This model uses the independent variables on the left to predict whether a given area of the Denver Regional Council of Governments (DRCOG) is likely to become developed in a ten-year time span. This model is then used, in concert with other factors, to propose an "allocation" for newly developed space which reflects Denver's past development patterns.
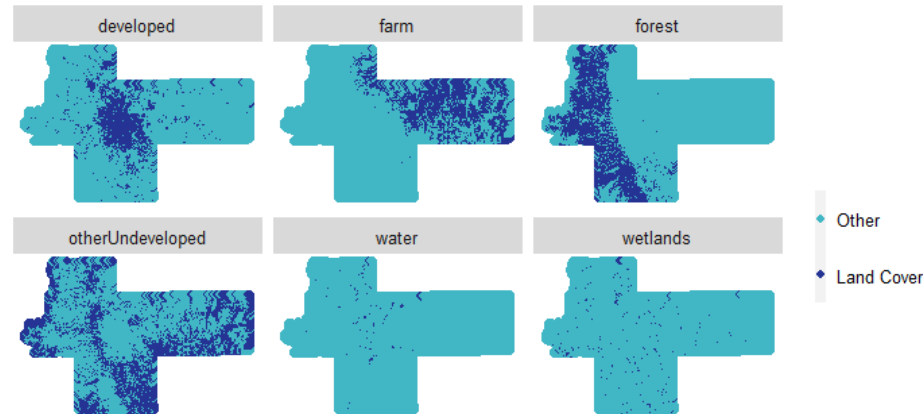
Urban Growth Modeling in the Denver Area

Henry Feinstein & Johnathan Clementi | CPLN 675 HW 5 | May 10, 2022
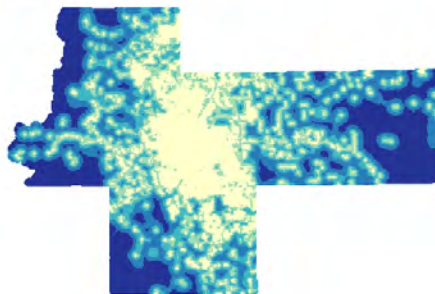
Independent Variables

Land Cover Types, 2008
As fishnet centroids

developed   farm   forest

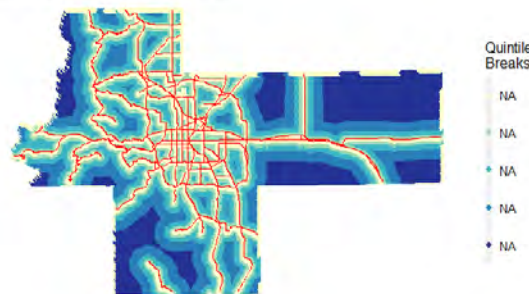otherUndeveloped   water   wetlands

- Other
- Land Cover

Spatial Lag to 2008 Development
As fishnet centroids

Quintile Breaks
- 225
- 543.198
- 1178.11
- 2074.97
- 3669.40

Spatial lag: distance to existing development

Distance to Highways
As fishnet centroids; Highways visualized in red

Quintile Breaks
- NA
- NA
- NA
- NA
- NA

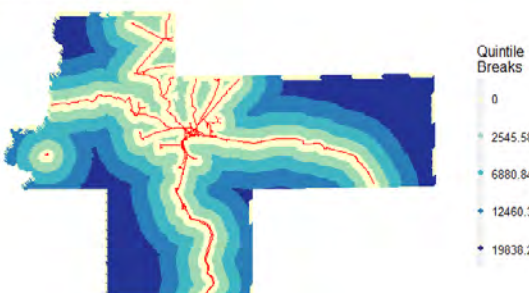### Population Change, DRCOG: 2009-2019
Change per fishnet cell

Quintile Breaks
- 1
- 2
- 3
- 4
- 5

Population change assessed at Census tract level

Distance to Rail
As fishnet centroids; Rail visualized in red

Quintile Breaks
- 0
- 2545.584
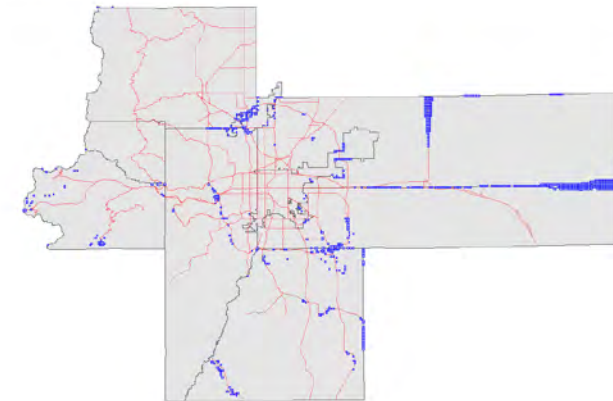- 6880.848
- 12460.38
- 19838.28

Allocation of New Development

The model predicts development along highways in the eastern side of DRCOG, as well as interspersed throughout Denver and its surrounding suburbs.

Demand-side Allocation
Land development cells are allocated based on development trends alone.
Roads in red.

Demand and Supply-side Allocation
Land development cells are allocated based on development trends and proposed infrastructure.
Roads in red. Proposed road highlighted.