

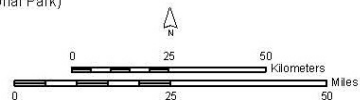
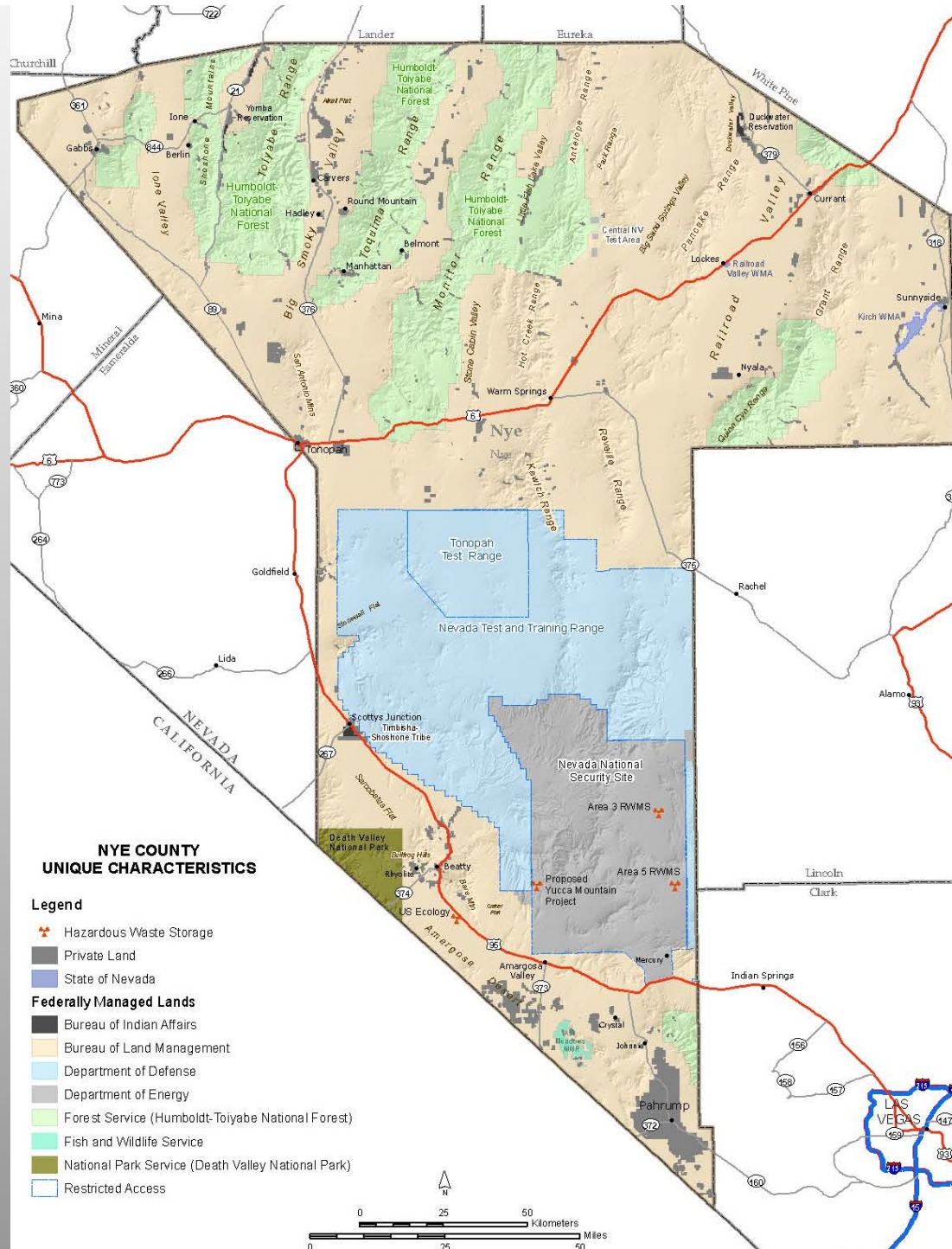


Quadrennial Energy Review Public Meeting Santa Fe, NM

Presentation by
L. Darrell Lacy
Nye County Nevada
August 11, 2014

Hurdles to Development

- Access to Land – large areas needed
- Power Purchase Agreements
 - Long term agreements needed
 - Uncertain regulations
 - High Costs
- Transmission
 - How do you get one built?
 - How do you access a freeway with no on ramps?

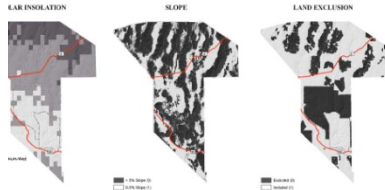


SOLAR SUITABILITY MODEL

SUITABILITY = PRIMARY SOLAR SUITABILITY X SECONDARY SOLAR SUITABILITY

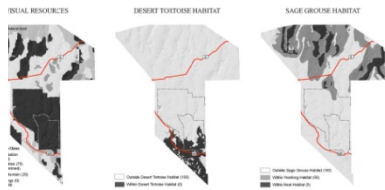
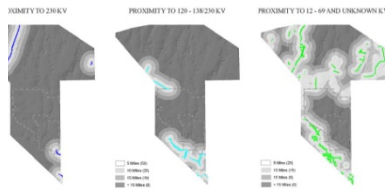
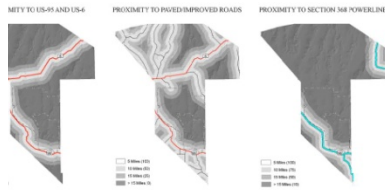
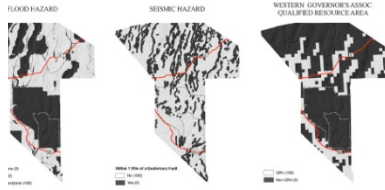
PRIMARY SOLAR SUITABILITY VARIABLES

Primary variables are those used in the Western Governor's Association (WGA) Western Renewable Energy Zone Initiative. Phase 1 model provides more slope and land exclusion detail than that used by the WGA, but excludes the potential segment administration. Each map shows the variable, the thematic breaks, and the score used in preference key; the white indicates high slope or excluded lands results in land that is excluded from consideration.



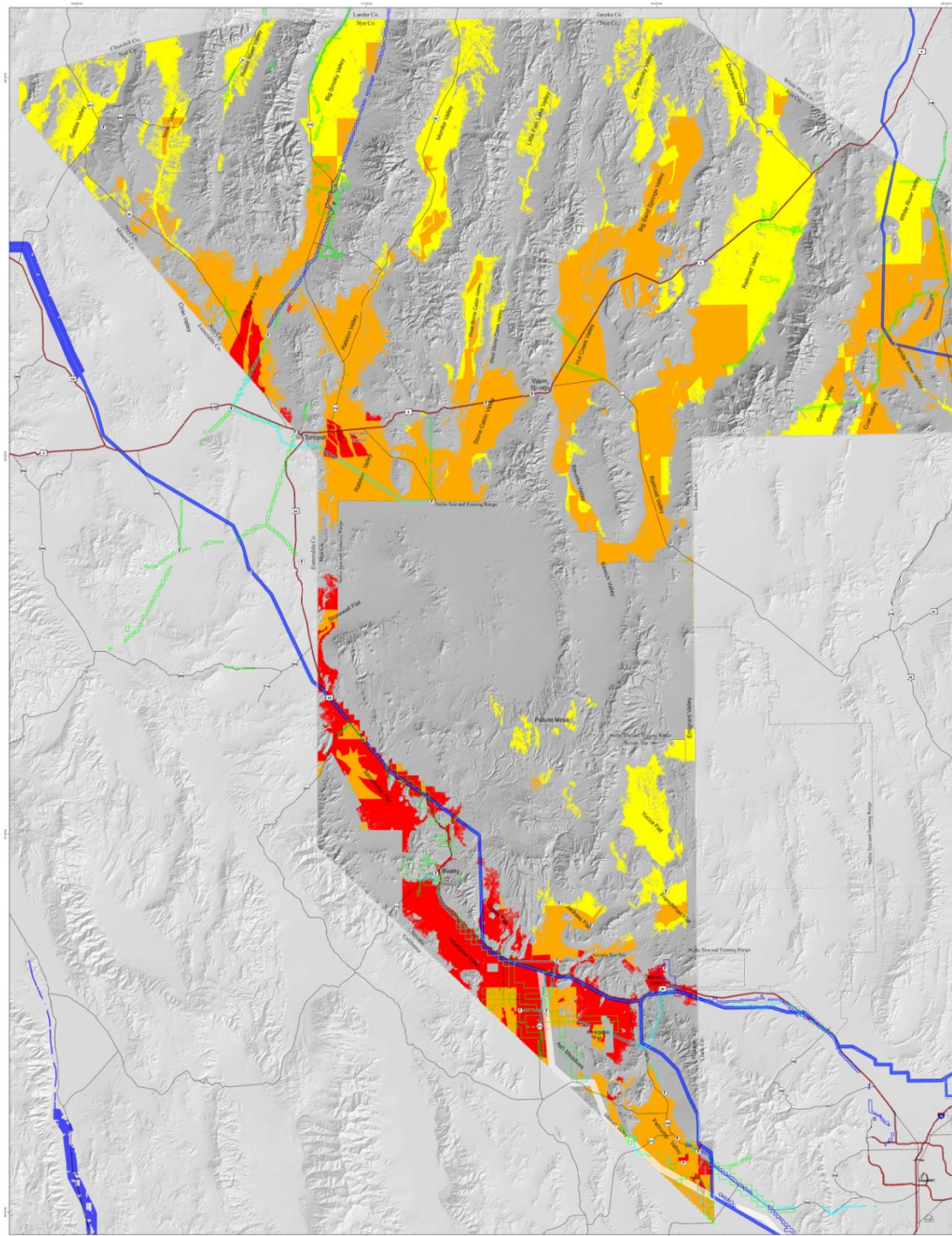
SECONDARY SOLAR SUITABILITY VARIABLES

These following secondary variables extend beyond the Western Governor's model, and are additive with each other. A maximum total score possible is 1200. Each map shows the variable, the thematic breaks, and the score used in preference.

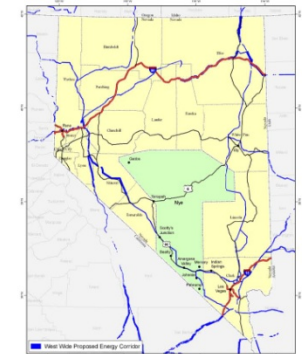


SOLAR SUITABILITY RANKING

Scores were ranked into three categories: Best - 1725-3120 (red), Better - 1065-1725 (orange), and Good - less than 1065 (yellow), and suitable - score less than 1000 (grey). The three mapped ranks were used to identify 'Hot Spots' within the area extent of a mapped rank was for less than 300 acres, the area was merged into nearby larger ranked areas based upon a neighborhood analysis.



SUITABILITY FOR SOLAR GENERATION, TRANSMISSION AND RELATED SUPPORT FACILITY NYE COUNTY, NEVADA



DATA SOURCES

- Solar Insolation:** SUNY Albany and National Renewable Energy Laboratory (NREL) (2001)
- Slope:** US Geological Survey National Elevation Data (10m) from National Resource Conservation Service (2010/2010)
- Land Exclusion:** Nevada Bureau of Land Management Nevada Landowner, 2007 and US Forest Service National System National Forest Roadless Study, 2003
- Flood Hazard:** Federal Emergency Management Administration (FEMA) FEMA, 200 and Clark County GIS Management Office, 2002
- Seismic Hazard:** US Geological Survey and Nevada Bureau of Mines and Geology Quarterly Fault and Focal Database of the United States (2005)
- Qualified Resource Area:** Western Governor's Association, Western Renewable Energy Zones, Phase 1, (2004), and Nevada Governor's Office, 2009
- Roads:** US Census Bureau, TIGER 2000
- Argonne National Laboratory (2008)**
- West Nile Proposed Energy Corridor with Section 308 Corridor:** Argonne National Laboratory (2008)
- BLM Las Vegas RMP Proposed Utility Corridor:** BLM Las Vegas Resource Management Plan (RMP) Proposed Utility Corridor (1998), provided by BLM
- BLM Geomorphology (01/10/10) and L&D (01/18/2010):** BLM Geomorphology (01/10/10) and L&D (01/18/2010)
- Visual Resources:** Visual Resources (Las Vegas RMP 1998, Tonopah RMP 1997, Ely RMP 2000, Shoshone-Eureka RMP 1990)
- Desert Toad Habitat:** US Geological Survey, Great-Fer Project, 2000-01/2 (2000)
- Sage Grouse Habitat:** Sage Grouse Nesting and Early Raptor Nesting Nevada Division of Wildlife and Bureau of Land Management, 2001 and Sage Grouse Distribution Nesting Use Distribution (2001) Nevada Division of Wildlife, 2001
- Tonopah Airport:** GDT and ESR, 2002



Produced By: TerraSpectra Geomatics
 Date Produced: March 31, 2010
 Data Source: USGS
 Projection: NAD83
 Data/Format: Vector/Shapefile
 NAD83/UTM32N



Successes / Maybes

- Solar Reserve
- Advanced Rail Energy Storage
- First Solar
- Belaluz
- Valley Electric Assoc.
- 34 BLM applications
- Solar Energy Zone
- Solar Energy Demonstration Zone on Nevada Test Site
- West –Wide Energy Corridor

