



# 46th Annual Taxation Conference APPRAISAL for AD VALOREM TAXATION

of Communications, Energy and  
Transportation Properties

July 24 - 28, 2016

## Allocation Issues – Where and How Much?

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# Agenda

- **Importance of making accurate jurisdiction assignments**
- **Overview of GIS to relate assets to jurisdictions**
- **The 4 key processes that must be in place to make accurate jurisdiction assignments**
- **Common mistakes to avoid**

# What is Apportionment?

The process of assigning a portion of a state's value to a geographic area within a state (usually a taxing district or a tax code area).

***Unit approach to value***

# Importance of accurately relating assets to jurisdictions

- Required for tax compliance
- Needed when apportioning value
- Ability to do so quickly builds credibility with tax authorities, and within one's own organization

***Accuracy wins credibility***

# Inaccurate assignments cost time and money

## Wasted time

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

## Wasted money

- More expensive to fix later
- Increased labor costs
- Unplanned audits, penalties and interest
- Cost of filing amended return

***Loss of Credibility***

# What is GIS?

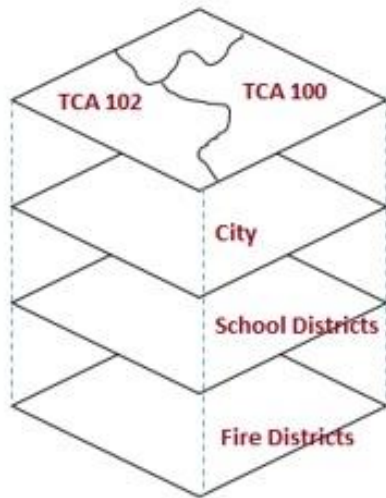
**Geographic Information System:**

**Lets you visualize, analyze data to understand geographic relationships**

***Accurately relate assets to jurisdictions***

# GIS: Taxing Jurisdictions

## Spatial Data



PropTaxBillingJur Browser

JurName	JurCode	CountyCode	StateCode	StateAbbr	CountyName	FIPSSTCO	BillingJurType	SpecialJurT
Tax Area 5--	5--	5--		CO	Delta	08029	taxunit	
Tax Area 51-	51-	51-		CO	Delta	08029	taxunit	
Tax Area 54-	54-	54-		CO	Delta	08029	taxunit	
Tax Area 5A-	5A-	5A-		CO	Delta	08029	taxunit	
Tax Area 5A1	5A1	5A1		CO	Delta	08029	taxunit	
Tax Area 5R-	5R-	5R-		CO	Delta	08029	taxunit	

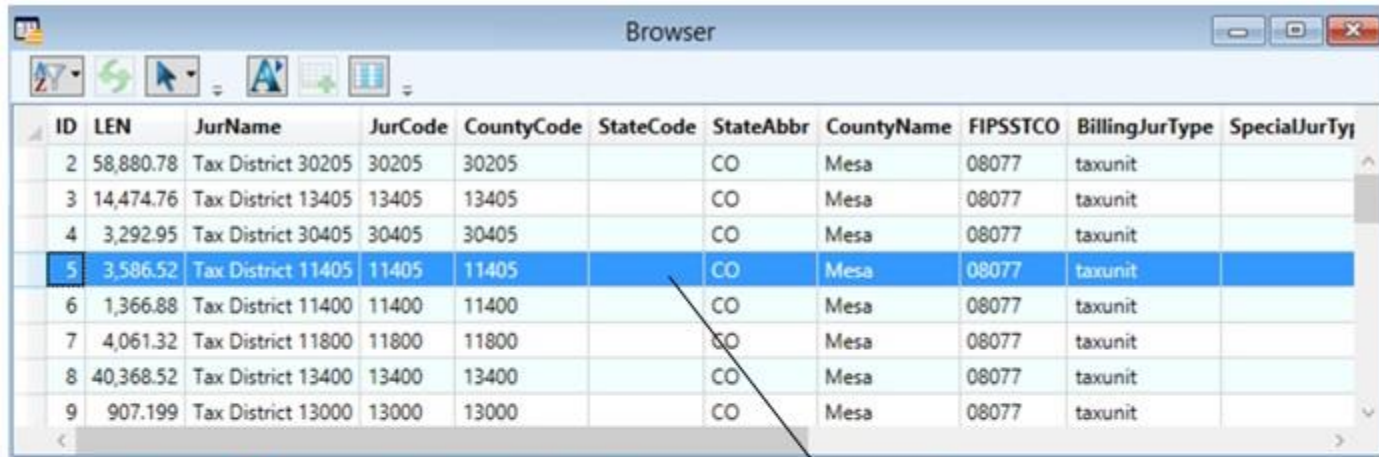
Jurisdiction Information

Tax Area Boundaries



Tax Entities

# GIS: Assets & Jurisdictions



ID	LEN	JurName	JurCode	CountyCode	StateCode	StateAbbr	CountyName	FIPSSTCO	BillingJurType	SpecialJurTy
2	58,880.78	Tax District 30205	30205	30205		CO	Mesa	08077	taxunit	
3	14,474.76	Tax District 13405	13405	13405		CO	Mesa	08077	taxunit	
4	3,292.95	Tax District 30405	30405	30405		CO	Mesa	08077	taxunit	
5	3,586.52	Tax District 11405	11405	11405		CO	Mesa	08077	taxunit	
6	1,366.88	Tax District 11400	11400	11400		CO	Mesa	08077	taxunit	
7	4,061.32	Tax District 11800	11800	11800		CO	Mesa	08077	taxunit	
8	40,368.52	Tax District 13400	13400	13400		CO	Mesa	08077	taxunit	
9	907.199	Tax District 13000	13000	13000		CO	Mesa	08077	taxunit	



Specific map information and location for 1 section of the asset.



# 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***

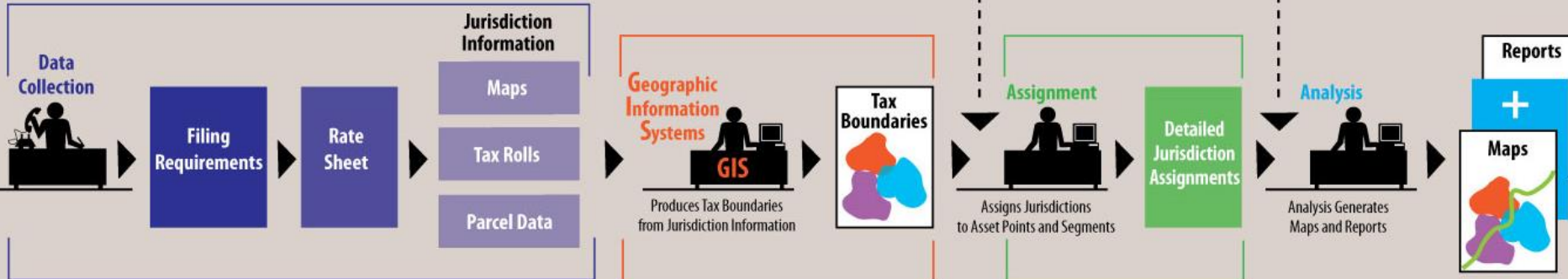
# 4 key processes

YOUR COMPANY

Addresses  
400 Main Street, Boston, MA 02111  
100 Park Street, New York, NY 10007  
100 Wall Street, New York, NY 10005  
100 Pine Street, New York, NY 10002  
100 Pine Street, New York, NY 10002  
100 Pine Street, New York, NY 10002  
100 Pine Street, New York, NY 10002  
100 Pine Street, New York, NY 10002  
100 Pine Street, New York, NY 10002  
100 Pine Street, New York, NY 10002

GIS Data  


Company Output Requirements

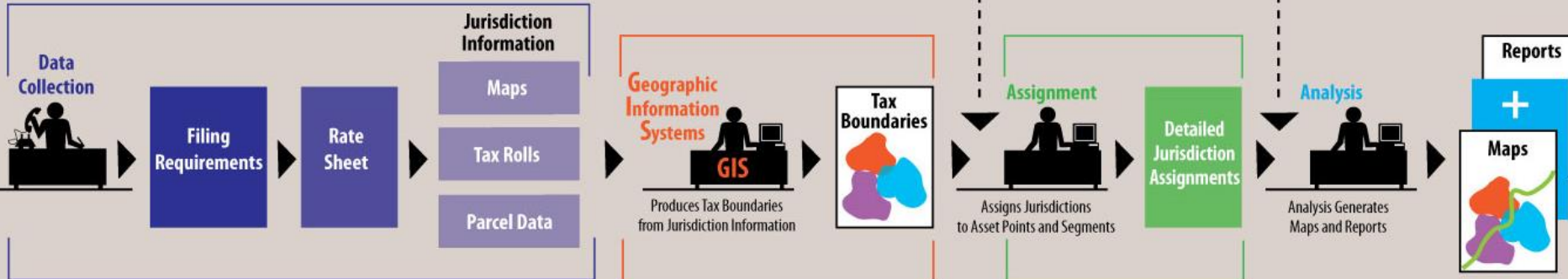


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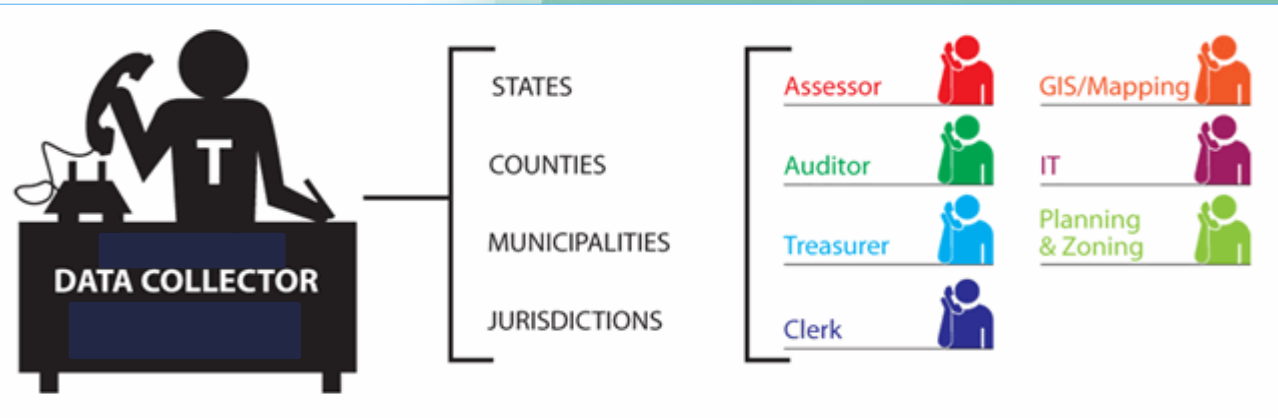
1. Data Collection
2. Geographic Information Systems
3. Assignment
4. Analysis and Reporting

# 4 key processes

YOUR COMPANY



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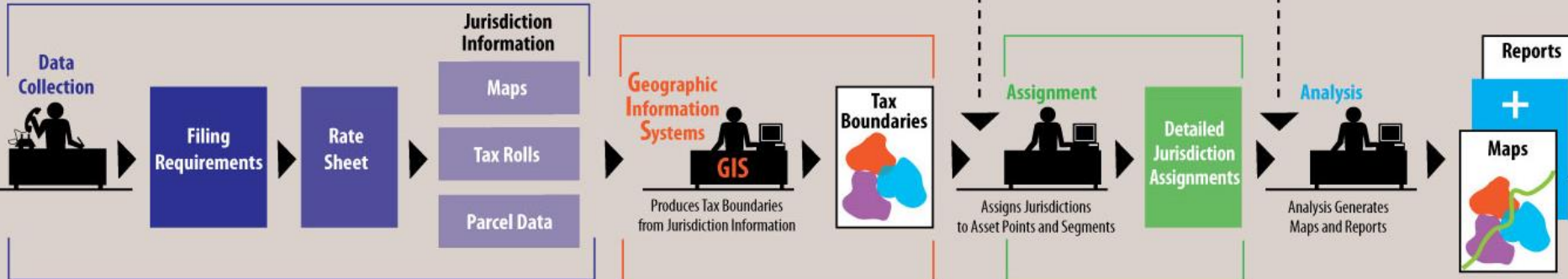
# 4 key processes

YOUR COMPANY

Addresses  
400 Main Street, Boston, MA 02101  
100 Park Street, New York, NY 10001  
100 Wall Street, New York, NY 10001  
100 Pine Street, New York, NY 10001  
100 Elm Street, New York, NY 10001  
100 Oak Street, New York, NY 10001  
100 Maple Street, New York, NY 10001  
100 Birch Street, New York, NY 10001  
100 Cedar Street, New York, NY 10001  
100 Spruce Street, New York, NY 10001

GIS Data  


Company Output Requirements

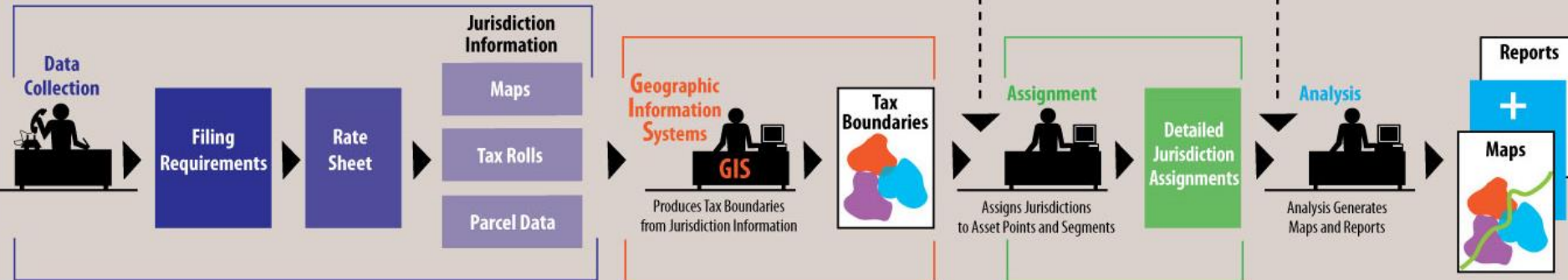


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- Validate and digitize jurisdiction boundaries.
- Assure complete: No unwanted gaps.
- Assure boundaries align with map features and with one another.

# 4 key processes

YOUR COMPANY



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- Assign jurisdictions to assets.
- (linear assets) Measure lengths of each cut segment.
- Reconcile the lengths.

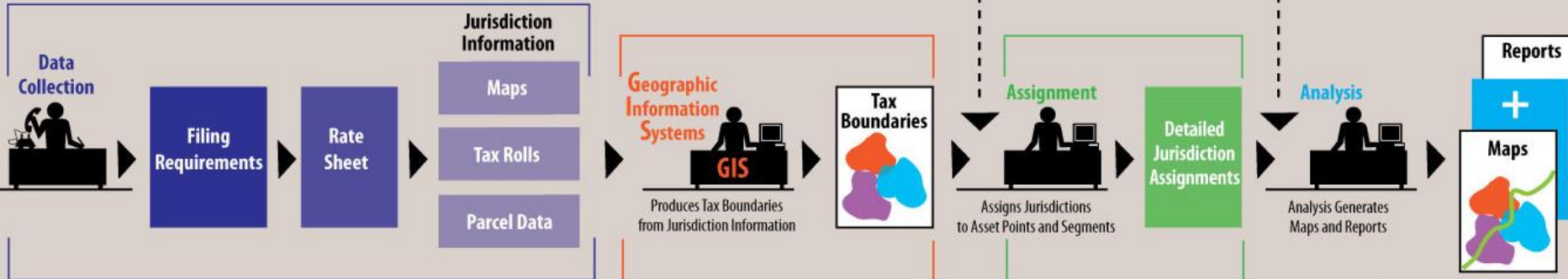
# 4 key processes

YOUR COMPANY

Addresses  
401 Main Street, Boston CT  
76 Lighthouse Street, London CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT  
100 Main Street, Boston CT



Company  
Output  
Requirements



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- Report in the form the Tax Department requires.
- Provide maps of the assigned assets in their jurisdictions.

# **What causes inaccurate jurisdiction assignments?**

- **Poor quality asset information**
- **Incomplete jurisdiction boundaries**
- **Topological invalidities**

# Jurisdictions change...

- **New jurisdictions are added each year as new taxes and fees assessed by different governmental bodies**
- **>180,000 property taxing jurisdictions**



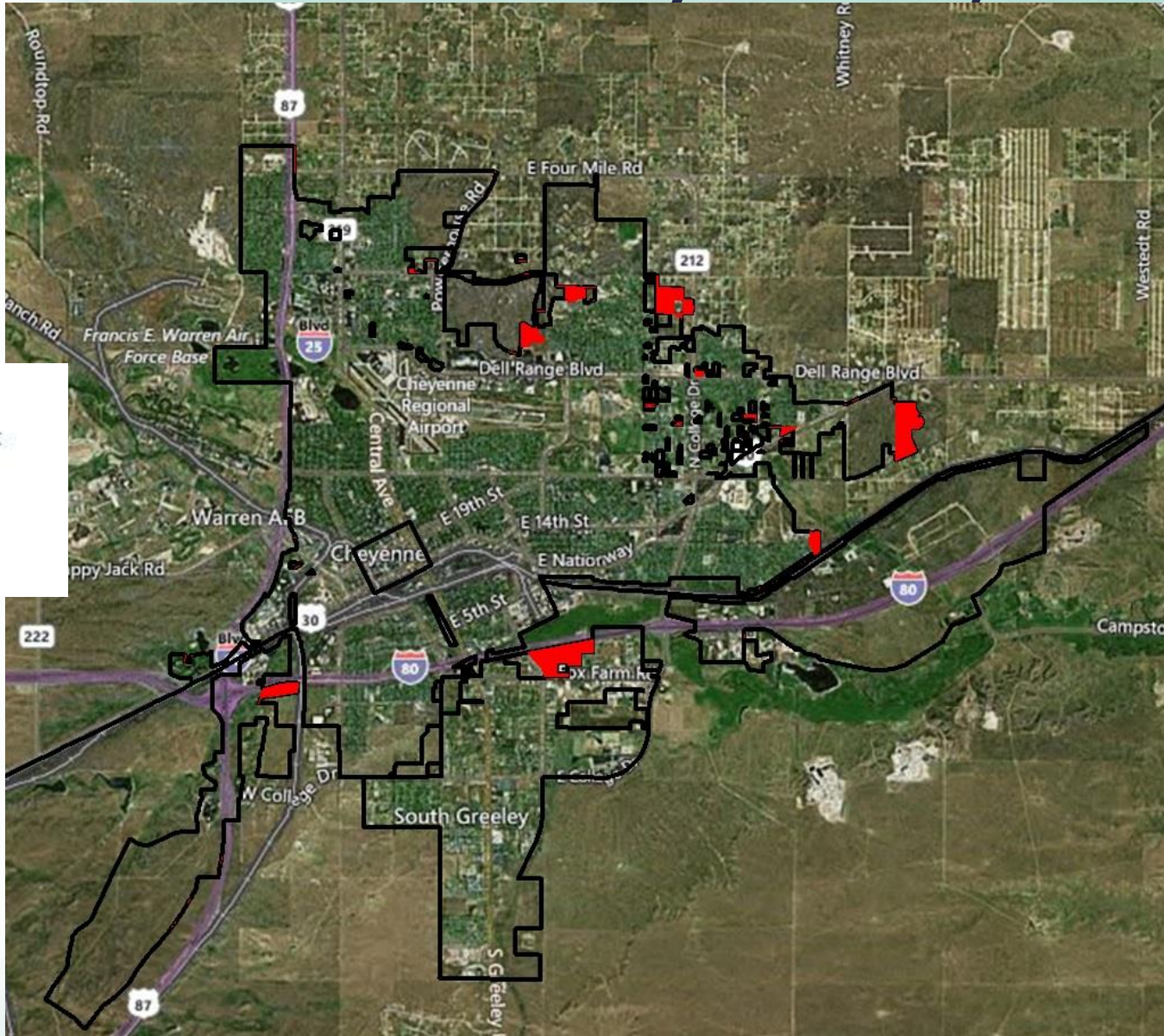
# ...Jurisdictions change

- Each year, on average:
  - 25% of municipality boundaries change
  - 6-10% of individual Jurisdiction and 10-30+% of Tax Code Area boundaries change within a state

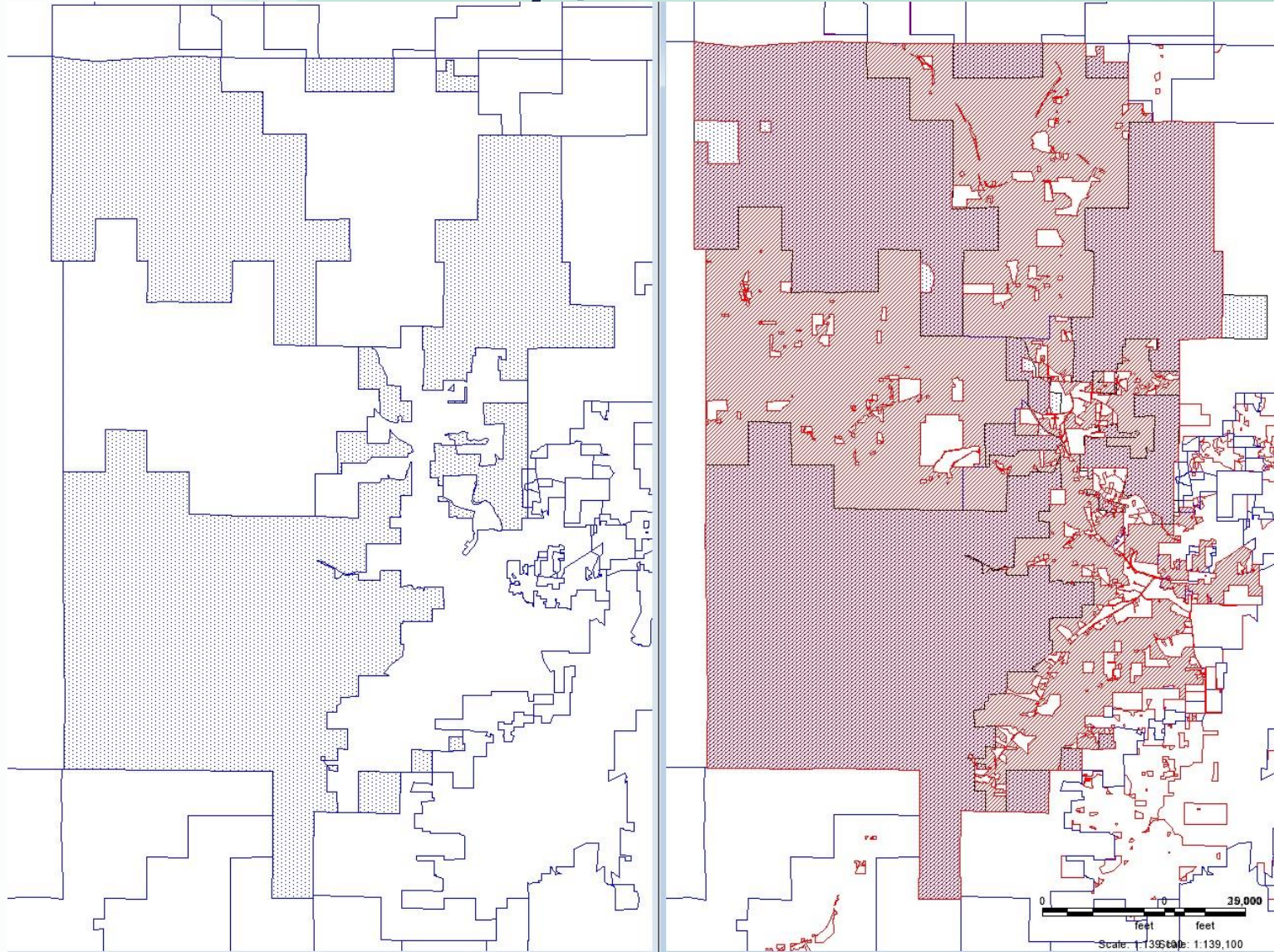
***Changes compounded over time!***

# City Limits - Cheyenne, WY

-  2015-2016 Annex
-  Tax Area



# Tax Code Areas Change Benton County, OR 2014 & 2015



# Conclusion

- Accurate jurisdiction assignments saves everyone time and money
- Jurisdiction boundaries change frequently
- YOU can build processes to achieve accurate jurisdiction assignments!