






Rocky Mountain Front GIS Suitability Model

I. Symbols

-  Needs research or community expertise
-  Data identified and available, not processed or run yet
-  Data processed, not yet final
-  Have data variable processed & completed
-  layer used in more than one component

II. Table of Contents

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III. Teton GIS Model Framework

A. Environment

1. Natural Systems

- **Ecosystems and landscape**
 - land fragmentation natural landscapes
 - Index of road density on private rangeland (e.g. 'part of the wildlife habitat wealth here is because so much of the land is privately owned, and relatively inaccessible')
 - % conservation easements
 - % public land
 - % protected lands
 - % wilderness
 - noxious weeds
- **Water & watershed conservation**
 - perennial streams
 - intermittent streams
 - All streams
 - % lakes
 - water flows (risk of de-watering rivers and streams?)
 - water rights (% allocated? / measurable difference between Dearborn and Teton?)
 - sub surface aquifer
 - watershed basin analysis
 - % floodplain (100 & 500 year)
 - % impervious surface
 - number of irrigation wells
 - number of wells
- **air quality**
- **Viewsheds**
 - % visible from existing towns
 - % visible from state & federal highways
 - % visible from state and federal parks and campgrounds
- **Wildlife**
 - terrestrial habitat
 - aquatic habitat
 - bird flight corridors

- **Wildfire**
 - crown fire probability
 - surface fire probability
 - % dry forest type (Douglas fir and ponderosa pine)
- **Insect and disease**
 - probability bark beetle
 - % mountain pine beetle
 - % insect and disease not pine beetles

2. Planning & Design

- **Land use** - discuss how to categorize
- **Parks**
 - proximity to local park
 - proximity to state park or fishing access
- **open space**
- **Recreation**
- **presence of /number of citizen advisory groups**
- **Trails**
 - trail density
 - % trails motorized
 - % trail foot travel
 - % trail horse
- **vehicle trips per day**
- **Access**
 - **private access**
- **Agriculture**

B. Economy

1. Commerce

- ***Local commerce***

- number of businesses
- proximity to restaurants and bars
- proximity to gas station

- ***Agriculture***

- irrigation waste
- miles of irrigation
- miles of irrigation by irrigation type?
- % irrigated lands
- electric turbines for irrigation (in Gibson?)
- Agricultural use type
- Agricultural soils index
- prime farmlands if irrigated
- % prime farmlands
- % farmlands of statewide importance
- % cropland
- % grazing
- % non-irrigated hay
- % summer fallow
- % forest
- % farmland
- Water towers
- Land fragmentation of cropland
- Land fragmentation of rangeland
- sodbusting for small grain farming
- ↔ miles of road
- ↔ proximity to major road
- ↔ number of wells
- ↔ noxious weeds

- **Industrial**
 - vertically integrated processing?
 - proximity to railroad
 - proximity to transmission lines
 - miles of railroad
 - proximity to potable water
 - proximity to sewer
 - proximity to Interstate 15
 - no wind energy west of I15 beyond a 5 mile buffer
 - average wind potential
 - average wind speed
 - ↗ bird flight corridors
 - ↔ terrestrial habitat
 - energy storage facility?
 - miles of oil pipeline
- **Tourism**
 - trail density
 - % trails motorized
 - % trail foot travel
 - % trail horse
- overnight recreation
- number of accommodations
- outdoor recreation
 - miles of trails
 - number of hunter and angler groups
 - recreation points
 - proximity to recreation points
- **Local food system**
 - proximity to farmers market
 - proximity of community garden
 - farmers market within 30 min drive
 - community garden within 30 min drive
 - proximity to food store
 - number of food stores
 - stores selling local products (beef, wool, honey)
- **Internet availability**
 - maximum speed (> 6mbps)
 - underserved (unserved and mobile wireless only)
 - broadband available
 - number of internet providers

- **Demographic**
 - number of small businesses
 - total number of employees
 - Number of employees by industry (match to historic PNREAP data)
- **Economic**
 - unemployment
 - bankruptcy
 - real property/improvement ratios

- **Employment & Workforce Training**
 - job training
 - employment and workforce wages
 - youth skills
 - median age
- **new business ideas**

2. Infrastructure

- **Structures**
 - residential structures
 - structure density
- **Transportation and mobility**
 - miles of maintained roads
 - miles of snow plowed roads
 - number of bridges
 - proximity to gravel pit
 - capacity of gravel pits within 50 miles
 - ↔ miles of road
 - road density
 - ↔ proximity to major road
 - proximity to all roads
- **Stormwater**
 - miles (capacity?) of stormwater system
- **Waste / sewer / septic**
 - % public water supply
 - number (capacity?) of septic systems
 - miles (capacity?) of sewer system

C. Community

1. Education

- **library support**
 - **public workshops & lecture series**
 - **school support.**
- **proximity to schools**
- **number of schools**
- **school age youth**
 - Pre school
 - Primary
 - Secondary
 - High school
 - College

2. Health

- **number of health services businesses**
- **number of elderly \geq 75 yrs old**
- **median medical expenditures**
- **proximity to health services**

3. Safety

- **proximity to ambulance**
- **proximity to fire station**
- **% wildland urban interface**
- **% cell phone coverage**

4. Social Situation

- **affordable and workforce housing**
- **Poverty**
 - below threshold median household income
- **Human services**
 - number of private human services businesses
 - number of government services
- **Race and social equity**
 - racial index
- **property rights**

5. Arts & Culture

Arts and culture

- School music programs
- After school programs
- Youth groups

Civic engagement and vitality

- education level
 - Primary age
 - Secondary age
 - High school
 - Undergraduate
 - Post grad
- friendliness index
- community events
- miles of sidewalk
- walkable community infrastructure
- proximity to restaurants and bars
- proximity to library
- proximity to government services
- number of civic groups
- participate in civic?
- promotion of community