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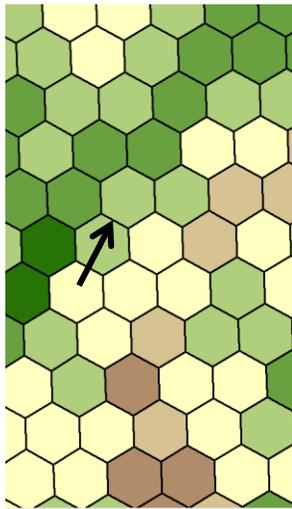
Open Space Institute Northeast Resilient Landscapes Initiative Background for using the 90 meter resiliency data

February 3, 2014

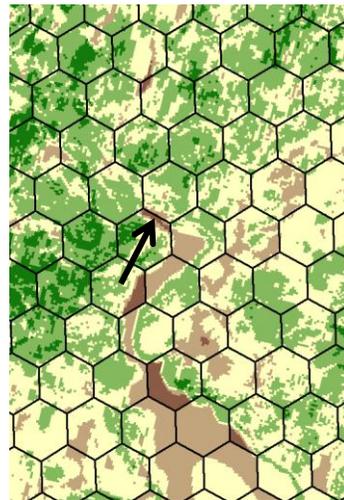
The Nature Conservancy has recently “down scaled” the 1000 acre resiliency data to a 90 meter scale. OSI has packaged this 90 meter resiliency data for potential grantees interested in evaluating projects for application to the Resilient Landscapes Initiative and provided links to the data at the end of this document. However, the 90 m data retains some artifacts from the 1000 acre data. Please read this brief guide before downloading and using the 90 meter data. The information below describes how this data was created and why some pixels may be less accurately ranked. TNC is planning to release, within the year, a new data set that would largely solve these issues. OSI and TNC continue to emphasize, however, that the 1000 acre hexagon is the scale at which the resiliency data is most robust.

The TNC terrestrial resiliency analysis models resiliency scores by ranking Landform Complexity (LC) and Local Permeability (LP) relative to each of the 30 geophysical settings in the northeast. The original LC and LP data were created at a 30 meter and 90 meter scale respectively; however, geophysical settings were created at the 1000 acre hexagon scale. The original resiliency scores were produced at the 1000 acre hexagon scale. Only subsequently to that was the data “downscaled” to the 90 meter scale to enable more detailed assessment. Here is an example:

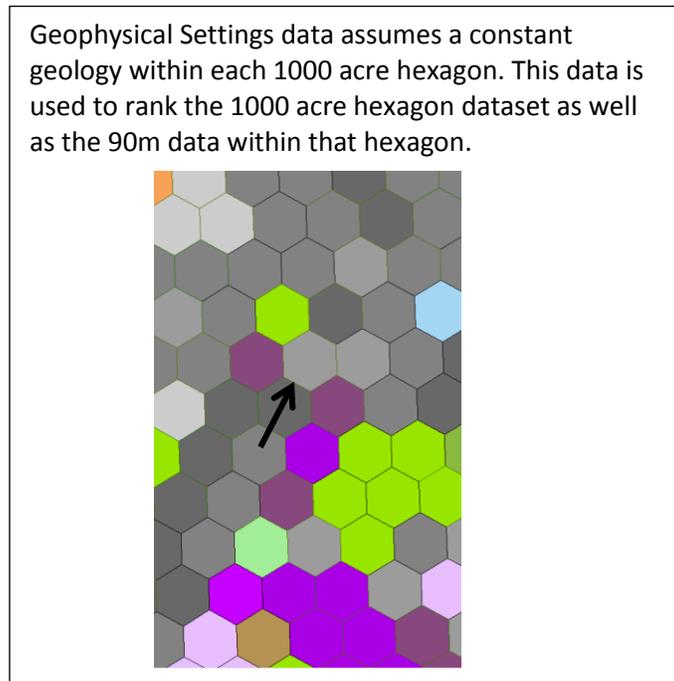
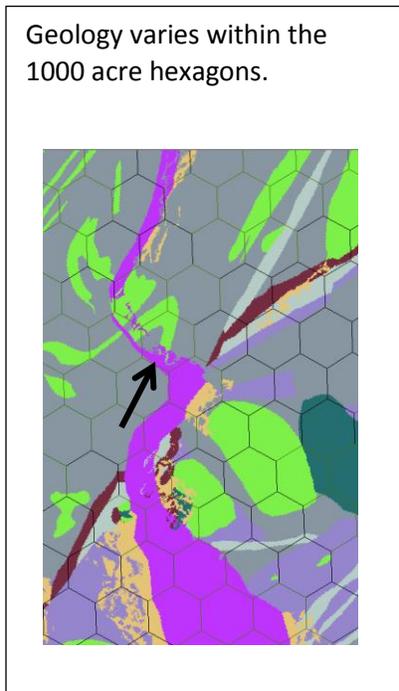
Original 1000 acre hexagon scores;
darkest Green is most resilient,
darkest brown least resilient.



90 meter resiliency. Darkest green is
most resilient, darkest brown least
resilient.



While the 90 meter data does help identify landscape features that occur at the typical project level, this refined data does not account for variations in geophysical settings for each 90 meter cell. Instead, each 90 meter cell is assigned the same geophysical setting as the 1000 acre hexagon in which it falls. This means that all of the 90 meter cells are scored for resilience relative to the geophysical setting of the 1000 acre hexagon in which it falls, not a geophysical setting related to the actual geology classification for the 90 meter cell. (See the illustration below. Please note that the cell with the arrow is the same across all illustrations)



Because the threshold score for “above average resiliency” varies by geophysical setting type, pinning the 1000-acre hexagon geophysical setting to a 90 meter cell can skew the resiliency scoring. For example, mid-elevation granite has a higher threshold for above average resiliency than low elevation silt, but the 90 meter data might assign a granitic setting to a silt flood plain running through a granite-dominated hexagon. Thus, what might otherwise be considered an “above average resiliency” silt area might display as exhibiting below average resiliency, because it was scored as if it were granite.

At either scale, the best way to confirm the accuracy of the geophysical setting is through understanding the properties of the site. Barring that, OSI recommends checking the geology map to confirm whether the geology assigned to the hexagon(s) accurately representing the geology underlying the project. You can use the geology data set included in OSI’s Resilient Landscape Map Package or a local data set. We also welcome you to call our regional field coordinators to discuss the project and interpretation of the data.

Download the 90 meter resiliency layer packages

[Detailed Resiliency](#)

[Detailed Complexity](#)

[Detailed Connectedness](#)