

Supplementary Material for “Investigating the Effects of Land Use and Land Cover on the Relationship between Moisture and Reflectance Using Landsat Time Series”

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S1. Landsat Scene Identifier List

Landsat scene identifiers for scenes used in data processing. In a few cases, small amounts of data from the scenes south of the study area may be included, but are not listed in the table because the quantity of data involved is minimal.

S2. Reflectance Distribution As a Function of SPEI

Reflectance distribution by SPEI, as in Figures 8 and 9 in the main text. Data are subdivided by band, day of year (DOY), NLCD category, and SPEI. Bands included are listed in Table 3 in the main text. DOY is the center of a 40 day range (e.g., the line for DOY 200 includes DOY 180-220). The SPEI value is the center of a 0.5 range (e.g., 0.25 includes all points between zero and 0.5), except for -1.75 and 1.75 , which also include values <-2 and >2 , respectively. The NLCD category includes all pixels found to be stable in the category, as described in the Methods. The next columns in the dataset are

the reflectance at each percentile (2%, 25%, 50%, 75%, and 98%), followed by the mean reflectance and the number of points included. The study area is as described in the Methods (44–46.5°N, 101–103°W).

S3. Linear Regression Results

Median slope, intercept, root mean squared error, and percent significant ($p < 0.01$) for linear regression of SPEI versus reflectance. Data are subdivided by band, DOY, and NLCD, as described for Supplementary Materials S2.