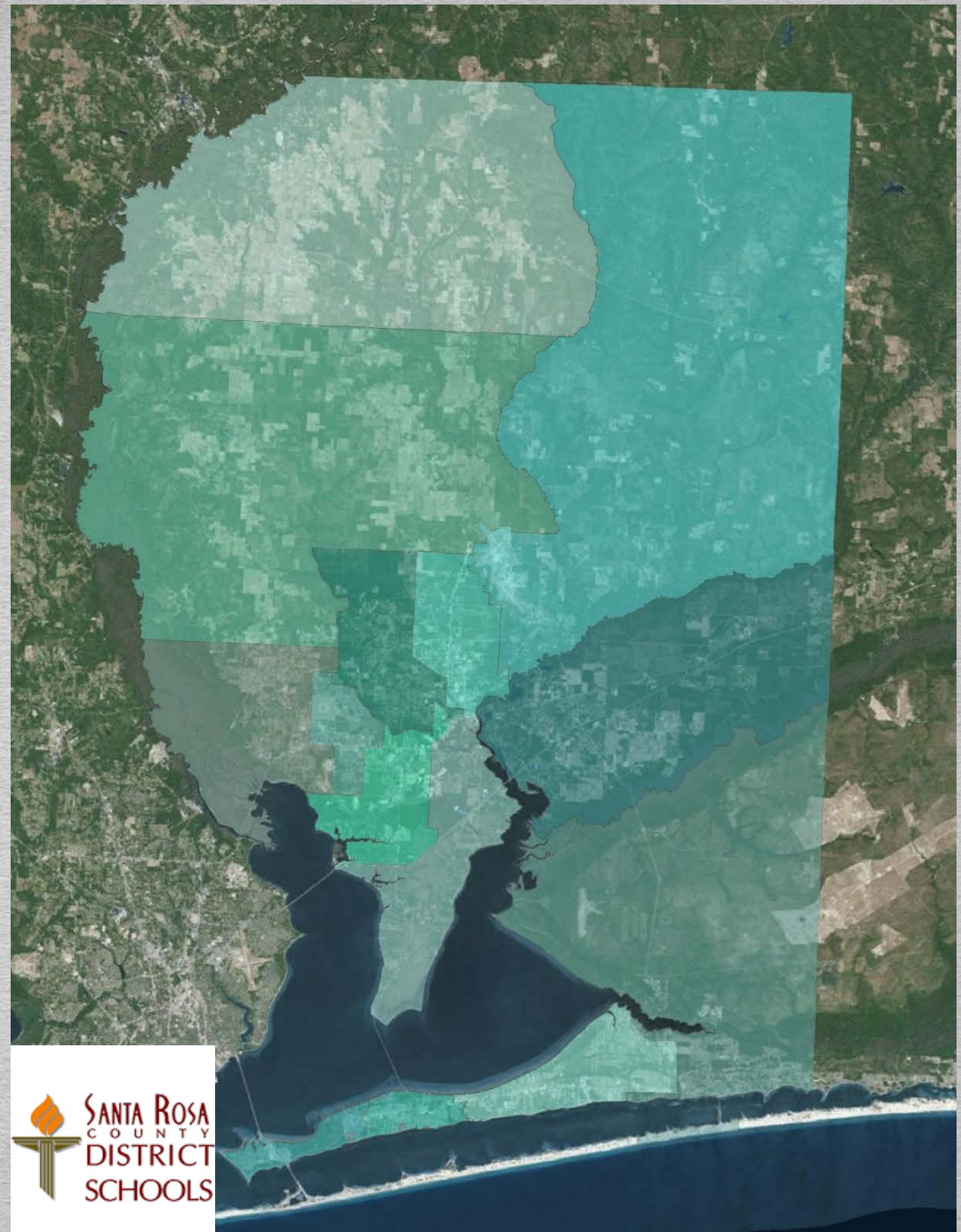


Santa Rosa County School District GIS



John Gilreath, GISP
GIS Manager
jgilreath@drmp.com



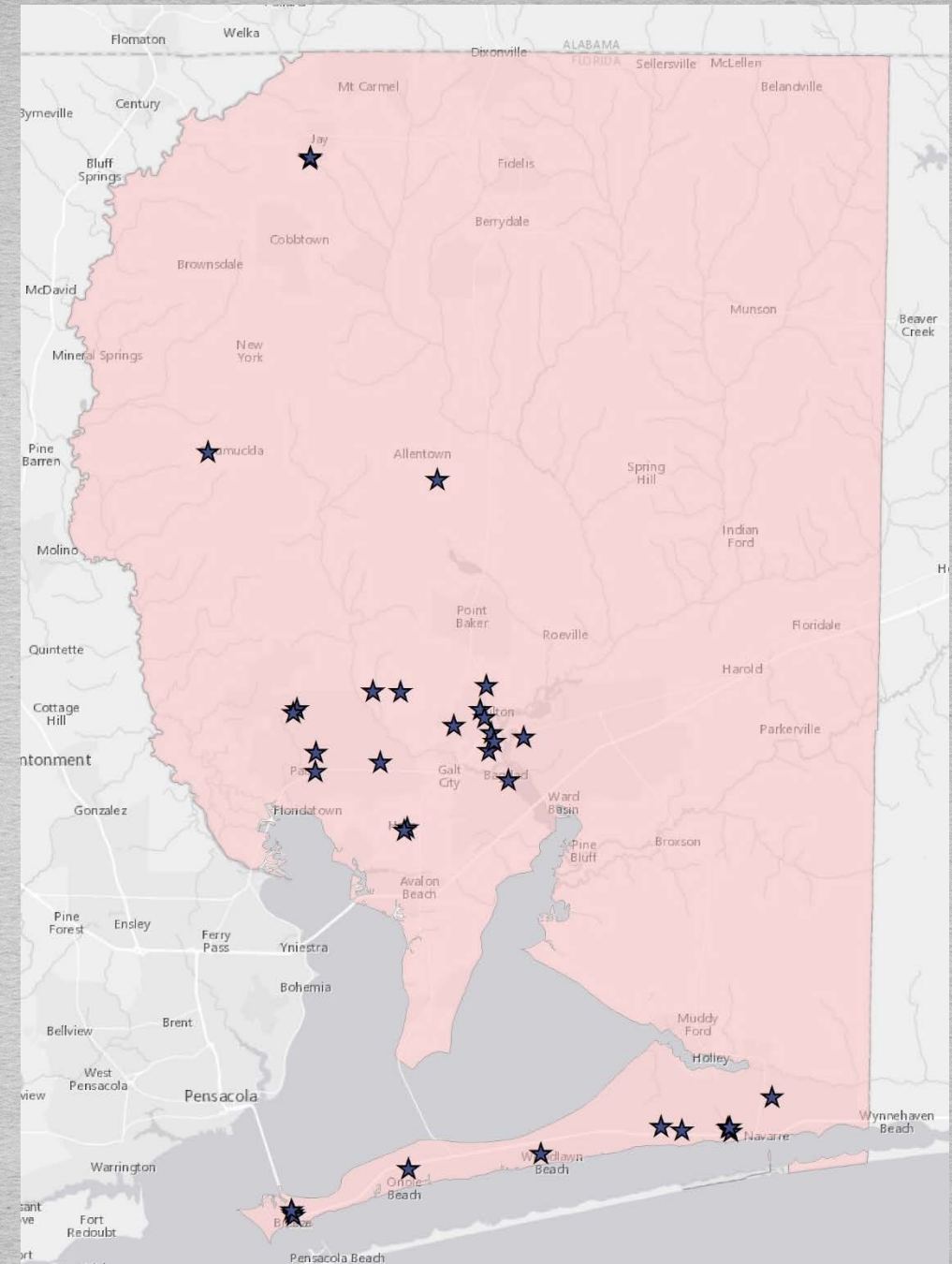
Background

- **Full Service Firm w/ 11 offices throughout Florida**
 - Pensacola
 - Chipley
 - Panama City
- **Perform engineering, survey, & GIS for multiple school districts**
- **Continuing contracts w/ UF, FSU, UCF, & USF**
- **Florida Educational Facilities Planners Association Bronze Sponsor**



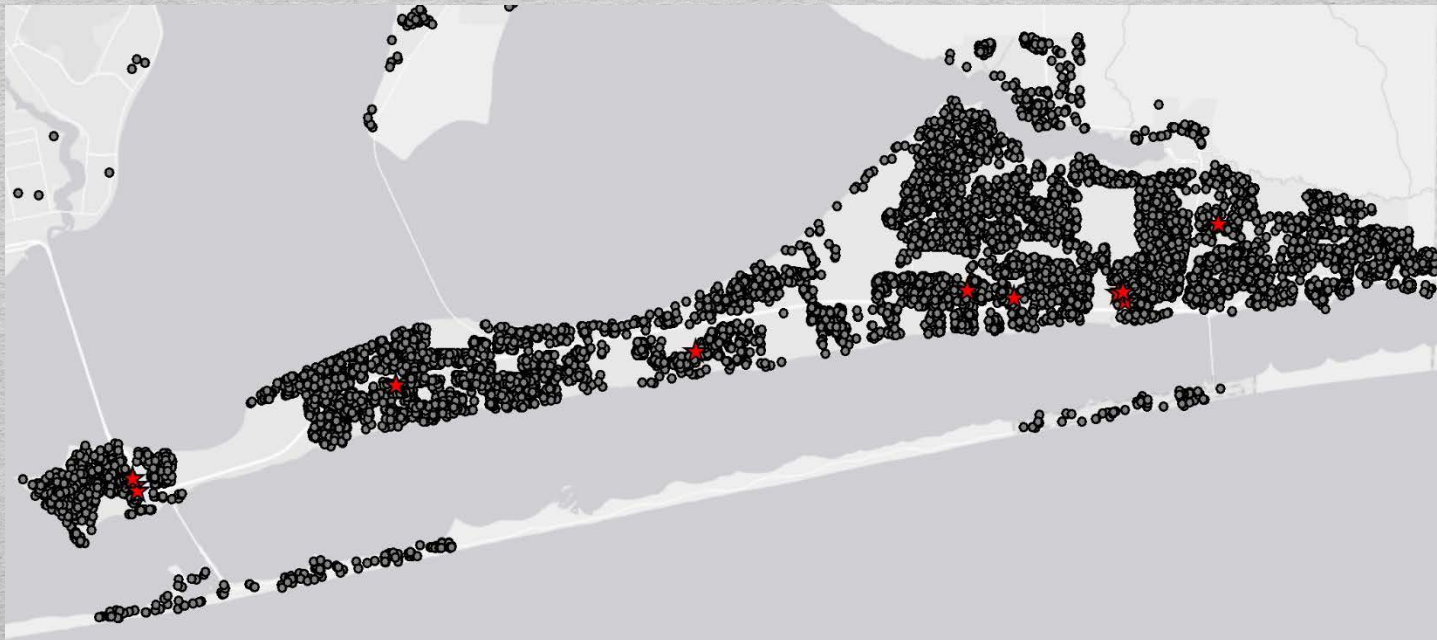
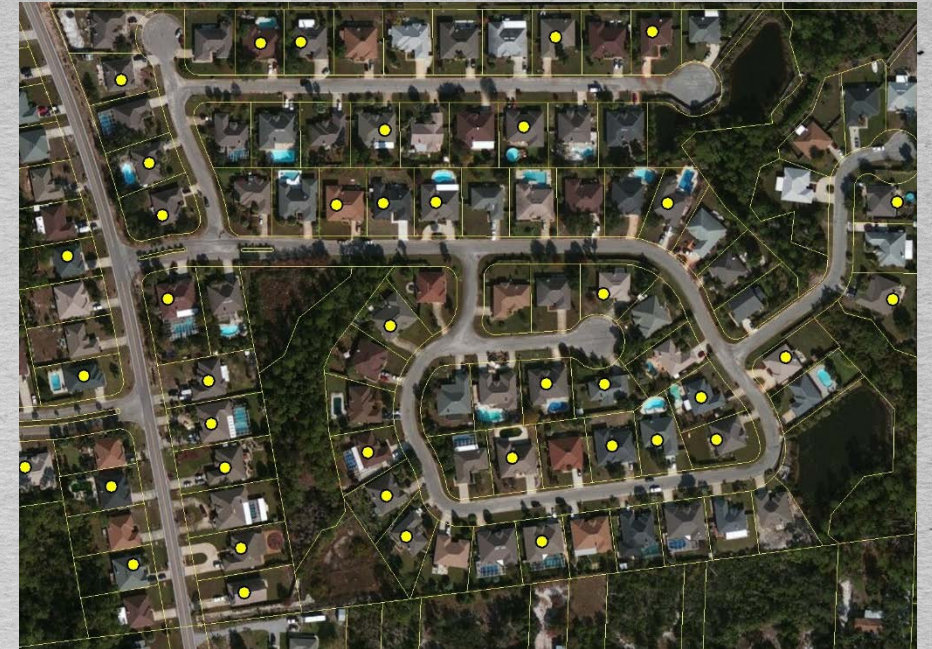
SRCSD & DRMP

- Entered contract w/ SRCSD in August 2016
- Build upon existing work w/ SRCSD consultants
- Facilitate access and perform analysis
- Existing datasets include:
 - Schools
 - Attendance Zones
 - Properties
 - Parcels & Streets
 - Zoning & Future Land Use



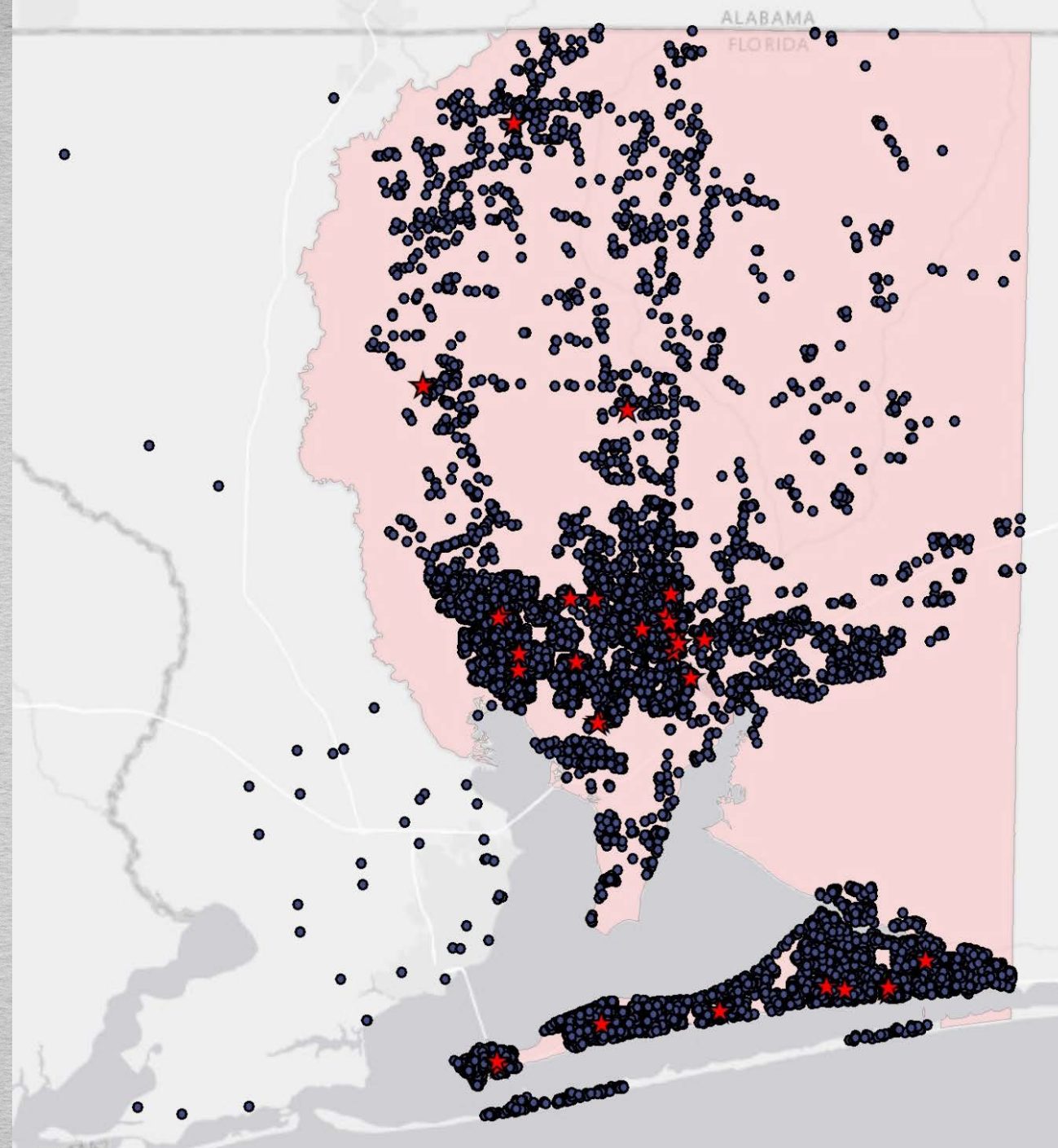
Task 1- Update student addresses

- Performed a “geocode”
- Existing E911 data from Santa Rosa
- Data matched to parcel centers



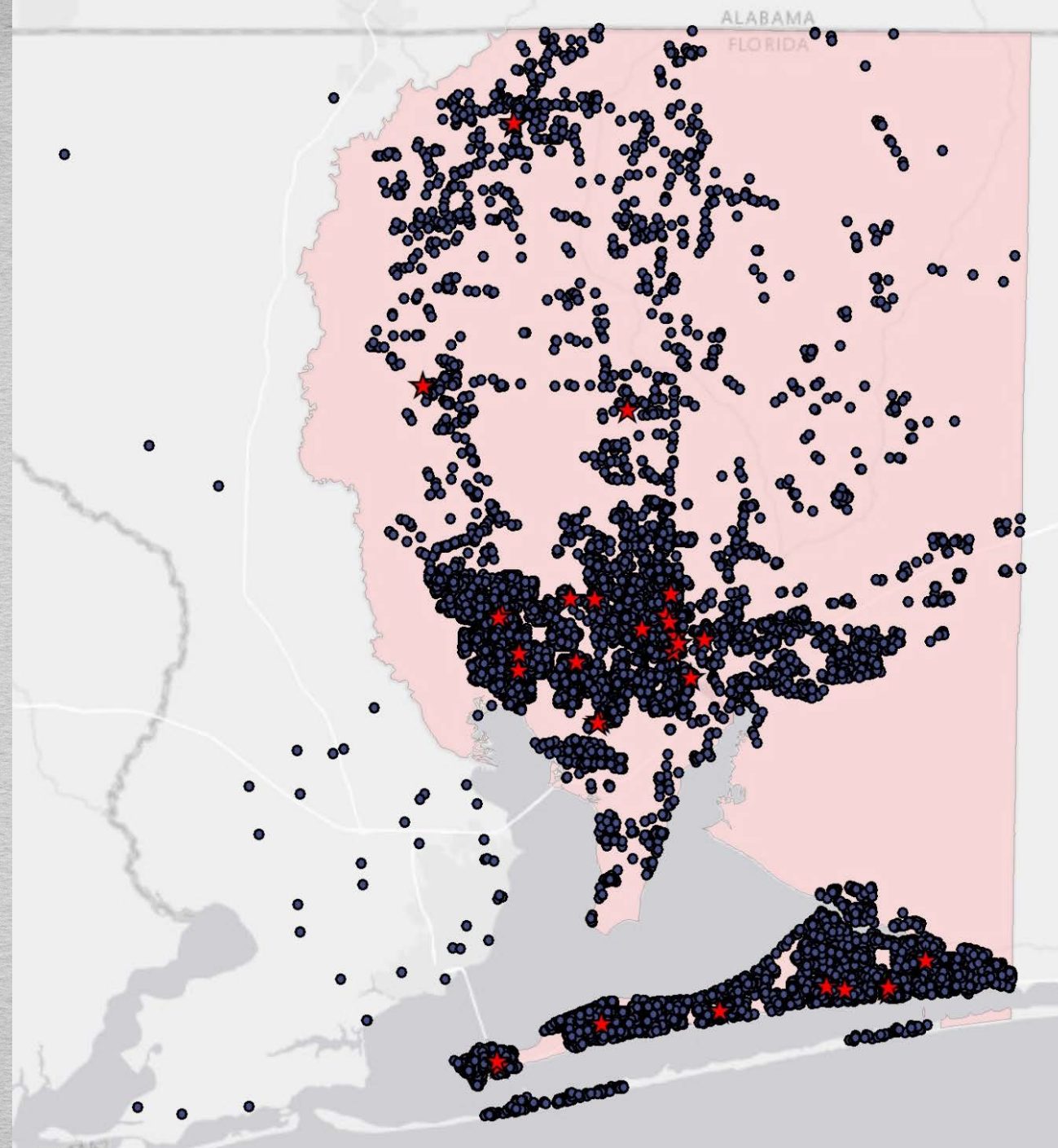
Task 1- Student Data

- Names confidential
- Unique ID
- Grade
- School
- Address
- Assigned Zone
- Actual School



Task 1- Student Data

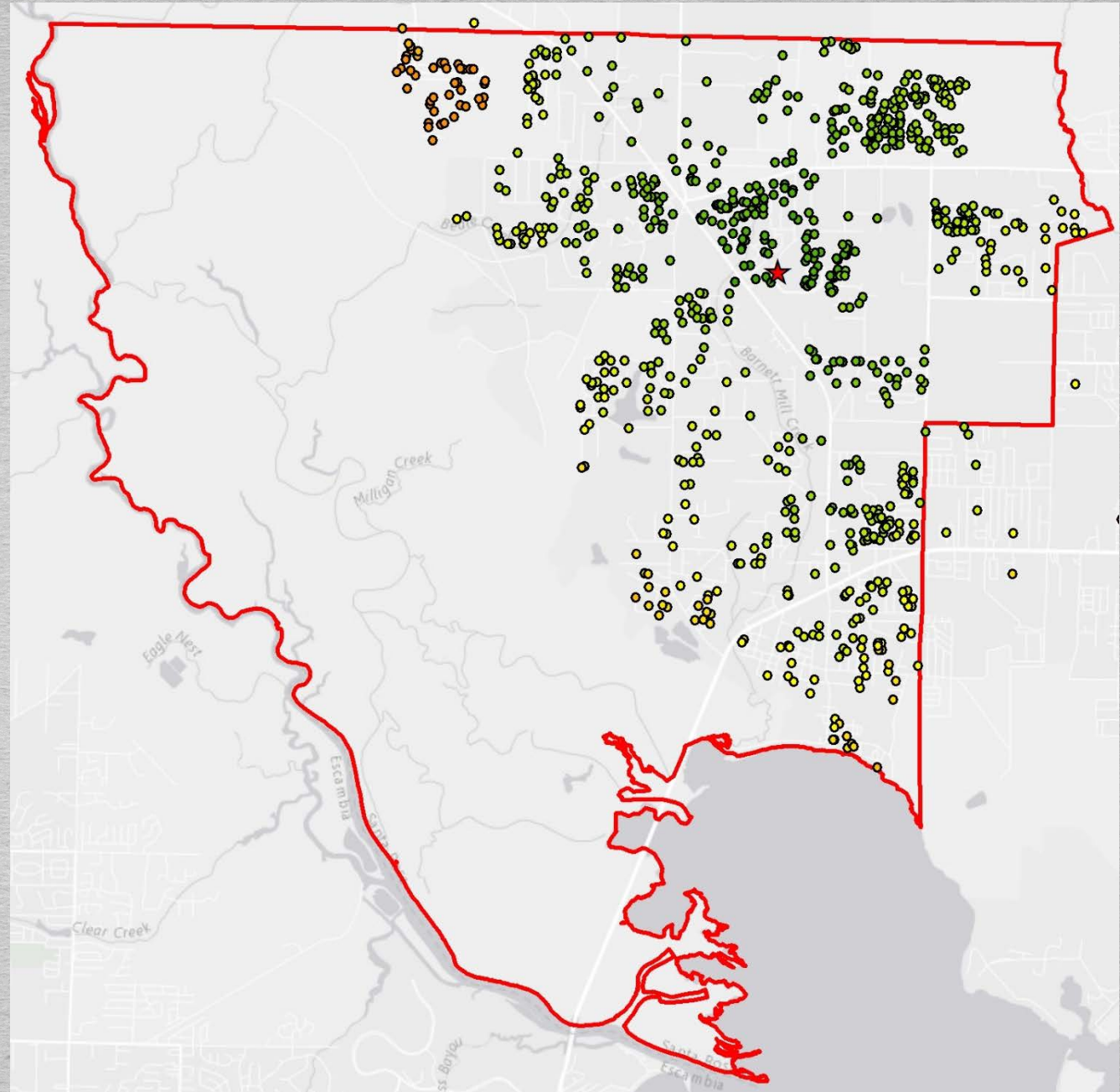
- 28,205 total students
- Snapshot in time
- >99% accuracy
- 28,033 mapped
- 233 in Escambia County
- 172 addresses not mapped
- Address w/ no match
 - Google
 - Prop. Appraiser
 - Real Estate/Permits



Task 1- Student Data

- Sims Middle School
- 961 attending
- 49 attending out of zone
- 927 zoned for Sims
- 15 in zone, not attending

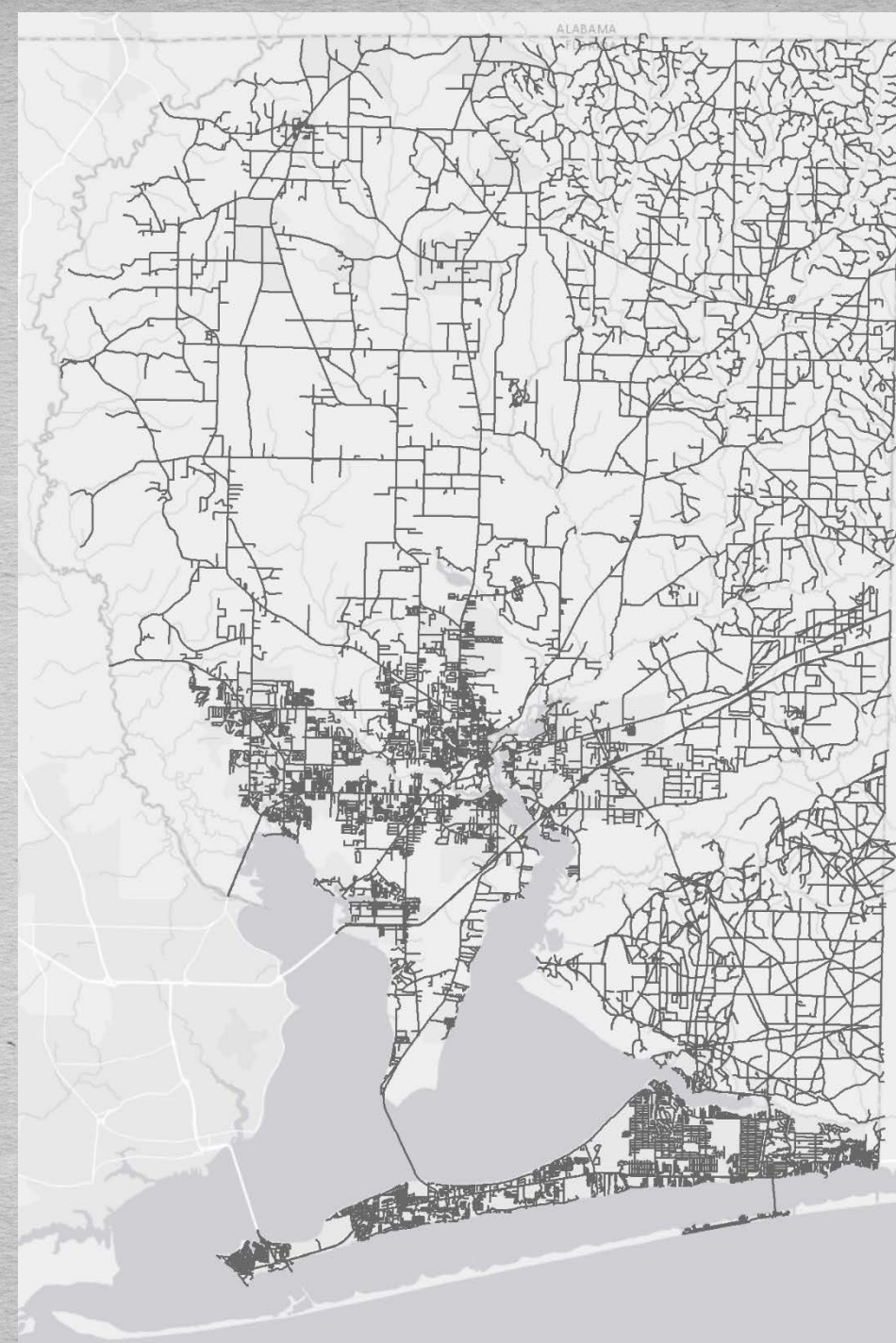
Building Block for further analysis



Task 2- Network Analysis

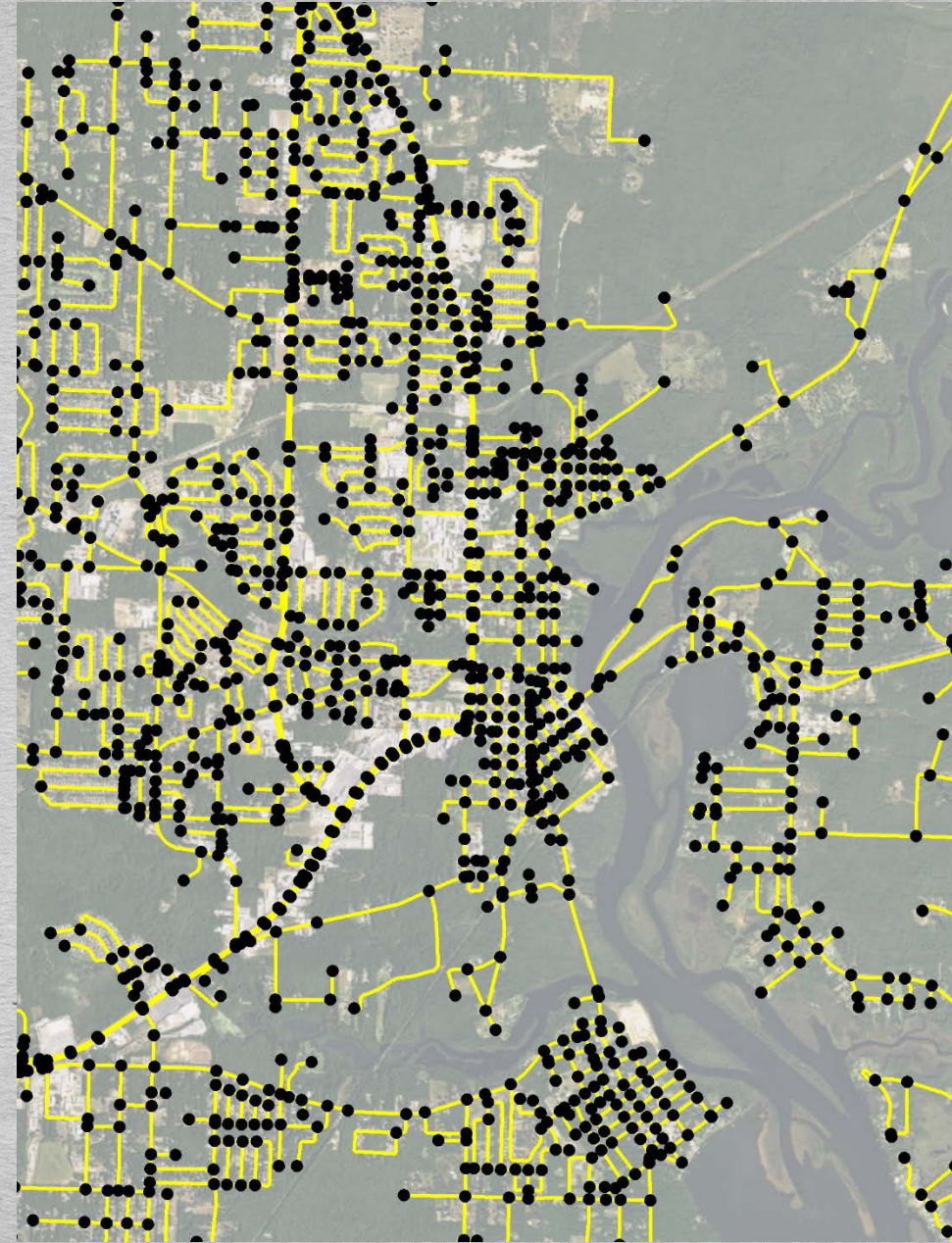
Santa Rosa Streets Layer

- Street Name
- Address Range
- Miles Per Hour
- Distance
- Material
- Maintaining Agency
- Basis for the network



Task 2- Network Analysis

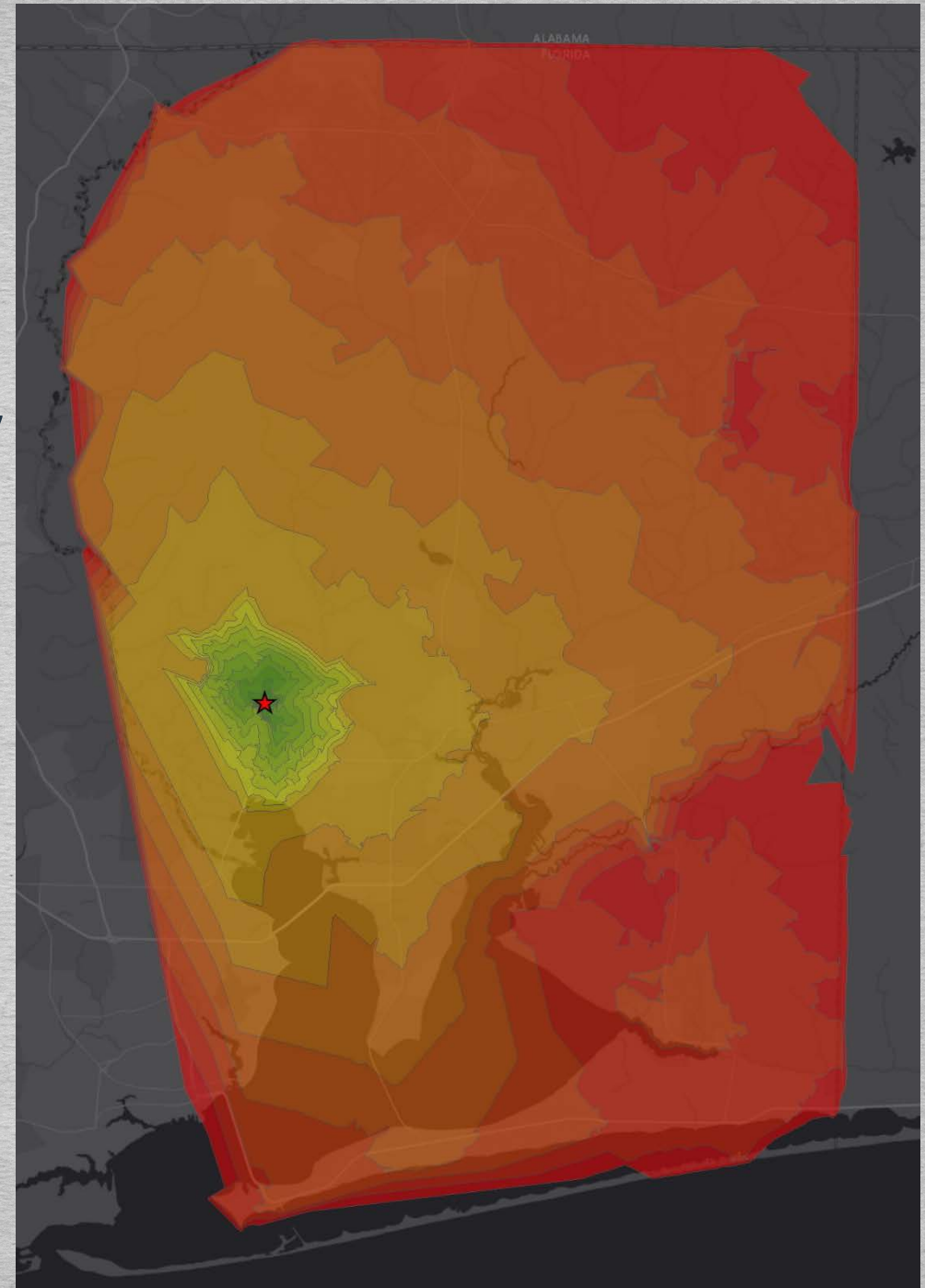
- Network dataset based on travel distances and street location
- Gives us a true view of travel
- Accounts for cul-de-sacs, bridges, one-way streets, and dead-ends
- Nodes are “decision points”
- Specify shortest route



Task 2- Network Analysis

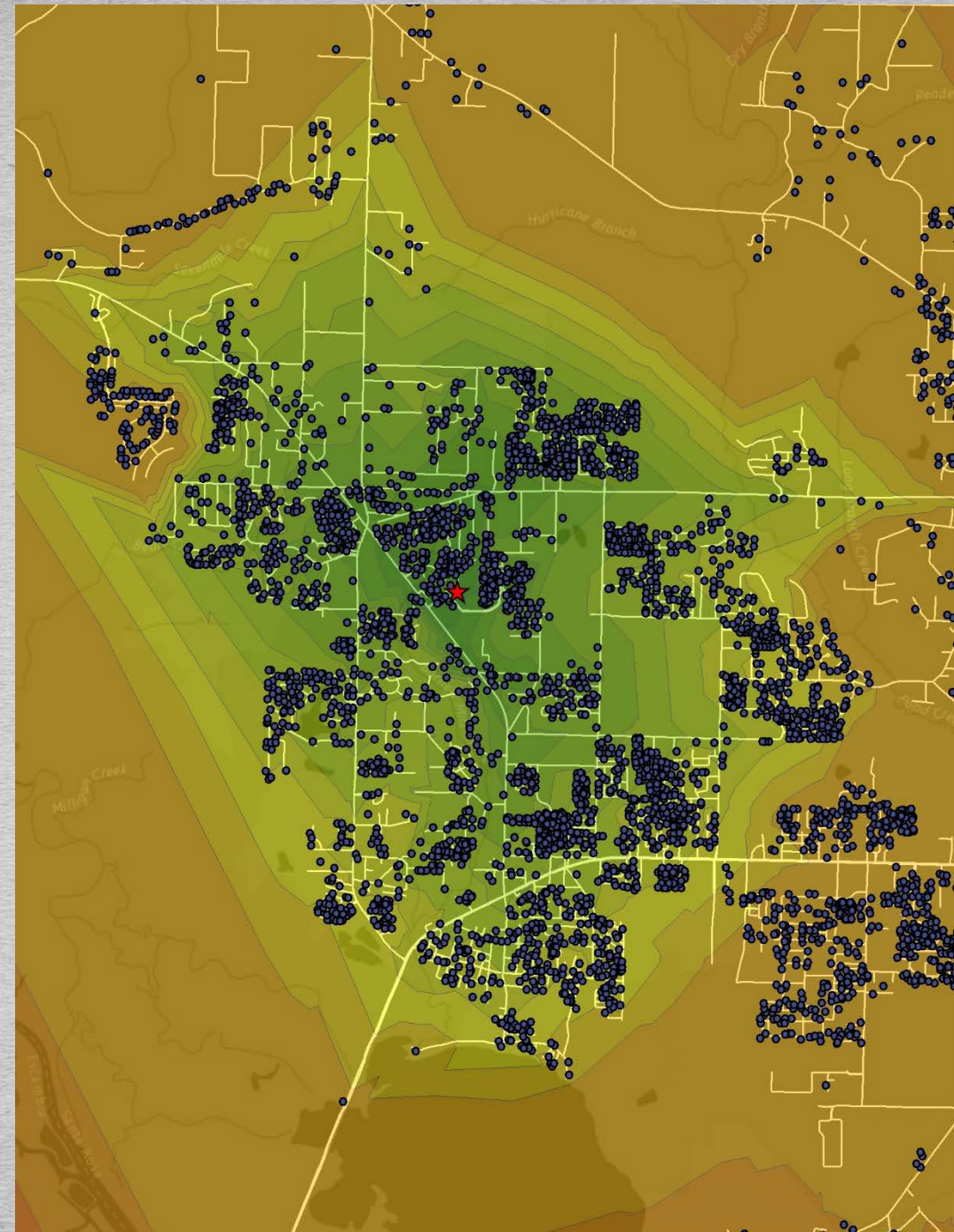
“What areas are covered by what distance?”

- Network Service areas
- Each polygon represents:
 - Distance from a school
 - Based on real road networks
 - Applied for every school in district



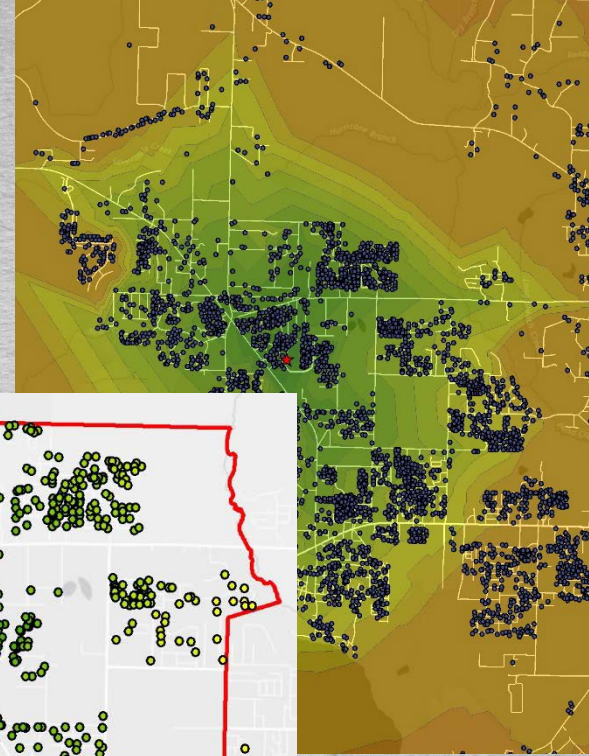
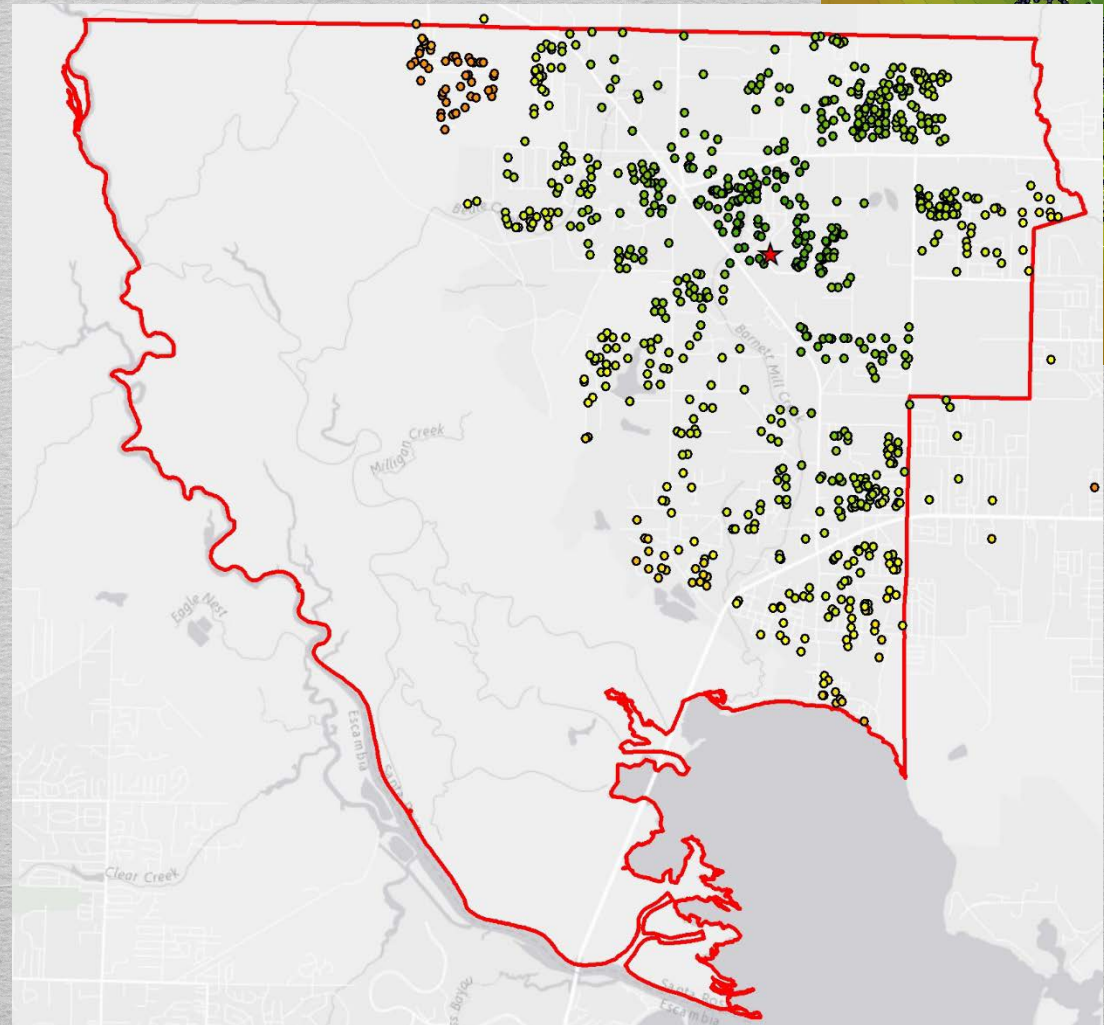
Task 2- Network Analysis

- From 5-40 miles
 - 5 mile increments
- From 0.1 – 5 miles
 - ½ mile increments
- Network Service areas can be overlain w addresses



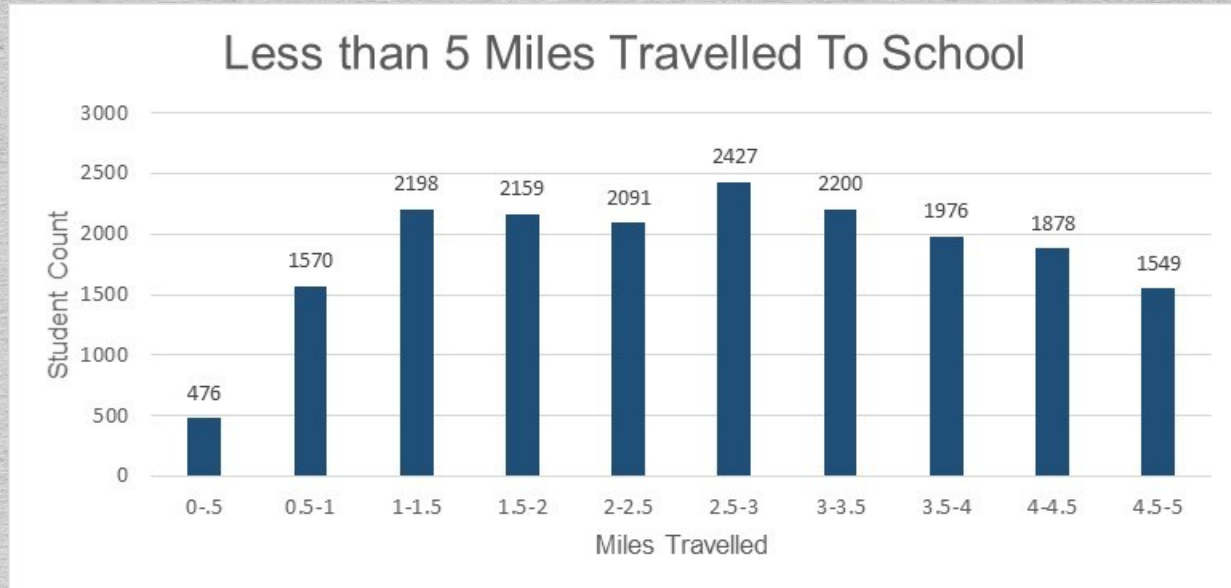
Task 2- Network Analysis

Network Service areas can be overlain w addresses and assigned a distance value based on their network service area polygon



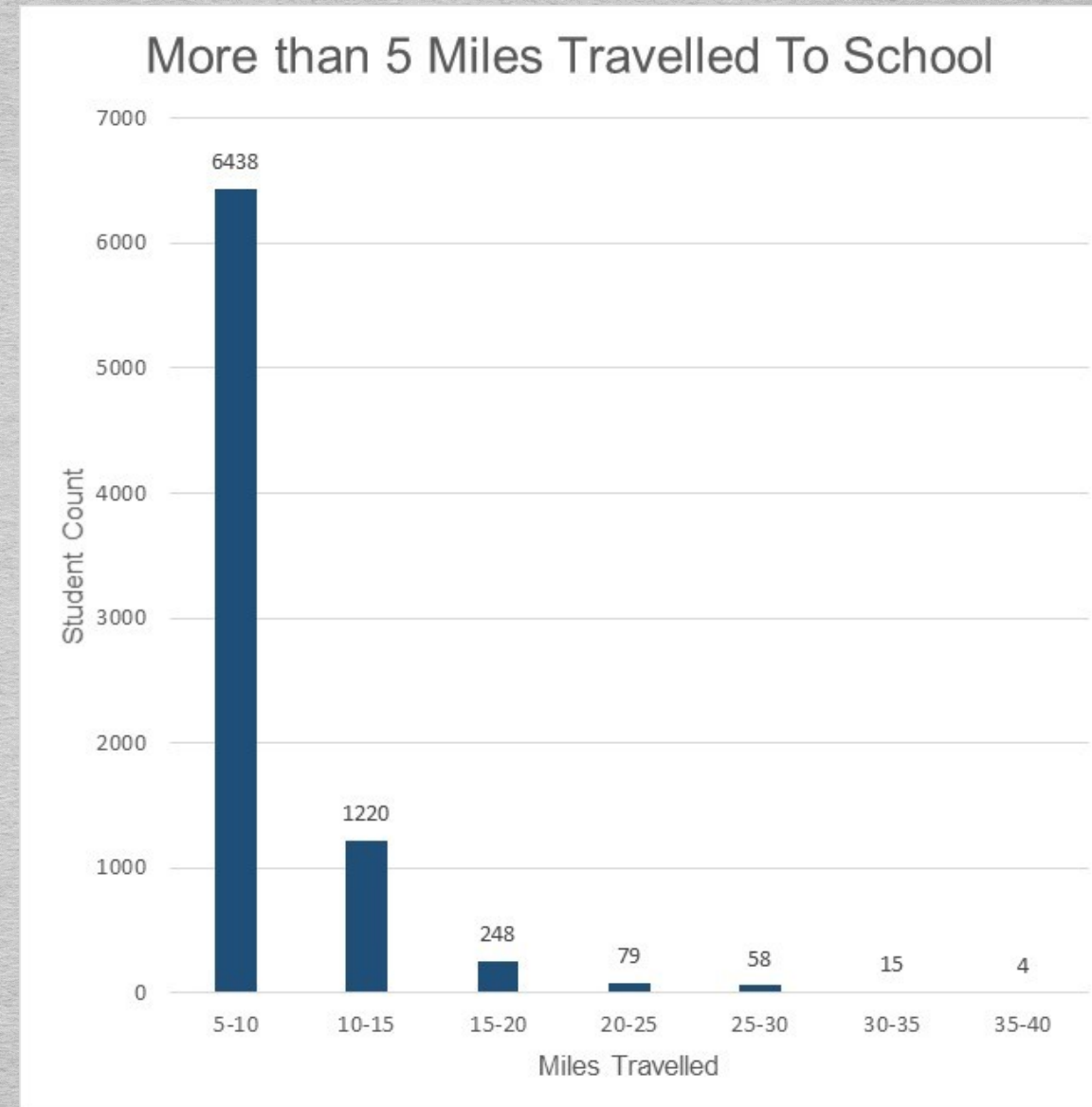
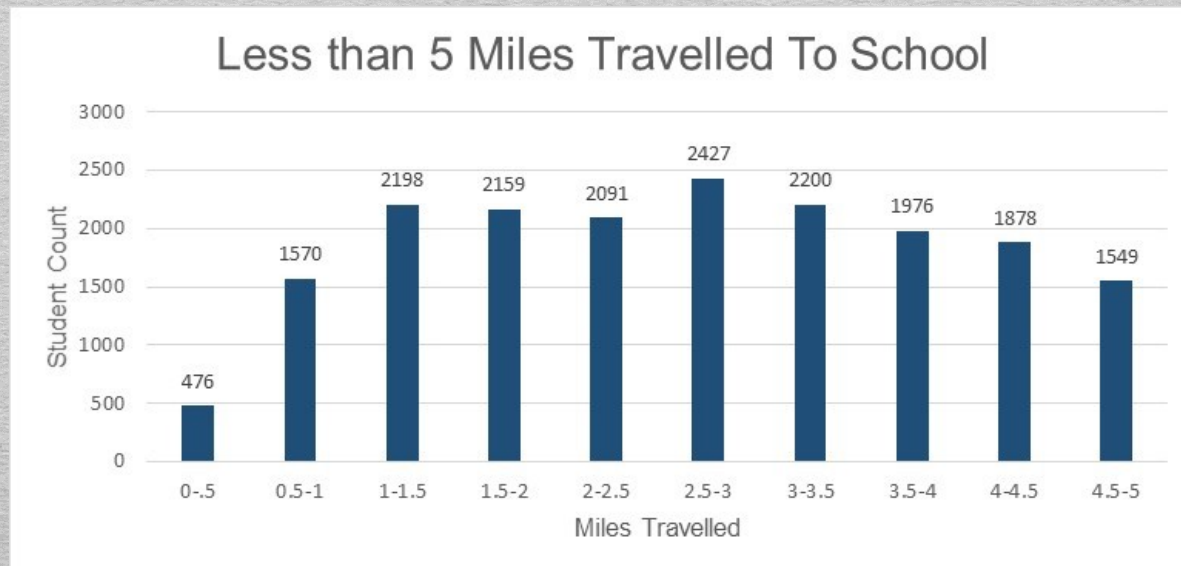
Task 2- Network Analysis

- Students living outside of the SRCSD were not included in the analysis
- Learning Centers and special programs also not included
- 8 students living in Santa Rosa can reach their attended schools with shorter travel through Escambia



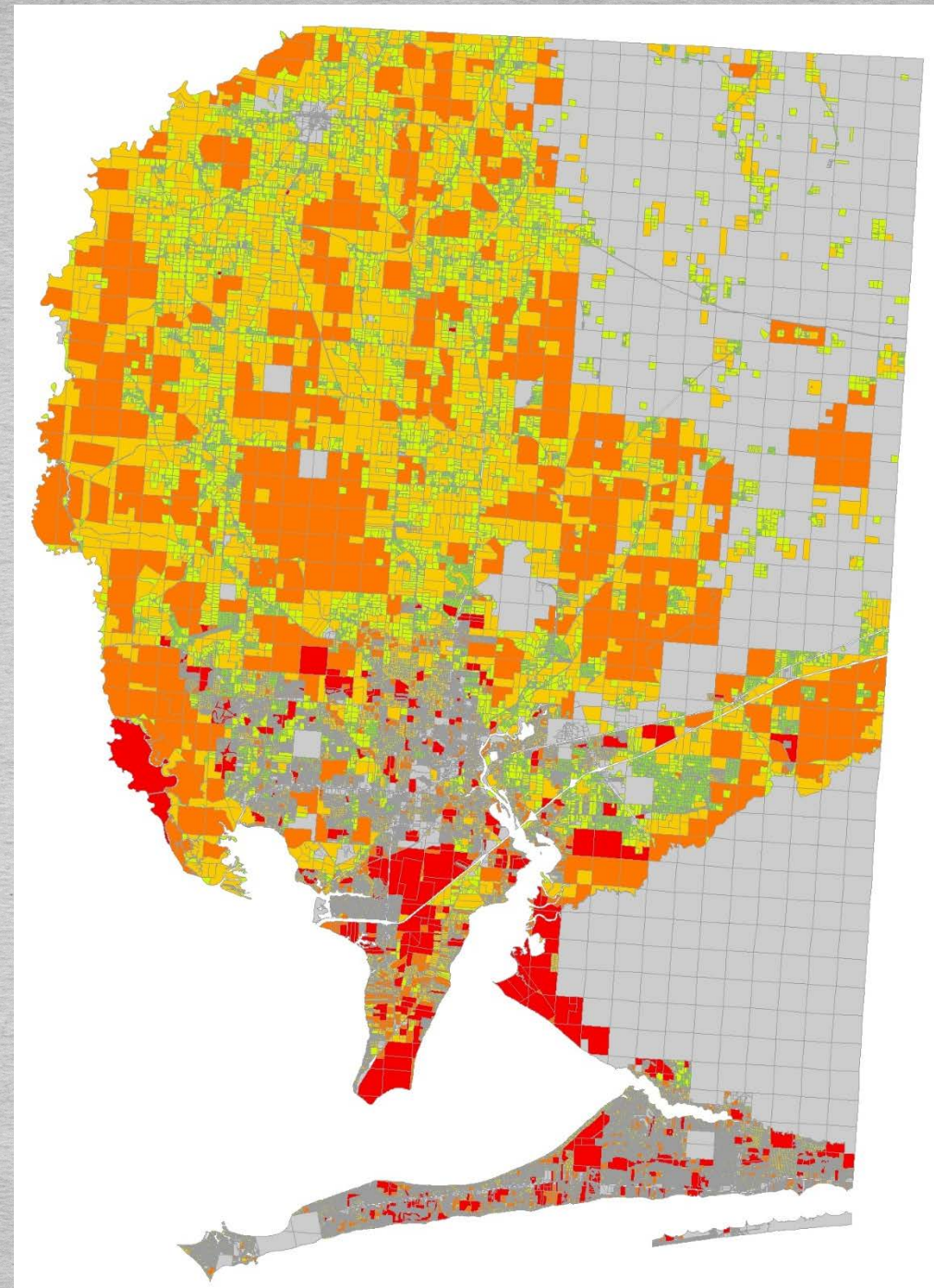
Task 2- Network Analysis

- 18,254 students w/in 5 miles
- 8,064 travel farther than 5 miles
- All students average trip- 5.5 miles
- < 5 miles average trip- 2.9 miles
- <5 miles average trip- 11.4 miles

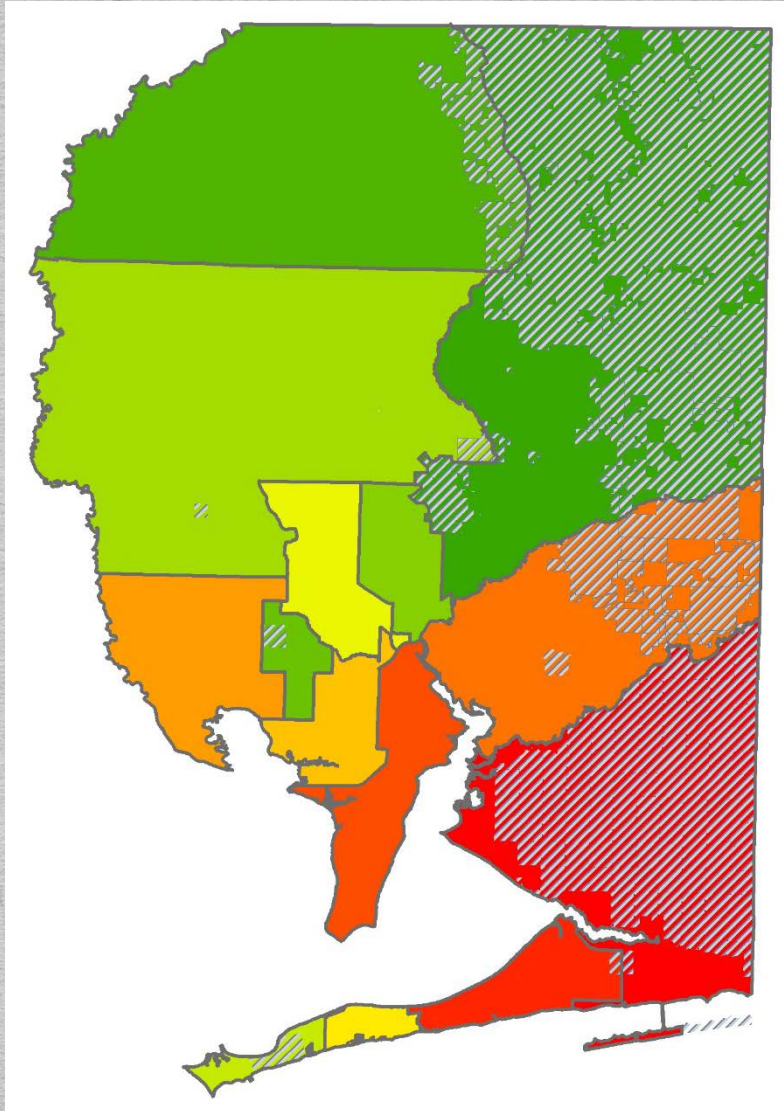


Task 3- Land Use Projections

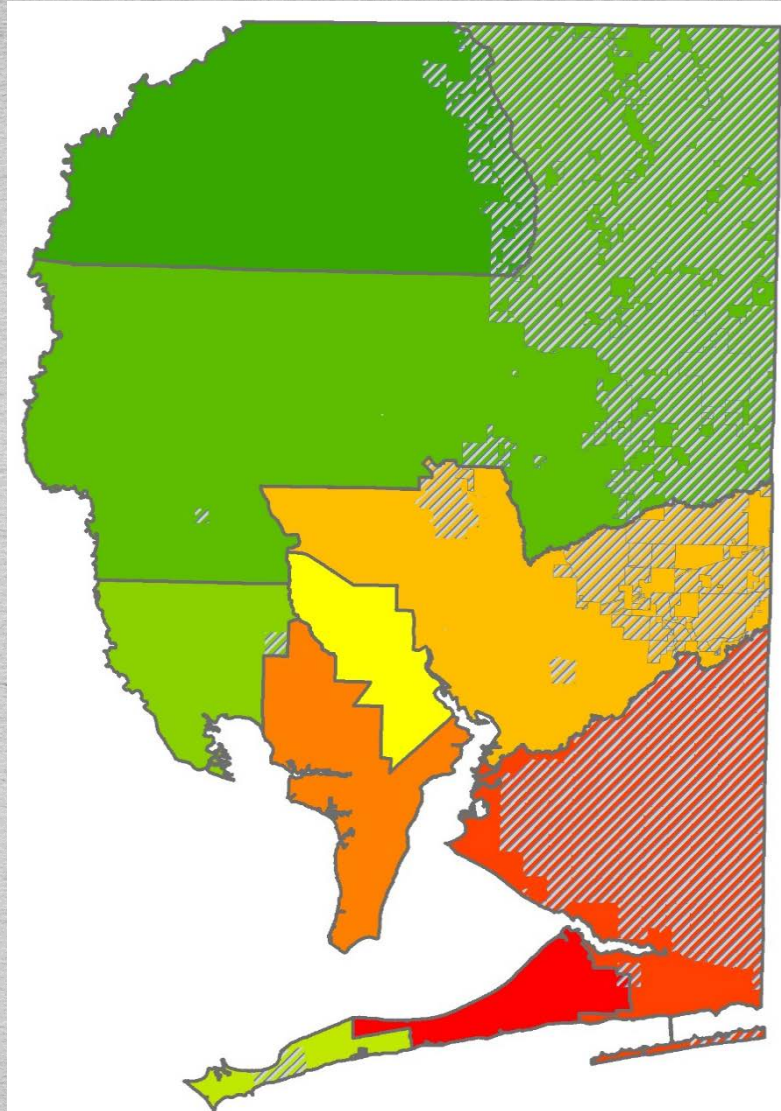
- Collected Zoning and Future Land Use layers from Santa Rosa Counties & municipalities
- Based on County and City codes, we calculated the maximum allowable density for every parcel
- Agriculture land is a concern regardless of the model used



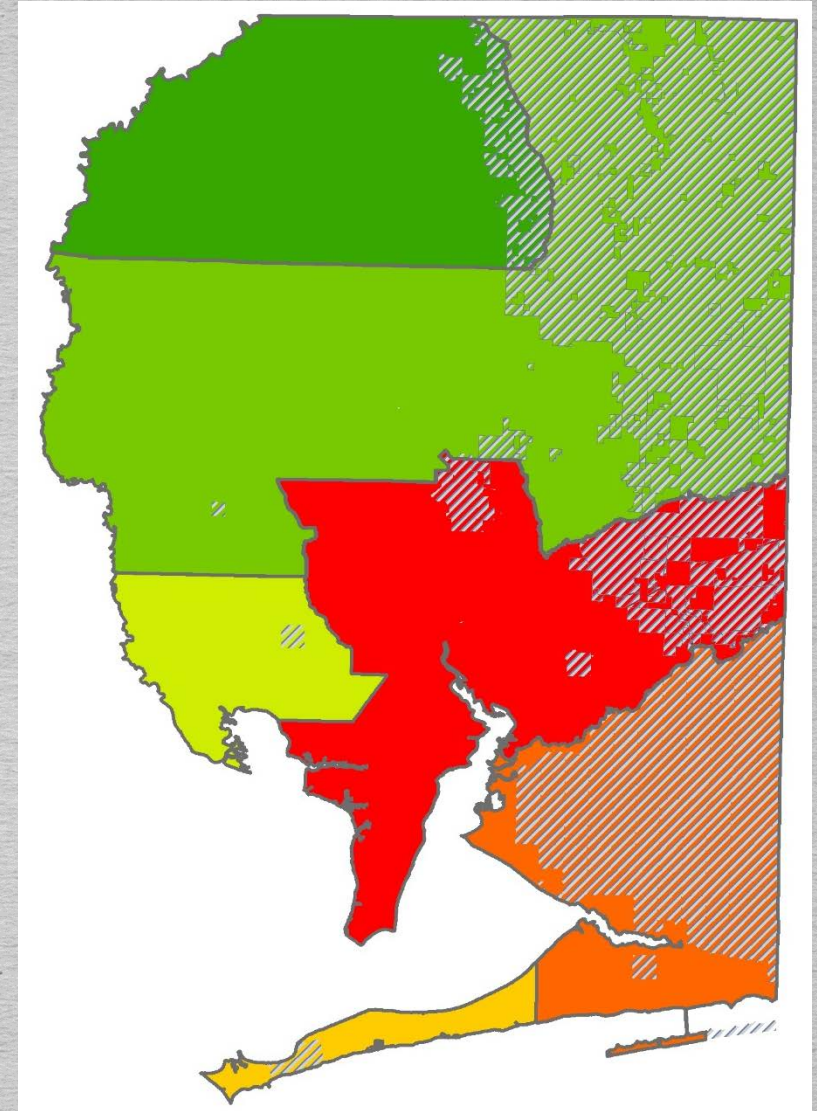
Task 3- Potential Single Family Home Development by:



Elementary School Zones



Middle School Zones



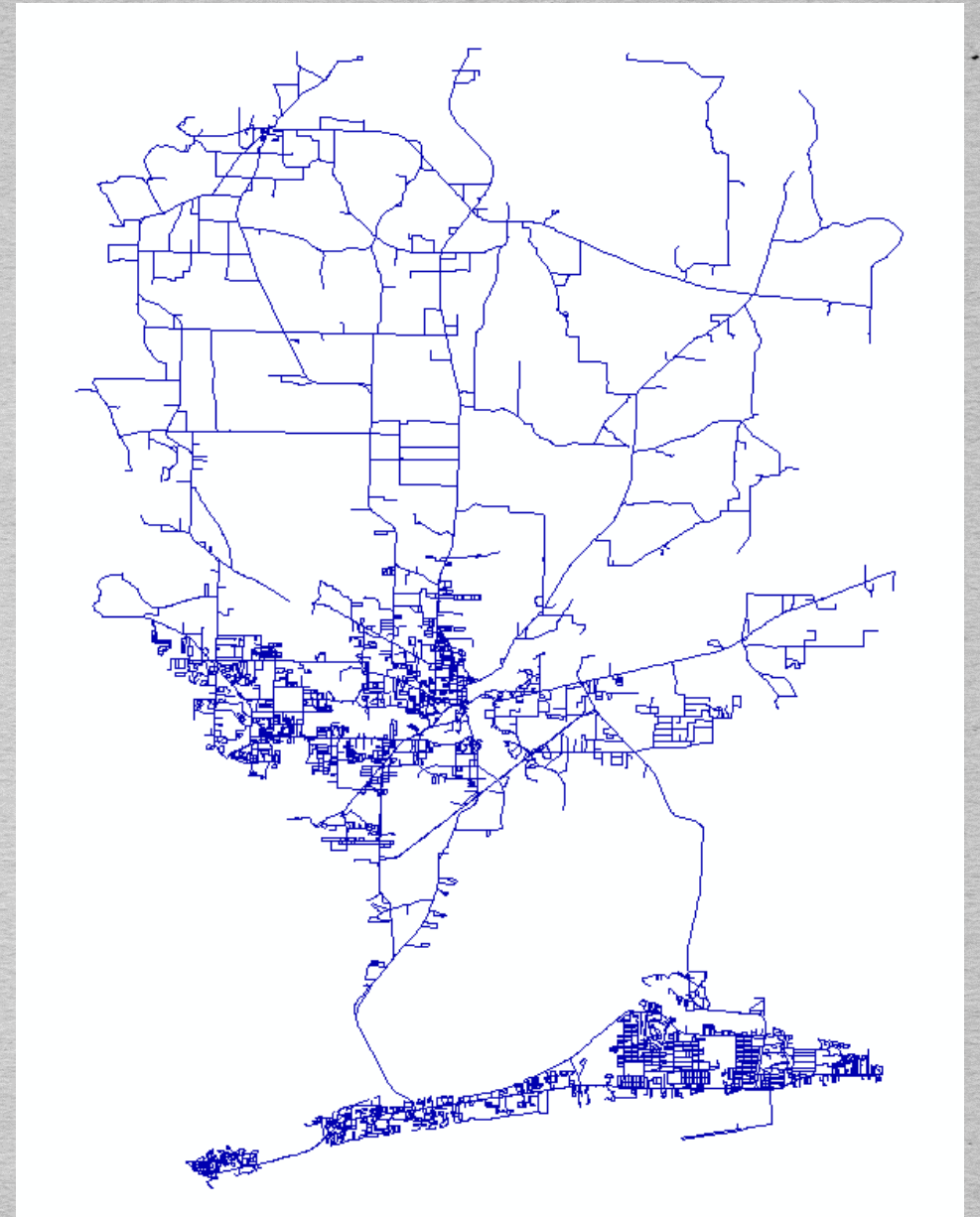
High School Zones

Based on current zoning, allowable density (units/acre), and parcel acreage

Next Steps

Bus Routes

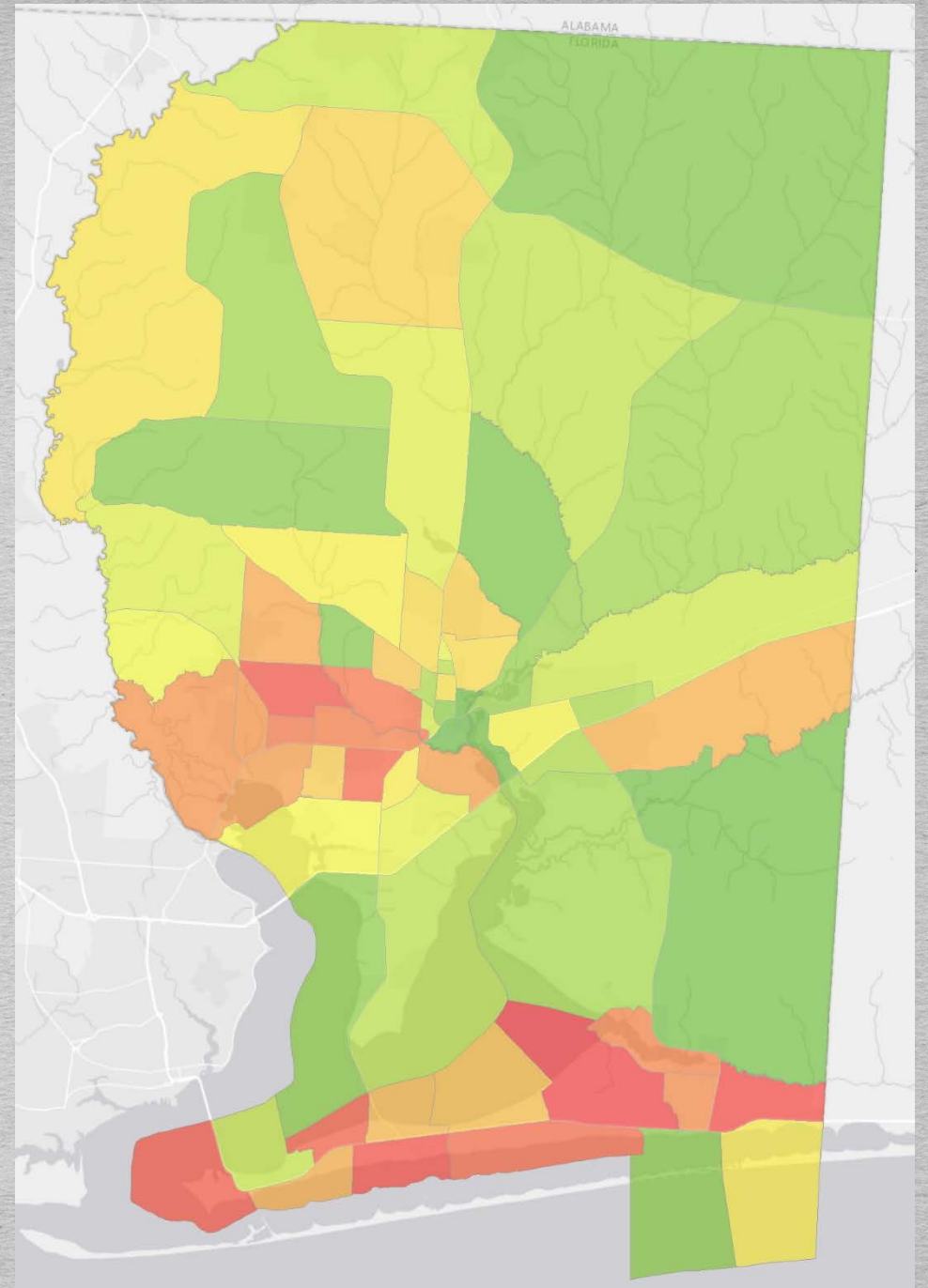
- Link ridership to GIS of routes
- Examine vehicle and gas costs
- Summarize route miles
- Quantify deadhead miles



Next Steps

Traffic Analysis Zones

- Population Density
- Population Growth
- Age ranges
- Households
- Family size
- Commuter patterns



Next Steps

ArcGIS Online

- Register SRCSD
- Implement Account
- Publish Web Maps
- User Training

Home Gallery Map Scene Groups My Content My Organization

John

SRCSD

EDIT INVITE USERS MEMBERSHIP REQUESTS CHANGE OWNER DELETE GROUP LEAVE THIS GROUP SHARE

Santa Rosa County School District and DRMP

Group Content

All Results
Maps
Layers
Scenes
Apps
Tools
Files

All Apps
Web
Mobile
Desktop

☒ Show ArcGIS Desktop Content

Educational Service Areas
Web Mapping Application by kellymmarton_DRMP
Last Modified: November 28, 2016
0 ratings, 0 comments, 7 views

Service Areas
Web Mapping Application by kellymmarton_DRMP
Last Modified: November 28, 2016
0 ratings, 0 comments, 12 views

Sims Middle Students
Web Mapping Application by kellymmarton_DRMP
Last Modified: November 21, 2016
0 ratings, 0 comments, 10 views

SRCSD School Locations and Zones
Web Mapping Application by kellymmarton_DRMP
Last Modified: November 21, 2016
0 ratings, 0 comments, 20 views

Group Details
Owner: kellymmarton_DRMP
Status: Private
Contributors: Members
Tags: SRCSD

2 Members
kellymmarton_DRMP
jgilreath941

PREVIOUS NEXT

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