Zombie Apocalypse and GIS Potential

Daniel Siegel

Senior in Environmental Studies

Minor in GIS

KU GIS Day 2012

Playing Movie Director

Point of infection (POI): Haworth Hall

Zombies

- Attracted to population centers
- Move Easily on Roads
- Wander in open spaces

Grocery Store

1. Long predicted path of Zombies from POI
2. View shed that intersects with predicted zombie path.
3. Path to gun store
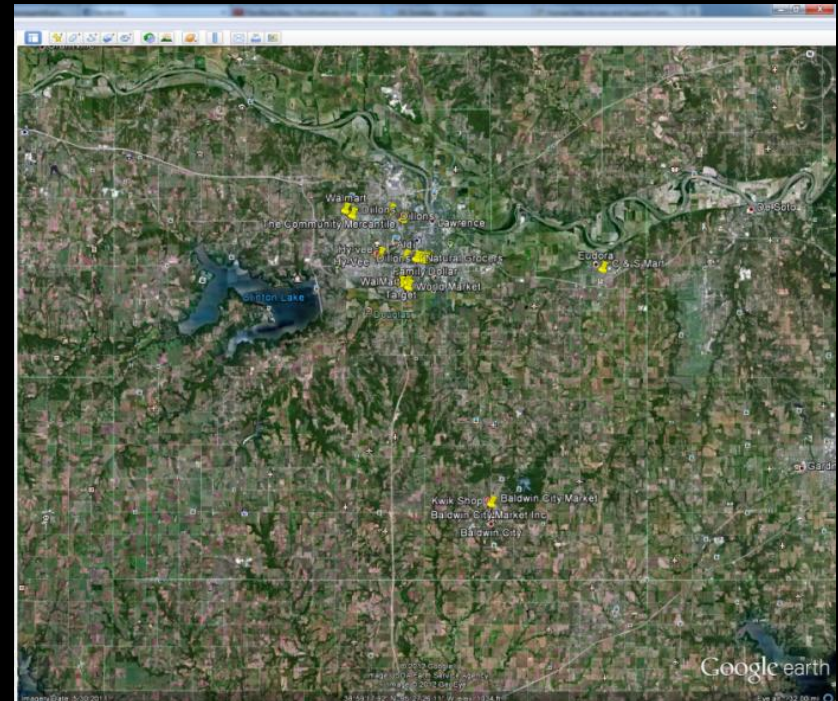4. Steeper surrounding slope

http://www.horror.com/articles_files/ZL_WoodyBat.jpg

Data Collection

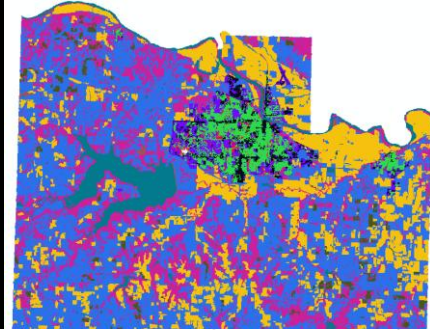**Google Earth**

- Grocery Stores
- Gun Stores

Kansas DASC
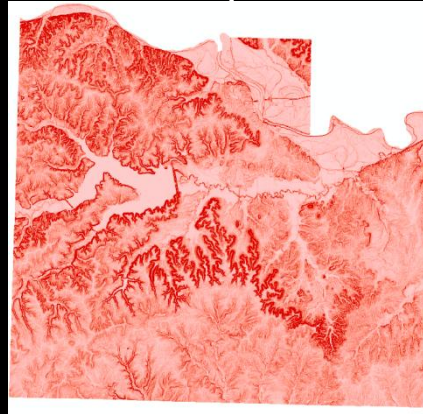
- 1/3 Arc Sec DEM
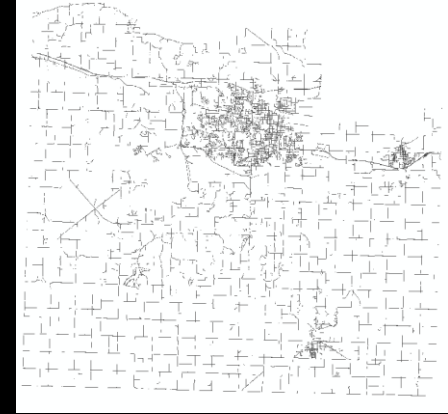- Kansas Land Cover 2009
- TIGER Roads

Cost Layer

Land Cover

and Cover Type	Original Code	New Value
Commercial/Industri	11	2
Residential	12	1
Urban Openland	13	1
Urban Woodland	14	2
Urban Water	15	nodata
Cropland	20	3
Grassland	30	3
CRP Land	31	4
Woodland	40	5
Water	50	no data
Other	60	3
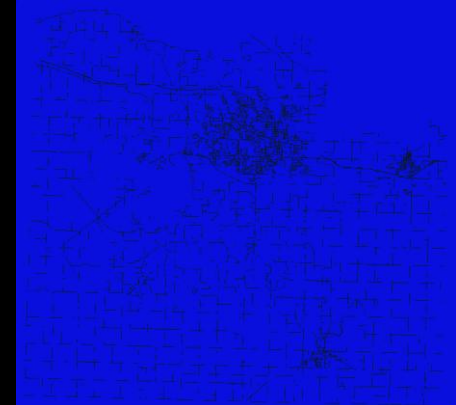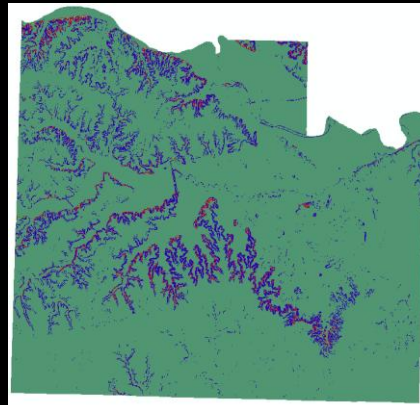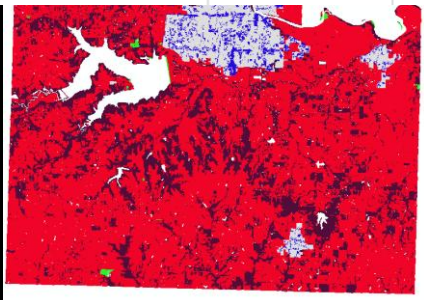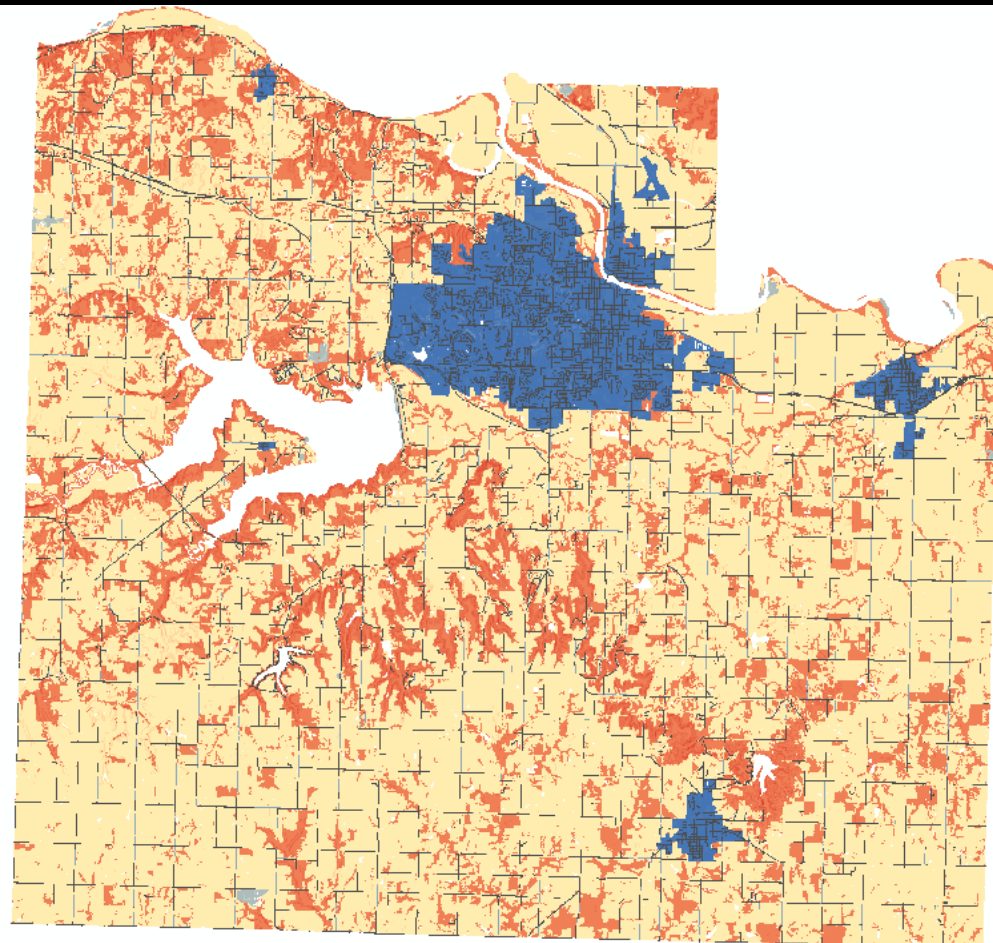
Slope

Roads

("rcl_road5" * .36) + ("rcl_slop5" * .1) + ("lc_rcl5" * .54)

Reclassified
Roads

Reclassified
Slope

Reclassified
Land Cover

Viewshed

Combine

Cost Path Groc
to POI

Cost Path (2)

Buffer

Zonal Statistics
as Table

Table				
targ_zstat				
Rowid	OID_	COUNT	AREA	MEAN
	1	256	199791.3	1.741284

1

(0 out of 1 Selected)

targ_zstat
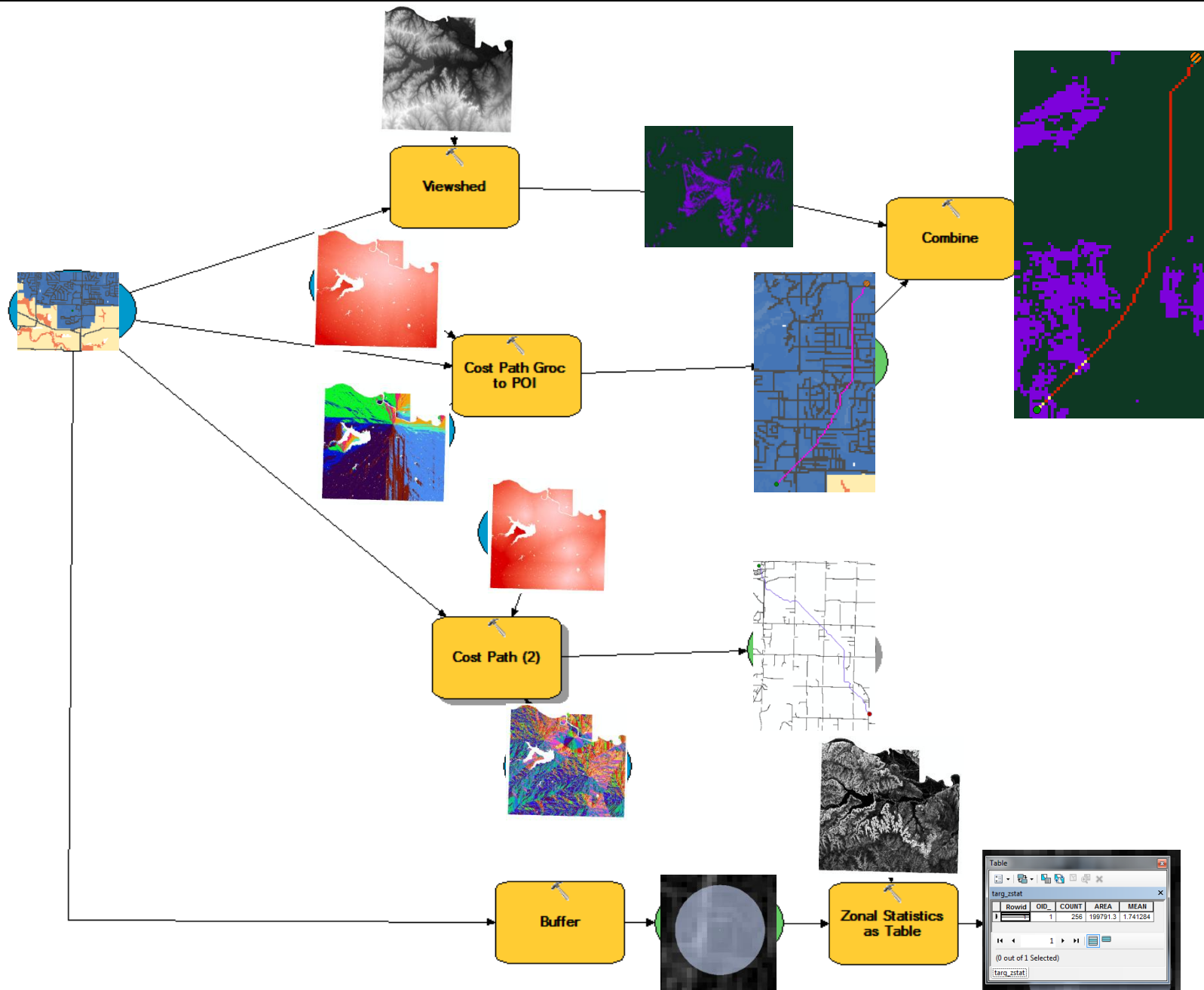
"Name"	Total Score Unweighted	Rank
"Baldwin City Market"	49.00	1
"WalMart 1"	45.00	2
"World Market"	39.50	3
"Checkers"	39.00	4
"Diilons 2"	38.50	5
"Dillons 1"	33.50	6
"Target"	31.00	7
"Walmart 2"	31.00	7
"Natural Grocers"	30.00	8
"Aldi"	30.00	8
"Dillons 3"	29.00	9
"Family Dollar"	28.00	10
"Hy-vee"	21.50	11
"The Community Mercan	20.00	12
"C & S Mart"	19.00	13
	Highest Possible Score	60
	Average Score	32.26667
	Median Score	31
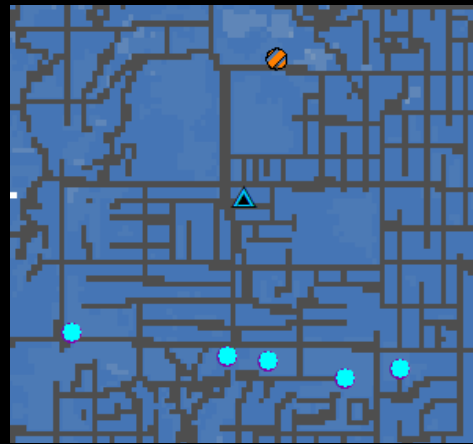
"Name"	Total Score Unweighted	Rank
Checkers	39	1
Dillions 1	33.5	2
Natural Grocers	30	3
Aldi	30	3
Family Dollar	28	4

"OID_"	"Name"	Zombie Path	Path Ranking	viewshed Path Intersect	viewshed Path Intersect rank	dist to gun store	Gun Path Rank	Zonal Slope Mean	Slope Mean rank	Total Score Unweighted
1	"Target"	115	10	7	5	328	3	1.741284	13	31.00
2	"WalMart 1"	125	11	58	15	289	5	1.494553	14	45.00
3	"Hy-vee"	100	8	13	9.5	350	2	4.058	2	21.50
4	"Natural Grocers"	52	3	12	7	124	11	2.474356	9	30.00
5	"World Market"	112	9	11	11.5	321	4	1.0905587	15	39.50
6	"Aldi"	48	2	18	12	120	12	3.116779	4	30.00
7	"Family Dollar"	56	6	6	4	128	8	2.194562	10	28.00
8	"Dillons 1"	53	4	11	11.5	125	10	2.571715	8	33.50
9	"Diilons 2"	170	12	13	9.5	223	6	2.022277	11	38.50
10	"Dillons 3"	70	7	5	2	49	14	2.981411	6	29.00
11	"Walmart 2"	188	13	10	6	205	7	3.073265	5	31.00
12	"C & S Mart"	473	14	1	1	405	1	3.198422	3	19.00
13	"Baldwin City Market"	689	15	29	14	79	13	2.966447	7	49.00
14	"The Community Mercantile"	47	1	6	3	22	15	4.637787	1	20.00
15	"Checkers"	54	5	22	13	126	9	1.787053	12	39.00

Questions?