Project Proposal

Description of Data Topic

This project is to display significant Federal land holdings across the American West. I will show those holdings across the eleven western states of Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, New Mexico, Colorado, Wyoming, and Montana.

The present working title is, “Federal Owned Lands of the American West: Wow that’s a lot”.

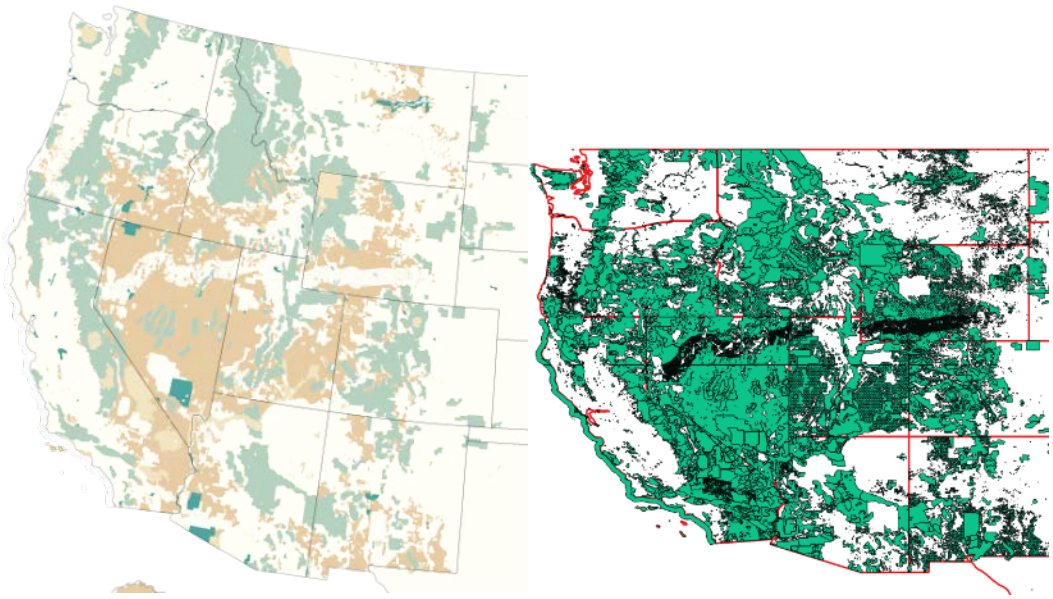
Map Objectives

The object is to investigate the agencies that own the lands and to identify, by state, the proportion of lands owned by the Federal government.

Background:

I chose the topic for personal interest. I read an article from my DuckDuckGo news feed entitled, The Disappearing West (https://www.disappearingwest.org/map/) and was curious about the topic. I found the map and overall site to be light on definitions (‘human development’ and ‘natural areas’) and believed it used and unduly alarmist tone. I also followed the Oregon occupation story in January 2016 about the ranchers who occupied a National Wildlife Refuge facility over Federal land leases. The rancher articles about the occupation provided detail of the large number of acres owned by the Federal government across the West. The Disappearing West site/map and the rancher articles made me wonder about the story in between these two dramas in regards to land owned by the Federal government. I found the Disappearing West map could have been better by showing Federally owned land and how the private development will reach a stopping point due to geography (mountain terrain) and Federal ownership.

The topic has been mapped before (see below left from http://www.nytimes.com/2016/01/06/upshot/why-the-government-owns-so-much-land-in-the-west.html?_r=0), but without the ability to view by agency or US military property which are significant for at least Nevada (excluded from the map below left, but included in the map to its right).



User needs (persona/scenario)

The user persona is of a 'regular' user that understand how to zoom by mouse or control, click check boxes, and pan. The expected user is the reader of a media article such as https://mises.org/blog/how-feds-got-all-western-land-and-why-its-problem or http://www.nytimes.com/2016/01/06/upshot/why-the-government-owns-so-much-land-in-the-west.html?_r=0). Readers will use the map to get an overall impression of ownership and then explore ownership by all Federal Agencies and then by specific Federal Agencies.

Data Sources

State borders will be provided by Natural Earth. The Federal land polygons will be provided by USGS National Map (ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/SmallScale/Data/Boundaries/fedlanp010g.shp_nt00966.tar.gz). Percentages owned by state will be provided by the Congressional Research Service (https://www.fas.org/sgp/crs/misc/R42346.pdf).

The National Cemeteries, National Battlefields, Indian Reservations, and a GSA facility will be excluded, since I assume they are either small to be of concern and/or unlikely to ever be converted to private use. NASA and DOD lands may be combined since they are co-located for the most part.

Data sample:

Congressional Research Service

Table 1. Total Federal Land Administered by Five Agencies, by State, 2013

	Total Federal Acreage	Total Acreage in State	% of State
Alabama	844,026	32,678,400	2.6%
Alaska	223,803,098	365,481,600	61.2%
Arizona	28,064,307	72,688,000	38.6%
Arkansas	3,151,685	33,599,360	9.4%
California	45,864,800	100,206,720	45.8%
Colorado	23,870,652	66,485,760	35.9%
Connecticut	8,752	3,135,360	0.3%
Delaware	29,864	1,265,920	2.4%
District of Columbia	8,182	39,040	21.0%

The 'draft_fedlands' and 'eleven_states GeoJSONs' are located in the Module-10 folder in my MAP673 GitHub repository; url is provided at the end of the document.

Proposed Thematic Representation

The map representation will be semi-dasymetric map to show by layer land ownership.

Content Requirements

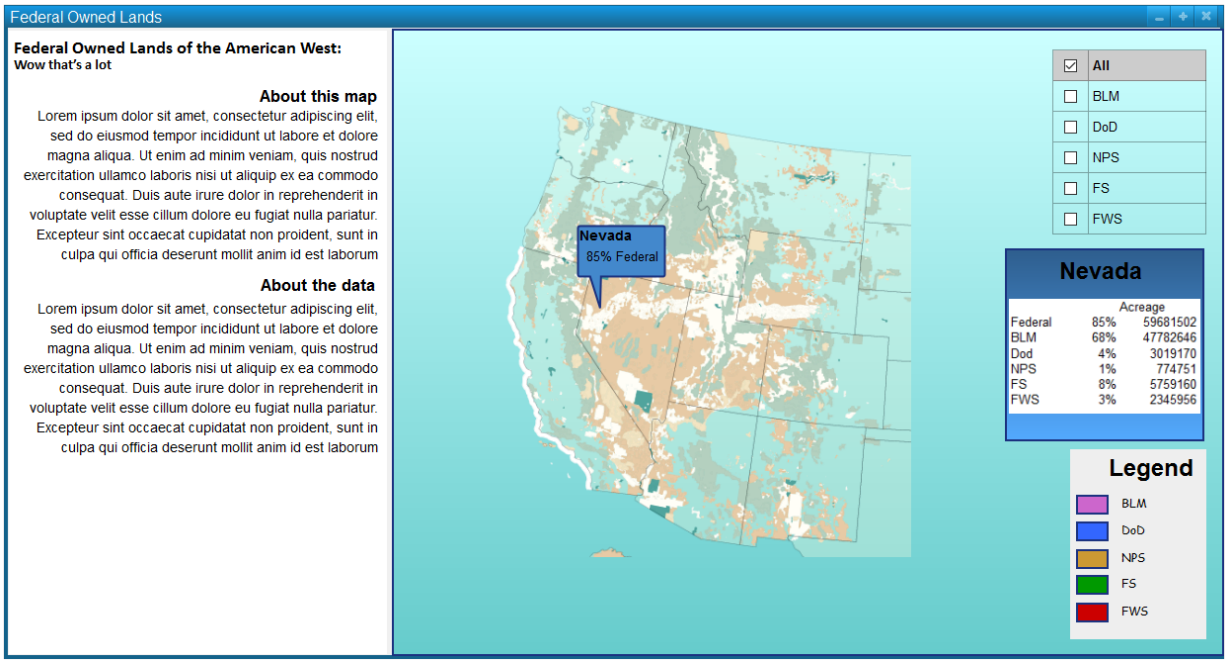
- Polygons of each tract will be displayed on the map.
- The percentage of Federal lands owned in each state will be displayed when the mouse hovers over state polygons.
- A legend will provide value ranges for each shade.
- A base map will be used to provide context.
- Links to data sources will be provided.
- An informational side panel to provide information about the map, data, and title.
- Use an appropriate CRS.

User Interaction (UI)

- Check boxes will be provided to allow users to show all some none of the data.
- Zoom control and mouse zoom.
- Limited pan ability; the map boundaries will be set to prevent moving away from the featured eleven states.

Prototype/Mock Up

The mock up below shows what the project may look like when completed. The file is also located in the Module-10 folder in my MAP673 GitHub repository and is entitled, "Moxkup.pdf". The repository is located at


Federal Owned Lands
Federal Owned Lands of the American West:
Wow that's a lot
About this map
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BLM 68% 47782646
Dod 4% 3019170
NPS 1% 774751
FS 8% 5759160
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