

# ELR LOCATION SCOUTING & TARGET SETTING TIPS





# ELR LOCATION IDENTIFICATION

## Source the location

- ⦿ Friends input / referrals
- ⦿ Shooting in the area
- ⦿ Driving the Area

## Programs to confirm Source

- ⦿ Garmin BaseCamp
- ⦿ State Hunt maps for computers
- ⦿ Google Earth

## Field Tools

- ⦿ Hand Held GPS with color display
  - ⦿ State Hunt Maps installed
- ⦿ High End PLRF with low beam divergence
- ⦿ Trimble Nomad with DGPS
- ⦿ FFS (Field Firing Solutions) program with programmable DGPS FFP
- ⦿ Trimble iPad app with Hunt Maps subscription
- ⦿ Do NOT rely on devices that need cell service!!!!

## Location assets

- ⦿ No or low vegetation in target areas to promote spotting misses
- ⦿ No or low vegetation in shooting areas to allow for line of sight when shooting prone
- ⦿ No heavily rocky areas (can hide misses)
- ⦿ Need jeep trails to target – Ideally close to shooter location

## Ideal Areas

- ⦿ Something that promotes a good shooting AD
- ⦿ BLM or National Forest – must be in both shooter and target locations

## Geographic features

- ⦿ Dry lakebeds or areas called Sinks (careful driving on them)
- ⦿ Prefer flat with some hills (but Sat imagery misleadingly looks flat & pure flat like the middle of a sink = no-go
  - ⦿ For Back stops
  - ⦿ For PLRF returns
  - ⦿ To overcome rolling rises that can obscure the target once prone
  - ⦿ Can help with Mirage
- ⦿ Flat to Peak
  - ⦿ For me works better than Peak to Flat in the angles are high. The rifle butt doesn't have to be supported very high and long as the bipod can adjust up enough (or be supported higher)
  - ⦿ Flat to Peak seems (antidotal) that mirage is less
  - ⦿ Setting targets can be harder and vegetation can spoil misses
- ⦿ Peak to Flat
  - ⦿ Peak to Flat is almost always easier to set up.. And shooters can pack up hills easier than targets and cam
- ⦿ Peak to Peak
  - ⦿ Best to reduce Mirage
  - ⦿ Harder to read wind
  - ⦿ Setting targets can be harder and vegetation can spoil misses
  - ⦿ Harder to reduce or increase distances
  - ⦿ Can be hours to go from one peak to the next



# ELR LOCATION SELECTION

## Prequalification of location

### 2 - Preview general area in Basecamp w/ State hunt Maps

- ②A In a wide search look for Yellow BLM land
- ②B Check County restrictions and congested zones for the selected area
- ②C Zoom in to reveal land features and jeep trails on BLM Land

### 3 – Find access points to selected BLM land

- ③A Zoom out and follow trails to freeways
- ③B Zoom back in to look for access points – If access looks good proceed to next step

### 4 – Scale and view Details

- ④A Scale features in Basecamp to match to Google Earth – add pin location pins (these will show in Google Earth)
- ④B Select view area from Basecamp in "Google Earth"
- ④C Zoom in Google Earth and view details looking for housing, trails land features etc.
- ④D Zoom in in Google Earth @ the entrance looking for gates etc

### 5 – Create overlays to check position and land features

- ⑤A Output or screen capture the images from Google Earth and BaseCamp, (same areas and same relative scale). Using a photo editing program overlay the BaseCamp BLM over the Google Sat imagery. Lower the opacity on the top BLM layer to easily reveal roads and land features in the satellite imagery. Scale the top BLM layer to match the roads and land feature on both.
- ⑤B Mark map in BaseCamp with rough GPS points of prospect location for FFP and FTP and download to GPS with the State Hunt maps installed

## On Site Visit

### 6 – Range Targets From FFPs

- ⑥A Range targets with PLRF from possible FFPs. Make sure to **range with same line of site as if shooting ie. prone**. The line of site must be clear below, to the sides of the target and the backstop visible. Check the location on the Hand held GPS with Hunt maps to **ensure FFP is on BLM land**. Mark the FFP location with GPS

### 7 – Setting the Targets and shooting

- ⑦A Set the face of the **target to be square with the FFP**. Having another person or vehicle back at the FFP for reference helps. **Mark the Target location** with both the **DGPS** and Handheld GPS. Use a shovel to dig back legs into hills to level and small leg extensions in the front (low side of the hill) to level the target stand.
- ⑦B Return to the FFP. **Mark the FFP** with both the **DGPS** and Handheld GPS.
- ⑦C **DOUBLE CHECK THE DISTANCE** from DGPS against the PLRF. **(edited to add – ranging a small object via a reticle at this range is NOT reliable!)**. Run the dope solution via the marked FFP in FFS (Field Firing Solution)

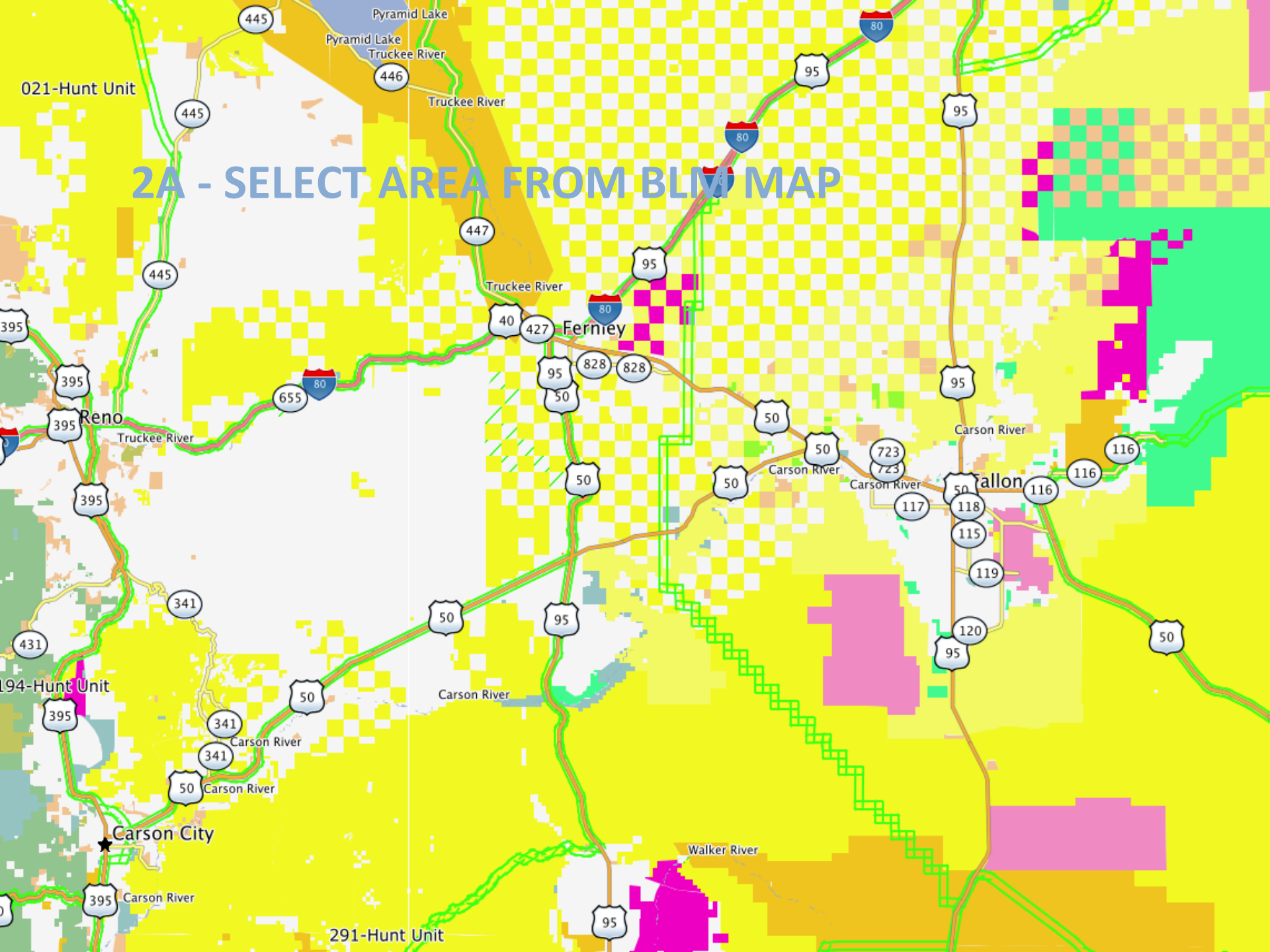
### 8 – Post shooting

- ⑧A Transfer actual Handheld weigh points and driving routes back to BaseCamp for future reference.
- ⑧B From BaseCamp select "View>View Selected Data in Google Earth" if you wish to have your Data displayed over the actual Satellite imagery.

**DO NOT SKIP STEPS FOR BEST RESULTS**



# 2A - SELECT AREA FROM BLM MAP









BLM Yellow

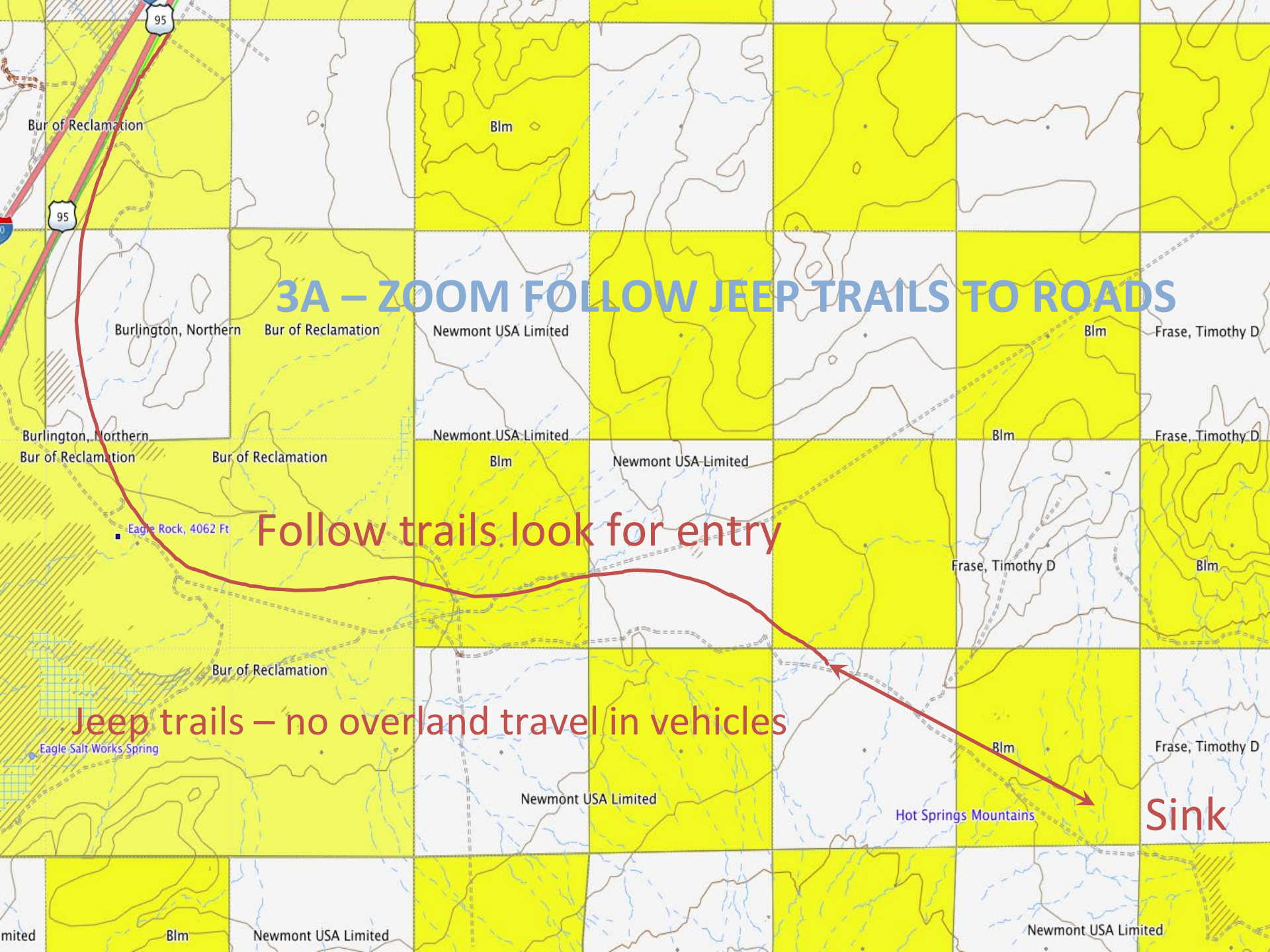
2C – ZOOM INTO PROMISING AREAS

Jeep trails – no overland travel in vehicles



Sink





## 3A – ZOOM FOLLOW JEEP TRAILS TO ROADS

Follow trails, look for entry

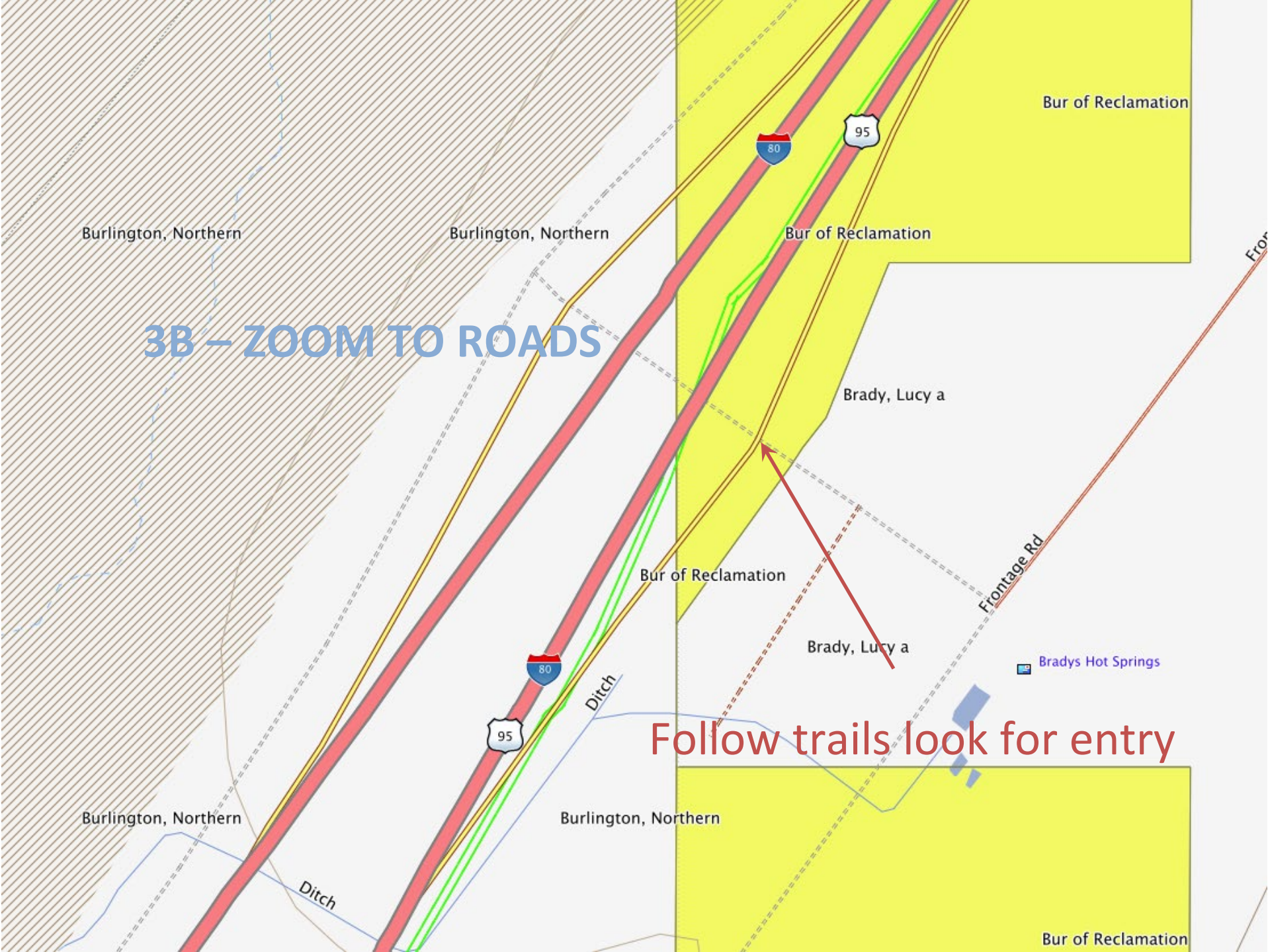
Jeep trails – no overland travel in vehicles

Sink



3B – ZOOM TO ROADS

Follow trails look for entry





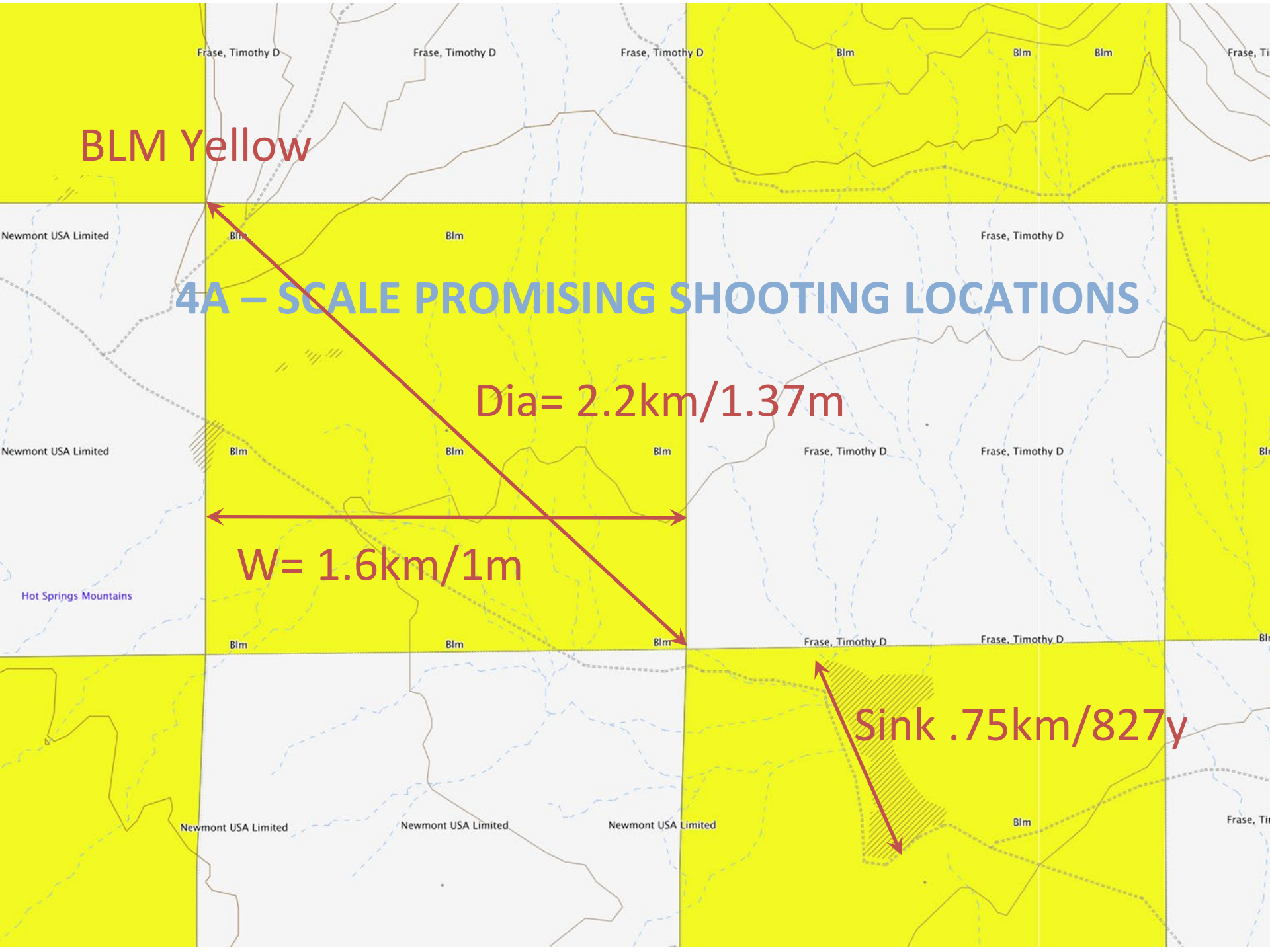
BLM Yellow

## 4A – SCALE PROMISING SHOOTING LOCATIONS

Dia= 2.2km/1.37m

W= 1.6km/1m

Sink .75km/827y





An aerial photograph of a mountainous region, likely in the Sierra Nevada. A large, light-colored reservoir is visible in the lower center, surrounded by steep, rugged slopes. The terrain is characterized by numerous ridges and valleys, with some areas appearing more barren and rocky than others. The overall color palette is dominated by earthy tones of brown, tan, and grey, with some patches of green vegetation visible in the lower elevations.

**4B – VIEW IN GOOGLE EARTH**



## 4C – VIEW AND ZOOM IN GOOGLE EARTH



Bordered 2 sides  
With hills

Sink .75km/827y



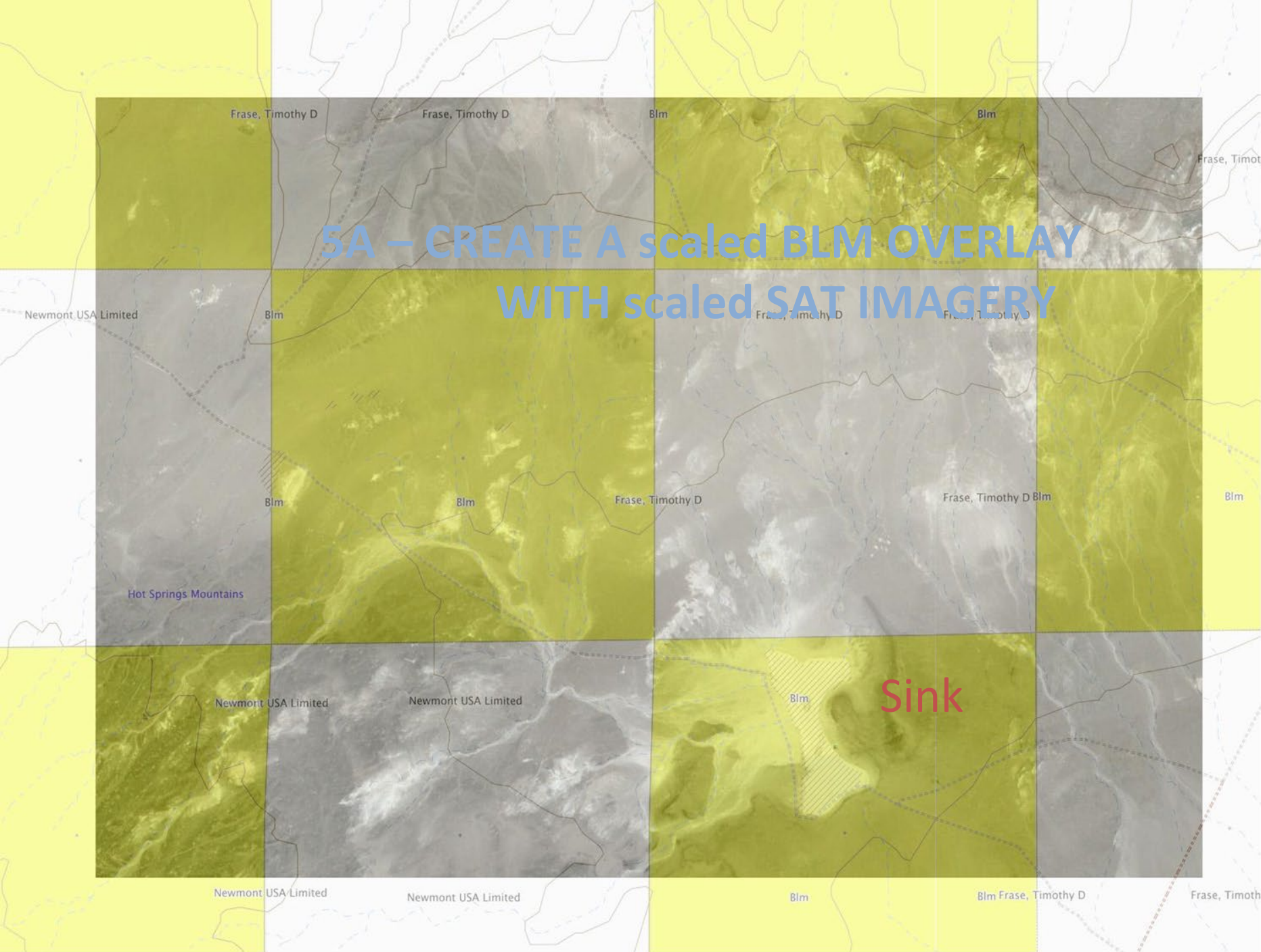
An aerial photograph of a desert landscape. A two-lane road with yellow center lines runs diagonally from the top left towards the bottom right. The terrain is arid, with sparse, low-lying shrubs and patches of dry grass. In the bottom right corner, there is a building with a light-colored roof and a parking lot. The text "4D – ZOOM IN VIEW ENTRANCE AND TRAILS LOOKING FOR GATES ETC. GOOGLE EARTH" is overlaid in blue, and "No gate" is overlaid in red near the bottom right.

4D – ZOOM IN VIEW ENTRANCE AND  
TRAILS LOOKING FOR GATES ETC.  
GOOGLE EARTH

No gate



# 5A – CREATE A scaled BLM OVERLAY WITH scaled SAT IMAGERY





A topographic map showing a grid of yellow and grey shaded regions. The yellow regions are labeled 'Blm' and the grey regions are labeled 'Frase, Timothy D'. There are four red star markers on the map: one in the top-left yellow region, one in the top-right grey region, one in the center yellow region, and one in the bottom-right yellow region. The text '5B – MARK HANDHELD GPS WITH ROUGH WEIGH POINTS' is overlaid in blue.

## 5B – MARK HANDHELD GPS WITH ROUGH WEIGH POINTS

Rough Data  
Downloaded to GPS





## 6A – SCOUT LOCATION

Range Target locations FROM FFP - THE PRONE  
POSITION AS SEEN FROM SHOOTING LEVEL....  
Mark DGPS & GPS AT FFP AND target locations.





3,000 -3,300y FFPs

2,100 -2,700+ yard FFPs

**7A.1 – SET TRAGETS Looking back to FFP**

VIEW FROM TRAGET



AFTER SETTING TARGET, **MARK WITH Differential GPS & STANDARD GPS AS WELL AS RANGING FFP WITH VECTRONIX AND WITH DGPS**

The sending unit is about 20' of the side

## 7A.2 – SET TRAGETS

Camera is protected by plate

Range Target locations and  
mark **DGPS & GPS** of targets!



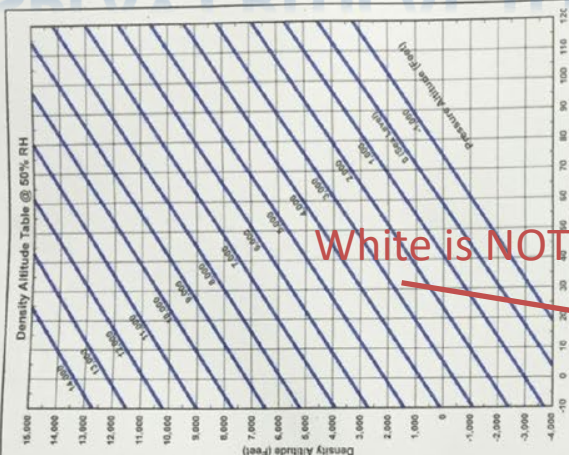
## 7B – FFP ◦ FIELD FIRING LOCATION



Range Target locations and  
mark FFP with DGPS & GPS –  
confirm distance of Range with  
calculated dope from FFS and  
with GPS

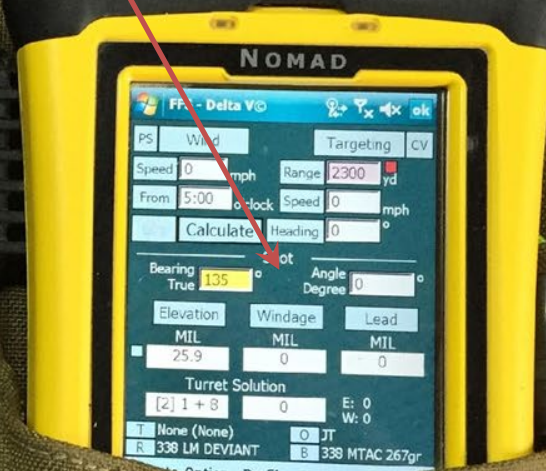


# 7C – NV HUNT MAPS ON HAND-HELD GPS WITH COLOR DISPLAY CRITICAL TO BE IN THE CORRECT BLM QUADRANT !



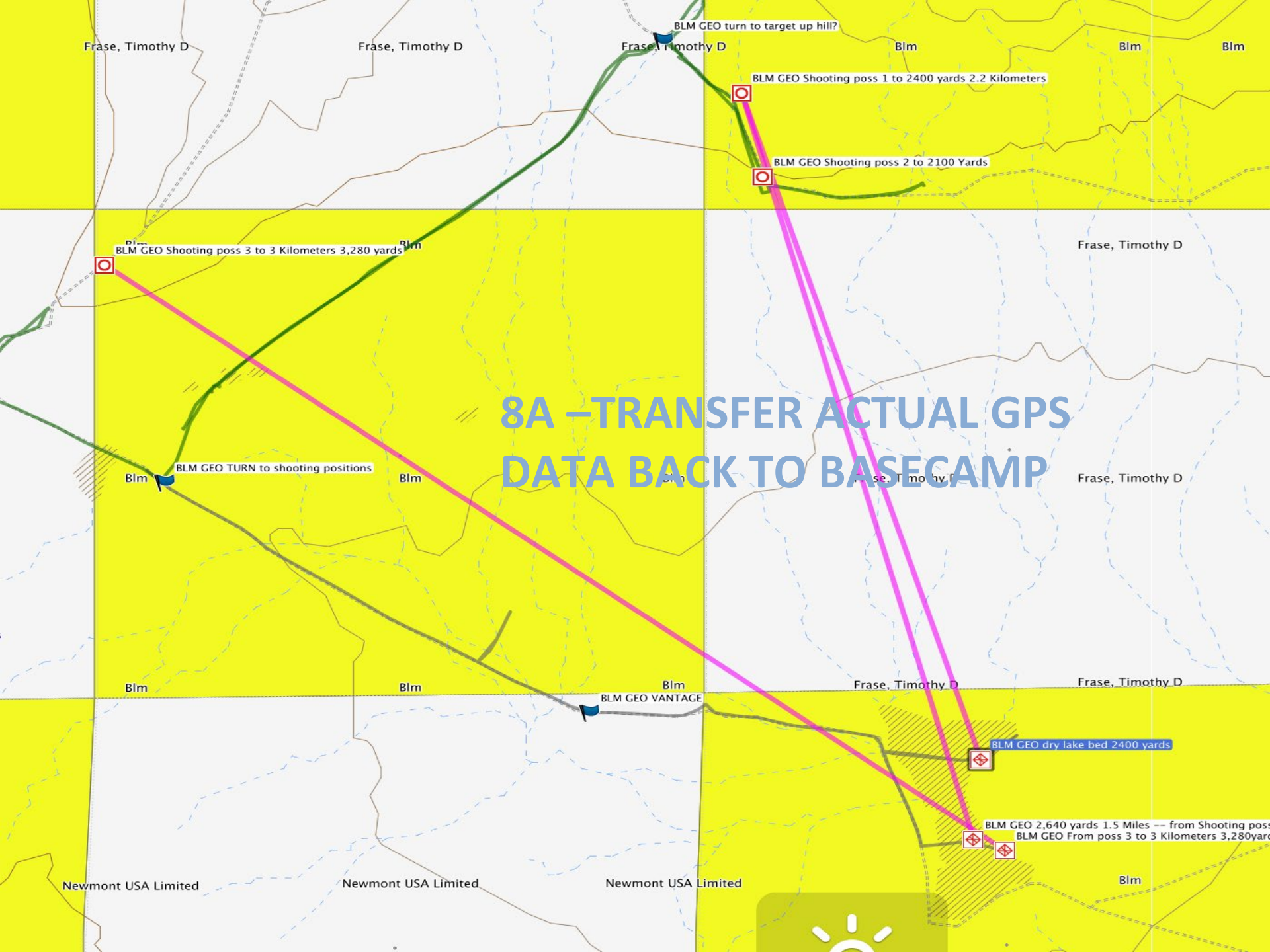
White is NOT BLM

Differential GPS but no NV BLM hunt map



Mark FFP & FTP with DGPS & GPS confirm distance of Range with calculated dope from FFS and with GPS.

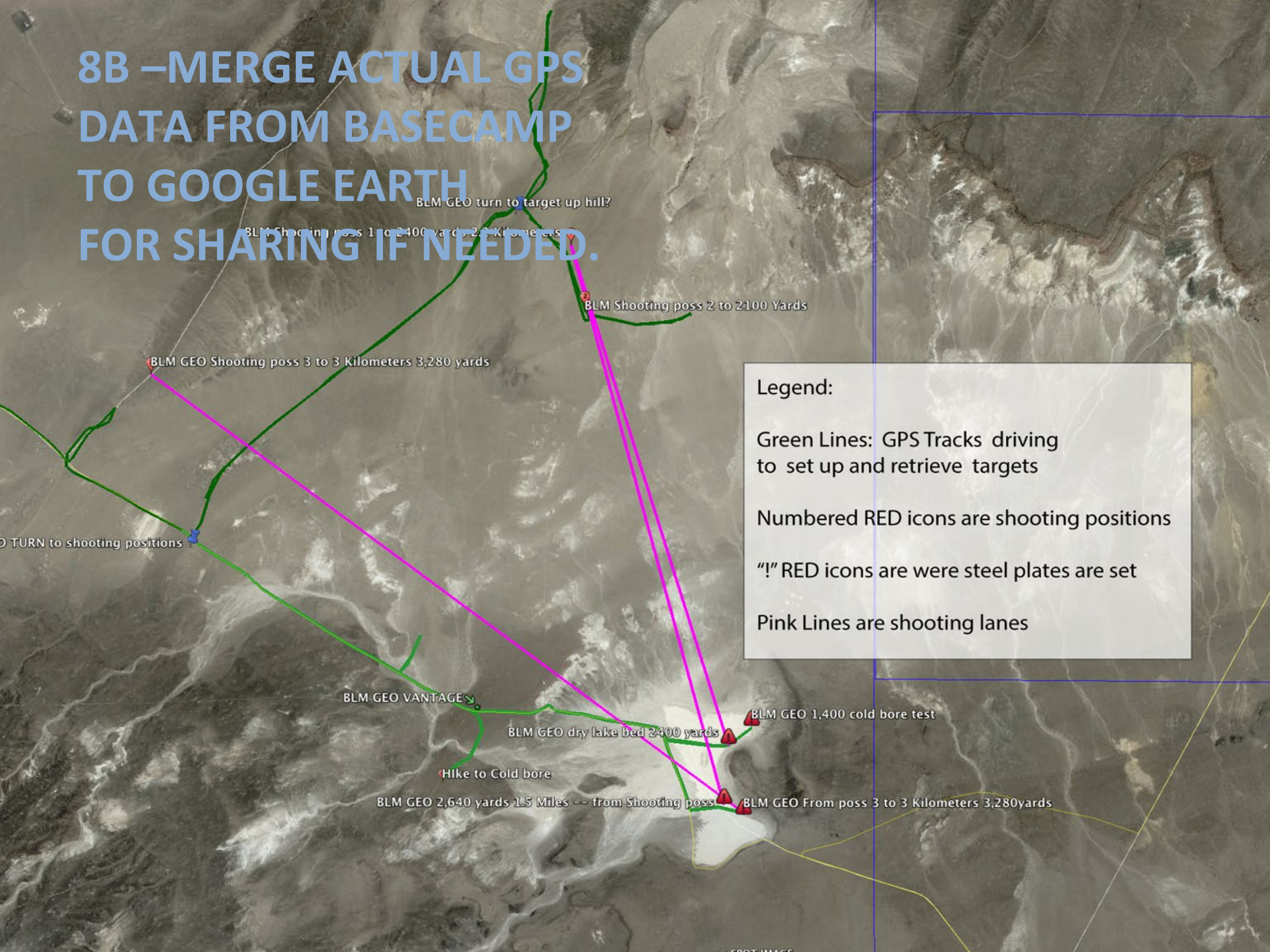




# 8A –TRANSFER ACTUAL GPS DATA BACK TO BASECAMP



# 8B –MERGE ACTUAL GPS DATA FROM BASECAMP TO GOOGLE EARTH FOR SHARING IF NEEDED.







HAVE FUN... 2.2 KILOMETER HITS --





# TOOLS FOR FINDING AND SHOOTING ELR

Garmin Boot Camp **FREE** allows use of BLM Hunt maps on your computer

<http://www.garmin.com/en-US/shop/downloads/basecamp>

Works with Basecamp by first zooming into area the viewing route place mark or are in Google Earth

<http://www.google.com/earth/download/ge/>

Legacy Basecamp [http://www8.garmin.com/support/download\\_details.jsp?id=4939](http://www8.garmin.com/support/download_details.jsp?id=4939)

Hunt maps with BLM LAND <http://www.huntinggpsmaps.com/store/computer-maps/garmin-basecamp#.VYncGUvoi2Q>

Garmin handheld

[https://buy.garmin.com/en-US/US/on-the-trail/handhelds/color-screen/accepts-data-cards/cOnTheTrail-cHandheld-atFILTER\\_FEATURE\\_COLORSCREEN\\_01-atFILTER\\_FEATURE\\_DATACARDS\\_01-p1.html](https://buy.garmin.com/en-US/US/on-the-trail/handhelds/color-screen/accepts-data-cards/cOnTheTrail-cHandheld-atFILTER_FEATURE_COLORSCREEN_01-atFILTER_FEATURE_DATACARDS_01-p1.html)

Field Firing solutions Nomad <http://www.lextalus.com/pda5.html>

Delta V

<http://www.lextalus.com/Delta5.html>

Kestrel

<http://kestrelmeters.com/products/kestrel-4500nv-applied-ballistics-meter>

G shock pro trek

[http://www.casio.com/products/Watches/PRO\\_TREK/PRW5050BN-5/](http://www.casio.com/products/Watches/PRO_TREK/PRW5050BN-5/)

ELR Camera Build

<http://mbd.scout.com/mb.aspx?s=541&f=5539&t=13236426>