

- NG 9-1-1 Pilot Project -
GIS Data Analysis

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Scope of Work

Analyze with and between each:

- Centerline
- ESN Boundary
- Fire District Boundary
- EMS Boundary
- Law Enforcement Boundary
- Site/Structure Locations (a.k.a. address points)

Objectives

Identify

- Overlaps
- Gaps
- Overhangs
- Field Consistency
- Telephone Number Listing (TN) to Address Points
- MSAGs to Road Centerlines

Jurisdictions Involved

- Part of Pilot Project
 - Clark
 - Emporia/Lyon County
- Chosen for GIS Analysis for Boundary Study
 - Reno
 - Sedgwick
 - Kingman

Mapping Issues - Overlap

ESN Boundary

Area "exists" in both counties

County A - Red line

County B - Green line



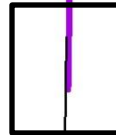
Mapping Issues - Overlap

Centerline

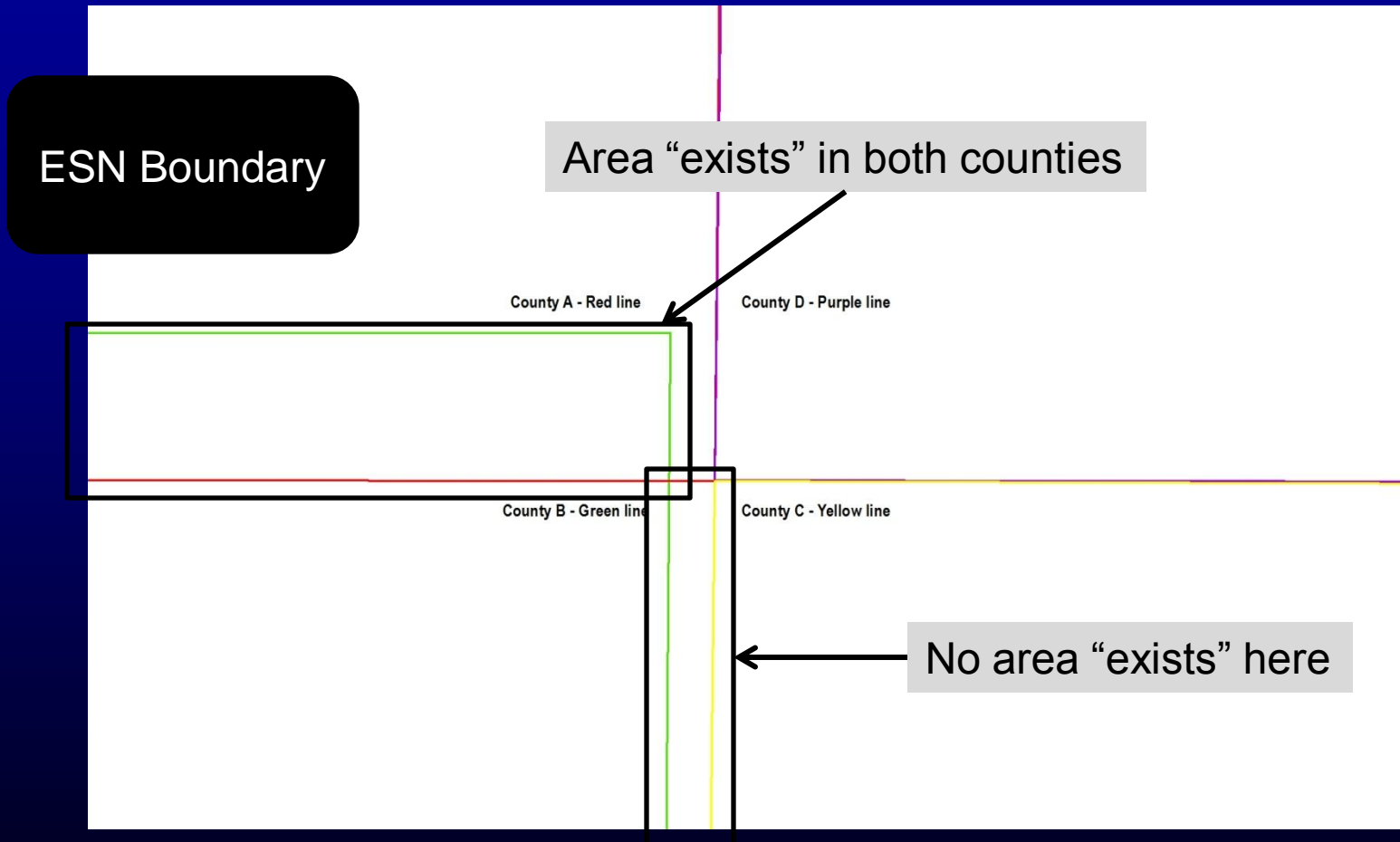
County D - Purple line

County C - Black line

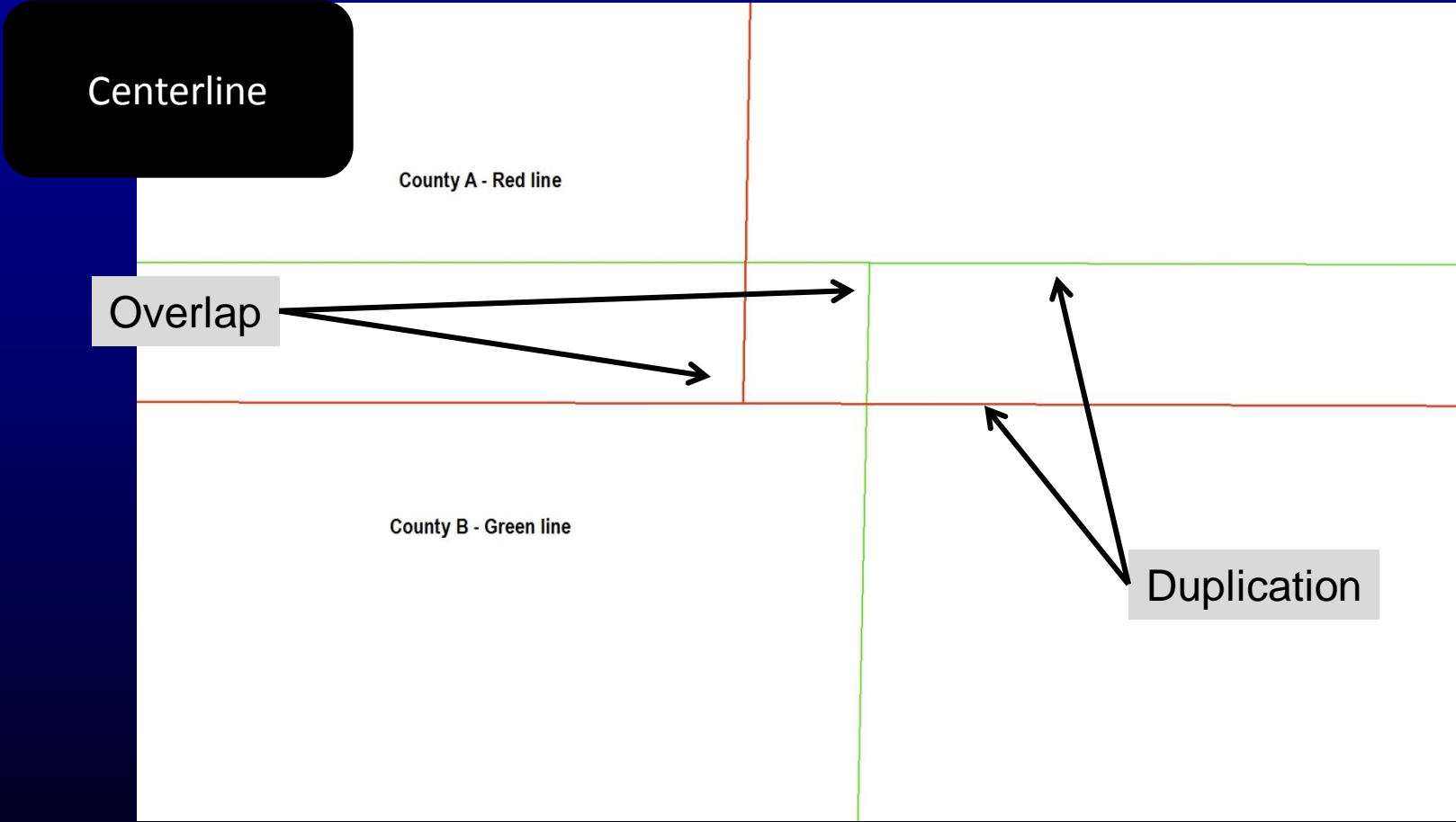
Road "exists" in both counties



Mapping Issues - Gap



Mapping Issues - Duplication



Study Results

-Polygons-

- ESN, Fire, EMS, Law Enforcement Polygons
 - Some counties only have ESN boundary
 - Some do not have any ESN boundary
 - 8 NENA required fields
 - Most only had **1 or 2** required field
 - Overlaps within and between counties common

Study Results

- Centerlines -

- Gaps and overlaps common with and between counties
- Consistent road directionality common
- Intersection errors minor
- Inconsistent road names minor
- Centerlines not split ESN boundaries extremely common*

Study Results

- Centerlines -

- MSAG records not in centerline common
- Centerlines not in MSAG records common
- **6** NENA required fields
- Jurisdictions had between **6 and 11** required fields
 - 30% - 55%
- Incorrect format in required fields minor

Study Results

- Address Points -

- Address in TN NOT in Address Points very high occurrence
- **14** NENA required fields
 - >25% currently in GIS data
- Incorrect format in required fields minor

Errors NOT within Analysis

- Incorrect road names
- Incorrect addresses

These elements require local knowledge and was beyond the scope.

Conclusion

- Standards must be implemented from this point forward
- A lot of work **MUST** be done before going to a NG 9-1-1 environment and system
- Training on Geographic Information System Databases with MSAG & ALI is needed before going to a NG 9-1-1 System

Valuable Documentation

- NENA Information Document for Synchronizing Geographic Information System Databases with MSAG & ALI (NENA 71-501)
- NENA GIS Data Collection and Maintenance Standards (NENA 02-014)