

Project Based GIS: Communicating with GIS

ENVIRON 761

Geospatial Applications for Conservation & Land Management

Communicating with GIS



Geospatial analysis results

• What are some questions that GIS can answer?

• What are some different ways to present these answers?

• What might shape how you present your results?

Presenting results

Two essential questions:

- What are you communicating?
 - Answering a specific question?
 - Providing a reference (e.g. campus map)
- Who is your audience?

- Novice vs. expert? Familiar with topic? Area?

- Paper maps? Poster? Interactive display?

Rule #1: Know your message

• You did your geospatial analysis for a reason; what is that reason?

- Albertine Rift pipeline analysis...

- If your analysis is answering a specific question, what is that question?
- If your analysis is providing a reference, what feature or features are important?

Rule #2: Know your audience

• What attributes of your audience might dictate how you deliver your message?

• What media is most appropriate for your audience?

How much time are they likely to spend on your output?

• A single value...

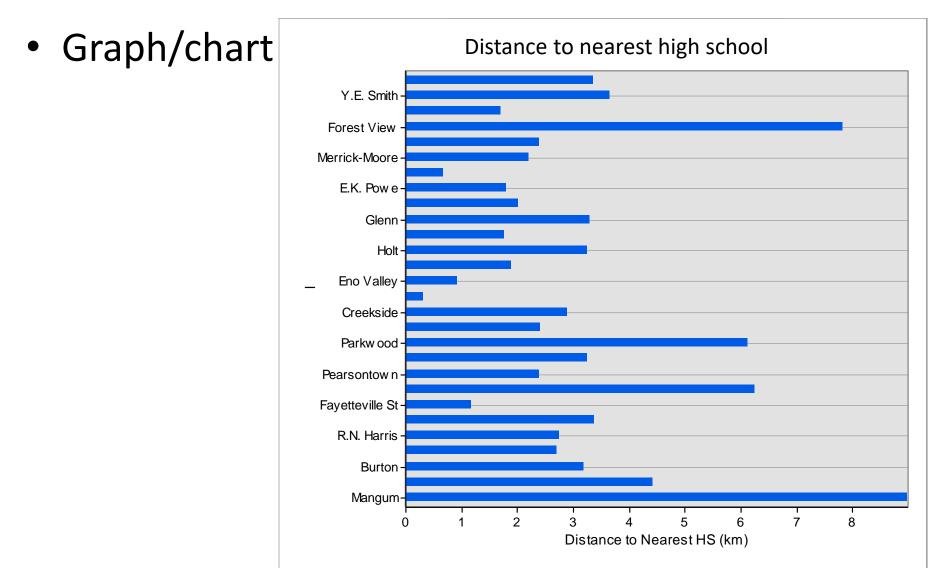
On average, an elementary school in Durham County is **3.1 km** from the nearest high school





• Table

Durham County					
	SCHOOL	Distance to Nearest HS (km)			
	Mangum	9			
	Little River	4.43			
	Burton	3.18			
	C.C. Spaulding	2.71			
	R.N. Harris	2.74			
	Hope Valley	3.38			
	Fayetteville St	1.18			
	Bethesda	6.25			
	Pearsontown	2.39			
	Southwest	3.24			
	Parkwood	6.13			
	Oak Grove	2.42			
	Creekside	2.89			
	W.G. Pearson	0.32			
	Eno Valley	0.93			
	Easley	1.88			
	Holt	3.26			



• Formatted reports

Prospective Customers									
Mailing Labels									
NOLAN LA VERNE	LAN LA VERNE ABERCROMBIE JOHNNE		MOTLEY DONDERO						
8518 TANGLEWOOD TR	P O BOX 1821	642 E4TH AVE	7212 WOODLAND A						
Columbus, Ohio Columbus, Ohio		Columbus, Ohio	Columbus, Ohio						
30800	2.6000	26000	26000						
ABERCROMBLE JOHNNE	ABERCROMBIE JOHNNE	THIGPEN CATHERINE D	HUCKABEE LELIA						
P O BOX 1821	P O BOX 1821	642 E4TH AVE	16716 GENEVA ST						
Columbus, Ohio	Columbuz, Ohio	Columbuz, Ohio	Columbuz, Ohio						
26000	26000	26000	26000						
ABERCROMBLE JOHNNE	THIGPEN CATHERINE D	AKERS HEDWARD &	HANSON MICHAEL F						
P O BOX 1821	642 E4TH AVE	17185 CATS DEN RD	17098 EASTVIEW DR						
Columbus, Ohio	Columbuz, Ohio	Columbus, Ohio	Columbus, Ohio						
26000	2.6000	22000	22300						
ABERCROMBIE JOHNNE	THIGPEN CATHERINE D	DUNAWAY ANTONIO	HANSON MICHAEL F						
P O BOX 1821	642 E4TH AVE	16668 CANTONSTREET	17098 EASTVIEW DR						
Columbus, Ohio	Columbus, Ohio	Columbus, Ohio	Columbus, Ohio						
26000	26000	26000	22300						



South American Population Statistics

Country Argentina	Population 28237010	Growth Rate 1.55	Birth Rate 23.8	Death Rate 8.8
Bolivia	6570000	2.64	44.3	16.5
Brazil	121286000	2.29	31.2	8.6
Chile	11145000	1.54	24	6.8
Colombia	26906000	2.22	30.6	6.9
French Guiana	60000	4.14	-99	-99
Guyana	780000	0.79	30.3	7.3
Suriname	358200	-2.44	27.6	7.8
Paraguay	3147000	326	35.6	6.8
Peru	17295010	2,49	34.6	11.1
Uruguay	2914000	0.62	19.1	10
Trinidad	1082000	1.49	27.3	6.7
Venezuela	15024000	3.26	33.6	5.7
Ecuador	8123001	2.82	36.5	8.6
	Average Femaletien			
	(7276587			
	Total Population			
	2#19 in 1 21			
			м	andan, Augun. 82, 1999

• Text

➢Paragraph <</p>

≻Memo...

Site 5 is the best suited for the establishment of a nature preserve. It provides 30% more natural habitat for rare felines, is significantly less prone to fragmentation, and is not likely to be threatened by encroaching development.

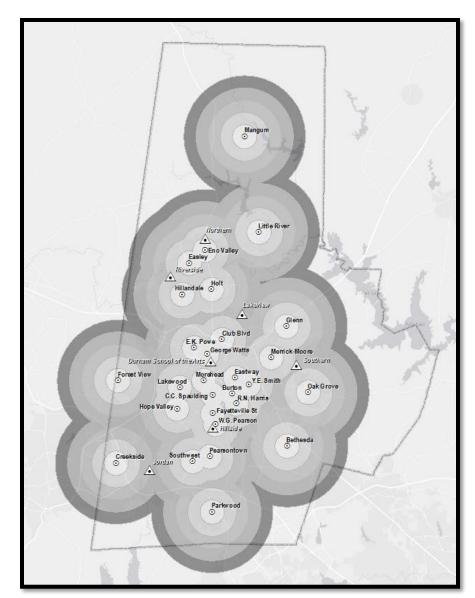
➢ Formal report...

Writing a memo

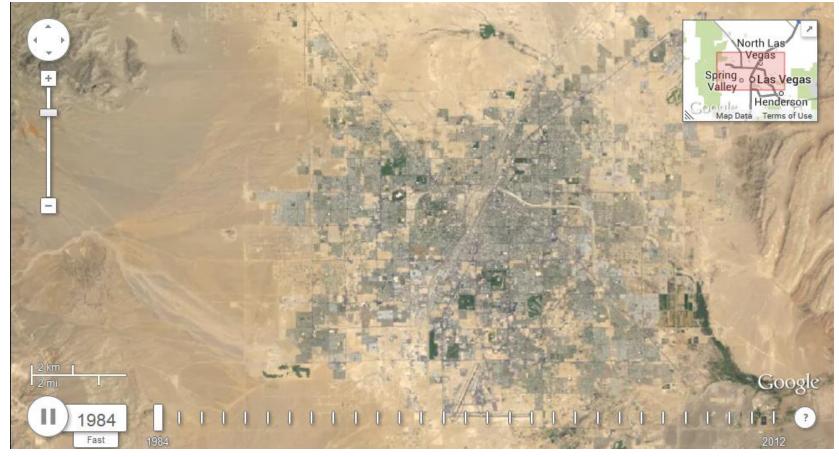
- 1. Write the heading segment.
- 2. Consider who the audience should be.
- 3. Introduce the problem/issue in the opening sentence.
- 4. Suggest ways to address the issue in the summary segment.
- 5. Support your course of action in the discussion segment.
- 6. Close the memo with a friendly ending; restate what actions you want the readers to take.

http://www.wikihow.com/Write-a-Memo

• Map

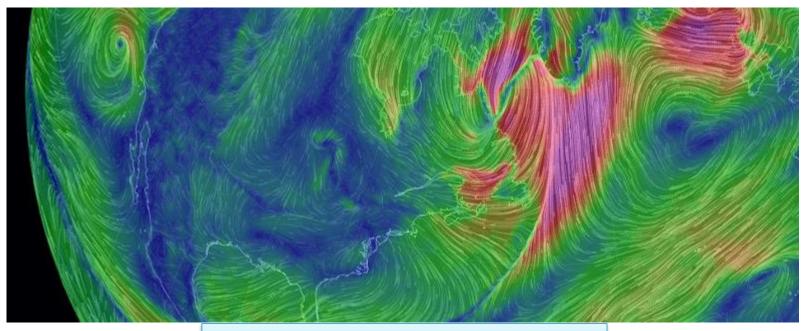


Animation/Visualization



https://earthengine.google.com/timelapse/

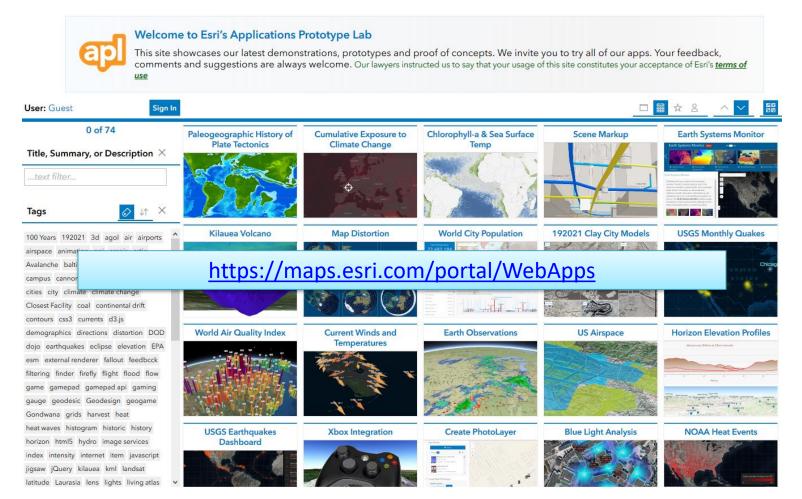
• Animation/Visualization



http://earth.nullschool.net

More info→ <u>http://guides.library.duke.edu/datavis</u>

Interactive <u>applications</u>



Outputs: Summary

- Many options how to represent the results of geospatial analysis.
- Which one to choose depends on...

...Your message

...Your audience

