



46th Annual Taxation Conference APPRAISAL for AD VALOREM TAXATION

of Communications, Energy and
Transportation Properties

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GIS Data & Improving Operating Efficiency & Performance

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Agenda

- **The challenges to making accurate jurisdiction assignments**
- **The 4 key processes that must be in place to make jurisdiction assignments**
- **GIS tools available for aiding accuracy and efficiency**
- **7 common pitfalls to avoid**

Importance of accurately relating assets to jurisdictions

- Filing returns, protest or appeal
- Acquiring another company's assets
- Estimating for a proposed project

Accuracy wins credibility

Inaccurate assignments cost time and money

Wasted time

- Correcting returns, re-filing due to wrong jurisdiction, taking calls from assessors ...

Wasted money

- More expensive to fix later
- Increased labor costs
- Unplanned audits, penalties and interest
- Cost of filing amended return, getting refund
- Likely overpayments to higher taxing jurisdiction

Loss of Credibility

Property tax department challenges

Understaffed and underfunded

Under pressure to reduce:

- Labor costs, expenses
- Misfiling, overpayments/
underpayments
- Audits, penalties and interest
- Risk of poor customer service, negative publicity

Dangers to Credibility

Assessors

Short of time and resources

Need to get through a set of returns other than manually

Need to know that what's filed is based on sound placements

Dangers of Loss of Credibility

Meeting these challenges

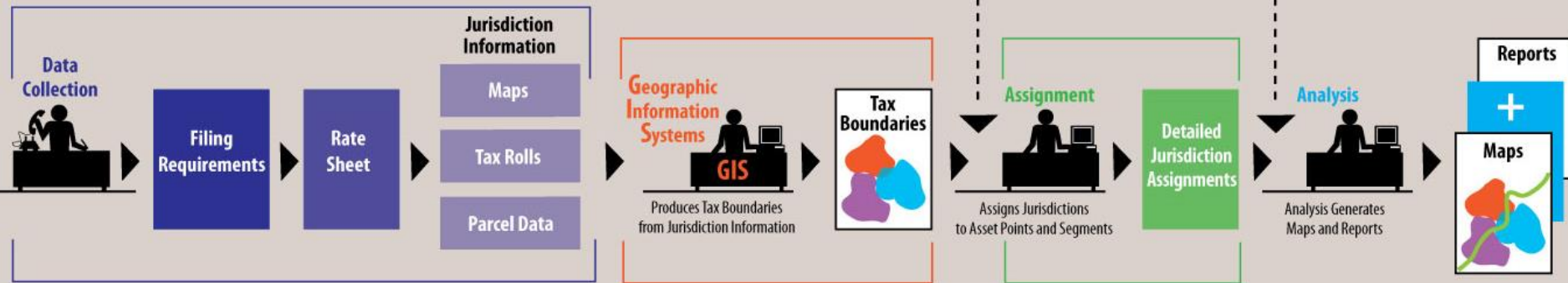
Accurately relating assets to jurisdictions and keeping up with jurisdiction changes requires:

1. Skilled people
2. Time
3. Defined and tested processes
4. Specialized tools and systems

Challenging! Let's see how we do it

4 key processes

YOUR COMPANY

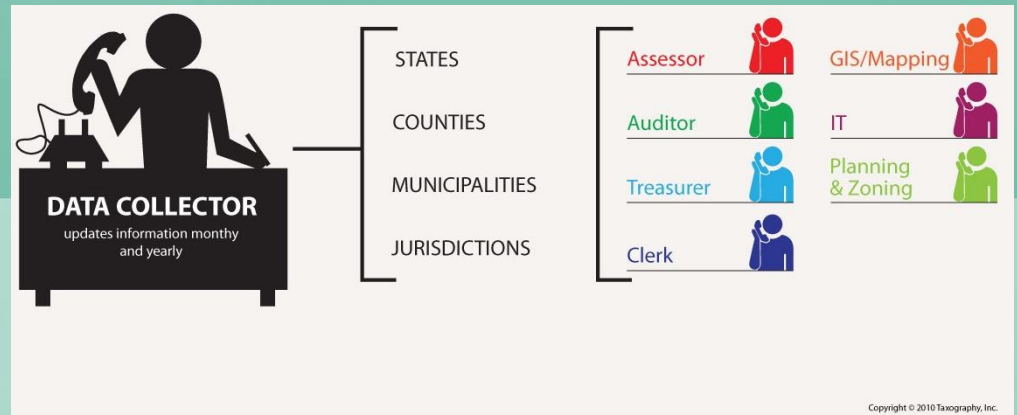
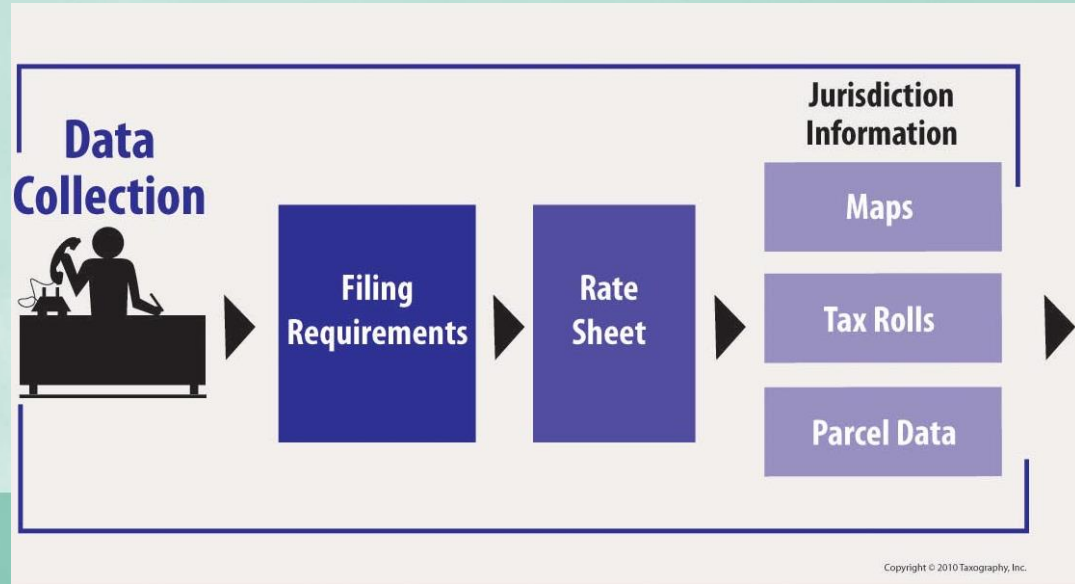


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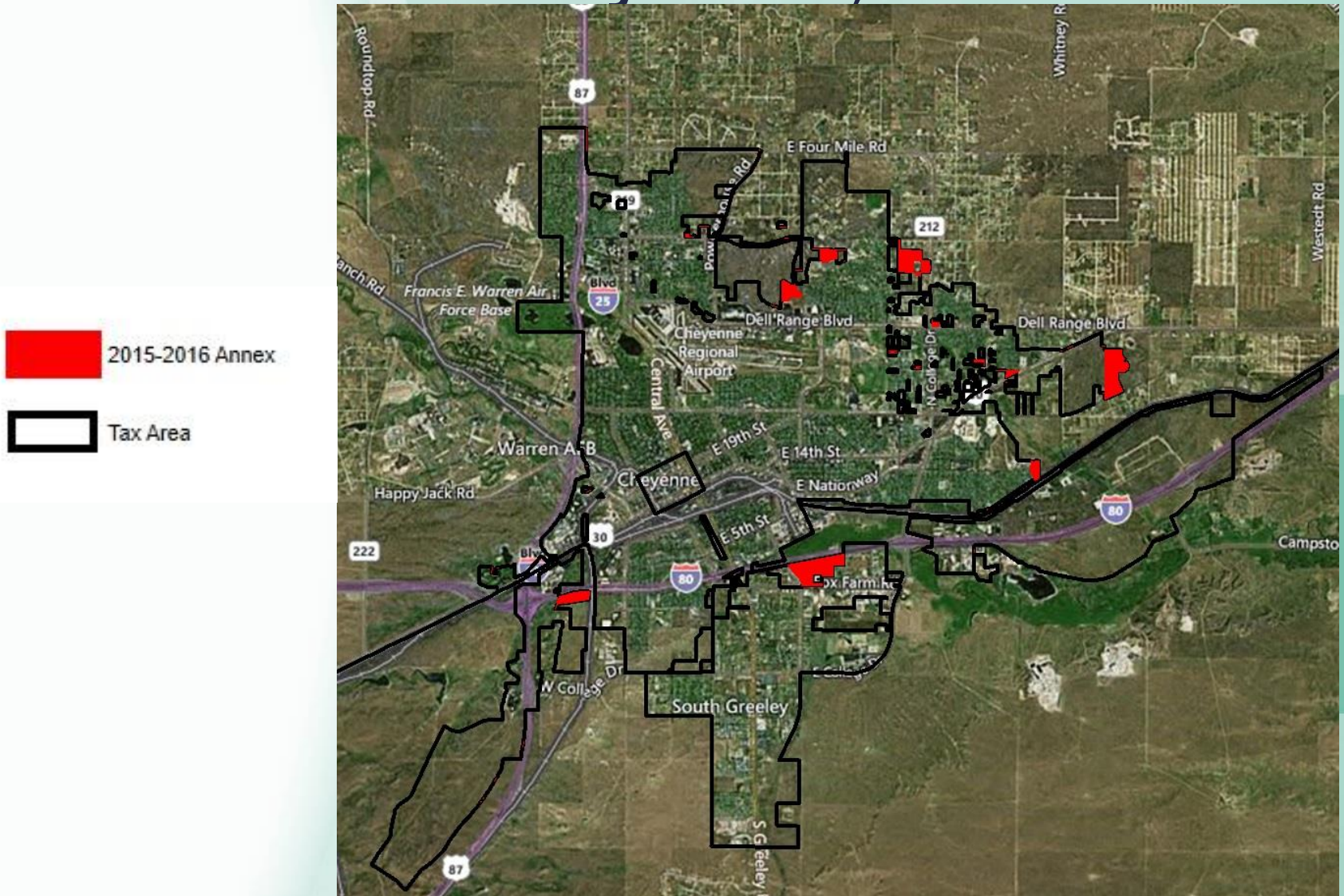
1. Data Collection
2. Geographic Information Systems
3. Assignment
4. Analysis and Reporting

Data collection process

- Maintain database of jurisdictions
- Discover & acquire supporting data
- Validate for correctness
- Catalog and organize data



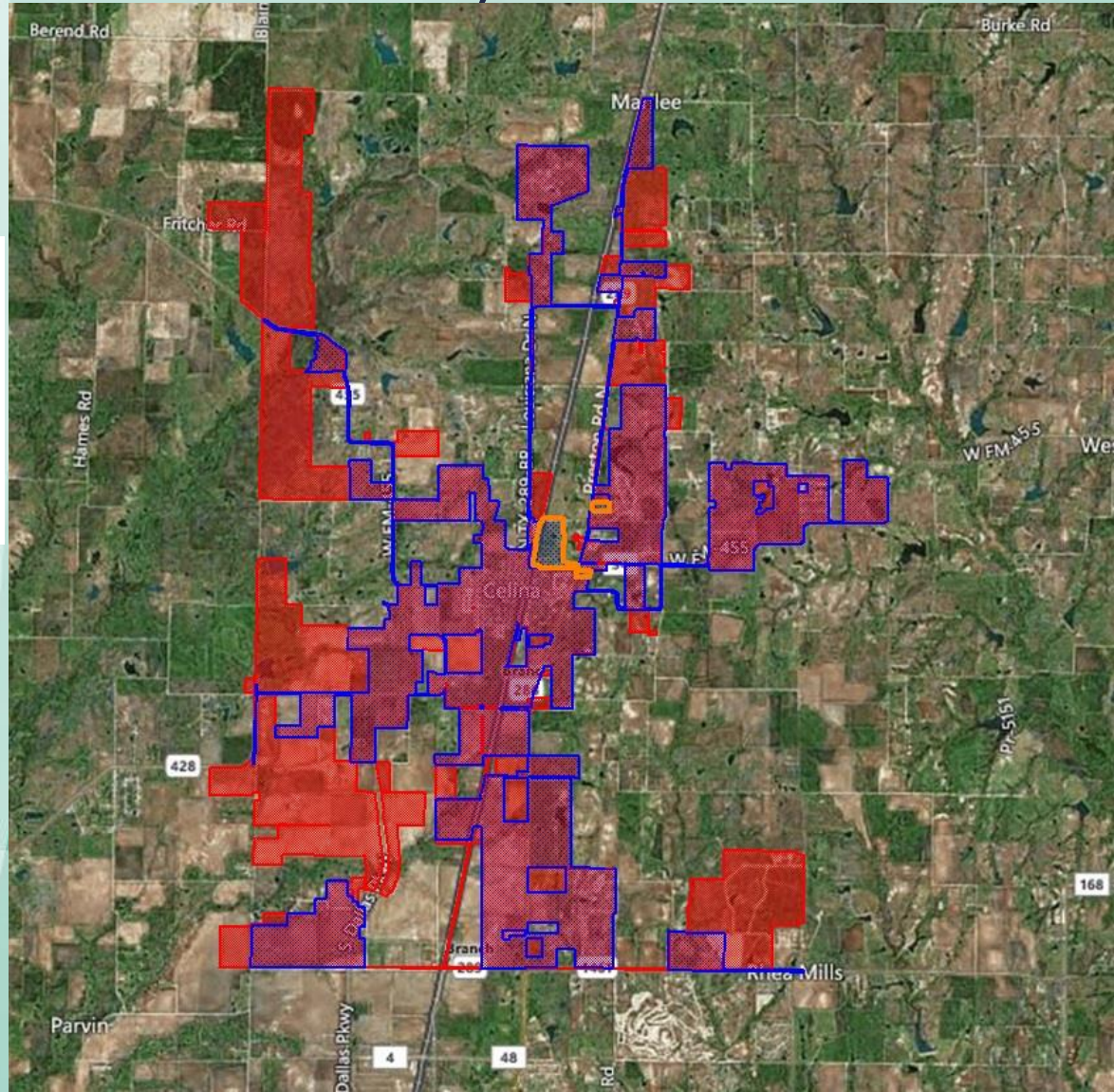
Pitfall #1: City boundaries change... Cheyenne, WY



Sometimes in surprising ways...

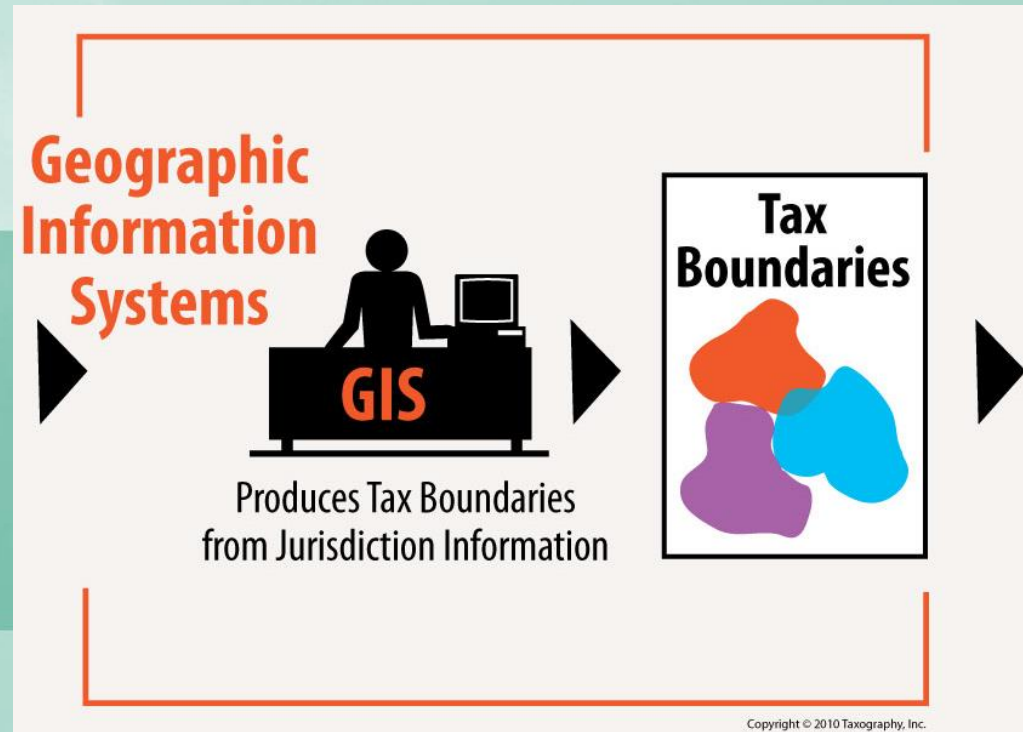
Celina, TX

-  2010 City Boundary
-  2015 City Boundary
-  De_Annexation Area

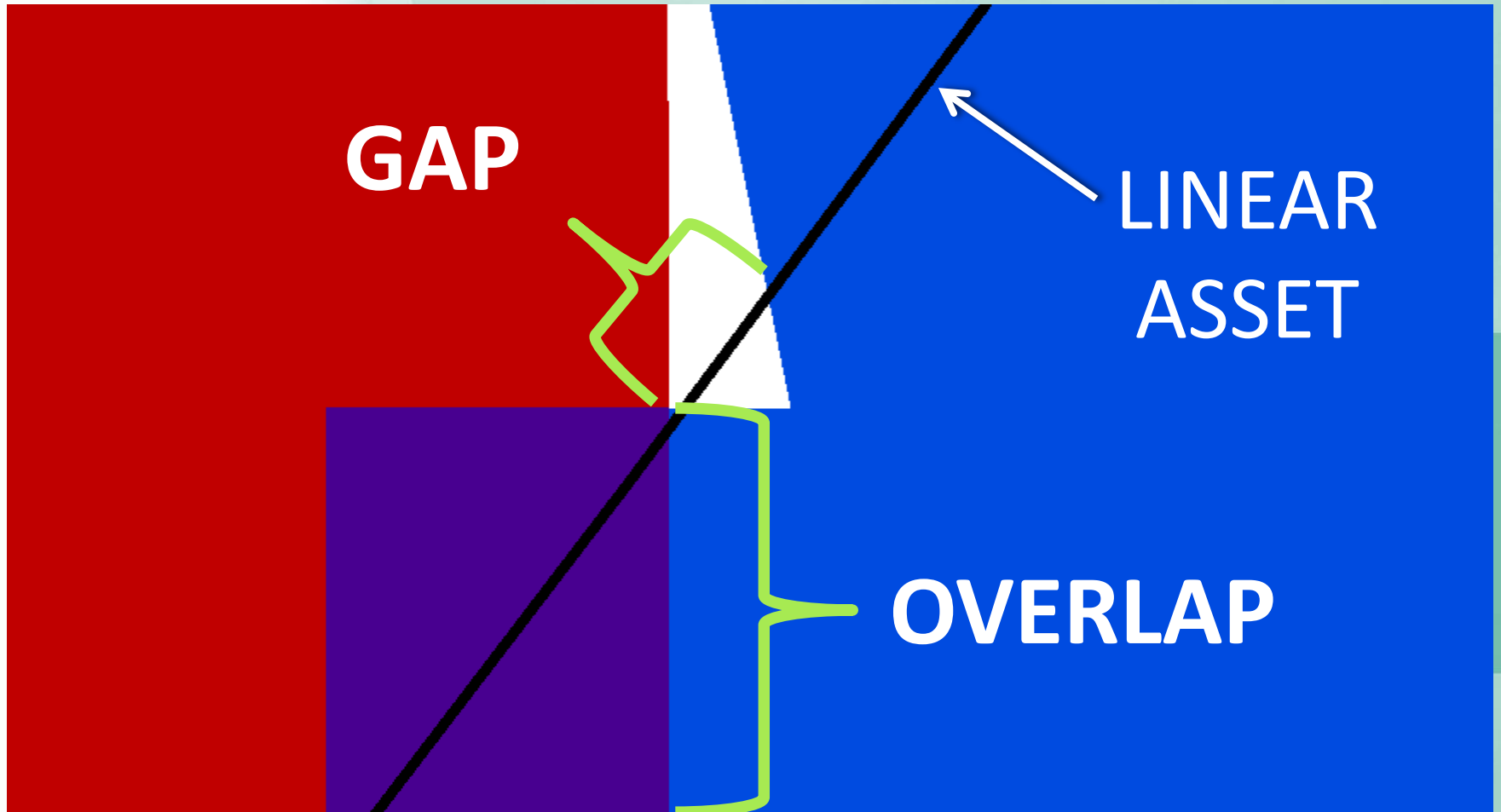


Geographic Information Systems process

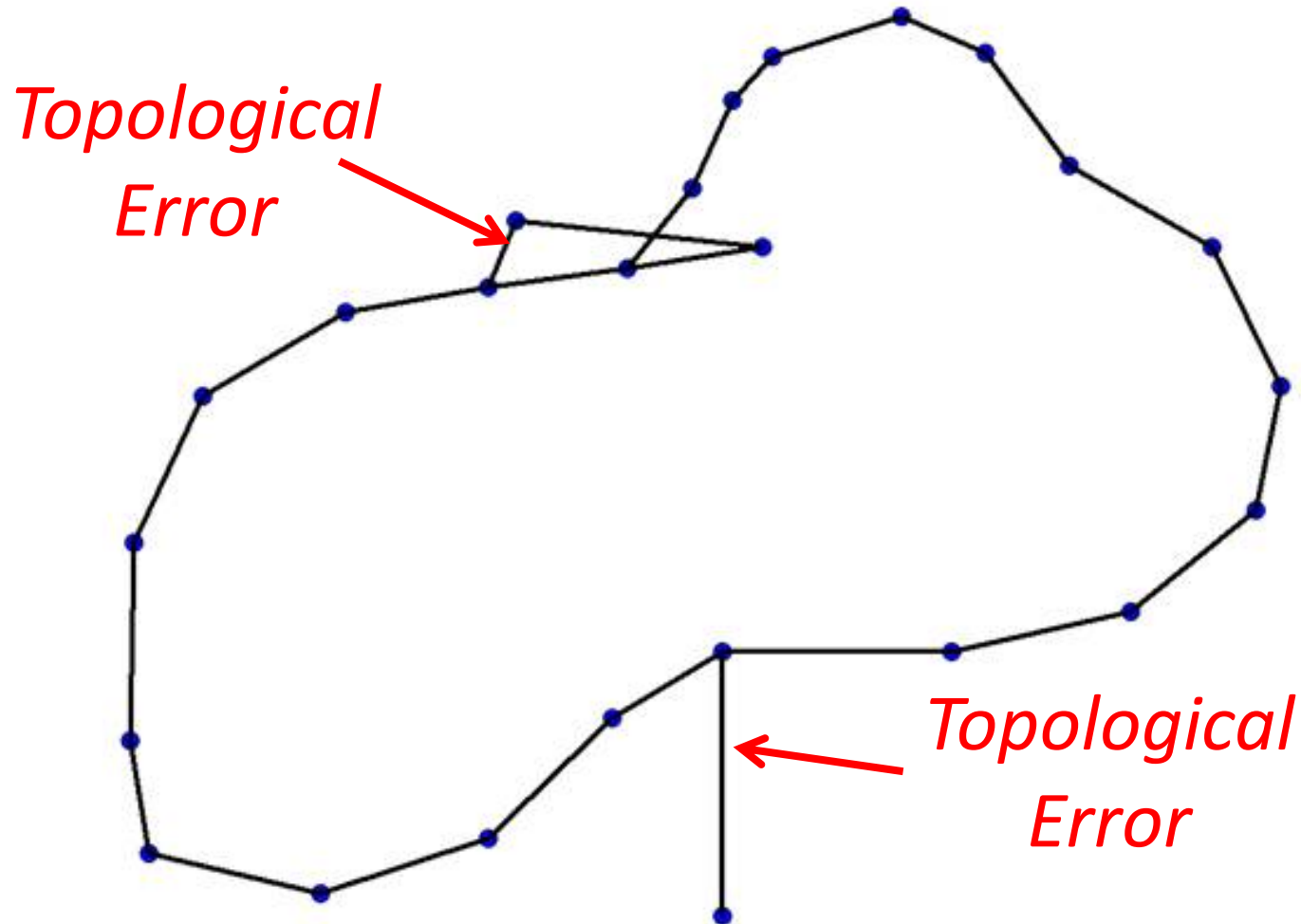
- Map and validate jurisdiction boundaries
- Assure complete: No unwanted gaps
- Assure boundaries align with map features



Pitfall #2: Gaps and overlaps must be resolved



Pitfall #3: Topological errors must be corrected



Pitfall #4: Jurisdiction boundaries must be aligned to features where intended

BEFORE

AFTER

TAX UNIT A

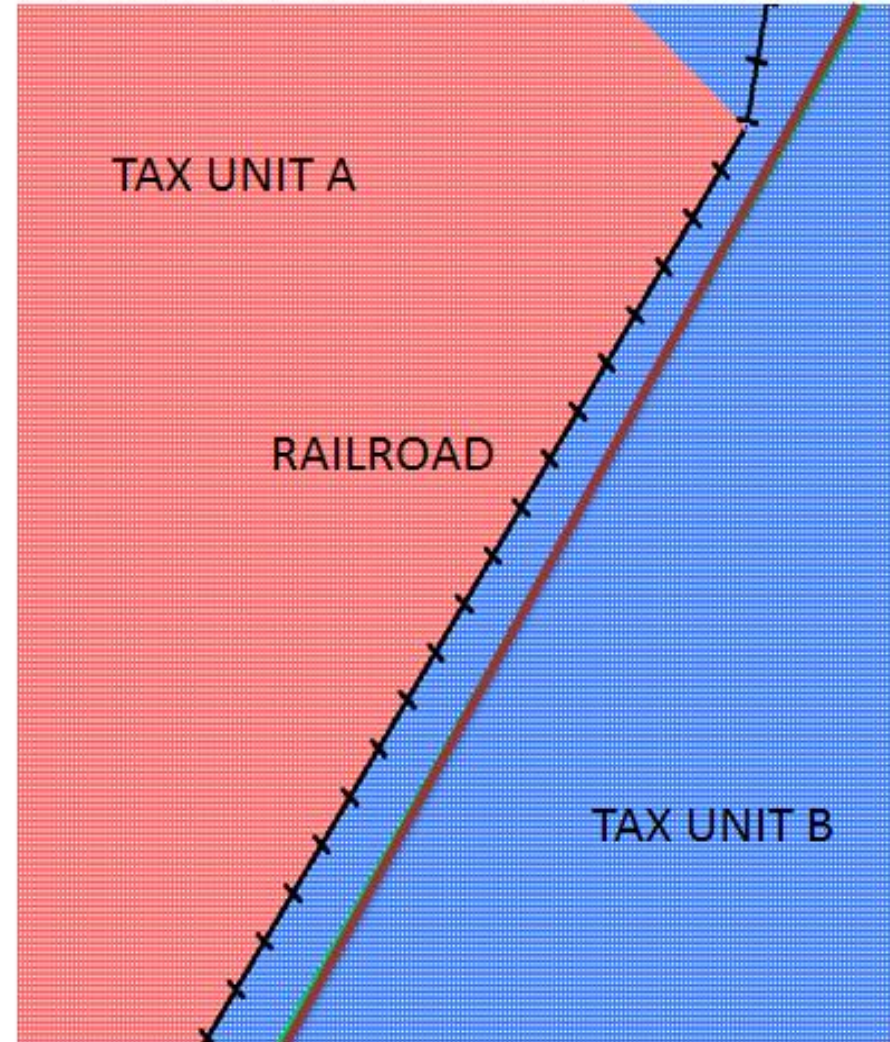
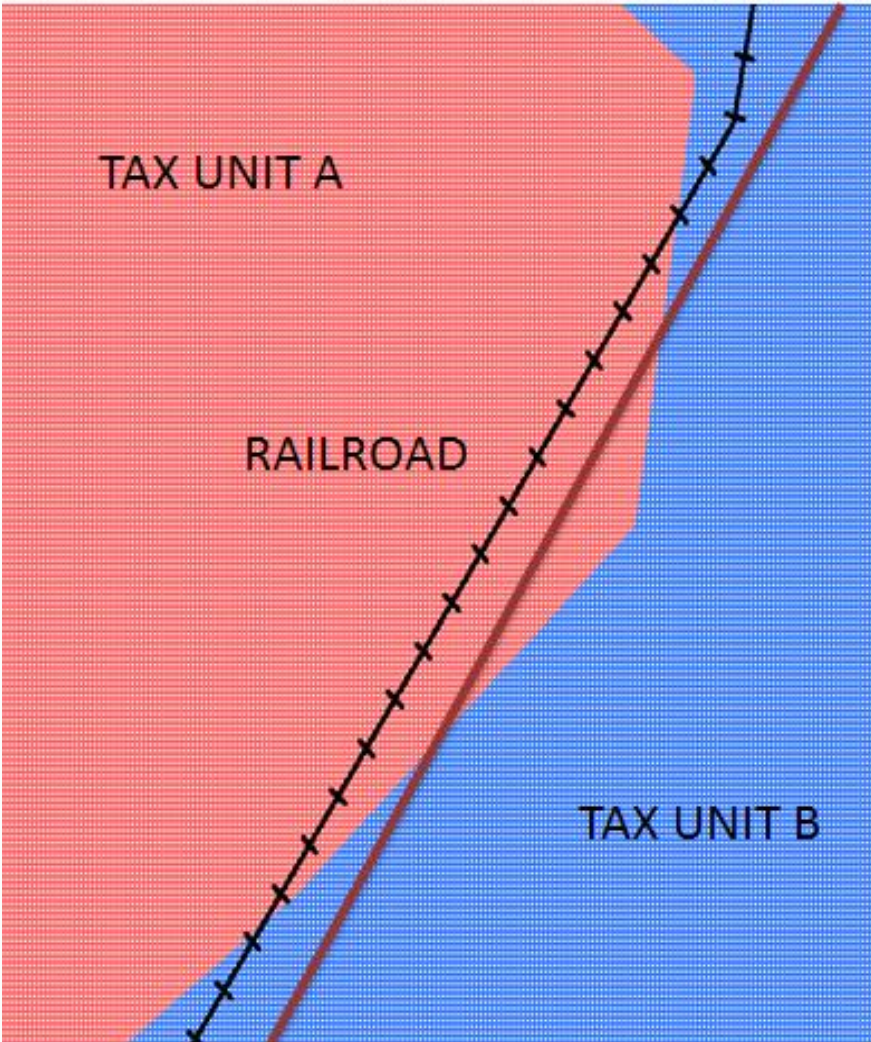
TAX UNIT A

RAILROAD

RAILROAD

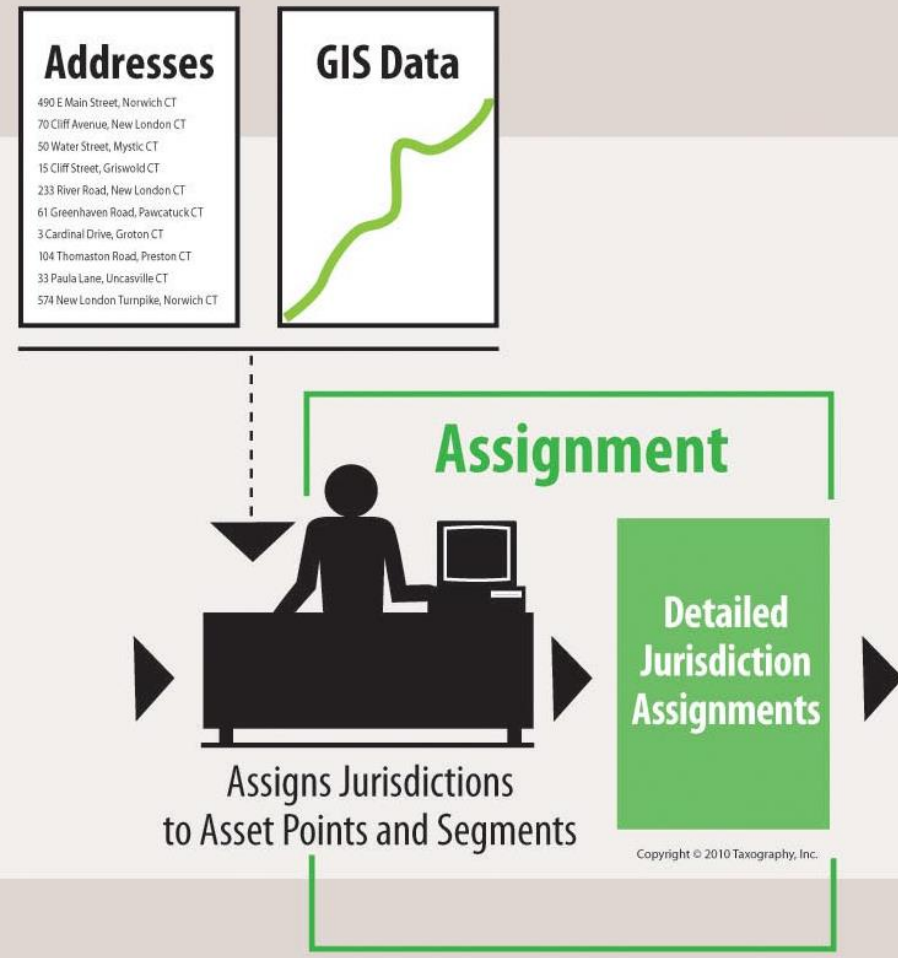
TAX UNIT B

TAX UNIT B



Assignment process

- Assets and jurisdiction boundaries must be in same land base.
- Standardize/geocode situs asset addresses
- For linear assets:
 - Measure lengths of each cut segment
 - Make adjustments for stationing
 - Reconcile lengths
- Assign jurisdictions to assets



Pitfall #5: Poor quality addresses must be corrected

Standardization necessary for accurate jurisdiction assignments



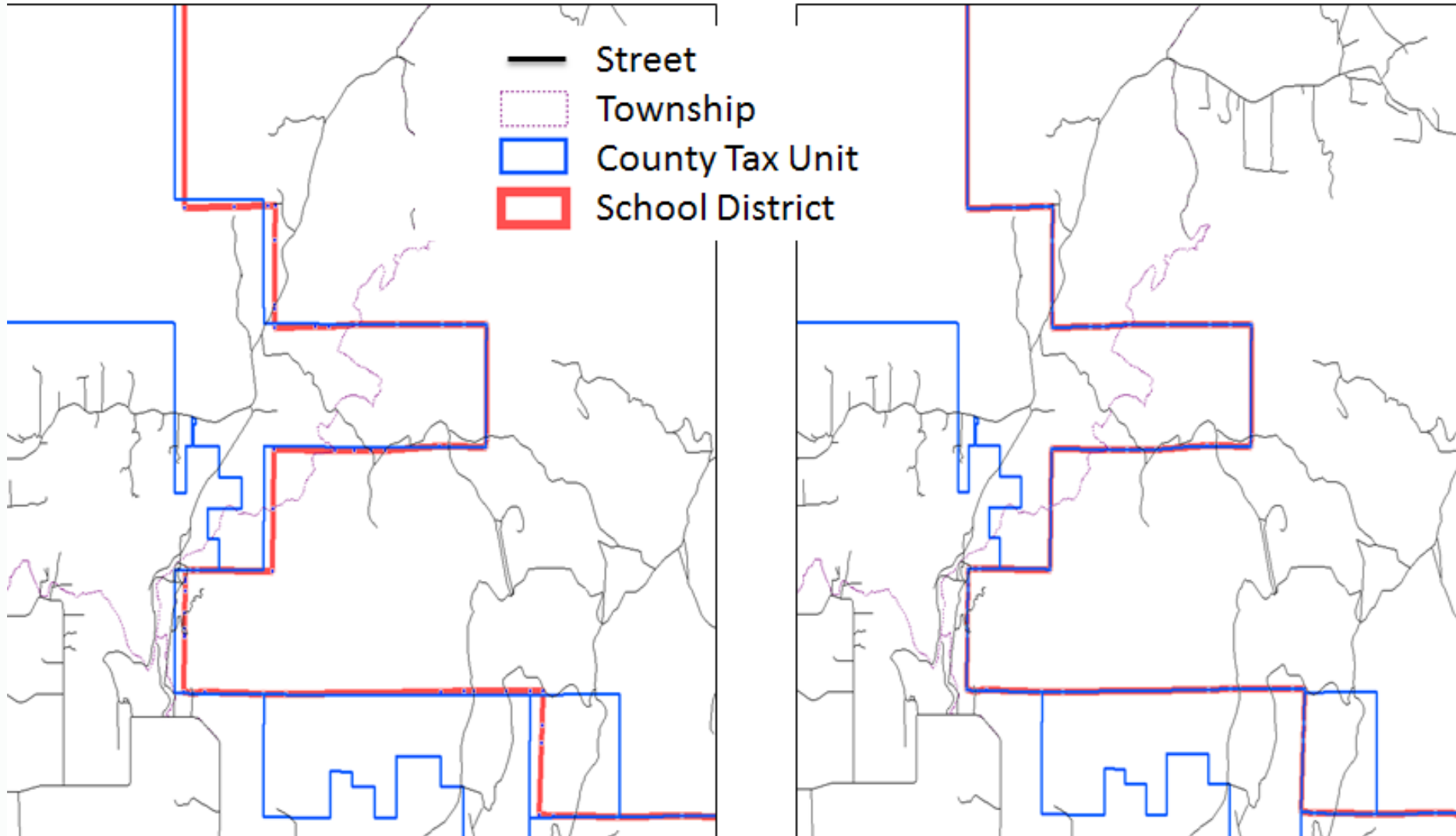
Identify unresolved addresses before correct asset placement can occur.

Poor quality addresses cause inaccuracies

Pitfall #6: A consistent land base must be used

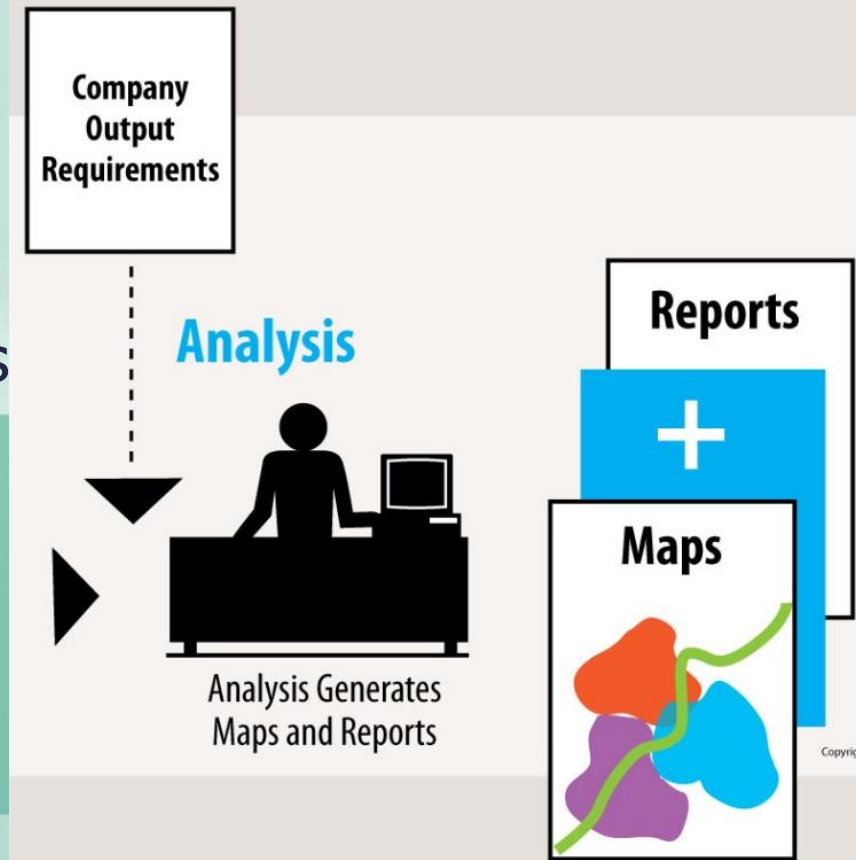
Before alignment

After alignment



Analysis and Reporting process

- Validate output assignments
- Report in the form the Tax Department requires
- Provide reports and maps of the assigned assets in their jurisdictions



Pitfall #7 : Required output needs to be defined

first



Pipeline Detail - Jurisdictions

Jurisdiction Name
Claiborne Parish
Fire District #
LTC Assessment
LTC Assessment
Parish Tax Out
School District
Union Parish
Bernice Area
Law Enforcement
Parish Construction
Parish General
Parish Health
Parish Maintenance
Parish Public
School-Construction
School-District
School-Special
School-Three



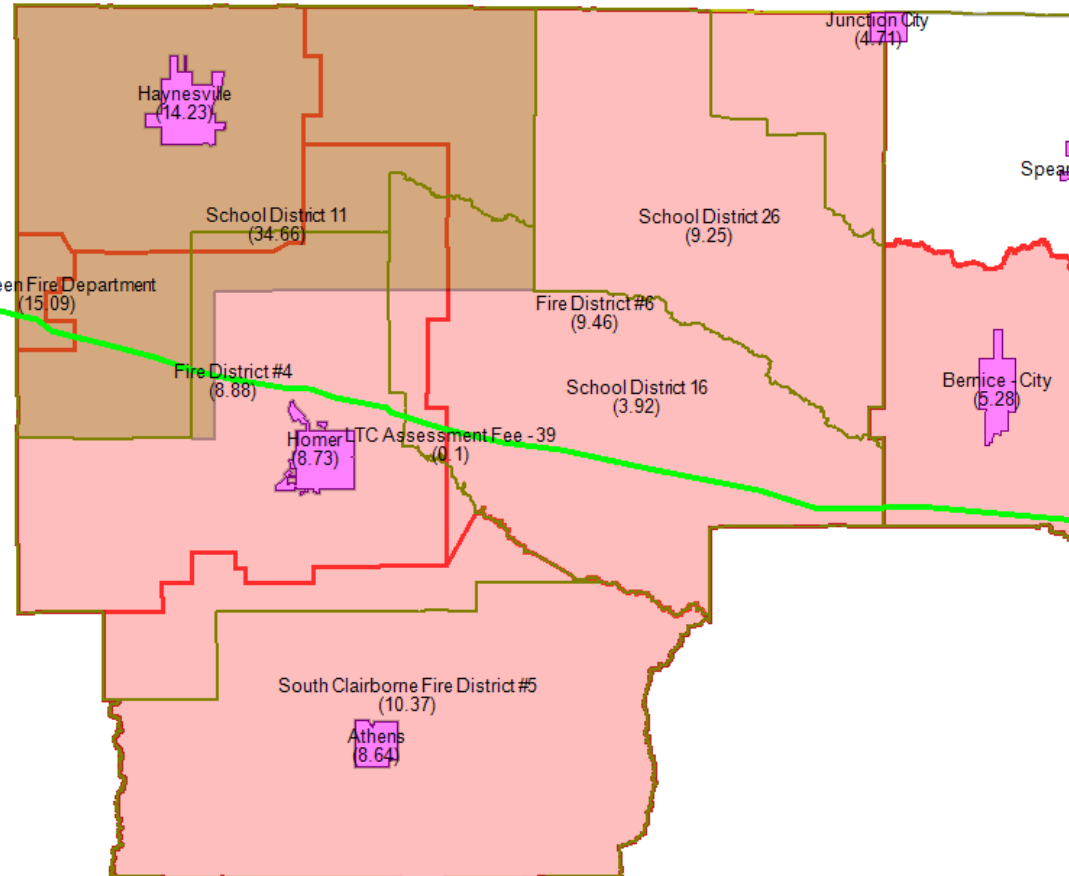
Jurisdiction Detail - Pipelines

Pipeline Name
Claiborne Parish
Evergreen Fire Department
EVERGREEN
EVERGREEN E
Fire District #4
CLAIRBORNE 16
CLAIRBORNE 16E
CLAIRBORNE EH
CLAIRBORNE FD6
EVERGREEN 13D
EVERGREEN E
HOMER
HOMER N
Fire District #6
ADAMS
CLAIRBORNE FD6
JACKSON
JEFFERSON
LINCOLN



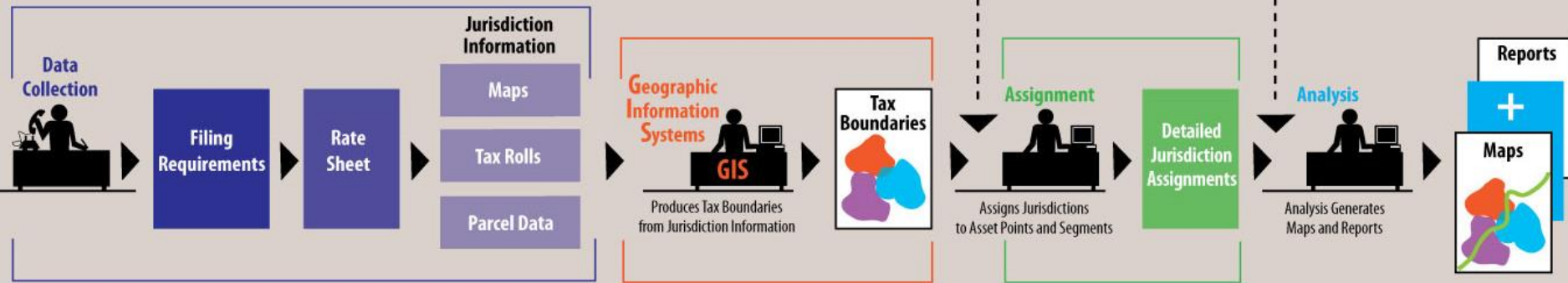
Total Pipeline By Jurisdiction

Jurisdiction Name	Jurisdiction Code	Pipe Length (ft)
Claiborne Parish		
Evergreen Fire Department		
Fire District #4		
Fire District #6		
LTC Assessment Fee		
LTC Assessment Fee -39		
Parish Tax Out		
Recreation Tax		
School District 11		
School District 13		
School District 16		
Union Parish		
Bernice Area Fire		
East Union Hospital		
Farmerville - City		
Farmerville Area		
Law Enforcement		
Northeast Union		
Parish Construction		



4 key processes to Success!

YOUR COMPANY



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Conclusion

- Accurate jurisdiction assignments saves everyone time and money
- Specialized GIS tools can enhance productivity
- YOU can build processes to achieve accurate jurisdiction assignments!