

EPIC Guide to Groundtruthing

Groundtruthing Helps protect public wildlands for future generations by documenting what a logging plan looks like on the ground.



You have the legal right to access public lands and have meaningful participation in planning and reviewing proposals that have the potential to negatively affect the environment. For any process that includes the federal government, the lead agency must use the National Environmental Policy Act to guide their process and disclose all impacts that a project may have, and similarly, California Environmental Quality Act applies to all state projects. If documented properly, groundtruthing can reveal new information that is not included in planning documents that can be used to halt or change a project.

Groundtruthing Steps

- **Obtain maps:** of the proposed project and any other maps you may need to orient yourself with the area including: topographical maps of the area, recreation and road maps, State Historical Preservation Office maps, and google earth birds eye view of the landscape. If the agency's maps are cryptic and you need additional information to make sense, for example if road names are not included, then request a new map.
- **Request additional information:** If you need more information to clarify an agency's project, state that you are making a "Freedom of Information Act" request. Keep records of your participation, requests and correspondences. Emails are best because they cannot be lost and provide a time stamp. Always ask the agency to confirm that they have received your request, when they plan to fulfill it, and to keep you updated on new developments of the project.
- **Orient yourself with the area:** locate the project on the map and plan your route.

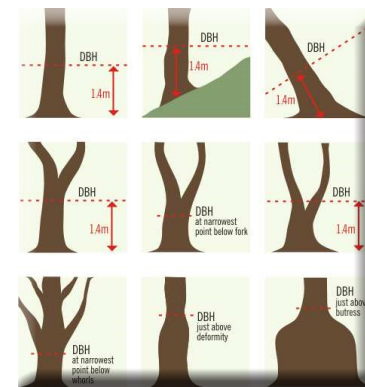
- **Identify flagging:** record any markers, and request more information from the agency if you do not understand the marking system they have used.
- **Draw what you see:** if you do not have access to mapping software like Global Information System (GIS) or Global Positioning System (GPS) then you can draw your maps by hand and scan them as electronic files. Photocopying and drawing on an existing map can also be helpful. Use symbols and color coding to illustrate information and use a number system that connects to photo locations.
- **Take videos and photos:** videos are very helpful because you can freeze a screenshot of something later that you did not think of when you are in the field. Capture images that document your concerns as well as capturing heartbreaker photos that are useful for outreach. Use people or animals to show perspective.
- **Organize photos:** using an online program such as Flickr, where you can direct people to view them, name, tag, and note your photos as soon as you return from the field, before you forget details. Use people or objects to give perspective and size relativity.

Document What You See

Take notes on waterways & land features:

- Types, ages and sizes of trees in overstory and understory.

- Measure Diameter at Breast Height (dbh) 4.5 feet from ground.
- Amount, diameter, height, and age of downed trees and snags. Document animal holes.
- Document distinctive vegetation, mushrooms, flowers, grasses, lichens, mosses etc.
- Elevation, slope, steepness, signs of landslides.
- Aspect: direction slope is facing.
- Signs of past logging and regrowth.
- Potential for blowdown – prevalent on clearcut edges and ridge tops.
- Signs of fire/ blackened trees.
- Roads in the area – condition and use. Gated? Closed? Are culverts plugged?
- Identify areas of proposed road construction and affected slope and vegetation.
- Wildlife, habitat, and animal prints present.
- Soil conditions: wet, dry, rocky, etc.
- Other resources: trails, campgrounds, historical sites, etc.
- Identify riparian areas on the map in advance noting anywhere there is water - streams, lakes, and wet areas.
- Look for fish or suitable fish habitat within, near or downslope from project.
- Condition of streams: flow, clarity, sedimentation, woody debris, pools & are they seasonal or year-around?



FOREST HABITAT		
DEGRADED	Indicators	DESIRED
<p>Degraded forest habitat has high numbers of exotic shrubs and trees, high % of impervious surface and large deer populations. Native seedling regeneration and diversity of forest-dwelling bird species are low in patch forest with high occurrence of insect pests.</p>	<p>high Density of Exotic Shrubs and Trees</p> <p>high Presence of Insect Pests</p> <p>low Presence of Forest Interior-dwelling Bird Species</p> <p>high Deer Population</p> <p>low Native Seedling Regeneration</p> <p>low Forest Connectivity</p> <p>high Percentage of Impervious Surface</p>	<p>Desired forest habitat has low numbers of exotic shrubs and trees, low % of impervious surface, and small deer populations. Native seedling regeneration and diversity of forest-dwelling bird species are high in continuous forest with low occurrence of insect pests.</p>

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Groundtruthing Survey Form

Surveyed by: _____ Forest & District: _____

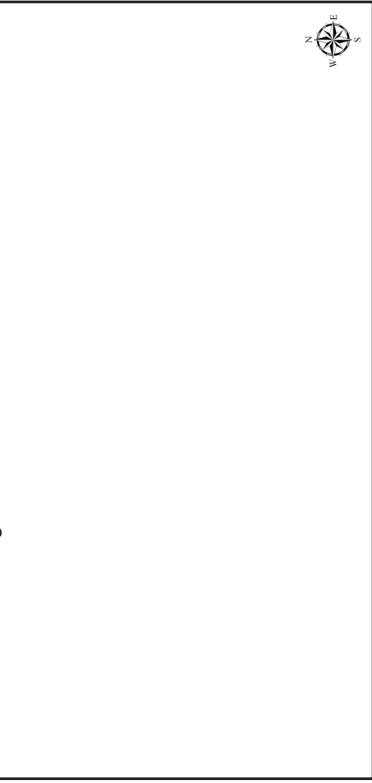
Timber sale name and unit: _____

Surrounding area: _____

Check all that apply:

- contiguous forest [F]
- never logged area [V]
- previous thin [T]
- clear cut [C]
- tree plantation [P]
- >Regrowth rate: _____
- riparian areas [Ri]
- roads [Rd]
- other (specify): [O]

Draw unit with surrounding area characteristics - use abbreviations at left



MapUnit (above): Include magnitude/aspect of slope ↘; streams ↘; and roads ; and roads ; streams ; and roads . Mark items mentioned below: campsites, wildlife sightings or habitat, plants, trails etc. Identify blow-down risk areas , and geologic areas of interest.

Describe the quality of available surrounding forest habitat and species evident: _____

Geography/Geology:

Elevation: _____ Dominant Aspect: _____
Steepest slope: _____ Frequency: _____ Dominant Slope: _____
Soil conditions [all that apply] (dry, wet, rocky ...): _____
Micro-climate [all that apply] (dry, moist, wet, cool ...): _____
Signs of landslides: _____
Rock outcroppings or other unique characteristics: _____

Trees:

old-growth (180+ years) _____ Percent of unit: _____
mature forest (80-180 years) _____ Percent of unit: _____
never logged _____ Percent of unit: _____
previously logged – approx. age range of trees: _____ Percent of unit: _____
Describe evidence of former logging (skid trails, stumps, lack of regeneration in area): _____
Measurement/frequency/species of large-diameter trees: _____
Species and average d.b.h. (include overstory and understory): _____ Average % Canopy Coverage: _____
Amount/size/age of downed trees: _____ Amount/size/age of snags: _____
Signs of fire on trees: _____ Blowdown and blowdown potential: _____
Other: _____

Riparian Areas:

(springs, seeps, seasonal runoff, creeks) describe and mark on unit map:
Fish-bearing streams (quantity): _____ Buffers (Yes/No/both): _____ Width(s): _____
Non fish-bearing streams: _____ Buffers (Yes/No/both): _____ Width(s): _____
Intermittent streams or seeps: _____ Buffers (Yes/No/both): _____ Width(s): _____

Roads:

Number of roads accessing the unit and approximate density: _____
Open roads (describe condition/ surface type/ apparent use): _____

Closed roads with signs of motorized use (condition & road number or approximate location): _____

Wildlife: Species using area for habitat (scat, tracks, sightings, calls, burrows): _____

Other Vegetation:

Unusual/sensitive plants – describe, photograph and mark location on map: _____

Recreation: Trails (trail number, location, apparent use): _____

Campsites: _____

Timber Sale Markings:

Is the sale marked? Yes _____ No _____ If yes, is it marked as leave tree _____ or take tree _____?

Marked name and unit: _____

Other markings (survey transects, etc.): _____