Introduction to Mapping We're not lost





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Why?

- Necessary for management plan
- "Big Picture" view of your forest
 - Identify: boundaries (property, unit, etc.), forested areas for treatment, important features, etc.
- Help you identify your objectives



Example Map

Prescriptions

Unit A:

Thin trees under 10" DBH according to "D+6" rule. Prioritize healthy crowns first, then prioritize larger trees. Lop & Scatter all standing dead fuels under 10"DBH & all woody fuels that are >10" from the ground.

Unit B:

Remove all DF under 10" DBH. Lop & Scatter all standing dead fuels under 10"DBH & all woody fuels that are >18" from the ground.

Unit C:

Lop & Scatter all standing dead fuels under 10"DBH & all woody fuels that are >18" from the ground.

Shaded Fuel Breaks (SFB): Remove all ladder fuel trees (6"DBH and under). Lop & Scatter all standing dead fuels under 10"DBH & all woody fuels that are >18" from the ground.

Special Treatment Area (STA): This area has been zoned by the County of Sonoma as Riparian Corridor Combining Zone (RC) and requires a permit prior to removal of native vegetation. Upon reciept of permit. Treat area under same prescription as the general unit.





What's in a Map?

Key Ingredients

- Data Layers
- Point and Line Features
- Label, Label, Label

Collecting Field Data

- Compass Navigation
- Digital Navigation



Step 1: Layer your Ingredients



Background



Features





Step 2(a): Locate <u>Background Layer</u>

- Satellite
- Contour Map
- Assessor Parcel Map





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- Satellite
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Step 2(b): Locate Features



a single 'thing' on the ground



Step 3: Stack and Label

Title

North Arrow

Scale

Poor layout:



Good layout:





Collecting Features

(1) Map and compass



(2) Handheld GPS Systems







Public Land Survey System (PLSS)

- Initiated after Revolutionary War around 1785.
- System to distribute land to Revolutionary War soldiers and later Railroad Companies
- Created section grid system with physical monumented survey corners
- Survey based on base lines (horizontal) and meridians (vertical)



Compass and Map



Global Positioning System

- 24 -32 active NAVSTAR satellites make up civilian GPS
- At least 6 satellites are visible from any spot on Earth
- 6 orbit planes, each with 4 operational satellites in each
- Orbiting 12,500 miles above earth at ~ 7,000 mph (medium Earth orbit)
- 2 complete orbits in less than 24 hours
- 4 or more GPS satellites used to compute X, Y, and Z



Data Collection and Visualization



Mobile Maps

EXERCISE

Avenza: Adding Basic Map

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Avenza: Adding Point Features





Avenza: Other Features



Hands-on Activity

Go into the field and map out the selected area. (Select One) of the mapping methods below to collect information about the features you find on the landscape. **Locate as many as you can find**, then meet back in the classroom to discuss.

Compass and Map

- Bring the paper map with you
- Draw in the features you find and or would expect to find

Digital GPS

- 1. Open the Avenza App
- 2. Add points for discrete features
- Add lines for continuous features

What did you find?

Found Features

- Road
- Unit Boundary
- Stream
- Stream Crossing

What else?

- Road Surface Type
- Condition of crossing
- Culvert type
- Tree health

Example



Export Map

- Export layers as kml
- Open in Google Earth

11 Features 🗸

1024 x 768

1 Layers

Print as image

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