OR-SAGE Workflow for Phase One

# Working Environment(s)

* ArcGIS Pro

# Variables

## Input Variables and Structure

* Raster images for criteria, thresholds/buffers
  + Geotiff images
* “Rich” data to associate with sites
  + Transmission lines, slope, cultivated land
  + TVA LPCs (static)
  + Rich data comes from shapefiles and/or rasters
* Output site size

## Output Variables and Structure

* Shapefile with site geometries, associated rich data at site resolution
  + One shapefile per sub-scenario.
* CSV with lat/lon of sites, associated rich data for each site.
  + One CSV per sub-scenario.

# Workflow Stages

* Manually import criteria, rich datasets into ArcGIS
* Buffer, filter, and convert criteria and rich data to raster format if needed
* Adjust OR-SAGE ModelBuilder model parameters ( output site size)
* Run OR-SAGE model to generate site-resolution raster for each subscenario
* Run secondary workflow to
  + Create fishnet grid system and grid points to match previous stage output
  + Associate rich data, suitable sites with fishnet grid and points for each subscenario
  + Filter down grid to only suitable sites, retain site IDs for consistency between sub-scenarios
  + Output grid geometry to shapefile, grid points to csv

# Handoff:

Direct handoff to Task 3 (Ryan).