Rangeland Principles (REM 151)
University of Idaho

PRISM is a great tool to understand climate patterns across the United States. It is used to describe sites in many rangeland research projects, and can be used to understand a sites potential when managing rangelands. For this activity, the goal is to become familiar with PRISM and identify "30-year normal" for three areas across the United States. The "30-year normal" can then be used to evaluate if an area is above or below average and hence, can help land managers determine vegetation patterns.

Step 1: Go to http://www.prism.oregonstate.edu/explorer/ to access PRISM climate data.

Step 2: Choose a location
- For this activity, you will choose three locations. One needs to be west of the Rocky Mountains, one between the Rocky Mtns and the Mississippi River, and one east of the Mississippi River. For each location, repeat Step 3-Step 9.

Step 3: Select the State and County (e.g., Idaho, Latah) under the "Location" section, the map will automatically zoom to that area. Once there, click on the PRISM grid you are interested in (the square will be highlighted with a red box).

Step 4: Under "Data Settings" select "30-year normal" with a "Resolution" of 4km. By selecting this option you will get monthly and annual climate values.

Step 5: Under "Data Settings" you can select your Units as either "English" or "SI (metric)". For this activity select "English".

Step 6: Under "Climate Variable" check "Precipitation" and "Mean temp"

Step 7: Click on "Retrieve Time Series" under the "Controls" section. Once the data is retrieved, click on "Download Time Series" and open the information in excel.

Step 8: Fill in the following table for each location:

Location (e.g., ID, Latah)	Annual ppt (cell B24)	When does most of the ppt occur (e.g., Nov, Dec, Jan)	Coldest Temp and Month	Warmest Temp and Month

Step 9: Determine if 2015 was above, at, or below the "30-year normal" precipitation. While your area is still highlighted, select "Annual Values" under the "Data Settings" section. Change the start and end date to "2015". Under "Climate Variable" remove the check for "Mean Temp". Click on "Retrieve Time Series". On the graph that is produced, you can hover your mouse over the blue bar and the ppt amount will appear. Fill out the below table: Is this amount above, at, or below the "30-year normal"? How might this affect vegetation patterns for this particular location?

Location (e.g., ID, Latah)	Annual ppt (from table above)	Annual ppt for 2015	Above, At, or Below Average?	How might this affect veg. patterns?

Step 10: Is the "30-year annual" precipitation and temperatures different for the three locations you choose? Using information for the "Climates of Rangelands" lecture, what are two reasons why they may have different climate patterns?