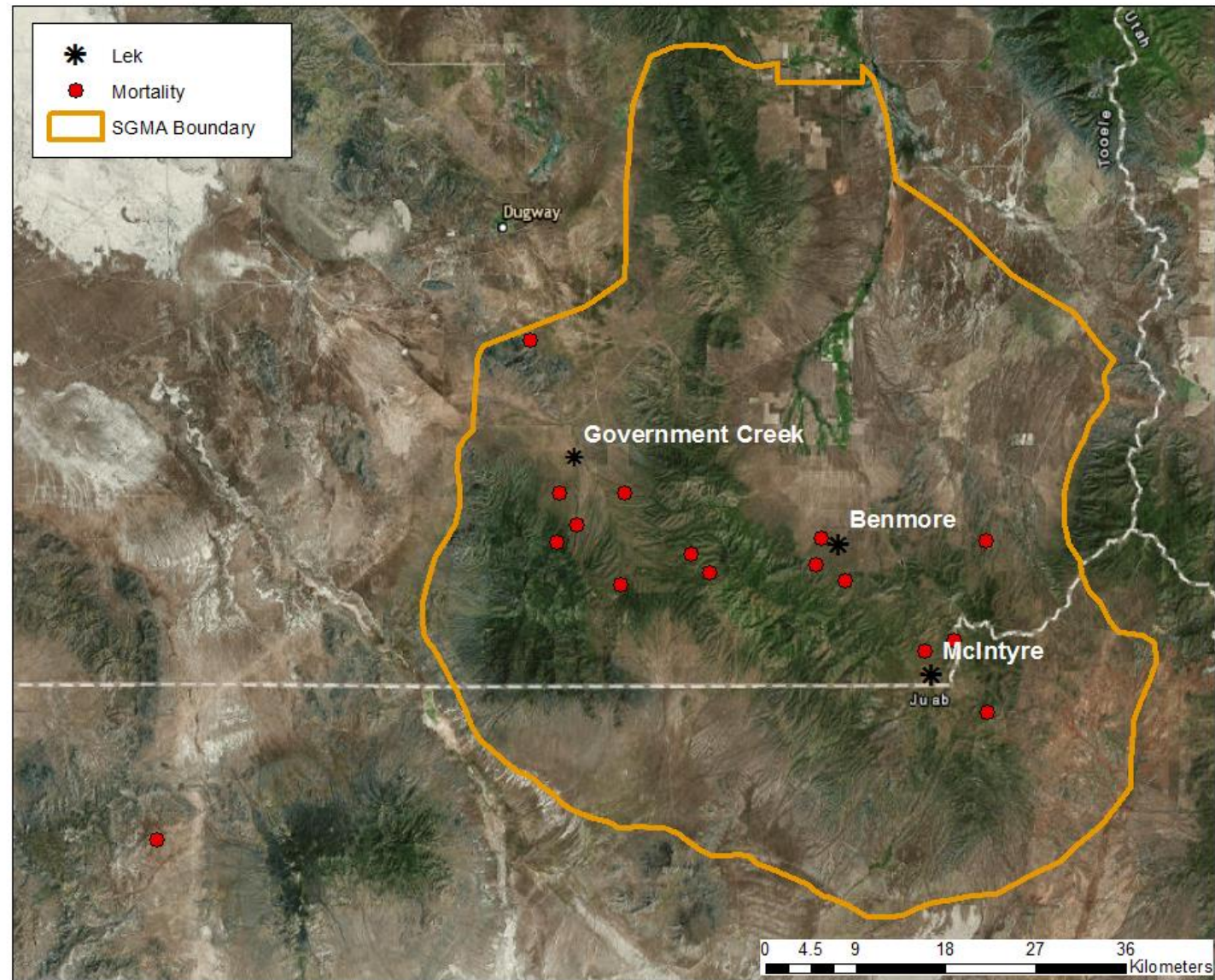
16 individuals

- 15 translocated
 - 30% of males
 - 40% of females
- 1 resident
 - 50% of males

NUMBER OF MORTALITIES



Mortality Locations



Sources: ESRI, USU,
USGS, DWR

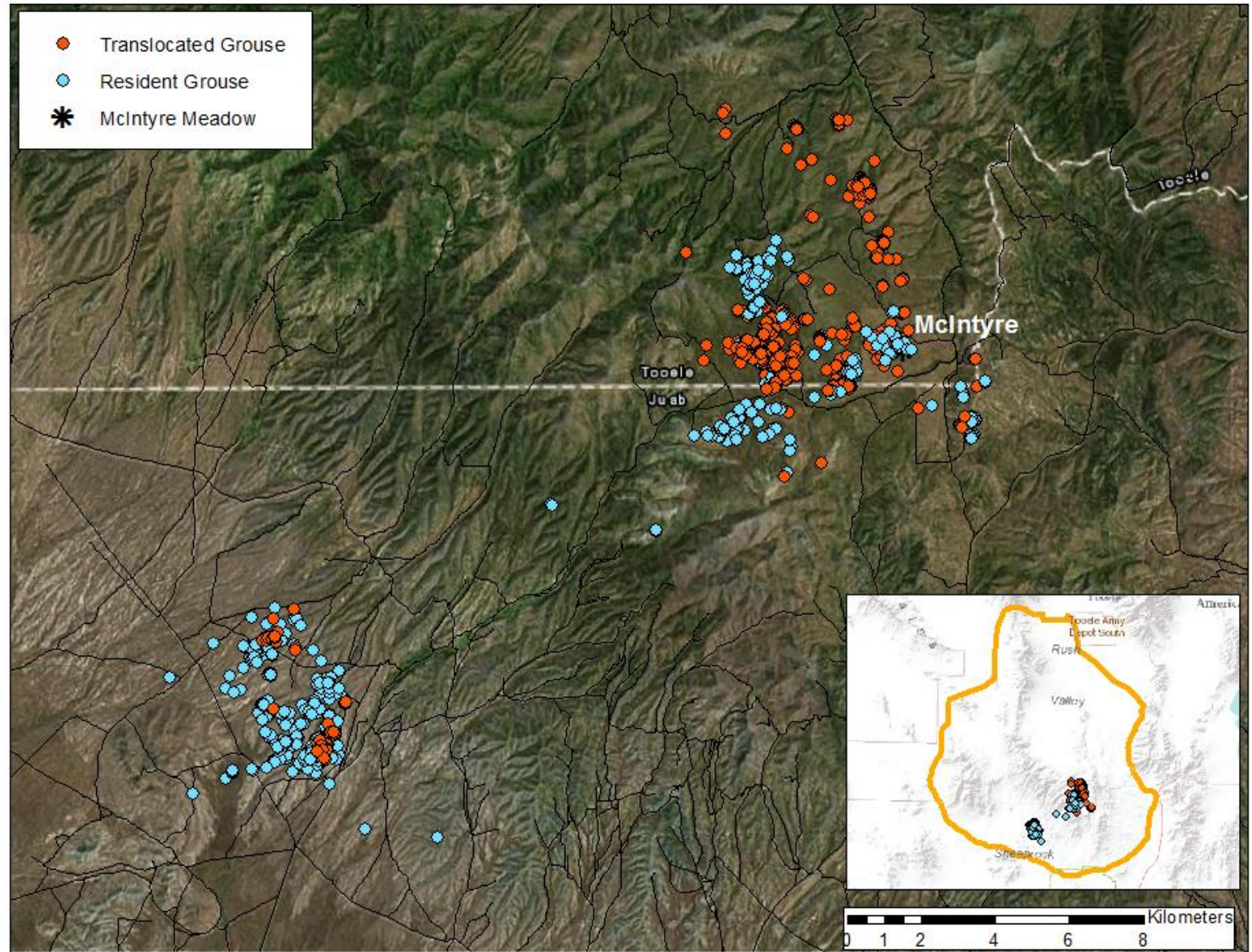
Resident and Translocated Sage-grouse GPS locations in the
Sheeprock SGMA from Nov 2016 to Jan 21, 2017 illustrating Winter
movements

Winter Locations

Dates when residents and
translocated birds entered
the wintering habitat:

Residents: Nov 28th & 29th

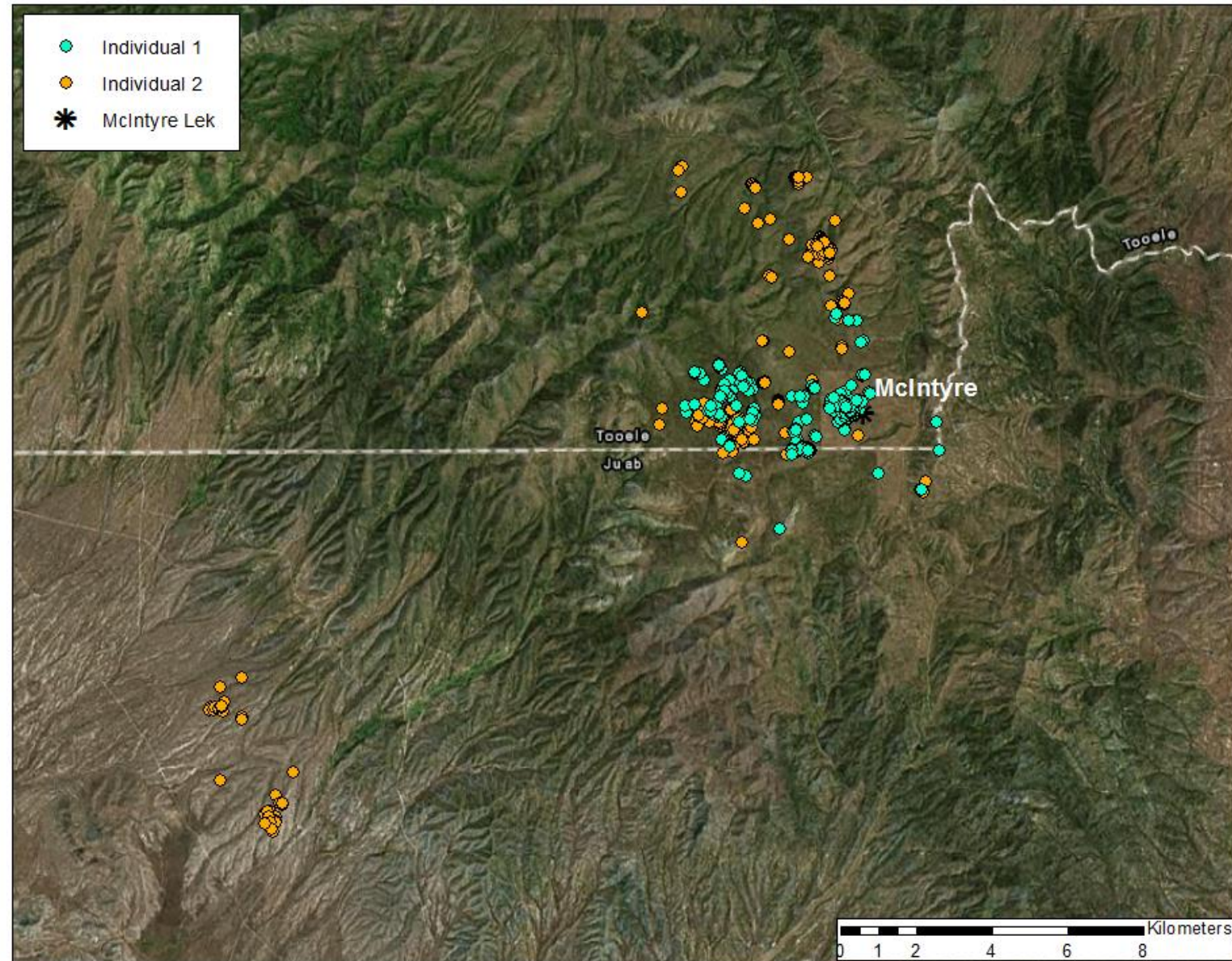
Translocated: Jan 10th



Sources: ESRI, USU,
USGS, DWR

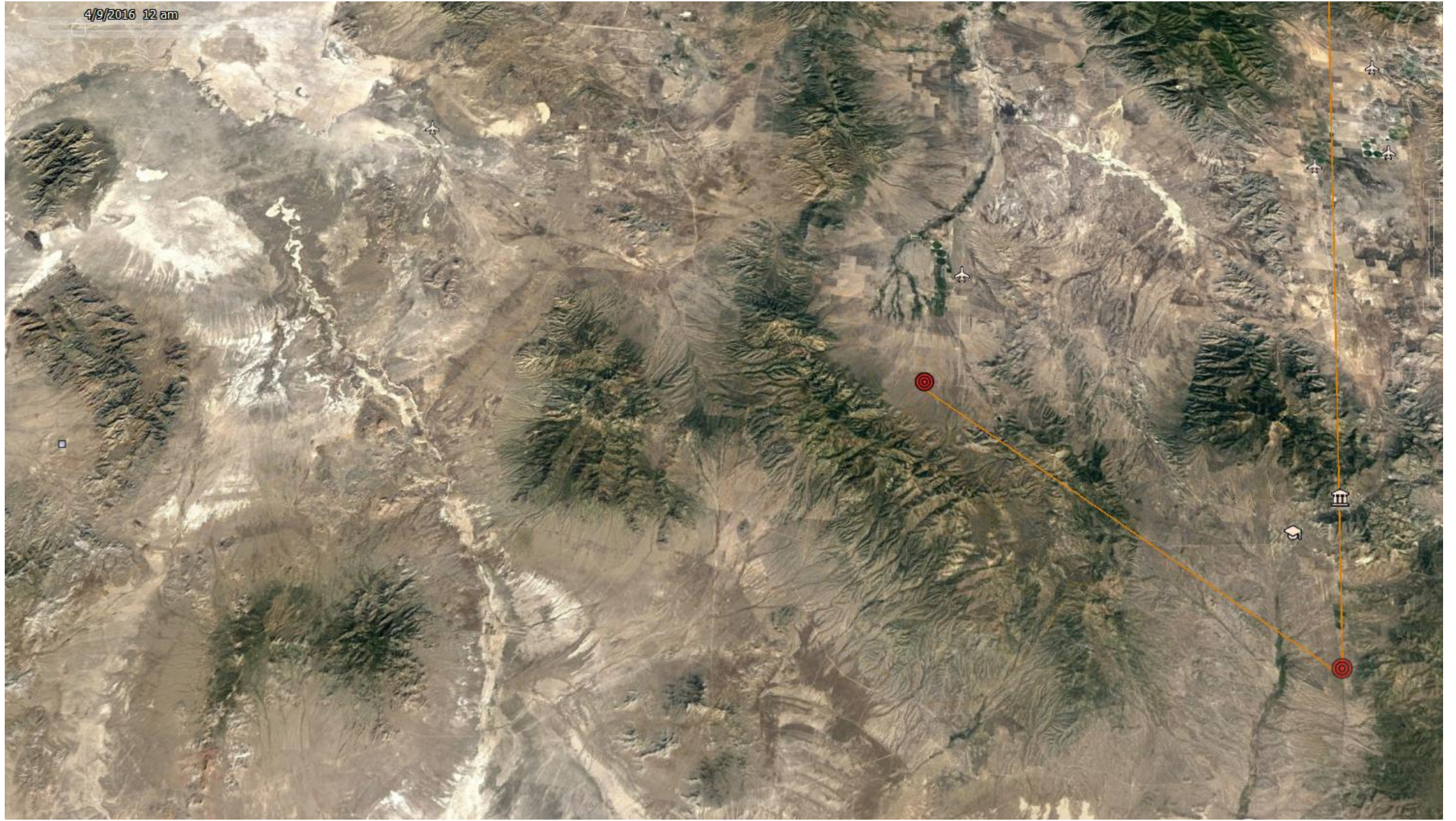
Translocated Sage-grouse GPS locations in the Sheeprock SGMA from Nov 2016 to Jan 21, 2017 illustrating Winter movements

Difference between individual translocated winter movements



Sources: ESRI, USU,
USGS, DWR

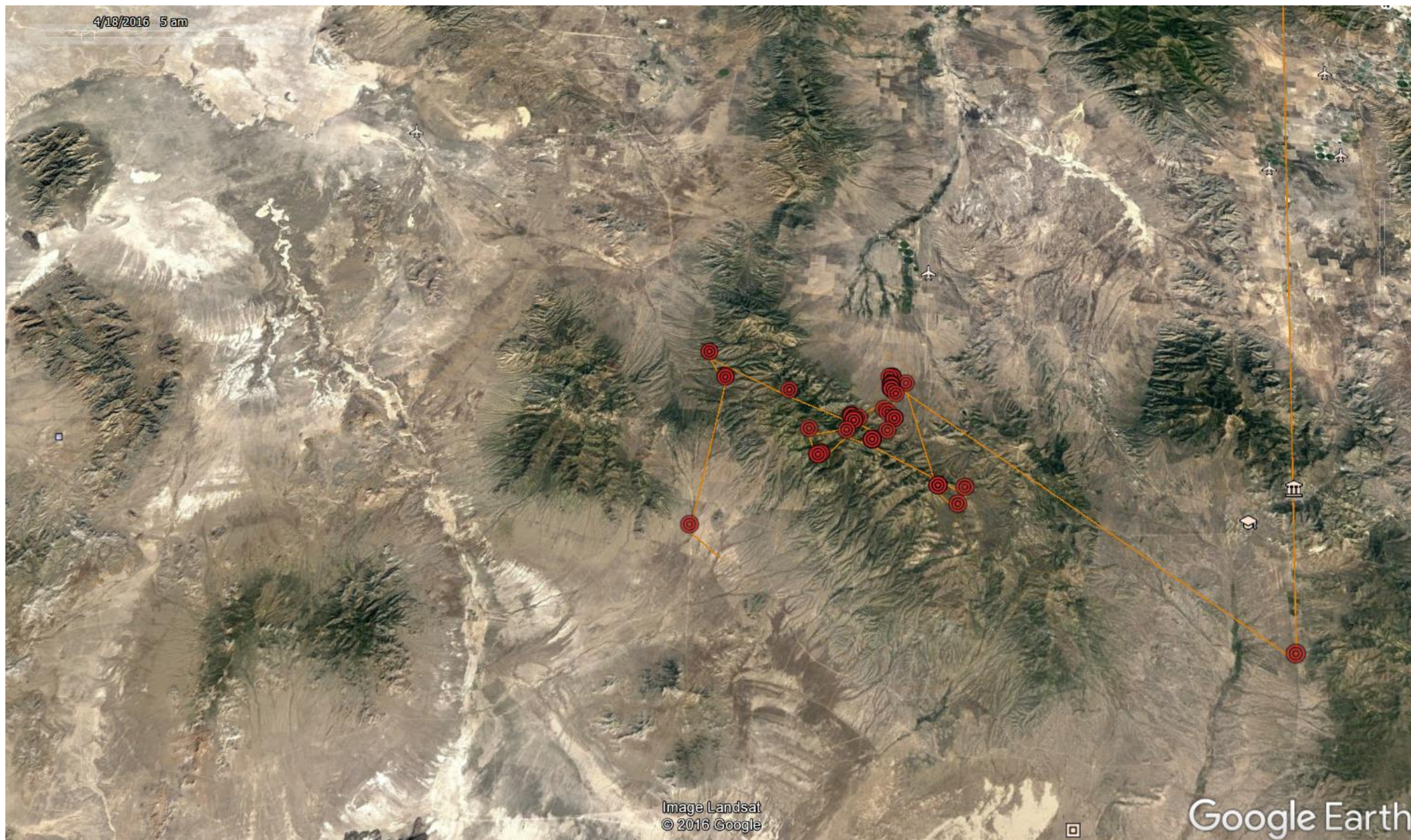
One GPS
bird's
Movements:
April 8th



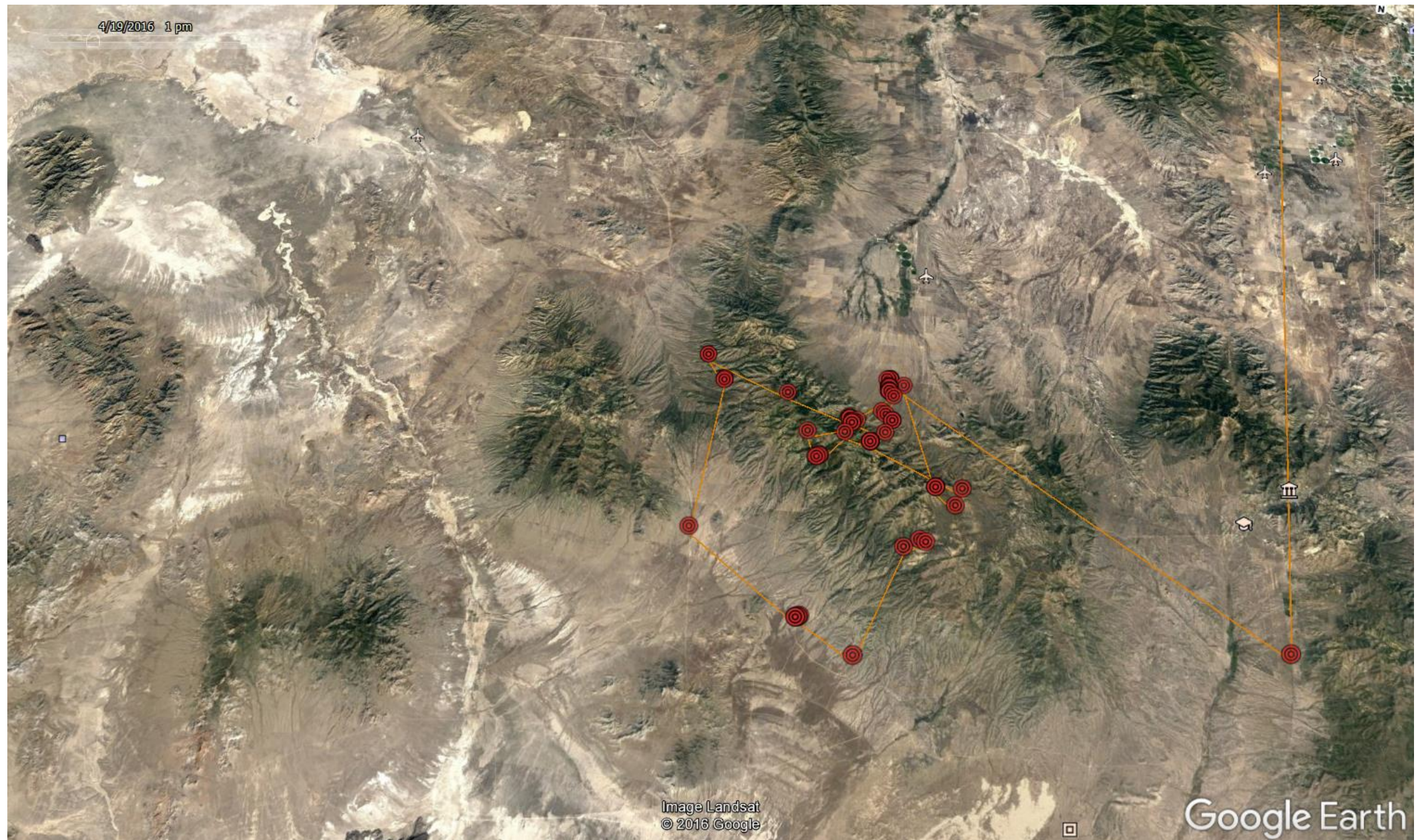
GPS
Movements:
April 13th



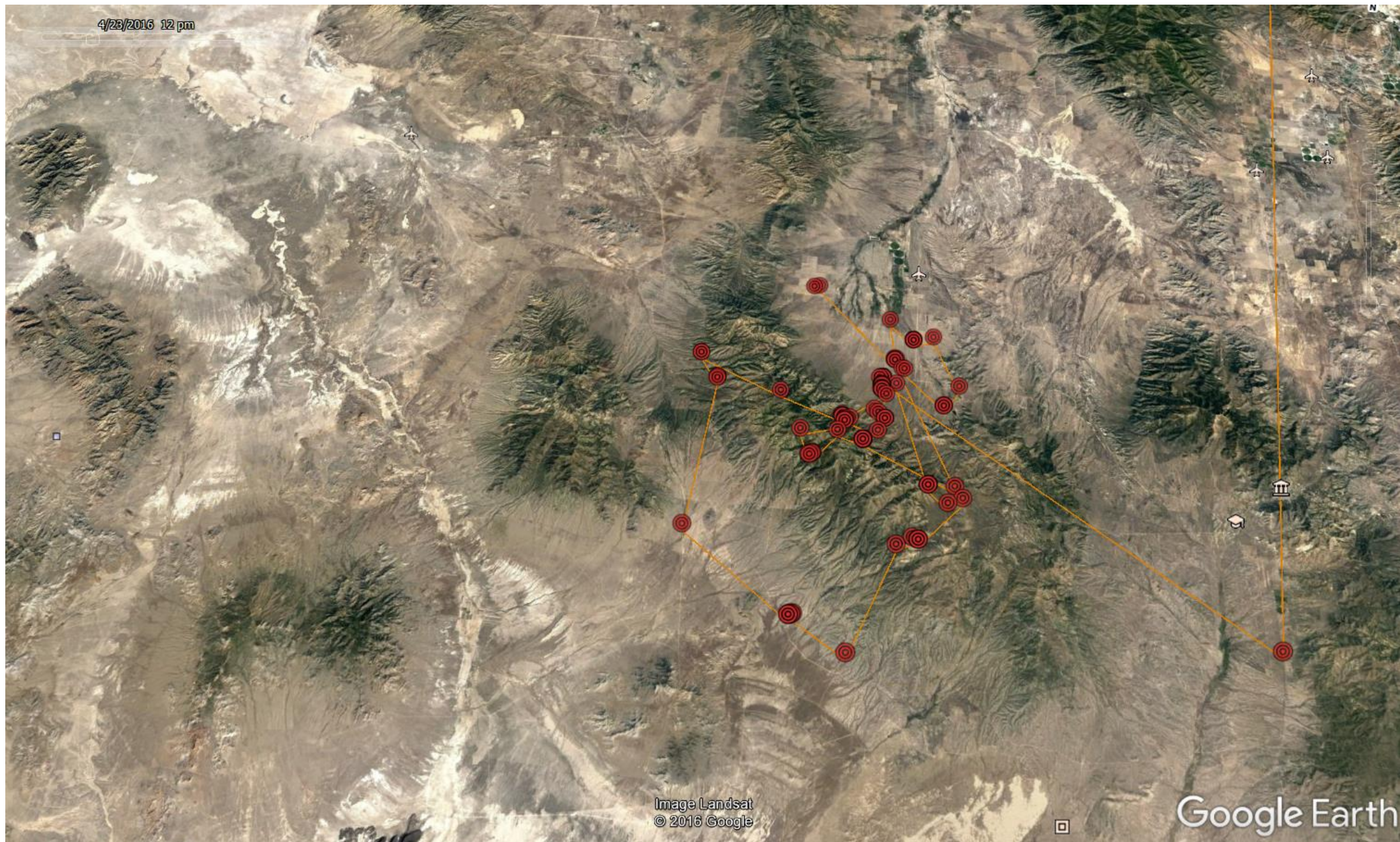
GPS
Movements:
April 18th



GPS
Movements:
April 19th



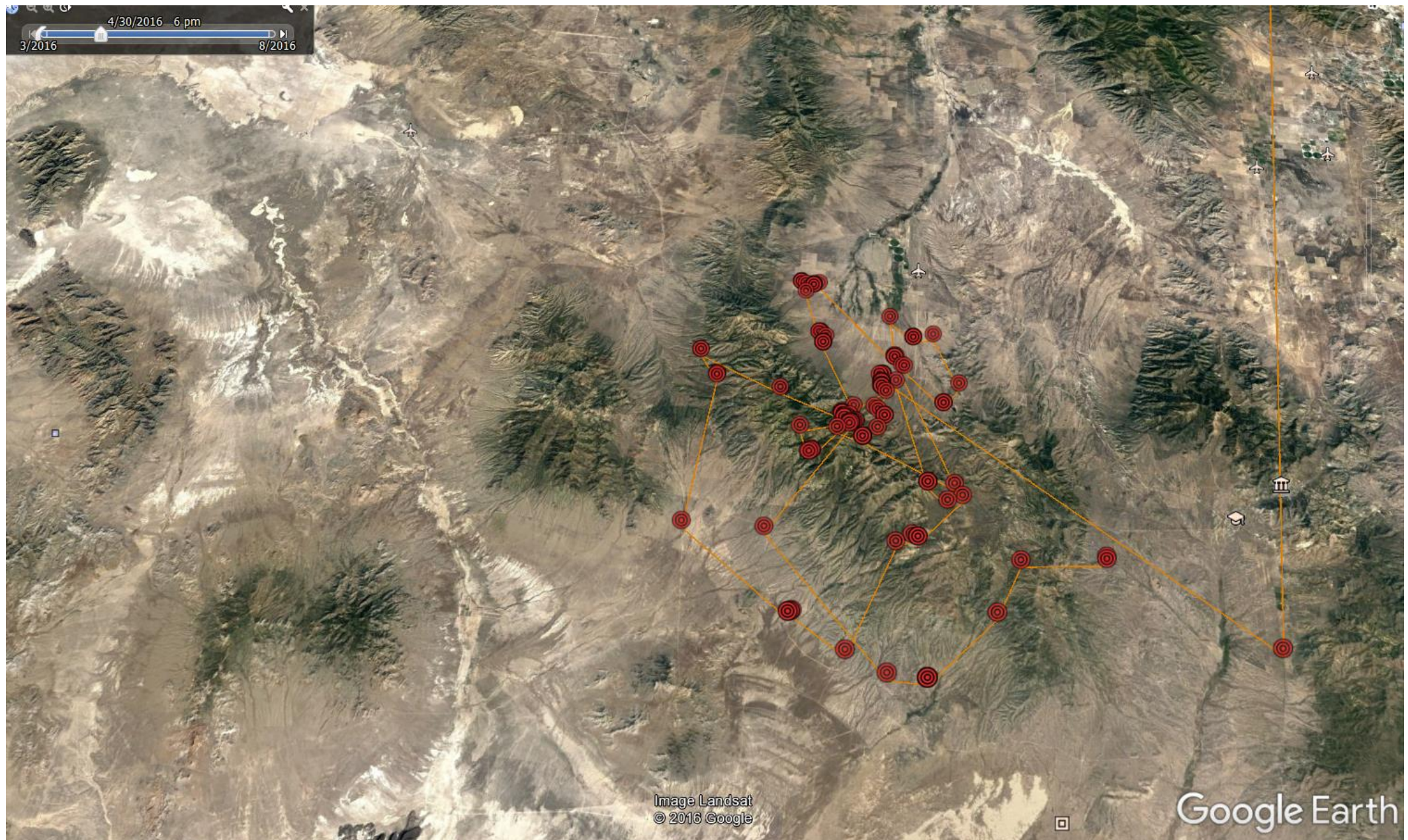
GPS
Movements:
April 23rd



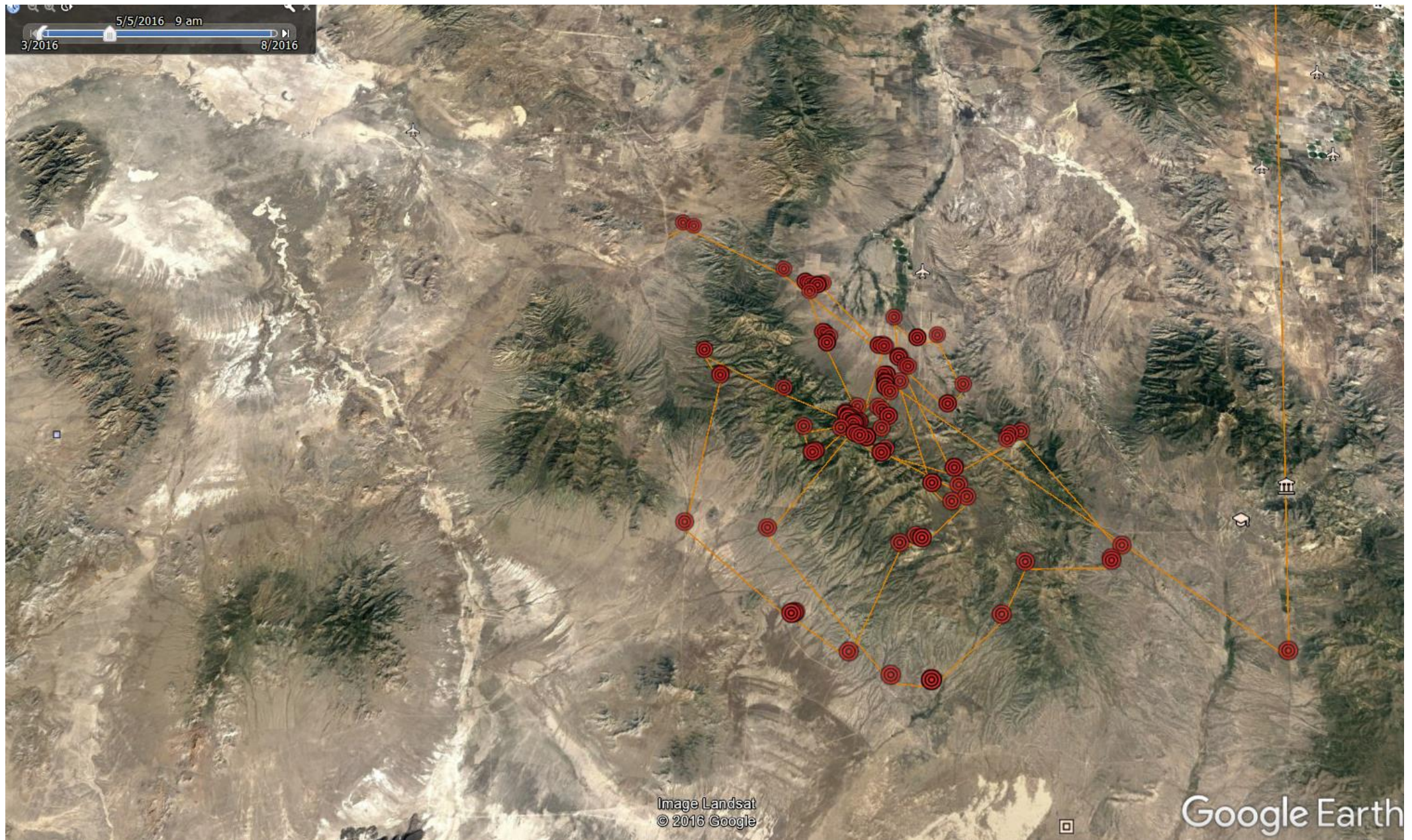
GPS

Movements:

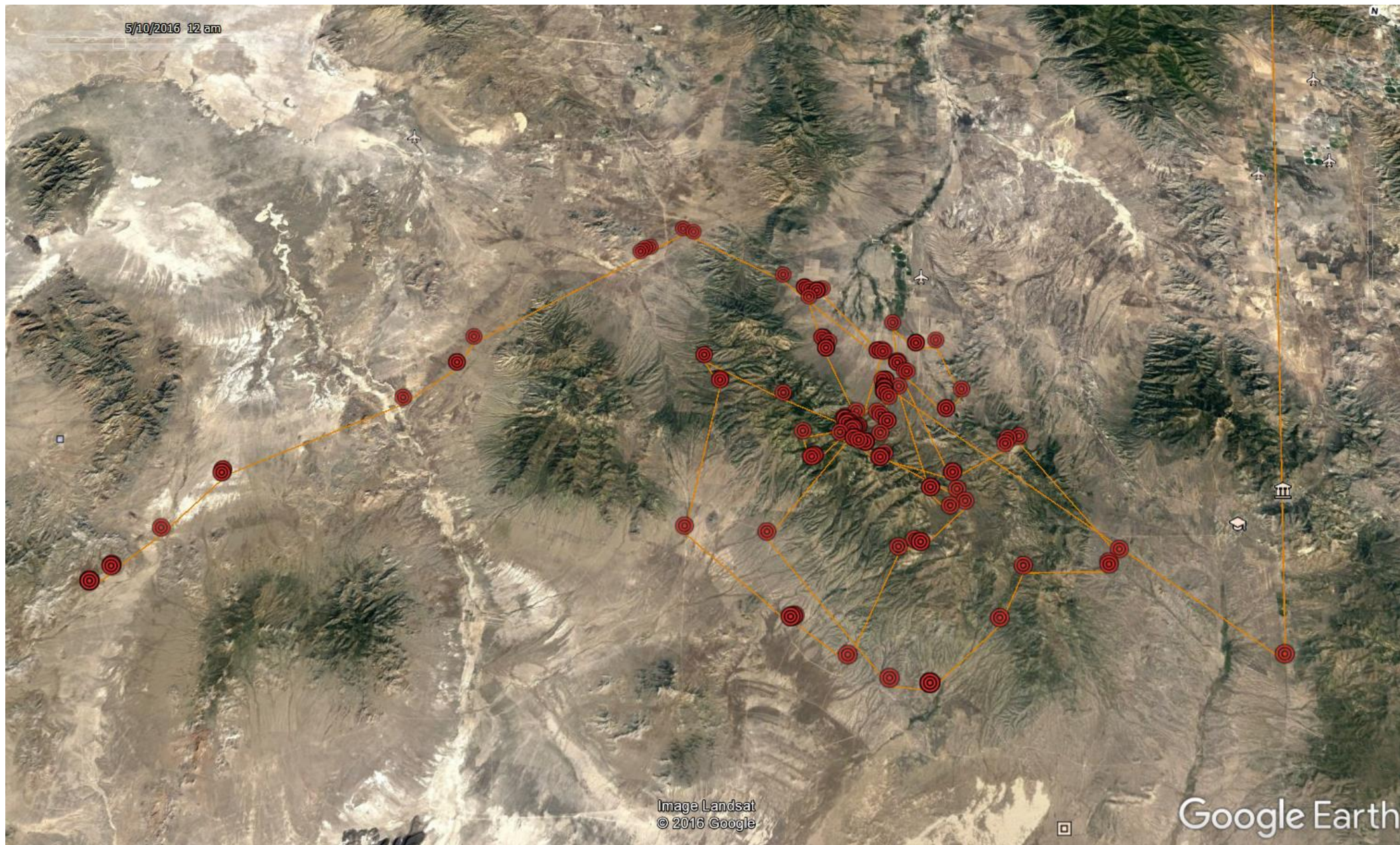
April 30th



GPS
Movements:
May 5th



GPS
Movements:
May 10th



Plans for 2017:

- Deploy 20 GPS transmitters
 - GPS PTT's
- 40 translocated March 30-31, April 6-7
 - 30 females, 10 males
- 10 resident birds
 - 2 males, 8 females

