

# National Parcel Polygon Data Service

**What is it?**

**Why do we need it?**

**Who provides the data?**

**Where will it be hosted?**

Dr. Nancy von Meyer  
Fairview Industries  
May 2021



**A nation wide publicly accessible annually updated web service providing parcel polygons and a local parcel identifier for every parcel in the country.**

- **Covers the entire nation**
- **has no use or access restrictions**
- **can be downloaded**
- **Provides geometry and an identifier only – link to the provider is available**
- **Annual updates from statewide data aggregators**

# One Off – My Parcel – one at a time

- This is the most personal level of parcel information.
- This is the information about my parcel or a parcel I am interested in and requires the most detail and most current information
- Business cases are individual
  - What is the assessment on my neighbor's parcel?
  - I want to sell my house what does the county or real estate service have about my house?
  - How big is that lot?
  - What is the zoning of that parcel?

Dr. Nancy von Meyer - Fairview Industries

401 01 0007

401 01 0011

401 01 0013

401 01 0008

Penitaton

# Jurisdiction Based Project

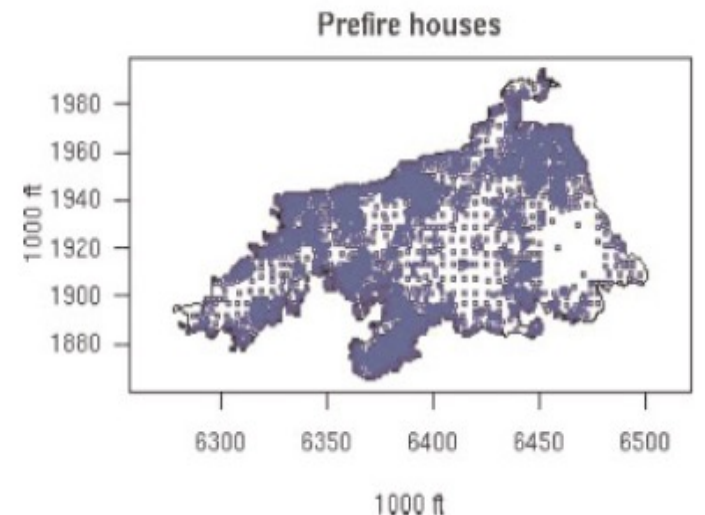
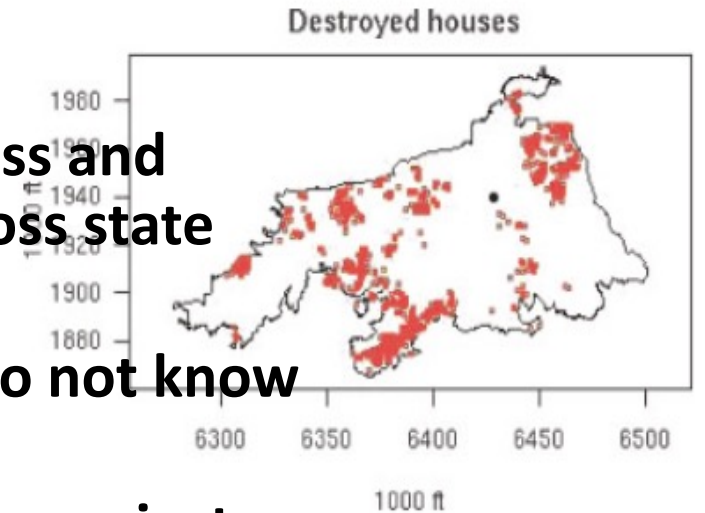
- This might be a project related to a city or a county. Maybe a rezoning or a real estate evaluation project. All the parcels in a defined jurisdiction are affected by an action and the base conditions need to be known to implement the decision or to define or execute the plan.
- Typically, these are the decisions and analysis made by a unit of government where parcel data can help identify who owns the land, what is the density, what are the uses, what are the values, what are the future plans.

# Event or Project Driven Needs

- **These business cases typically cover a wider range of parcel data with the geographic extent defined by an event such as a disaster or weather event or a project such as right of way acquisition project**
- **The information needed to support the inquiry is driven by the type of event or project but typically the same information is needed for all the parcels in the area of interest.**
  - **For a disaster maybe the number of structures and total values are needed for a response or declaration.**
  - **For a neighborhood or area wide housing improving project maybe occupancy, type of occupancy and condition are needed**
  - **Recreation or park creation or expansion project**

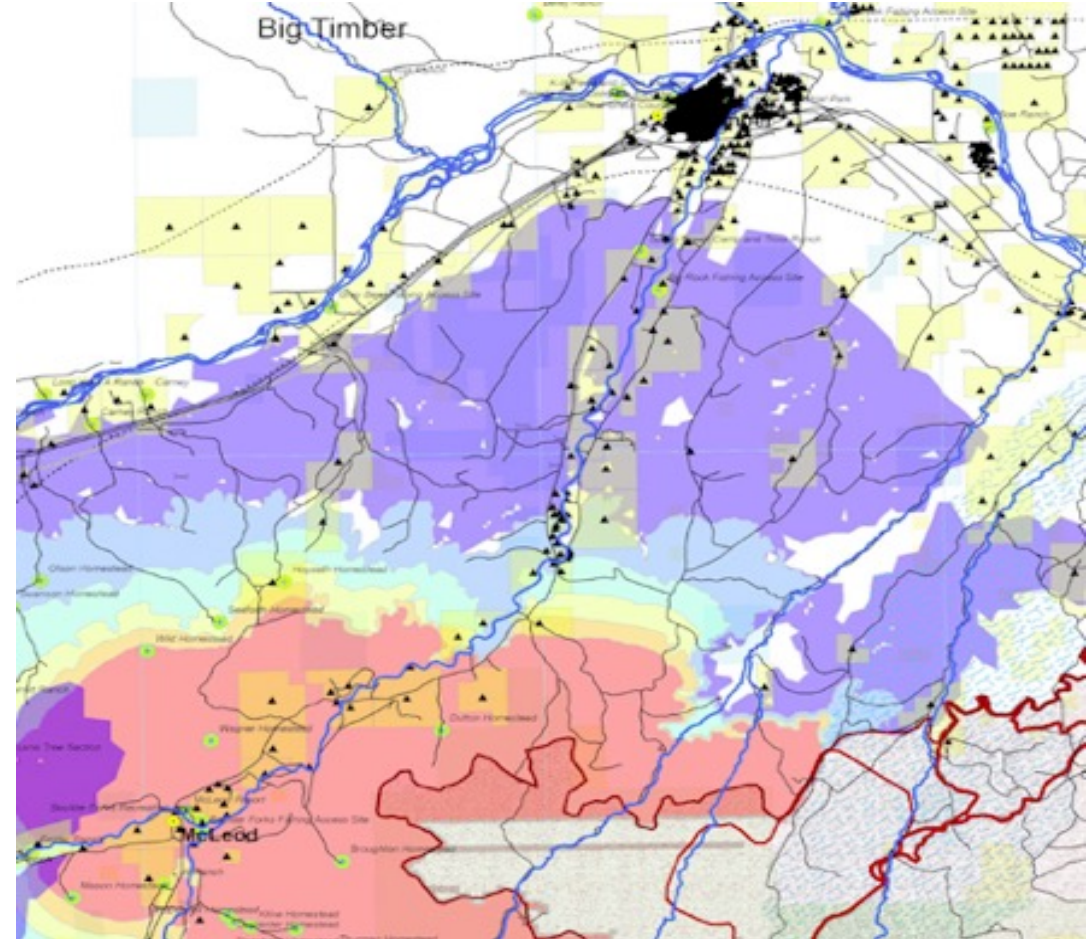
# Event or Project Driven Needs

- Projects could cross state lines
  - A national forest might need surrounding parcels to assess and environmental impact or a declaration boundary may cross state boundaries.
  - Weather events, natural disasters, and fires and floods do not know boundaries.
  - A highway or recreation corridor planning and acquisition project
  - Pest or insect control, powerline analysis



# Statewide Data Set

- Statewide property value equalization.
- State assessed assets
- State sales tax management
- Education and school districts
- Library services
- Parks and Recreation



# National Business Cases

## Index of what is available

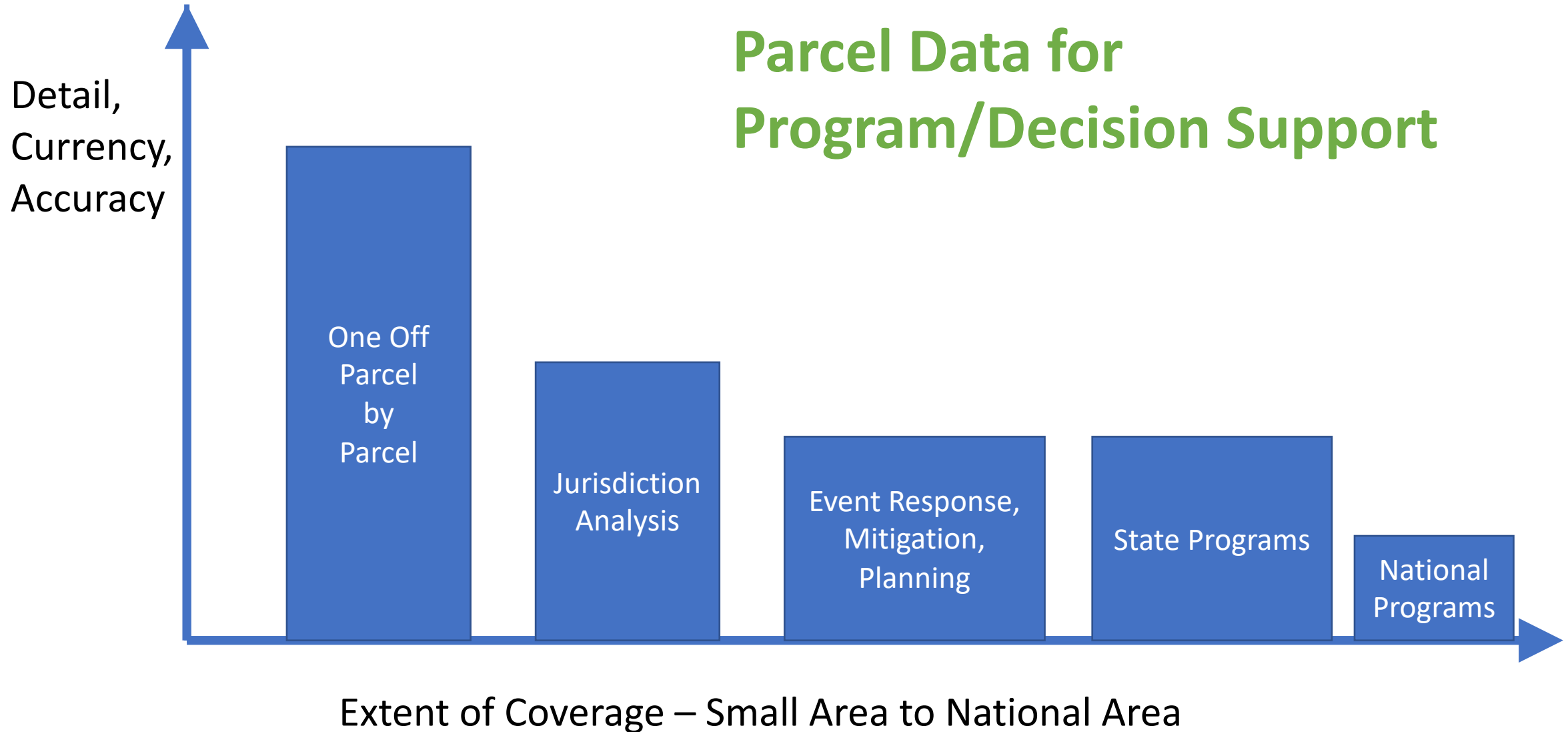
- Patterns of ownership
- Where can I get more detail for these parcels?

## Specific Analysis Questions (Typically one time questions)

- Combine with National Field Crop and Ag Program Payments
- Foreign Ownership
- Businesses in Bankruptcy
- Homes in Default and housing equity and affordability
- Climate change analysis and impacts
- Blight analysis and reinvestment



# Parcel Data for Program/Decision Support



# Who Provides the Data

- **The Data Steward is the primary data provider.**  
These are typically the local jurisdiction, a town, a city, a county and in some cases a state agency
- **The Data Aggregator is the Authoritative Source.**  
Typically, these are states but are also regional agencies within a state. Aggregated data is most often provided state-by-state.

# Combined Map Display Parcel Polygons – One Source per Geography

State Sourced Parcel Polygons Database

Standardized, aggregated, limited attributes, common projection, Community Parcel Translation Tools

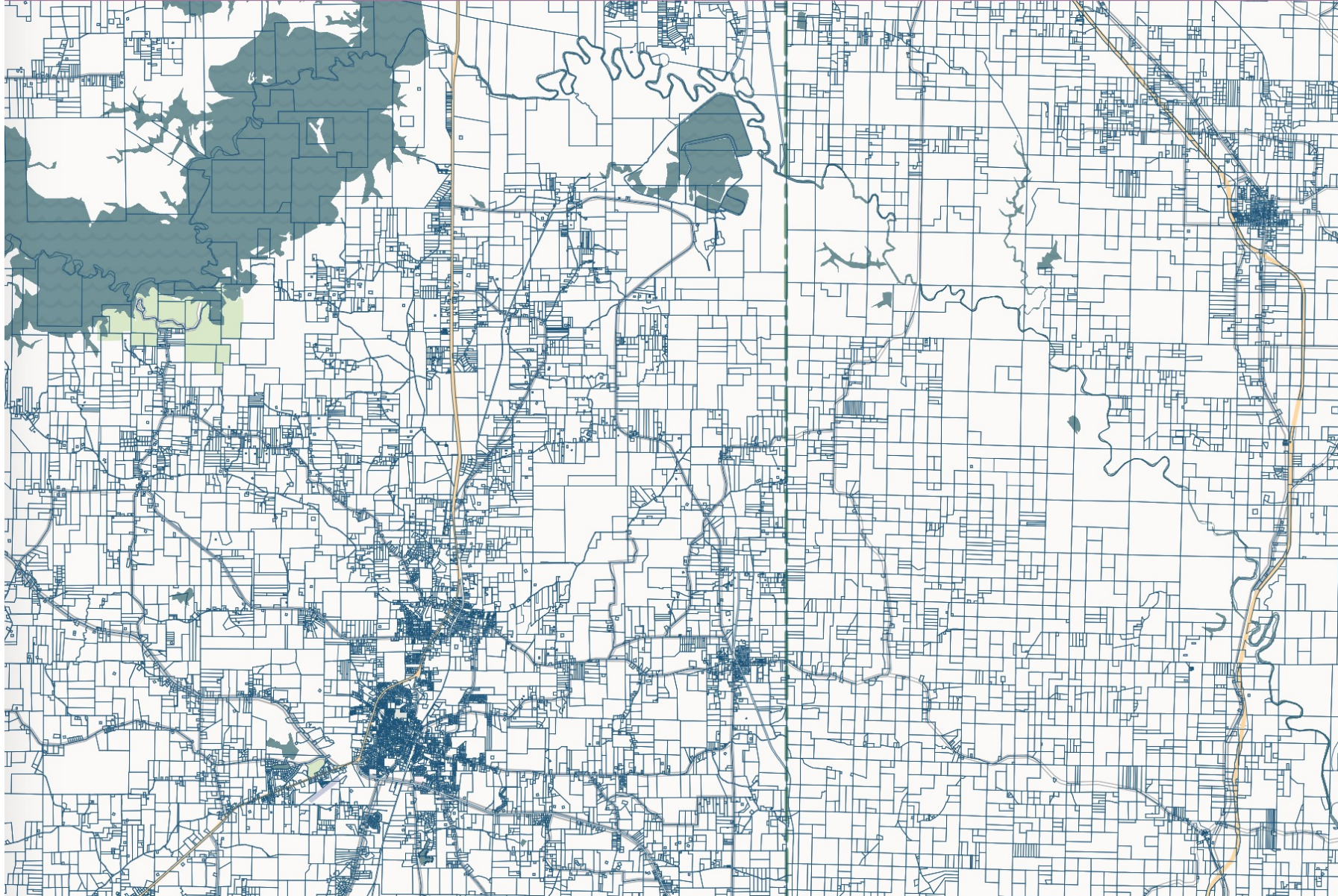
State  
Aggregator  
Data Sources

Infill for states without a contributor state source

Third Party Sourced Data or Base Map reference layer

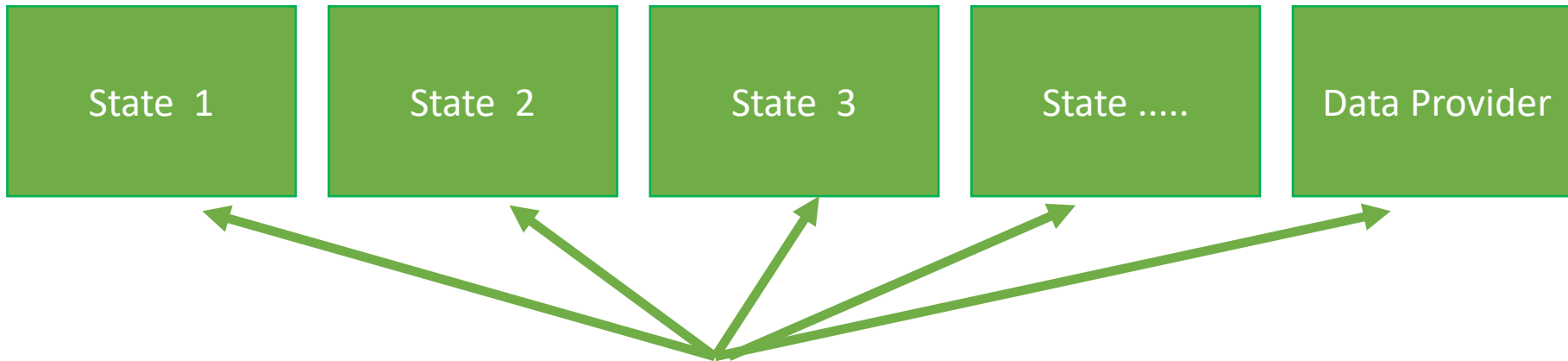
## Loveland Nationwide Parcel Viewer Demo

Look up parcels across the country by zooming into the map to your geography of choice.



## Proof of Concept

Built from current data holdings and potentially aged in a few areas, the first phase of this project demonstrated that nation wide parcel polygons with a parcel identifier can be constructed and searched. It is fast enough to be responsive and parcels across state lines are visible

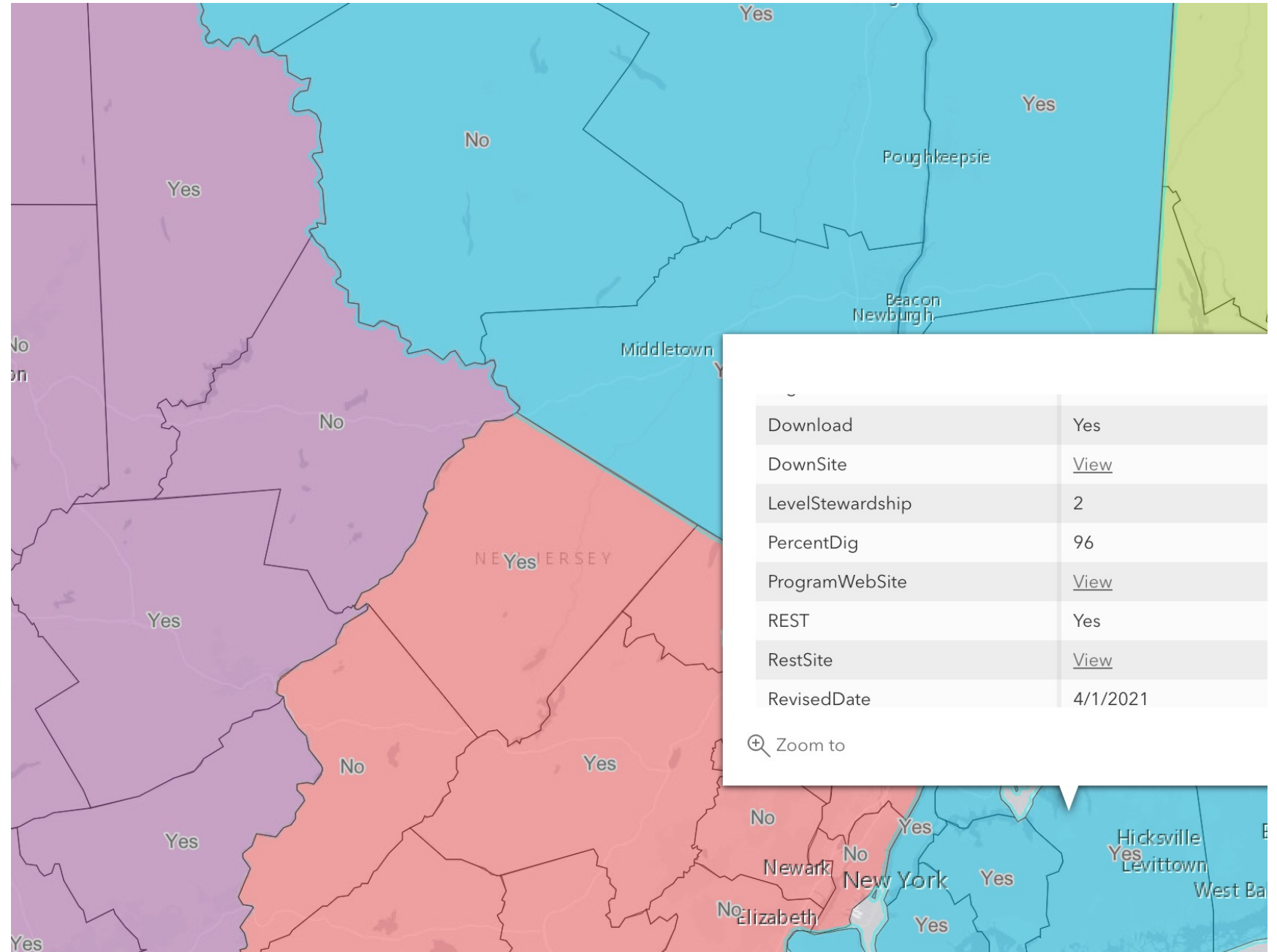


Data Steward Overlay - Link to Program, Data Sources, Data Services

Combined Map Display of Parcel Polygons – One Source per Geography

## State Stewardship Links Overlay

The Open Sourced parcel viewer is added to an Arc GIS Online map with the state parcel stewardship and county parcel data availability added as an overlay. Links to the primary state parcel data provider are provided as reference to source data. States without aggregated data are linked to a third party provider.



# Other Potential Services

Yearly email reminder of data updates with upload link

Client side or web side services for generating standardized national parcel polygon data set

Automate dropping old and adding new data

Yearly (or as needed) update of state services and contacts



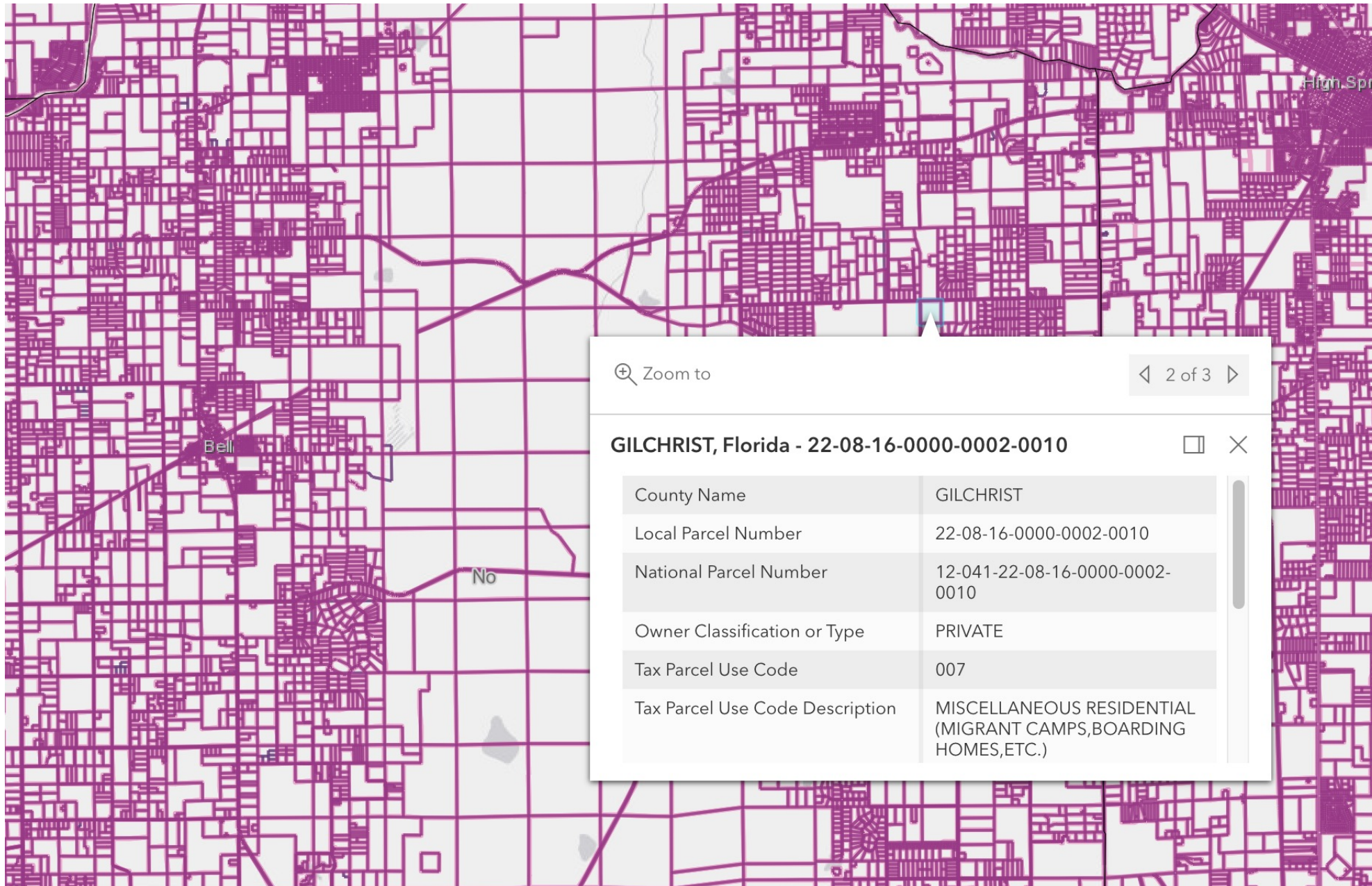
# FUTURE HOPE – SAFTEY NET HOSTING

- Provide an open Geo Hub for parcel data for providers that don't have or don't chose to offer parcel web resources
- A basic viewer
- Open download, as specified by data provider
- Web Feature Service of provided parcel data



## Underlying Feature Data Service

With state source data uploaded, the individual state feature services, with possible REST services can be added at more at larger scales.



# Where Will It be Hosted? – The Data

- Data Sets are HUGE. We can not be moving this data frequently.
- Re-host a stripped-down national data set.
  - Geometry, local PIN, State and County FIPS, load date
- Data broker fill in data would be hosted at the provider site and viewed from that data source.

# Where Will It be Hosted? – The Service

- Esri hosted Federal Geographic Data Committee (FGDC) Cadastral Subcommittee Geo Portal
- Possibly a Department of Interior (DOI) Server Cluster
- Or we need to find another appropriate host or organization.

# What is Next?

- Identify and resolve tech
  - Web Map functionality
  - Look and Feel
  - Tiling for performance
- Get States on board
  - Many states – about half – already provide data openly
  - A handful of states 3-8 have data they could provide or partial data
  - Infill data will need to be identified
- Find suitable host