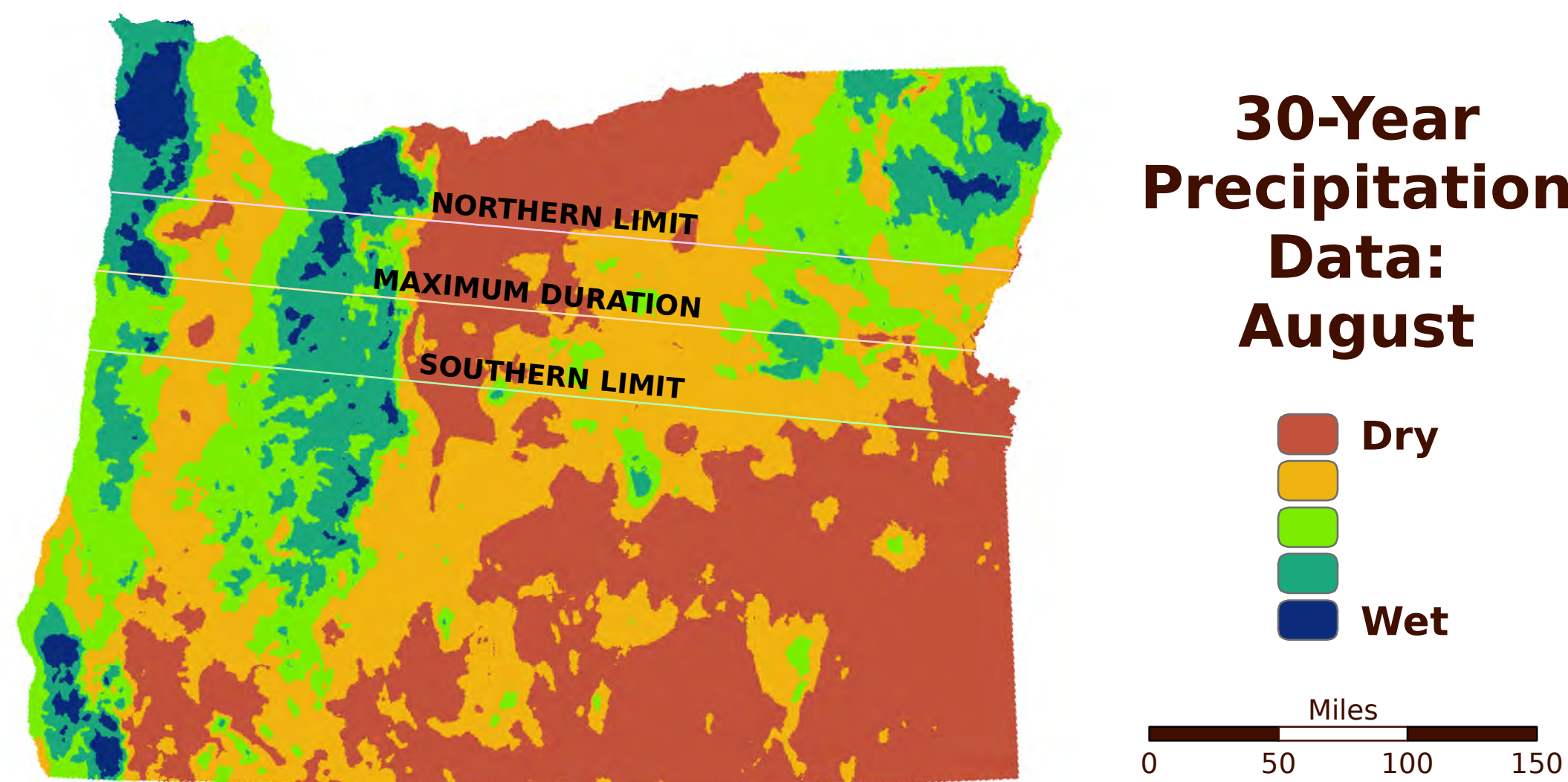
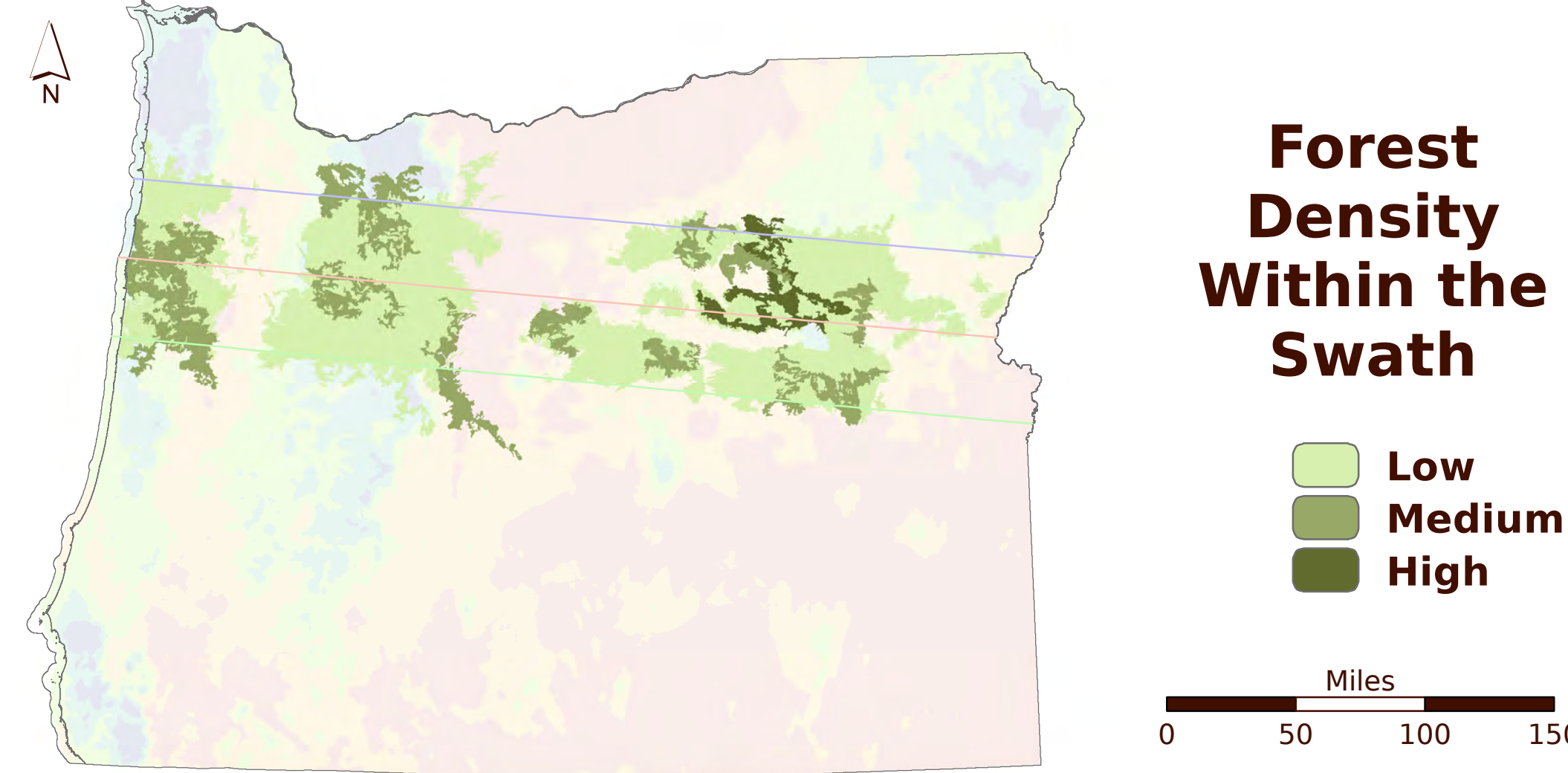


# HERE'S YOUR CHANCE!!!

## *Favorable Locations for Viewing the Upcoming Total Solar Eclipse*



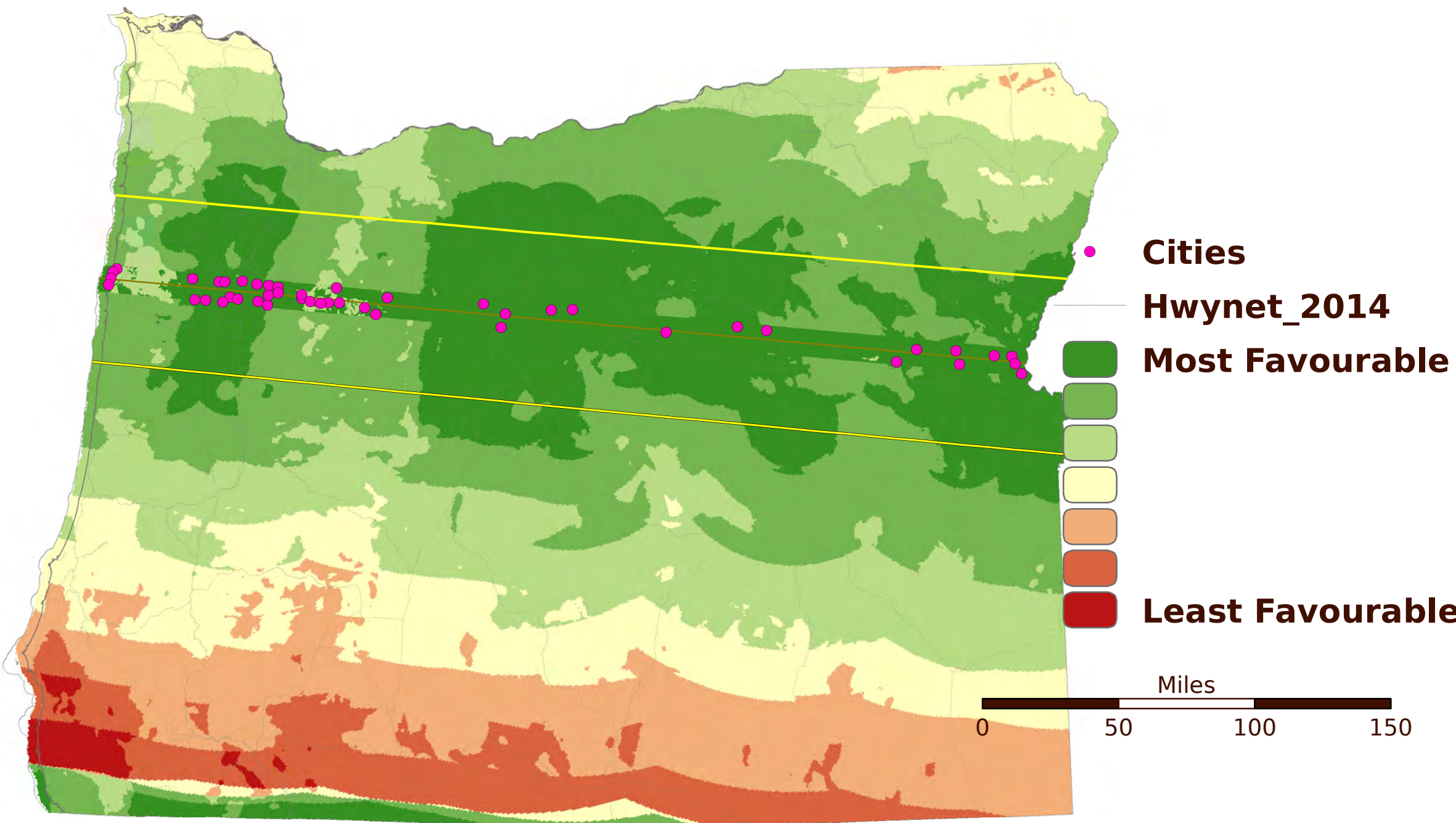
Estimate precipitation for 21 August 2017, the estimate was done by selecting the precipitations of August for 30years( 1971-2000). Data from the atlas.geog.pdx.edu. The map shows reclassified scale ranging from areas that are estimated to be dry to are



Map of Oregon showing Forest Density Within the Swath. This areas are eliminated to allow clear view of the swath.

### *Cities and Towns Within 5 Miles of the Central Line*

Airlie • Ashwood • Aumsville • Beech Creek • Breitenbush Hot Springs • Bridgeport • Buena Vista • Courtrock • Depoe Bay • Detroit • Dixie • Elkhorn • Falls City • Fox Valley • Gates • Gleneden Beach • Hereford • Huntington • Idanha • Independence • Kernville • Kilts • Lime • Lincoln Beach • Lyons • Madras • Malheur City • Marion • Mehama • Mill City • Monmouth • Niagara • Paxton • Pedee • Rosedale • Rye Valley • Shelburne • Stayton • Sublimity • Suver • Talbot • Turner • Unity • Warm Springs • Waterman • West Stayton



There are 46 cities analysed to be in a greater location of five miles to the center line(path of maximum duration), Most of this cities are pretty small with less population and amenities. If you live close by and dont want to hussle to the major cities, they are just as favourable as the five major cities selected due to their proximity to the maximum duration and population.

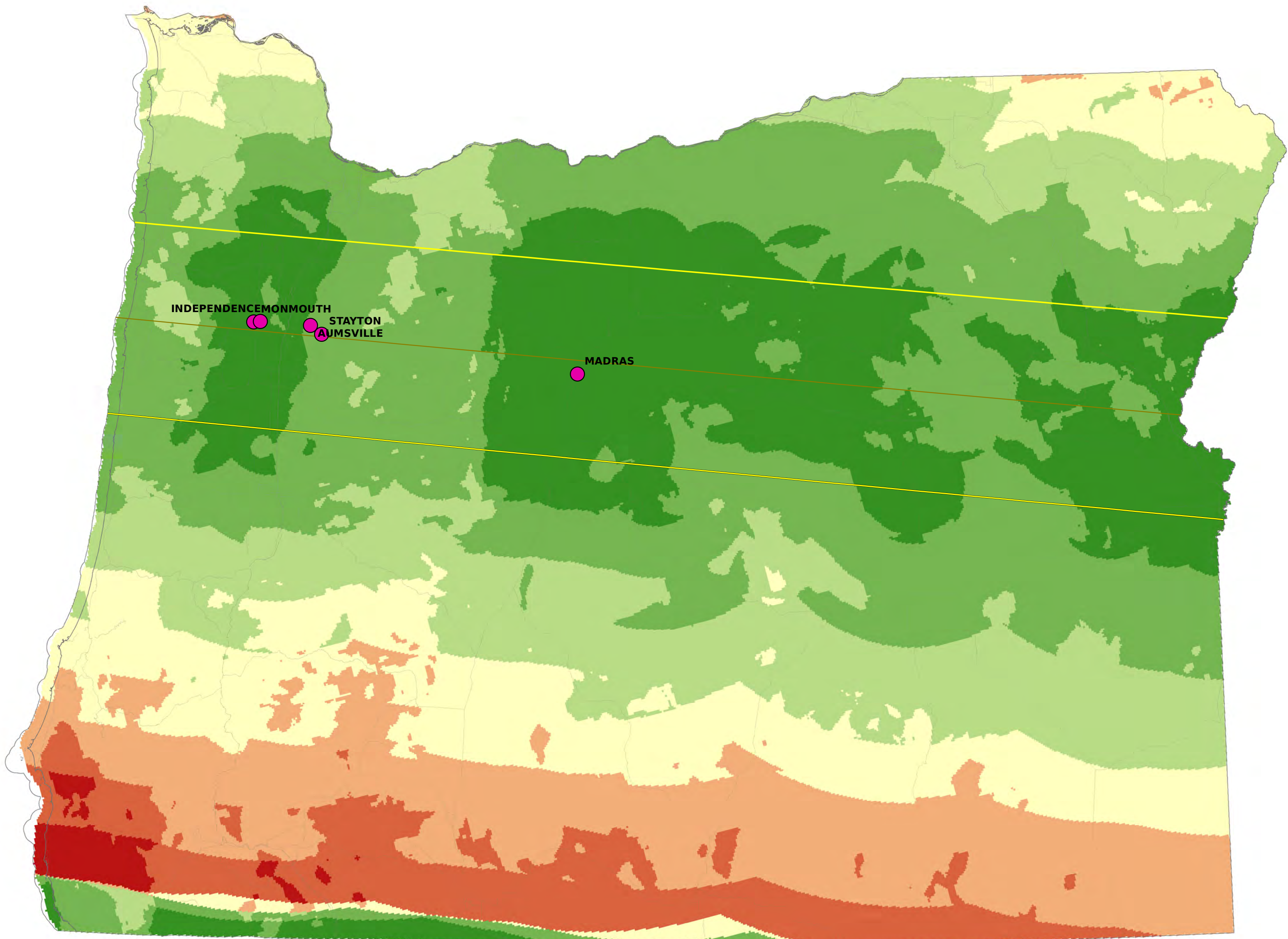
Oregonians and visitors will have a rare opportunity to view a total solar eclipse (TSE) on **Monday, August 21, 2017**. The next TSE to cross Oregon is June 25, 2169!

Partiality begins just after 9:00 a.m. PDT with full obscuration occurring at approximately 10:15 a.m. at the coast and approximately 10:25 a.m. at the eastern border of the state.

The duration of totality (diamond ring to diamond ring) ranges from **25 seconds** at the northern and southern limits of the swath to **2.2 minutes** at the centermost path across the state within the 62-mile wide shadow.

The goal of our analysis was to provide optimal/accessible viewing locations for people to make informed choices in taking the opportunity to observe this local phenomenon.

**99.9% IS NOT THE SAME EXPERIENCE!**



Suitability criteria are: Areas with lower estimated precipitation, low or no forest zone, close to a major city with population greater than 3000, high mobility(clos to highways) and area that are closest to the center line where the maximum duration of the event is observed.

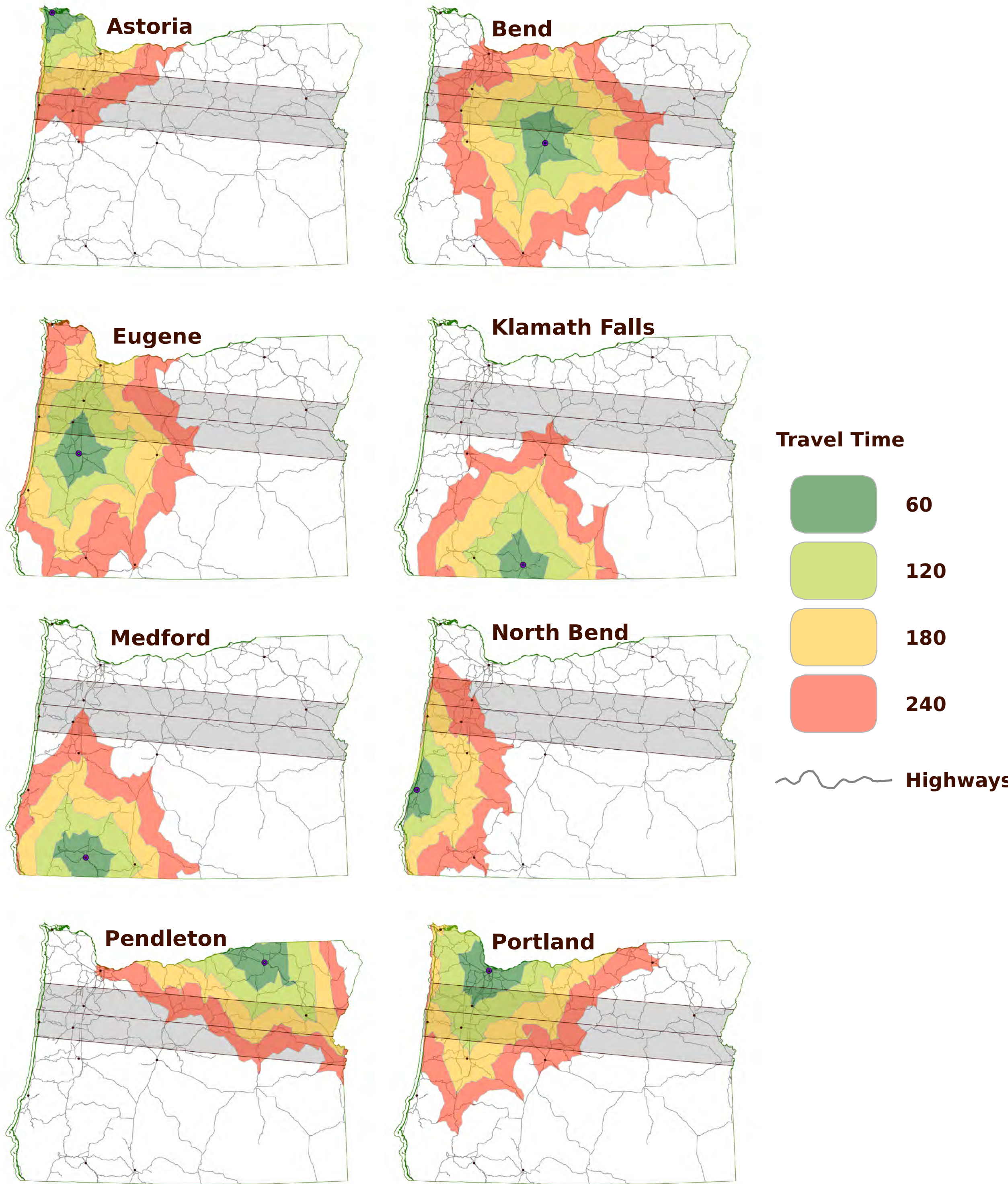
This is done by Calculating the Eculidean distance to major cities, highways, create a five mile buffer from the center line and convert it to a raster. Reclassified the five mile buffer, distance to major cities, distance to highways, forest data, precipitation data and perform a weighted overlay to analyse areas that meet the criterias. Areas in deep green shows the most favourable locations while areas in red shows the least favourable areas.

Five cities are selected due to there population and proximity to the central line of maximum duration and visibility. The duration will range from Independence a city with a population estimation of 2015 of 9227, with a maximum duration of 2m 02.25s, at around 10:20:36am PST, Monmouth city will have a maximum duration of 1m 59.6s at around 10:17:59amPS, the 2015 estimated population is 10032. Aumsville city will have a maximum duration of 1m 59.8s at around 10:18:26am PST, with a population of 4013. Stayton city will have a maximum duration of 2m 00.6s at around 10:18:31am PST, population of 7969. The most favourable location Madras will enjoy a maximum duration of 2m 02.25s at around 10:20:36am PST, the population of 2015 is 6662.

All of city lies within major highways for easy mobility, chasing an eclipse is always fun but due to time limitation you need this locations to enjoy the once in a life time event across Oregon.



The layer of the swath was created from a google interactive map from eclipse.org showing the local circumstances of the event across the United States.



Service area analysis was performed individually on the major Oregon cities (populations above 9,000) outside the swath of totality to show route driving times radiating into the path of 100% coverage.

Zones ranges are:  
Dark Green = 0 to 60 minutes • Light Green = 60 to 120 minutes • Orange = 120 to 180 minutes • Red = 180 to 240 minutes

Distance more than four hours from cities are implied but not shown and can be estimated from polygons of at least one other route analysis. Portland and Eugene are in the 99% totality range and relatively easier to plan.

References:  
<http://americaneclipseusa.com/seeing-the-eclipse-from-home>  
<http://eclipse.gsfc.nasa.gov/SEAtlas/SEAtlas.html>  
[http://xjubier.free.fr/en/site\\_pages/solar\\_eclipses/TSE\\_2017\\_GoogleMapFull.html](http://xjubier.free.fr/en/site_pages/solar_eclipses/TSE_2017_GoogleMapFull.html)  
[http://eclipse-maps.com/Eclipse-Maps/Gallery/Pages/Total\\_solar\\_eclipse\\_of\\_2017\\_August\\_21\\_files/Media/TSE2017\\_poster1\\_Oregon/TSE2017\\_poster1\\_Oregon.jpg](http://eclipse-maps.com/Eclipse-Maps/Gallery/Pages/Total_solar_eclipse_of_2017_August_21_files/Media/TSE2017_poster1_Oregon/TSE2017_poster1_Oregon.jpg)  
<http://spatialdata.oregonexplorer.info/geoportal/catalog/main/home.page>  
<http://aa.usno.navy.mil/data/docs/Eclipse2017.php>  
<http://solargis.info/doc/solargis-database>  
<http://cci-reanalyzer.org/>  
[http://services.arcgisonline.com/ArcGIS/rest/services/World\\_Topo\\_Map/MapServer](http://services.arcgisonline.com/ArcGIS/rest/services/World_Topo_Map/MapServer)  
<http://eclipse.gsfc.nasa.gov/SEAtlas/SEAtlas3/SEAtlas2161.GIF>  
[http://resources.arcgis.com/en/help/main/10.2/index.html#/Handling\\_projections\\_during\\_analysis/0187000000m000000/](http://resources.arcgis.com/en/help/main/10.2/index.html#/Handling_projections_during_analysis/0187000000m000000/)