

# Lab 14

## Cartographic Modeling

Data is on FNRM website or L:\FNRMx131\Lab14

**USE YOUR \home drive to save and store your data**

**SAVE Frequently !!!!**

1. Build only on private land in [Minnesota](#)
2. Polygon must be larger than 100 hectares
3. Slope less than or equal to 3°
4. The entire area needs to be within 200m of a road
5. Must be more than 100m from Lakes, streams, or rivers
6. No building on any wetlands

Remember:

Create code for your selected features

Dissolve on that feature (optional)

Overlay with other layer

Create new code (combining you input file codes)

Dissolve on the new code (optional)

Given 5 layers

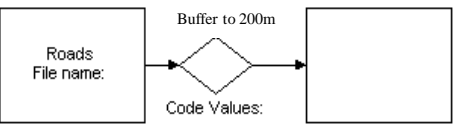
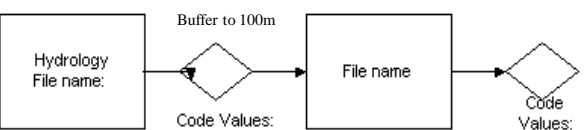
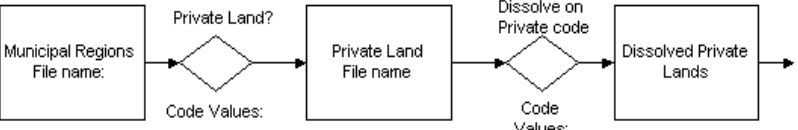
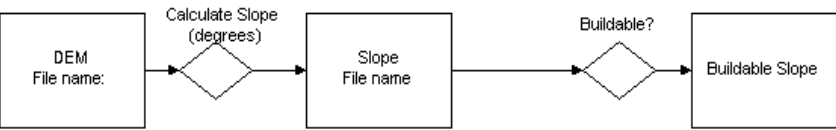
DEM -- Raster

Property --- Vector

Roads ---- Vector

Lakes ---- Vector

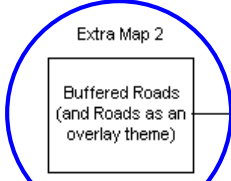
Wetlands ---- Vector



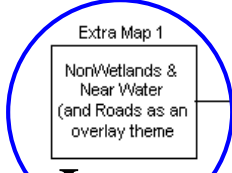
Missing steps here

Missing steps here

A Miracle Happens Here



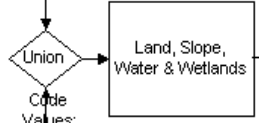
Turn In



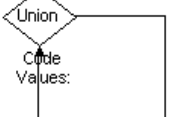
Turn In



Turn In

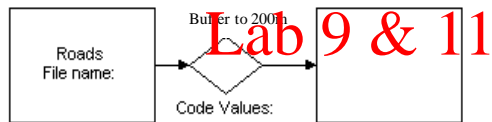
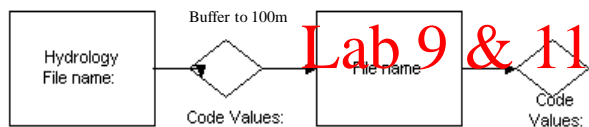
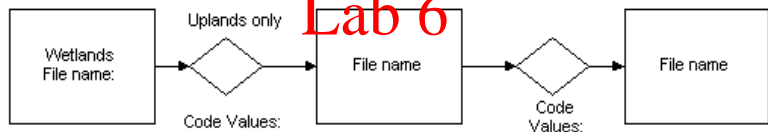
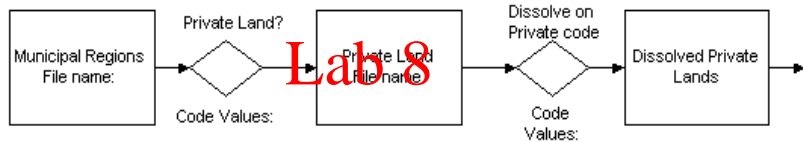
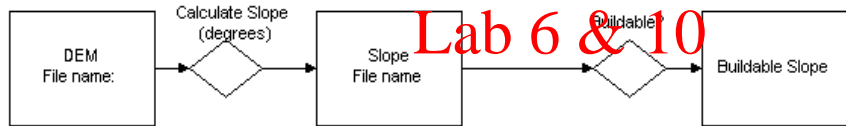


Missing steps here



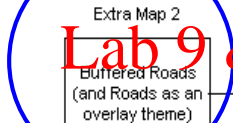
Final Turn In

*Incomplete general flowchart for discussion only*

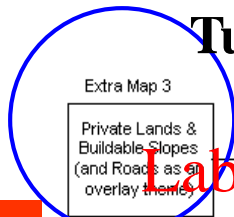


Missing steps here

A Miracle Happens Here

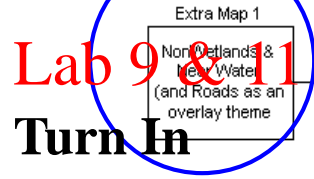


Turn In

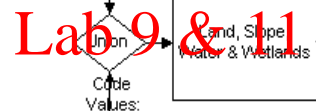


Turn In

Missing steps here

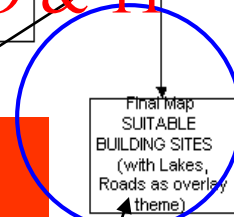


Turn In



Lab 9 & 11

Missing steps here



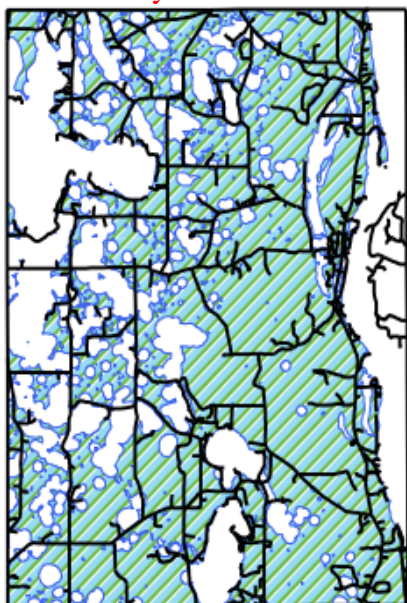
Final Turn In

Page 11 on Lab 9



*Incomplete general flowchart for discussion only*

# Additional Maps

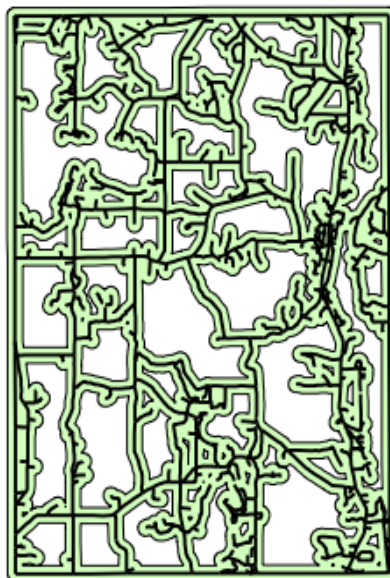
1<sup>st</sup> additional map data:  
non-wetlands and  
hydrographic buffer  
criteria, with roads as a  
reference layer





**Roads**

-  Uplands with Hydology Buffers
-  Roads

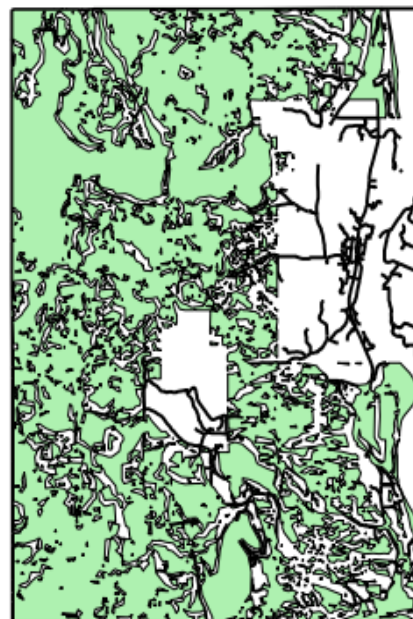
2<sup>nd</sup> additional map: road buffers with  
roads as a reference layer





**Map 2**

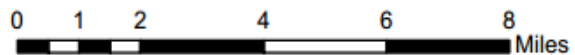
-  Road Buffer (200m)
-  Roads

3<sup>rd</sup> additional map:  
private in Minnesota,  
slope binary class and  
roads as a reference



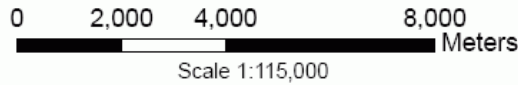
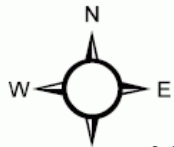
**Map 3**

-  Private Land with Slope < 3
-  Roads



Make sure you  
add legend,  
north arrow and  
scale bars

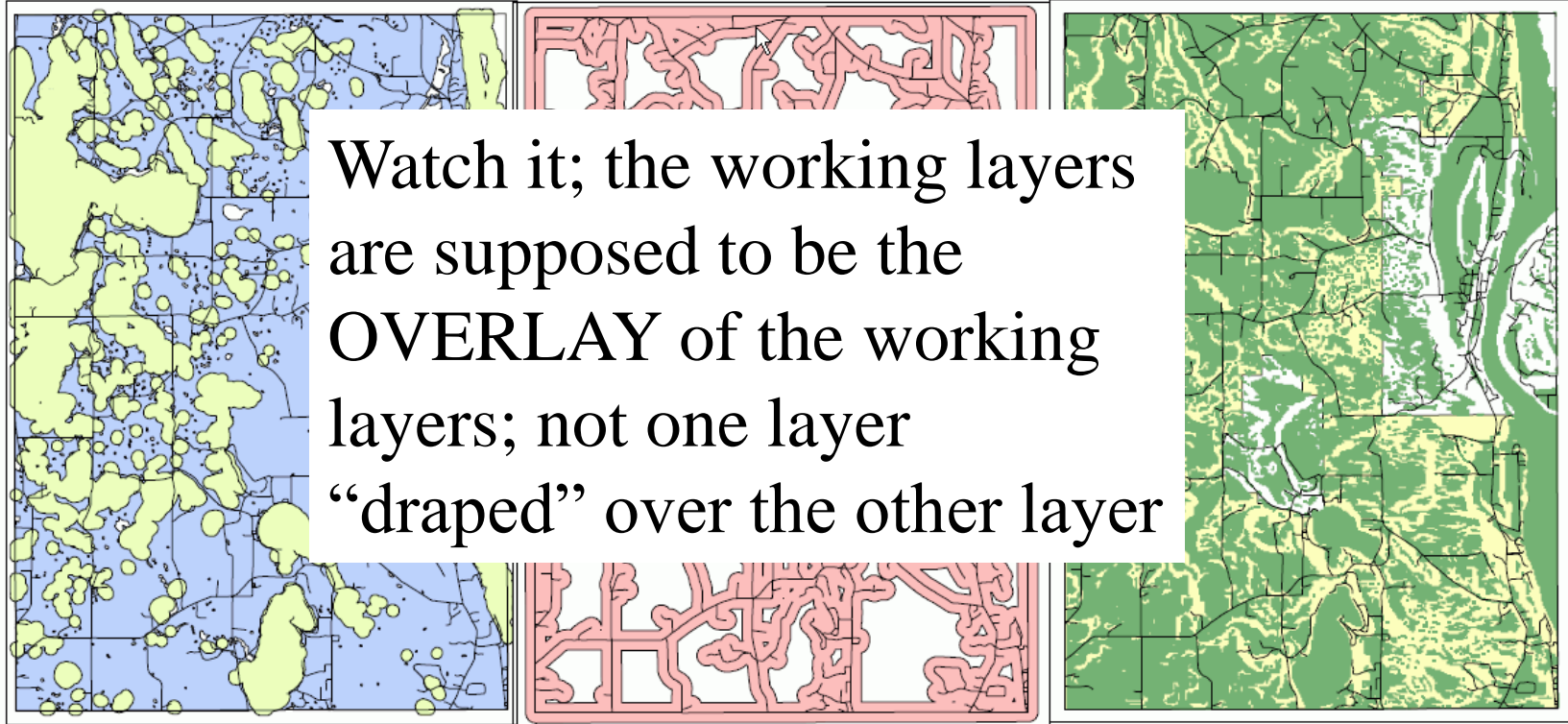




Non-wetlands  
and Hydrography Buffers

Roads and Road Buffer

Private in Minnesota,  
Slope Binary Class,  
and Roads.



Watch it; the working layers  
are supposed to be the  
**OVERLAY** of the working  
layers; not one layer  
“draped” over the other layer

**Legend**

- mar\_rd
- mar\_hyd\_Buffer
- non\_wetlands\_Dissolve

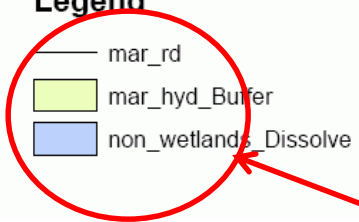
**Legend**

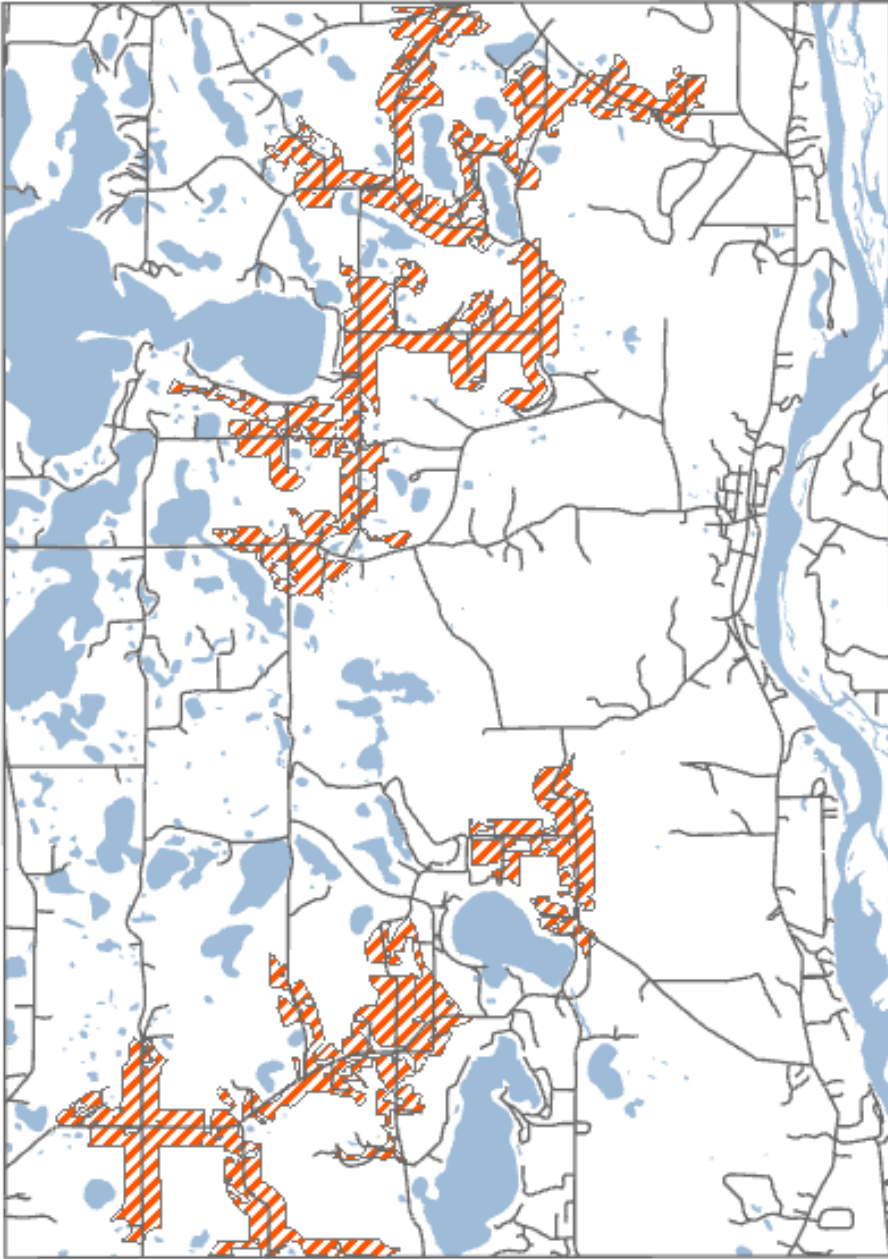
- mar\_rd
- 200\_m\_road

**Legend**

- mar\_rd
- slope\_3
- Private\_land\_Dissolve

**Incorrect**





## Turn IN ---- Final Map

- Title
- Descriptive text about what you did
- Scale, North Arrow
- Clear descriptive legend
- Your Name and Date

ALSO

Flowchart , 3 working maps

& Final shapefile zipped



# Example of files to submit

Name	Date modified	Type	Size
<b>FinalDataSubmission</b>	11/24/2018 1:11 PM	Compressed (zipp...	75 KB
FinalDataSubmission.cpg	11/24/2018 1:08 PM	CPG File	1 KB
FinalDataSubmission	11/24/2018 1:08 PM	DBF File	2 KB
FinalDataSubmission	11/24/2018 1:08 PM	PRJ File	1 KB
FinalDataSubmission.sbn	11/24/2018 1:08 PM	SBN File	1 KB
FinalDataSubmission	11/24/2018 1:08 PM	Adobe Illustrator ...	1 KB
FinalDataSubmission.shp	11/24/2018 1:08 PM	SHP File	115 KB
FinalDataSubmission.shp	11/24/2018 1:08 PM	XML File	18 KB
FinalDataSubmission.shx	11/24/2018 1:08 PM	SHX File	1 KB
<b>Working Layout</b>	11/24/2018 12:41 ...	PDF File	980 KB
<b>Final Layout</b>	11/24/2018 12:40 ...	PDF File	704 KB
<b>Lab 14 Flow Diagram</b>	9/14/2018 12:48 PM	PDF File	26 KB
mar_bd.shp	9/9/2003 9:08 AM	XML File	11 KB
mar_hyd.shp	9/9/2003 9:08 AM	XML File	10 KB
mar_rd.shp	9/9/2003 9:08 AM	XML File	10 KB
MAR_WET.shp	9/9/2003 9:08 AM	XML File	10 KB

## Drop Box for Lab 14

Home

Modules

Grades

Announcements

**Due** Dec 14 by 11:59pm    **Points** 30    **Submitting** a file upload

**Available** Sep 3 at 12am - Dec 18 at 11:59pm 4 months

Four products:

- 1) pdf of your final map,
- 2) pdf of the three intermediate products and a flowchart
- 3) zip file of your final data layer (only the areas that meet the final >100 ha limit)

## Sample of the Canvas Dropbox

(your file names may vary)

The screenshot shows the Canvas file upload interface. At the top, there are two tabs: "File Upload" and "Google Drive". Below the tabs, the text reads "Upload a file, or choose a file you've already uploaded." There is a "File:" label followed by four file entries. Each entry consists of a "Choose File" button, a text field containing the filename, and a close button (X). The filenames are: "Final Layout.pdf", "Working Layout.pdf", "Lab 14 Flow Diagram.pdf", and "FinalDataSubmission.zip". Below the file list is a "+ Add Another File" link. At the bottom of the upload area is a "Comments..." text box. Below the comments box are two buttons: "Cancel" and "Submit Assignment".

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Next ▶