

GIS Platform Implementation: Best Practices & Case Study

Brian R. Embley

Enterprise Architect

NJ Office of GIS, NJOIT



"Stop hoping
For success someday.
Instead, start planning
For your success today.
You wouldn't build a house
Without a blueprint,
So don't build your life ~~without one either!~~ **GIS**
- Warren Peterson

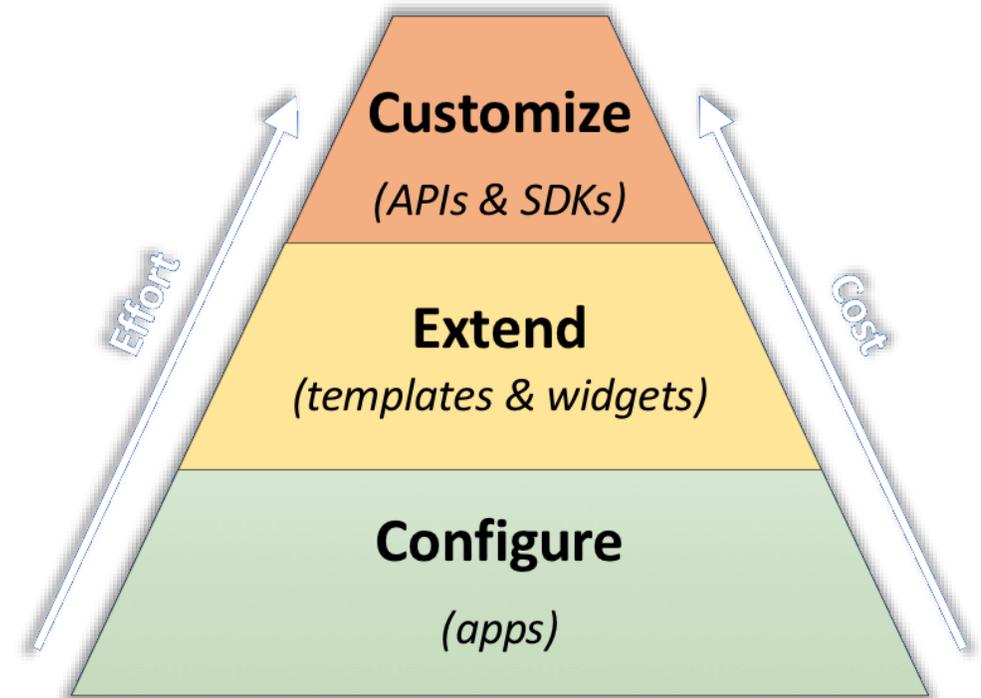
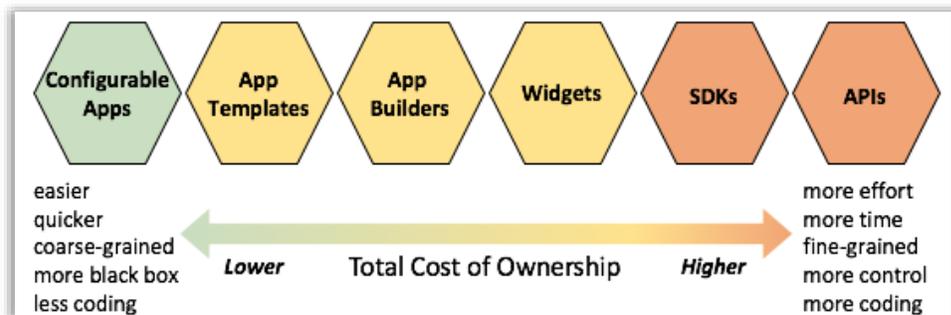
Topics

- Application Implementation Strategies
- Apply IT Governance
- Automation
- Capability Delivery
- Enterprise Integration: Application Patterns
- Environment Isolation
- High Availability
- Load Balancing
- Manage Identities
- Prioritization Approach
- Security
- Workload Separation

BP: Application Implementation Strategies

Minimize cost and maximize development resources

- Configure First
- Extend Existing Apps & Templates
- Use Web APIs and SDKs



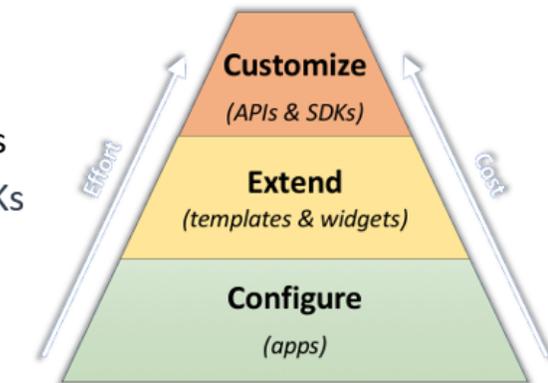
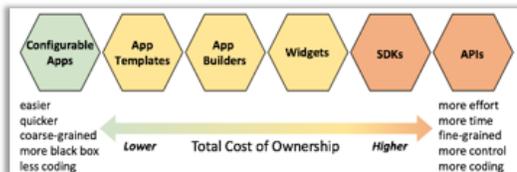
Configure first for the lowest cost and least effort

OGIS Experience

Application Implementation Strategies

Minimize cost and maximize development resources

- Configure First
- Extend Existing Apps & Templates
- Use the ArcGIS Web APIs and SDKs



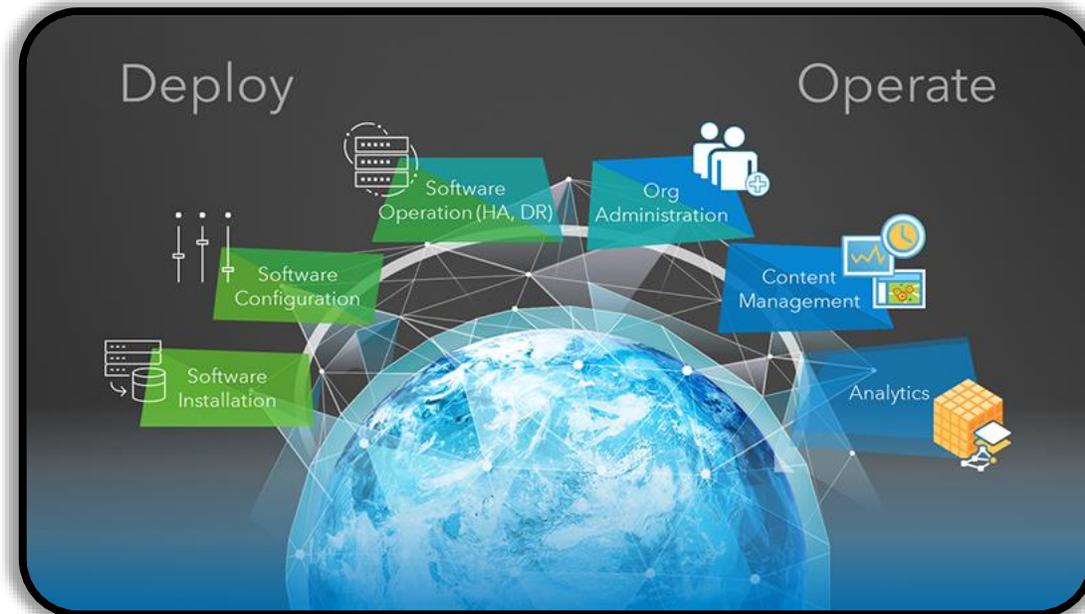
Configure first for the lowest cost and least effort



- Production Web apps
- NJGIN 2.0 website/Md Catalog
- Challenges:
 - Maintenance
 - Troubleshooting
 - Lack of documentation
 - Staff skills
- Path forward
 - Less apps
 - New apps are COTS configurable
 - Legacy migration

BP: Automation

- The process of scripting defined, often repetitive workflows
- Promotes:
 - Efficiency
 - Consistency
 - Productivity



Automate deployment & operations

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BP: Automation

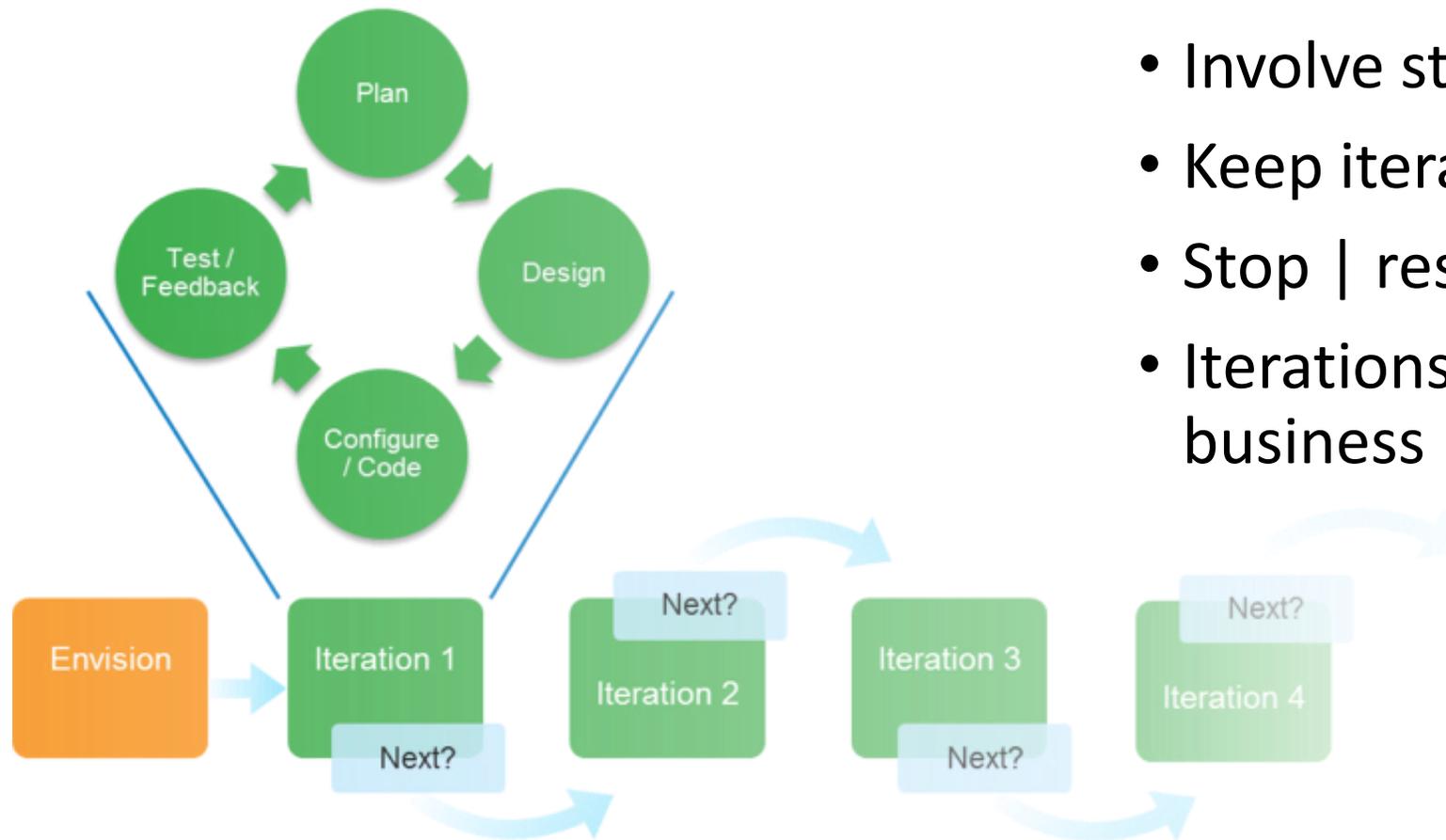
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Automate deployment & operations

- Cache data deployment
- Some app deployment
- Geocoder updates
- Data Mgm't – QA/QC checks
- NJGIN 3.0 partner content changes
- Partner road, address check out/in
- Goal: Data updates trigger automated deployment

BP: Capability Delivery

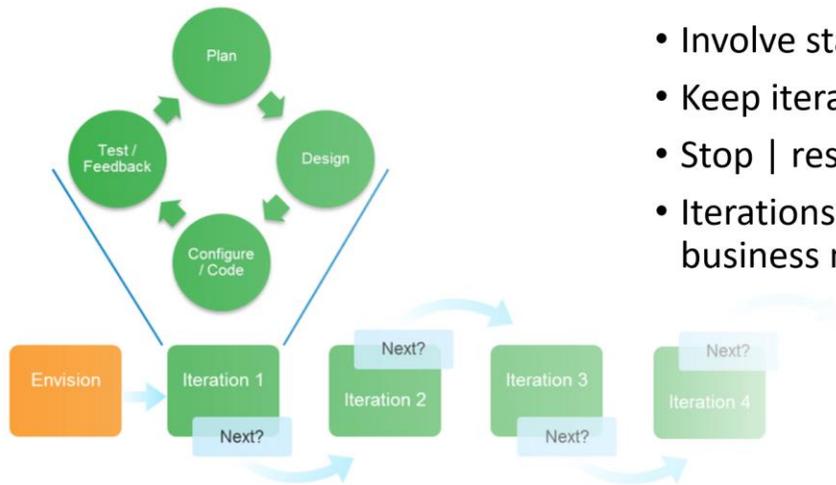


- Involve stakeholders
- Keep iterations brief (~30 days)
- Stop | restart at any time
- Iterations terminate with the business need

Each iteration results in deliverable you can use...

OGIS Experience

BP: Capability Delivery



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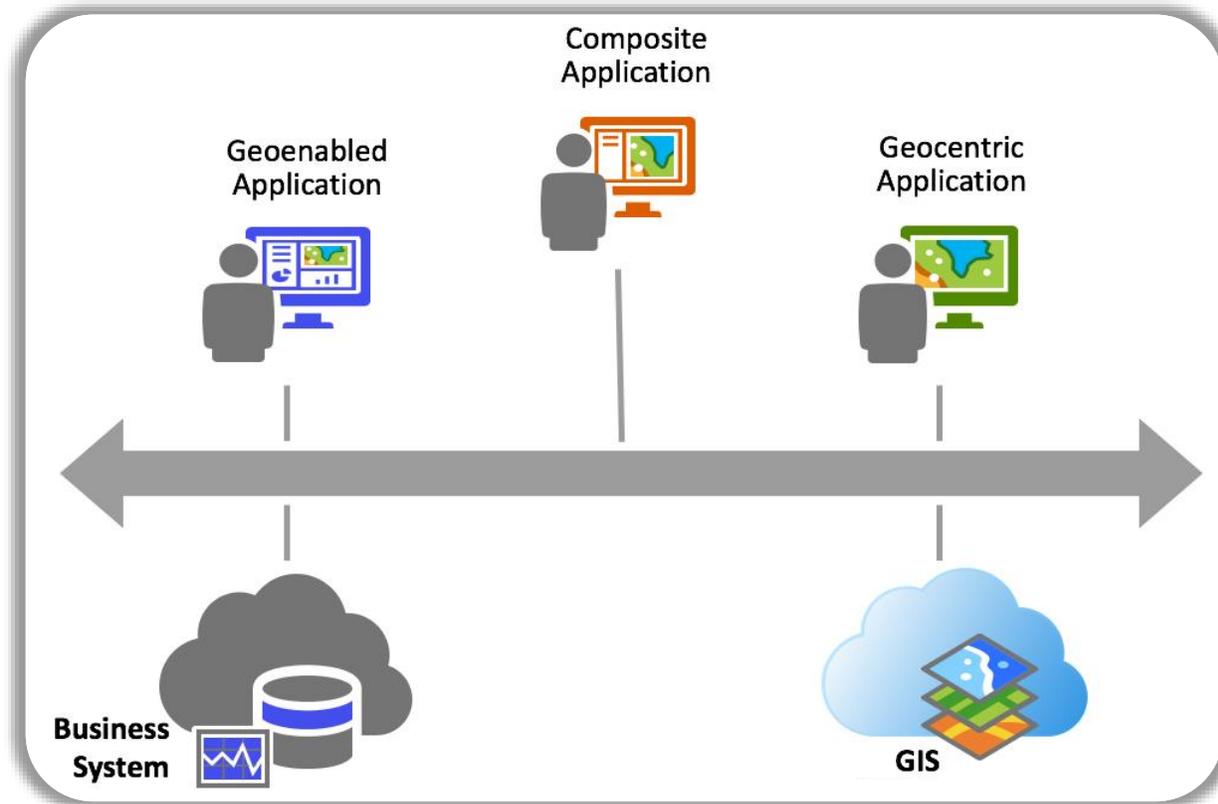


- Some success
- Stakeholder involvement is key
- Need good Project Mgr
- Internal Projects



BP: Enterprise Integration: Application Patterns

- Patterns for integrating disparate information systems



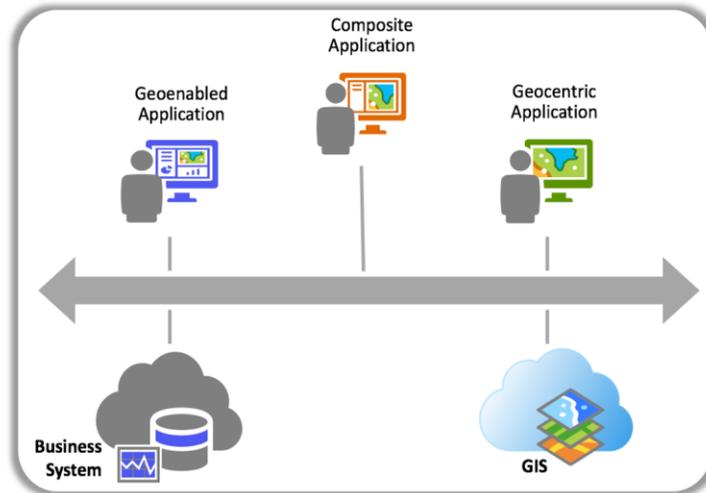
Seek to achieve the greatest impact from available capabilities

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- Often Geocentric Apps
- Dept of Labor
- Service publishing

BP: Enterprise Integration: Application Patterns

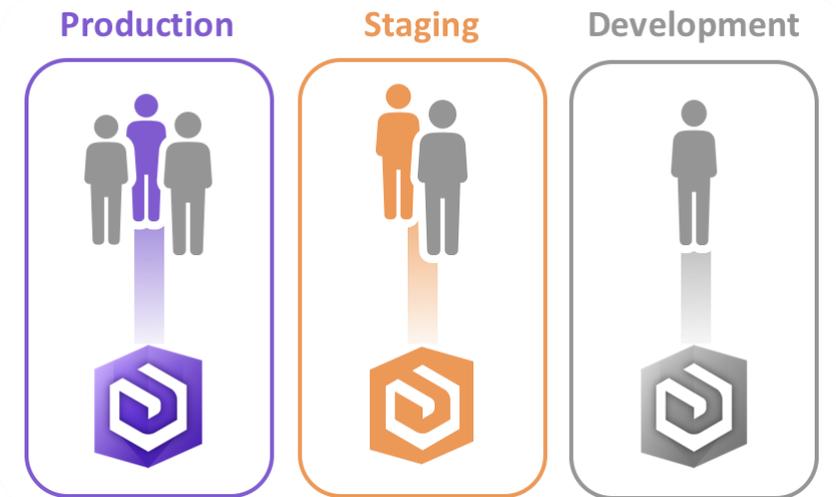
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Seek to achieve the greatest impact from available capabilities

BP: Environment Isolation

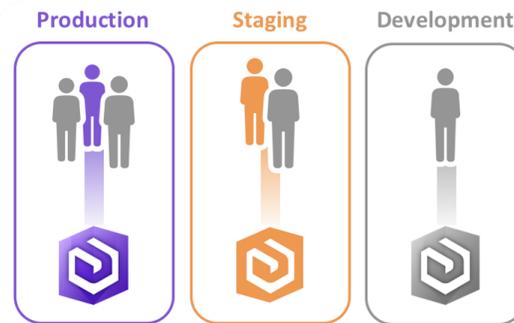
- Separate and distinct compute environments
- Production: an operational, real-time compute environment
- Staging: a separate, mirrored, pre-production environment
- Development: a limited scale environment sufficient for primary code and data modeling



OGIS Experience

BP: Environment Isolation

- Separate and distinct compute environments
- **Production:** an operational, real-time compute environment
- **Staging:** a separate, mirrored, pre-production environment
- **Development:** a limited scale environment sufficient for primary code and data modeling



- Well established
- Include stress testing
- Requires discipline

Reduce risk and protect operational systems from unintentional changes and negative business impacts



BP: High Availability

A design approach that targets a prearranged level of operational performance during a period of time

- Improve service delivery
- Reduce risks

Availability (%)	Downtime per year	Downtime per week
95.0	18.25 days	8.4 hours
99.0	3.65 days	1.68 hours
99.9	8.76 hours	10.1 minutes
99.99	52.56 minutes	1.01 minutes
99.999	5.26 minutes	6.05 seconds

What is the acceptable downtime for your business workflows?

OGIS Experience

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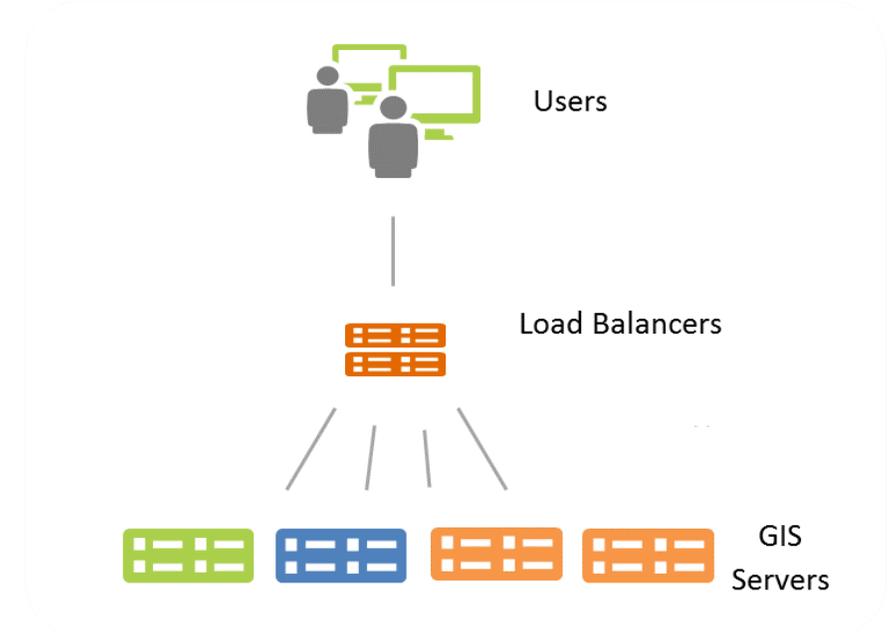
- We use HA
- Increased cost
- Increase complexity
- Increased performance
- Additional administrative overhead



BP: Load Balancing

Distributing client workloads across multiple compute resources

- Balance system utilization
- Reduce risks
- Simplify service delivery & growth (single access point)
- Secures backend servers



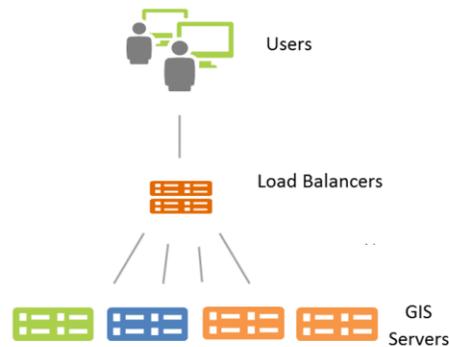
Implement in pairs for high availability...

OGIS Experience

BP: Load Balancing

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Implement in pairs for high availability...



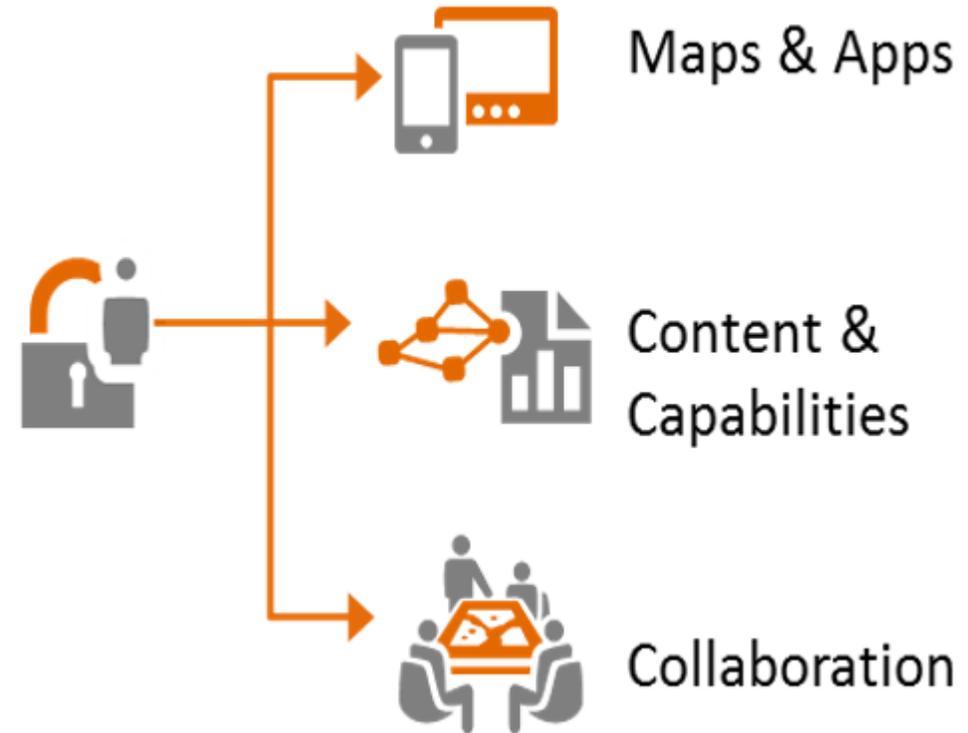
- We use LB
- HW (F5, Cisco Ace)
- SW (Apache HTTP Server, mod_proxy_balancer)
- Improves availability
- Devices very reliable



BP: Manage Identities

Uniquely and securely describe user access to maps, apps, data, and analysis

- Configure:
 - Users
 - Roles
 - Privileges
- Incorporate in your apps



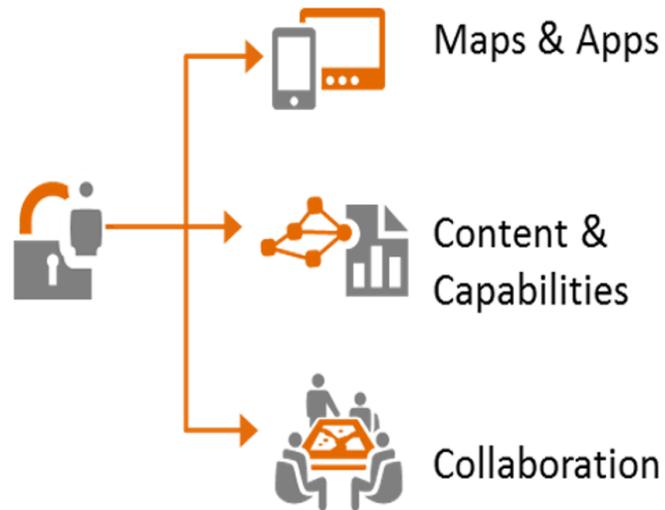
Identity enables participation!

OGIS Experience

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Identity enables participation!

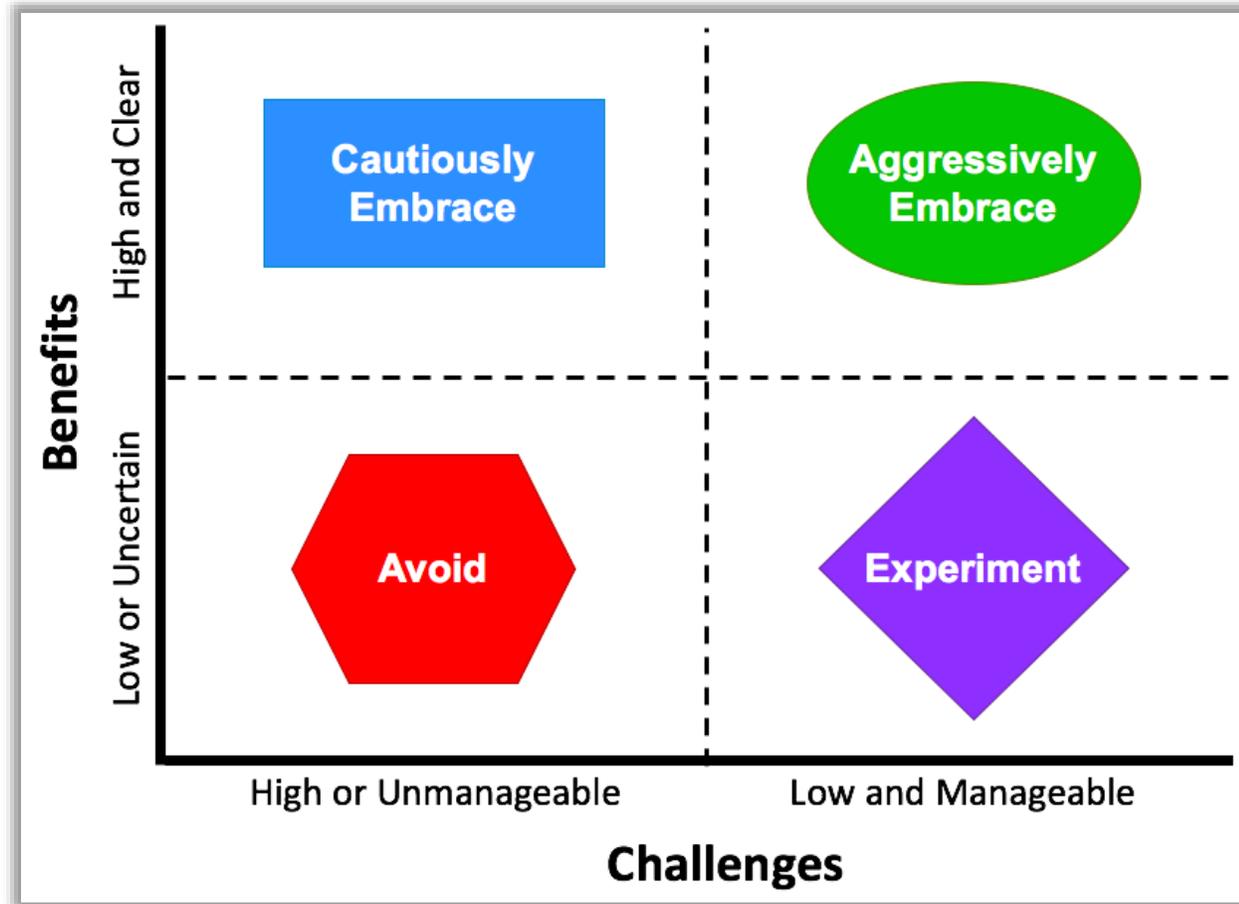


- Limited use
- Mostly public apps
- AGO, myNJ Portal



BP: Prioritization Approach

Maximize success by balancing business benefits with challenges

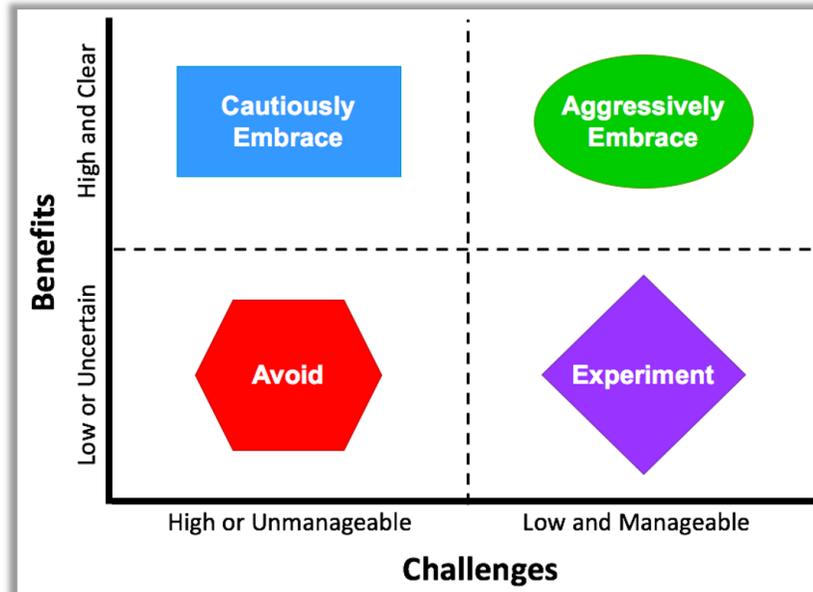


Drive value from technology investments

OGIS Experience

BP: Prioritization Approach

Maximize success by balancing business benefits with challenges



Drive value from technology investments

- Some challenges
- NJGIN 3.0
- Dashboard POCs
- DMAVA Armory Viewer

BP: Security

Security should be addressed early in the design process

- Authentication/Authorization
- Filtering
- Encryption
- Logging/Auditing



Leverage the organization's existing security framework!

OGIS Experience

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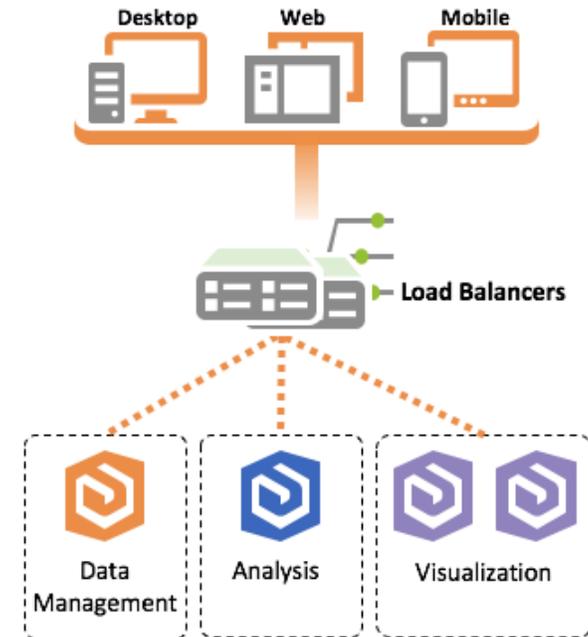
Leverage the organization's existing security framework!

- Security Officer
- Considered at every phase of a project
- Not necessarily sensitive data
- Prevent abuse systems

BP: Workload Separation

Separate technology deployments by solution pattern

- Improve service delivery
- Reduce risks
- Minimize system resource contention



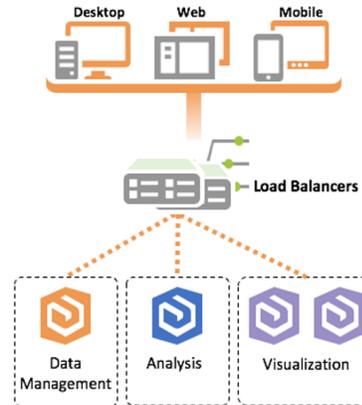
Typically SLAs determine which server deployments need to be separated.

OGIS Experience

BP: Workload Separation

Separate technology deployments by solution pattern

- Improve service delivery
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- Minimize system resource contention



Typically SLAs determine which server deployments need to be separated.



- Separate Visualization and Data Mgm't



Thank You

Brian R. Embley

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NJ 2015 Natural Color Orthos Raster Tile Cache

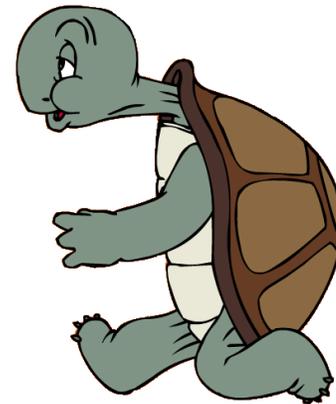
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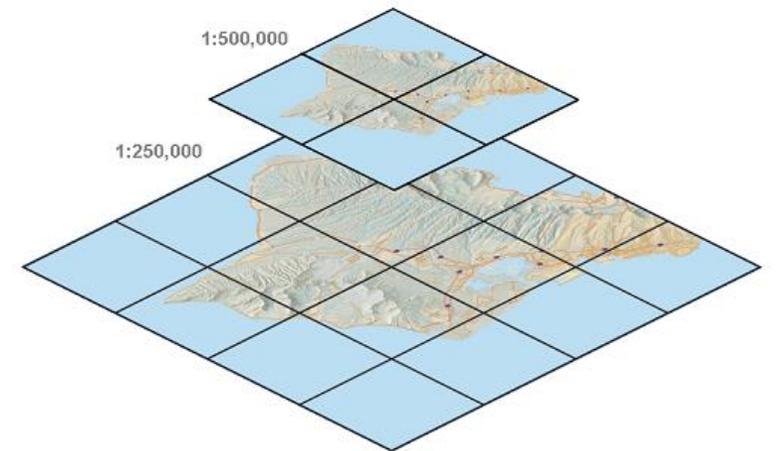
Challenge

- WMS –How does it work - high fidelity, dynamic images, reprojects
- 2 Lizardtech Express Server machines
- Getting hammered –load
- ~ 2M requests per month
- Slow performance
- Frequent Server restarts needed



Raster Tile Cache

- Preprocessed
- Server delivers image files to the client
- Performance scales very well
- Use ArcGIS Desktop and Server
- No Project on the fly



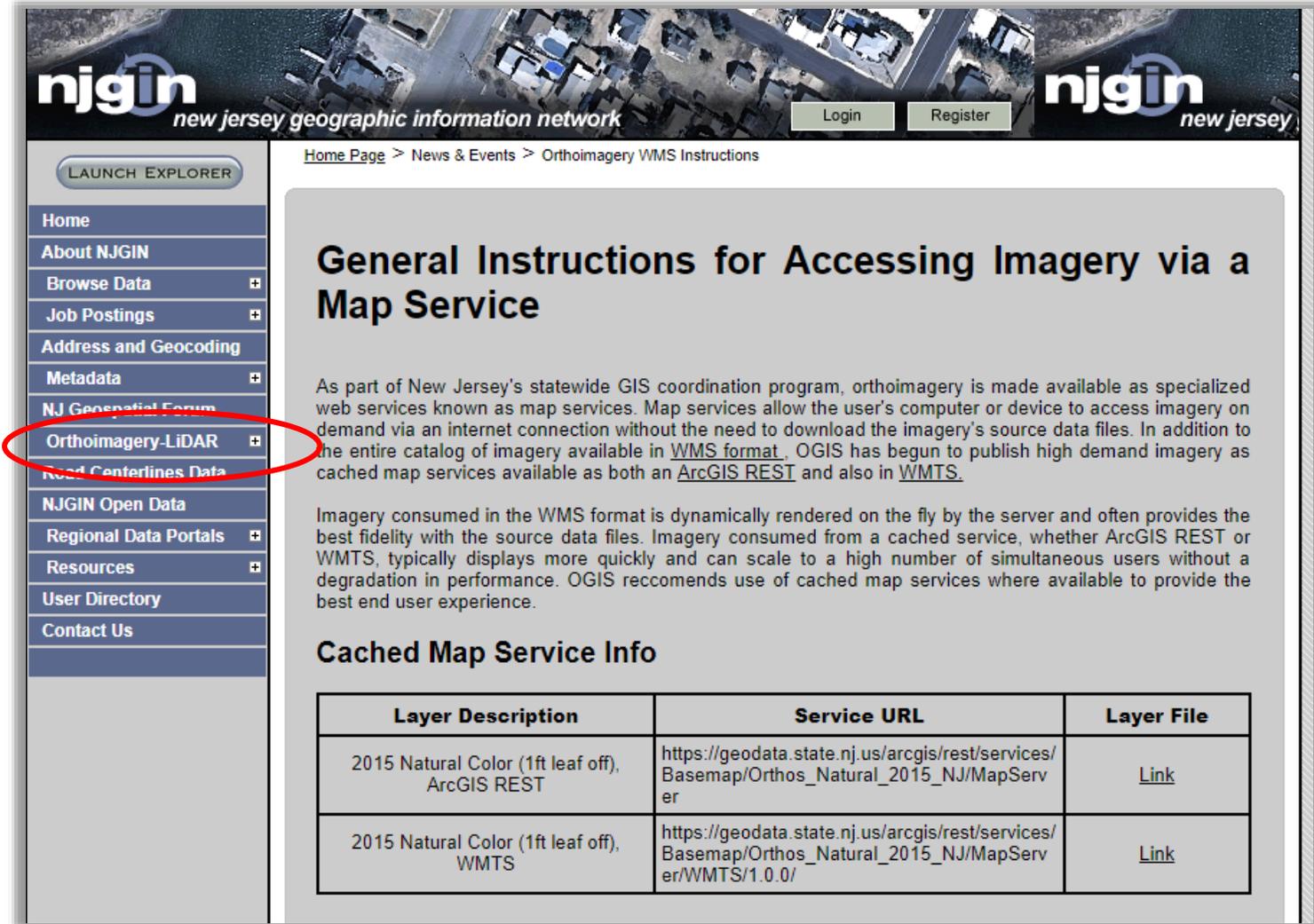


Caching Details

- Raster Catalog
- Scale levels
- Storage

Closing

- NJSP cache is available now
- ArcGIS REST and WMTS
- Web Mercator is coming



The screenshot shows the NJGIN website interface. The top navigation bar includes the NJGIN logo, the text 'new jersey geographic information network', and 'Login' and 'Register' buttons. A breadcrumb trail reads 'Home Page > News & Events > Orthoimagery WMS Instructions'. The left sidebar contains a 'LAUNCH EXPLORER' button and a list of menu items: Home, About NJGIN, Browse Data, Job Postings, Address and Geocoding, Metadata, NJ Geospatial Forum, Orthoimagery-LiDAR (circled in red), Road Centerlines Data, NJGIN Open Data, Regional Data Portals, Resources, User Directory, and Contact Us. The main content area is titled 'General Instructions for Accessing Imagery via a Map Service'. It contains two paragraphs of text explaining that orthoimagery is available as specialized web services (ArcGIS REST and WMTS) and that imagery is dynamically rendered. Below the text is a section titled 'Cached Map Service Info' which contains a table with two rows of service information.

Layer Description	Service URL	Layer File
2015 Natural Color (1ft leaf off), ArcGIS REST	https://geodata.state.nj.us/arcgis/rest/services/Basemap/Orthos_Natural_2015_NJ/MapServer	Link
2015 Natural Color (1ft leaf off), WMTS	https://geodata.state.nj.us/arcgis/rest/services/Basemap/Orthos_Natural_2015_NJ/MapServer/WMTS/1.0.0/	Link

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NJGIN 3.0 – Discovery and Sharing

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Modern Expectations of Sharing

- “Open Data” is now an Everyday Thing
 - Data is an asset
 - Promote transparency & accountability
 - Often supported by governing legislation



- Solutions connected to Enterprise Architecture
 - Leveraging servers to share out data
 - Minimal impact on information workers



State of New Jersey
NJOIT Open Data Center
Data.NJ.gov



Open Data Principles

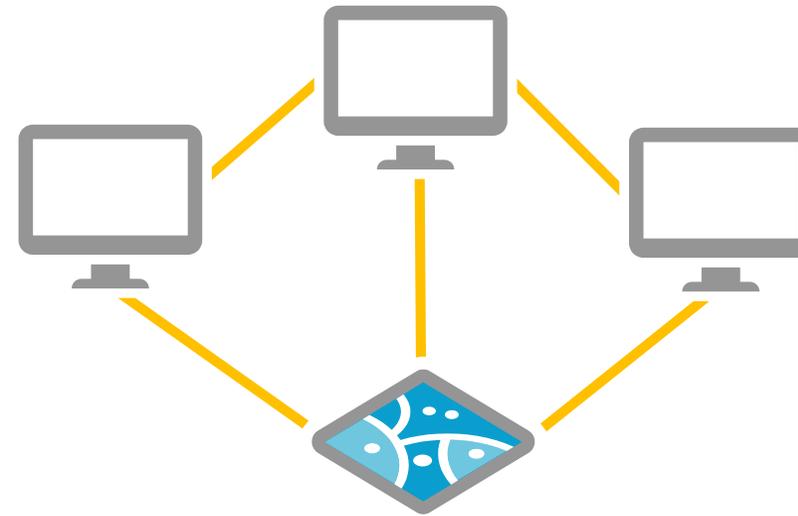
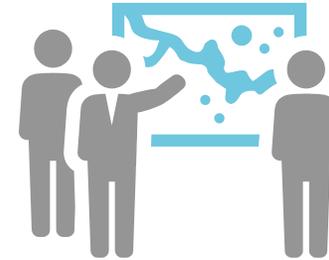


Accessible



Explorable

Discoverable



Collaborative



new jersey geographic information network

Login

Register

LAUNCH EXPLORER

Home

About NJGIN

Browse Data

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Address and Geocoding

Metadata

NJ Geospatial Forum

Orthoimagery-LiDAR

Road Centerlines Data

NJGIN Open Data

Regional Data Portals

Resources

User Directory

Contact Us

Metadata SpotLight



Govt admin EOA14 BND



Deed Notice Extent in New Jersey, Edition 20180901...



Classification Exception Areas-Well Restriction Areas...

Quick Search

Choose content type:

<All Content Types>

Choose content theme:

<All Content Themes>

Optional Keyword (e.g. river):

Search input field

Start Search

[Full Search]

News And Events

Archives

State, Local and Nonprofit Open Space of New Jersey data set replaces Open Space and Preservation Resources Inventory

Current GIS Services Term Contract (T1841) extended to 12/18/2018

Bid solicitation announced for new GIS Services Term Contract (T1841)

2017 Natural Color (NAIP) imagery is now available

Go to our new LiDAR page - New elevation product resources available!

Esri software is available to state agencies and cooperative purchasing participants through the M7003 contract

Guide to Public Web Services Available From the NJ Office of GIS

Address and Geocoding Resources

GIS Events Calendar

OCTOBER 2018

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



NJGIN Metadata Records

Current State

- 1085 Md records in NJGIN
- 891 State Owned (NJDEP, NJOIT, Pinelands, Highlands, SmartGrowth, etc)
- 104 County Owned

Vintage of County Owned

1	2003
3	2005
2	2006
91	2008
5	2009
1	2010
1	2011

The screenshot displays the NJGIN Explorer web application. The interface includes a search bar with the text 'Roebling' and a 'Find' button. Below the search bar is a map of New Jersey with a red box highlighting the Roebling area. The map shows county boundaries for PENNSYLVANIA, MERCER, MONMOUTH, CAMDEN, BURLINGTON, and OCEAN. The search results panel on the right shows 'Records Found: 461' and lists three records with their titles, publishers, coverage areas, map scales, and content types. Each record has a 'View Details' button.

Records Found: 461

Record 1:
Title: 12 Digit Hydrologic Unit Code Delineations for New Jersey, Clipped at New Jersey State Boundary (Hydr_HUC12_WBD_bnd)
Publisher: NJ Department of Environmental Protection (NJDEP)
Coverage Area: New Jersey
Map Scale: 1:24000
Content Type: Downloadable Data

Record 2:
Title: 12 Digit Hydrologic Unit Code Delineations for New Jersey, Clipped to Coastline (Hydr_HUC12_WBD_coast_bnd)
Publisher: NJ Department of Environmental Protection (NJDEP)
Coverage Area: New Jersey
Map Scale: 1:24000
Content Type: Downloadable Data

Record 3:
Title: 12 Digit Hydrologic Unit Code Delineations for New Jersey, Regulatory Boundary (Hydr_HUC12_WBD_reg_bnd)
Publisher: NJ Department of Environmental Protection (NJDEP)

NJGIN Portal 3.0 - Goals

Future State

- Content and documentation together
- Simplified Search Experience
- Easier to share content
 - Technology
 - Documentation
- Publisher controls content
- Partner Integration
 - Publishers
 - Downstream

ArcGIS Open Data



njin State of New Jersey - GIS Open Data

Find [] My Data Sign In

Overview Data API Explorer

Election Districts in Somerset County, New Jersey

★ Favorite Download APIs

Custom License 10/11/2016 Spatial Dataset 265 Rows

This feature class contains election district polygon boundaries for Somerset County. These districts are the smallest level of geography for election administration in Somerset County. Election district boundaries are redrawn every 10 years after the U.S. Census. Each district has an associated polling place location. This relationship is joined via the Polling Place ID field.

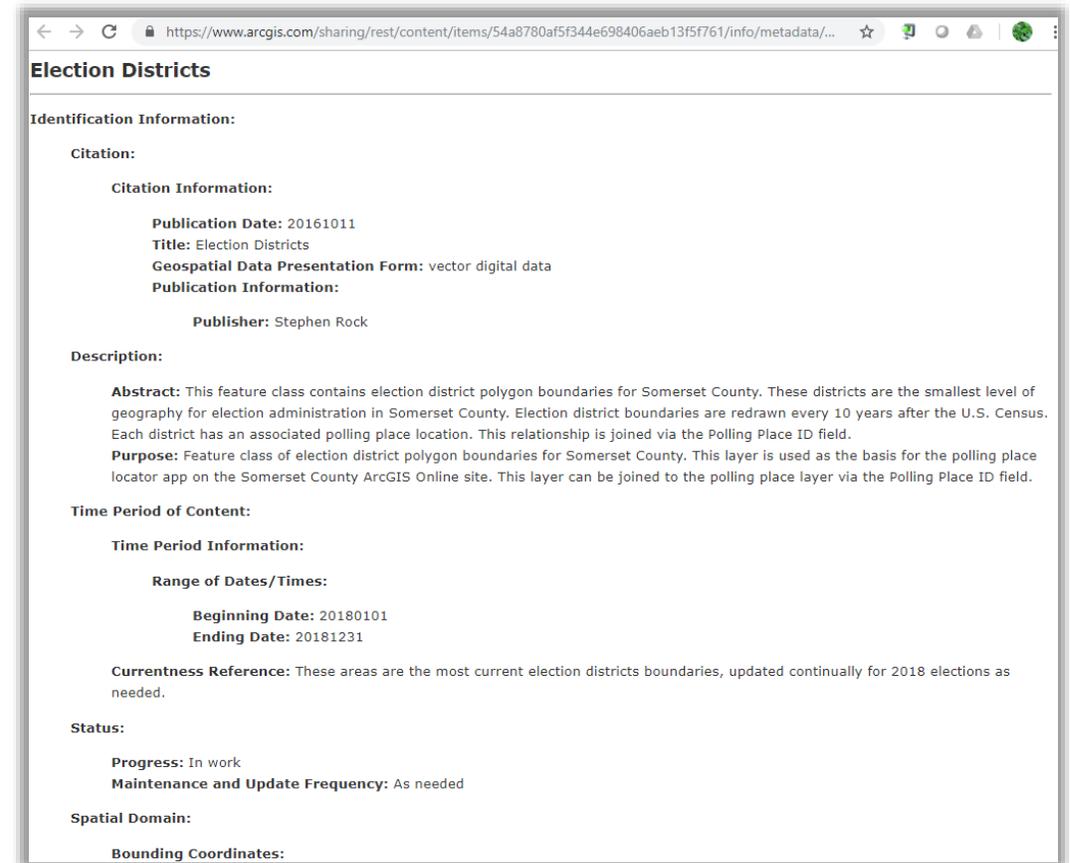
About

Somerset County, NJ
Shared By: SomersetAdmin
Data Source: gis.co.somerset.nj.us
View Metadata
Create Webmap
Create a Story Map

Attributes

Chart Map Visualization

County	Election District	Label	Last Editor	Last Update Date	Municipality
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https://www.arcgis.com/sharing/rest/content/items/54a8780af5f344e698406aeb13f5f761/info/metadata/...

Election Districts

Identification Information:

Citation:

Citation Information:

Publication Date: 20161011
Title: Election Districts
Geospatial Data Presentation Form: vector digital data
Publication Information:

Publisher: Stephen Rock

Description:

Abstract: This feature class contains election district polygon boundaries for Somerset County. These districts are the smallest level of geography for election administration in Somerset County. Election district boundaries are redrawn every 10 years after the U.S. Census. Each district has an associated polling place location. This relationship is joined via the Polling Place ID field.
Purpose: Feature class of election district polygon boundaries for Somerset County. This layer is used as the basis for the polling place locator app on the Somerset County ArcGIS Online site. This layer can be joined to the polling place layer via the Polling Place ID field.

Time Period of Content:

Time Period Information:

Range of Dates/Times:

Beginning Date: 20180101
Ending Date: 20181231

Currentness Reference: These areas are the most current election districts boundaries, updated continually for 2018 elections as needed.

Status:

Progress: In work
Maintenance and Update Frequency: As needed

Spatial Domain:

Bounding Coordinates:

NJGIN 3.0

Effort Underway

<https://njgin.state.nj.us>

LAUNCH EXPLORER

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[Govt admin EOA14 BND](#)

[Deed Notice Extent in New Jersey, Edition 20180901...](#)

[Classification Exception Areas-Well Restriction Areas...](#)

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Choose content theme:
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This site is managed by the NJ Office of Information Technology, Office of GIS. OGIS NEW JERSEY

- Integrate Search of Open Data site into NJGIN website
- NJGIN website refresh
- Energetically adding content

njgin State of New Jersey - GIS Open Data Sign In

Search - ex. Streams

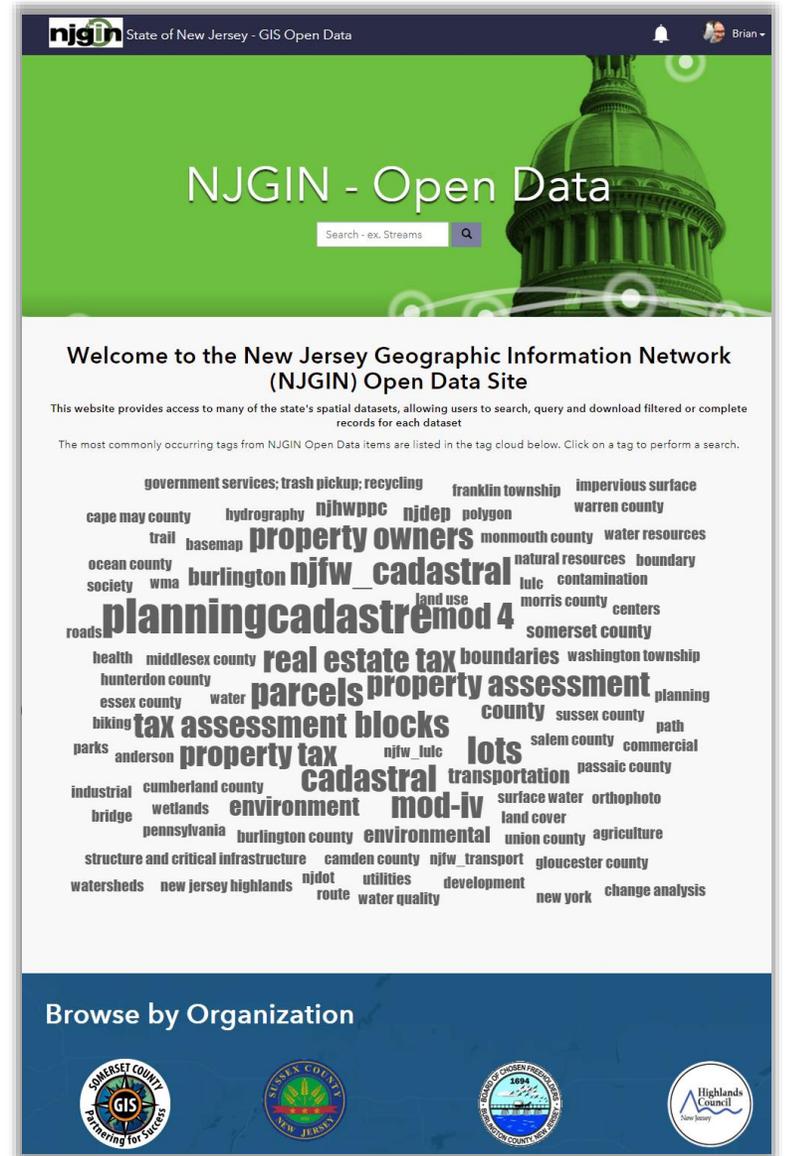
NJGIN - Open Data

<https://njogis-newjersey.opendata.arcgis.com>

NJGIN Open Data Site

<https://njogis-newjersey.opendata.arcgis.com>

- Currently 319 items
- ~13,000 searches per month
- Current Priority: live map services and downloadable
- Supports FGDC CSDGM Md record
- Supports  NJGIN Core documentation standard



Welcome to the New Jersey Geographic Information Network (NJGIN) Open Data Site

This website provides access to many of the state's spatial datasets, allowing users to search, query and download filtered or complete records for each dataset

The most commonly occurring tags from NJGIN Open Data items are listed in the tag cloud below. Click on a tag to perform a search.

property owners
planning
cadastral
real estate tax
property assessment
tax assessment
blocks
lots
environment
mod-iv
environmental

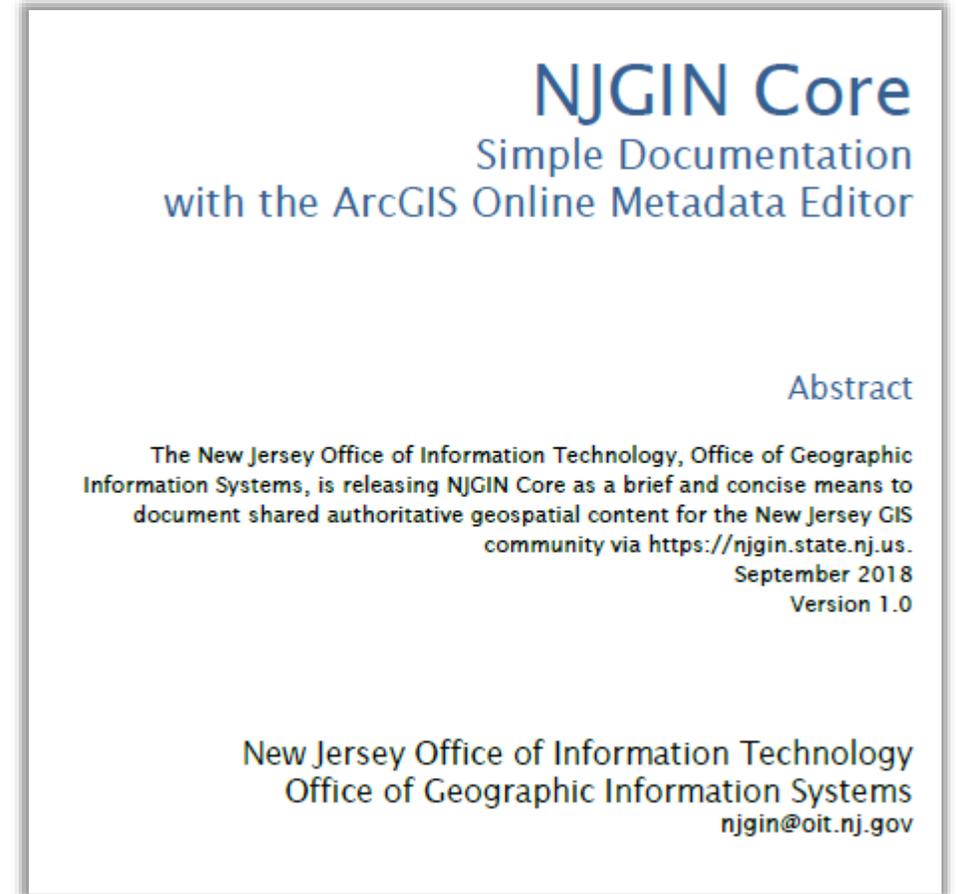
Browse by Organization

SOMERSET COUNTY
SUSSEX COUNTY
COUNTY OF SUSSEX
Highlands Council

Introducing NJGIN Core

- Requested by community
- Just enough info
- Document your stuff

- Title
- Description (Abstract)
- Credits
- Keywords & Tags
- Time Period of Content (temporal extent)
- Metadata date & language
- Publication Date
- Summary (Purpose)
- Status
- Location (geographic extent)
- Use Limitations
- Point of Contact



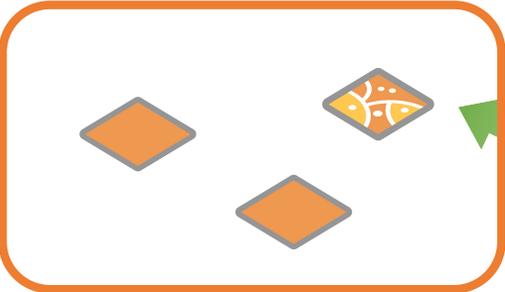
Whitepaper at njgin.state.nj.us

Federated Search

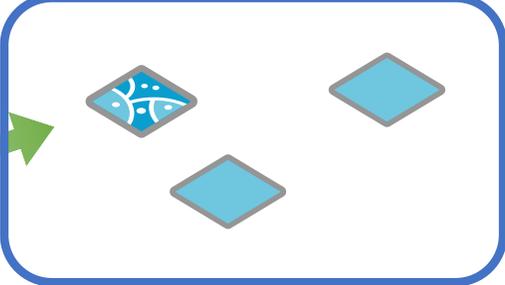
Technical Architecture



Highlands Council AGO



Somerset County AGO



Office of GIS AGO

Authoritative content managed by authoritative data stewards





Filter By

- Tags**
- New Jersey (141)
 - Nj (113)
 - Planningcadastre (60)
 - Usa (53)
 - Parcels (48)

Source

- New Jersey Office of GIS (169)
- County of Burlington, New Jersey (39)
- NJ Highlands Council (38)
- County of Sussex (32)
- New Jersey Department of Transportation (25)

Content Type

- spatial dataset (253)
- document (59)
- web map (4)
- table (3)

< 51 - 60 of 319 results > Relevance ▾

Geodetic Markers

Shared by magdy1412

New Jersey State Geodetic Control Monuments
 North American Datum 1927 (NAD27) in ft.
 National Geodetic Vertical Datum 1929 (NGVD29) in ft

No license specified **10/24/2018** **Spatial Dataset** **9,269 Rows**



NJ 2015 Natural Color Orthophoto Cached Tile Base Map Service, 1 foot (layer file)

Shared by NJOGIS

Digital orthophotography of New Jersey, distributed as an ArcGIS cached tile service (this Item as a Layer file) and as a Tiled Web Map Service (WMTS) (https://geodata.state.nj.us/arcgis/rest/services/Basemap/Orthos_Natural_2015_NJ/M)

Custom License **8/16/2018** **Document**



NJ OGIS School Districts Elementary 2017

Shared by NJOGIS

This version of the elementary school district layer, representing districts that provide education to the lower grade/age levels, uses high-quality base map spatial data published by the State of New Jersey. The U.S. Census Bureau's latest school district

Custom License **11/30/2015** **Spatial Dataset** **171 Rows**



Sussex County Easements

Shared by cdaug_sussex

The organization that shared this dataset did not provide a description.

No license specified **7/20/2018** **Spatial Dataset** **10 Rows**




How to Participate

Public Content

- 2 Steps:
 - Publish content
 - Document content
- OGIS curating available public content via AGO
- No AGO? No problem.
- Need help, questions? email brian.embley@tech.nj.gov

Summary

- Content and documentation together
 - Federated Publishing & Search capability
 - Modern search, view, download/consume experience
 - Publish your authoritative content
 - Publisher retains full control
-
- NJGIN web site – <https://njgin.state.nj.us>
 - NJGIN OD site - <https://njogis-newjersey.opendata.arcgis.com>

NJOGIS Map Services

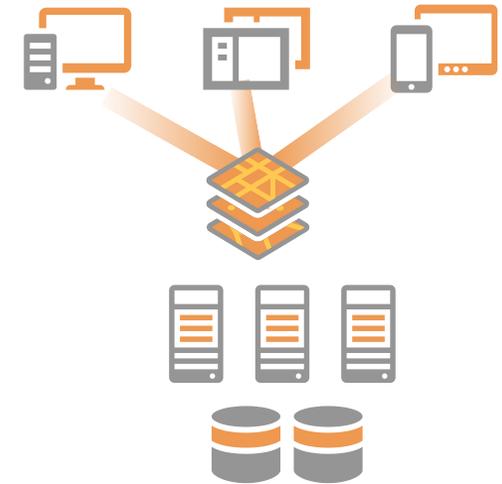
Brian R. Embley

Enterprise Architect

brian.embley@tech.nj.gov

What is a map service?

- Specialized web service
 - Servers: HTTP/S
 - Clients: Desktop apps, mobile apps, AGO web maps, web apps
 - Types, Formats
- Benefits
 - Real time connection
 - Best available data
 - Access anywhere

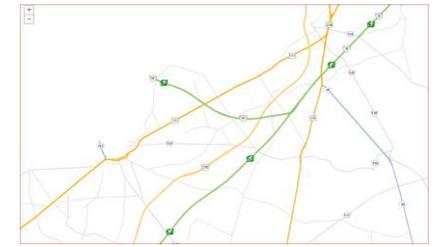


Available NJOGIS Map Services

- 5 categories: basemaps, enterprise data, elevation, geocoder & imagery
- Most in NJSP, imagery WGS84
- 500,000 requests/month
- Consume in desktop & mobile apps, AGO web maps, web apps
- **Basemaps** – cached raster tiles
 - Fast display
 - Lightweight for server
 - Fixed symbology
 - Static, periodic updates



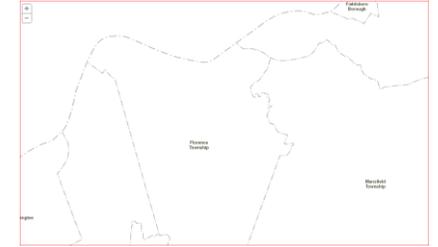
Color



Roads



Light Gray



Admin Boundaries



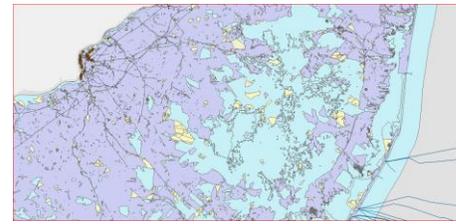
Parcels



Highlands

Enterprise Data

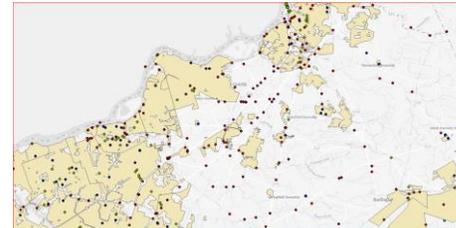
- Dynamic Map Services/WMS
 - Addresses
 - Parcels
 - Environmental
 - Government Boundaries
 - Tiling Grids
 - Hydrography
 - Land Use Land Cover
 - Structures & Critical Infrastructure
 - Transportation
 - Utilities
- Query supported
- NJOGIS Open Data Site
- Fixed Symbolology



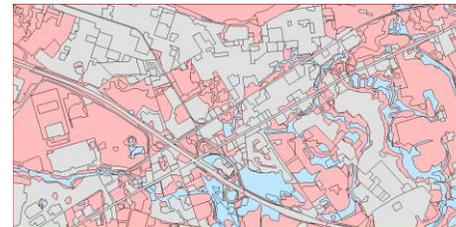
Utilities



Transportation



Critical Infrastructure



LULC



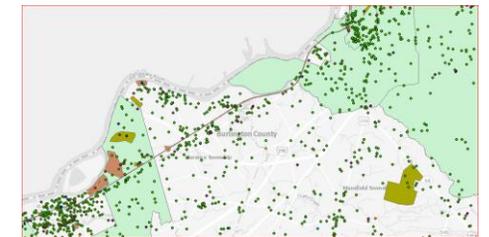
Hydrography



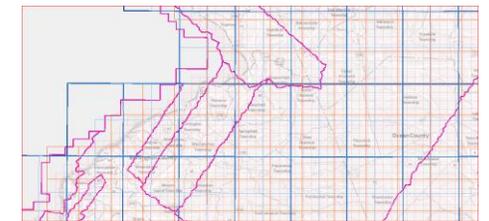
Address Points



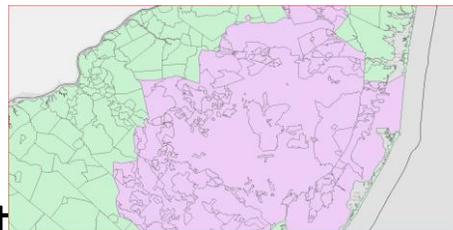
Parcels



Environmental



Grids

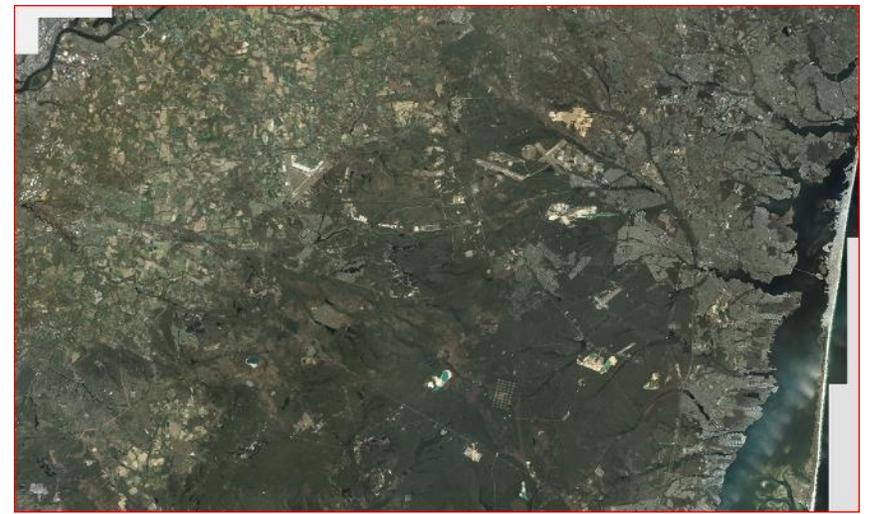


Jurisdictional Boundaries

Imagery

2015 Natural Color Cached
2015 Natural Color (1ft leaf off)
2015 Infrared (1ft leaf off)
2013 Natural Color (1m leaf on)
2012 Natural Color (1ft leaf off)
2012 Infrared (1ft leaf off)
2010 Natural Color (1m leaf on)
2007 Natural Color (1ft leaf off)
2007 Infrared (1ft leaf off)
2006 Natural Color (1m leaf on)
2002 Infrared (1ft leaf off)
1995 Infrared (1m leaf off)
1930 Black White (2m, not ortho)
Historical Maps
Color Topo 24K
Topo 24K
Topo 100K
1977 Tidelands Basemaps
1970 NJDEP Wetlands Basemap

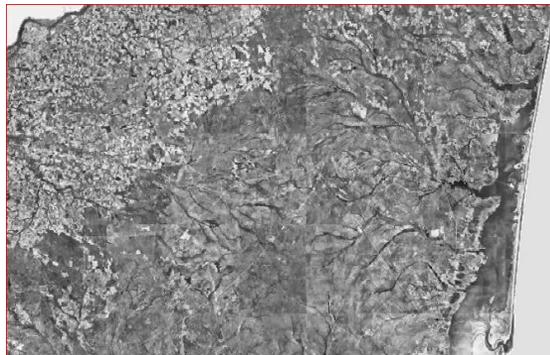
- WMS format
- LizardTech Express Server
- Dynamic Requests, limited caching
- NJGIN website for URLs, lyr files
- 2015 color raster tile cache service



2015 Natural Color



Historical Maps



1930 Black & White



2002 Infrared



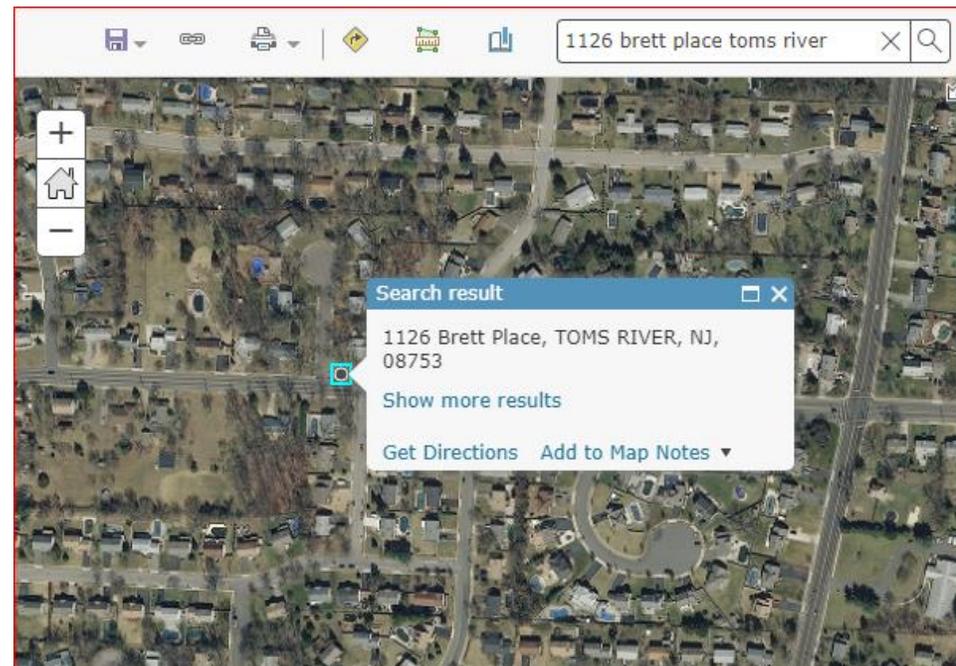
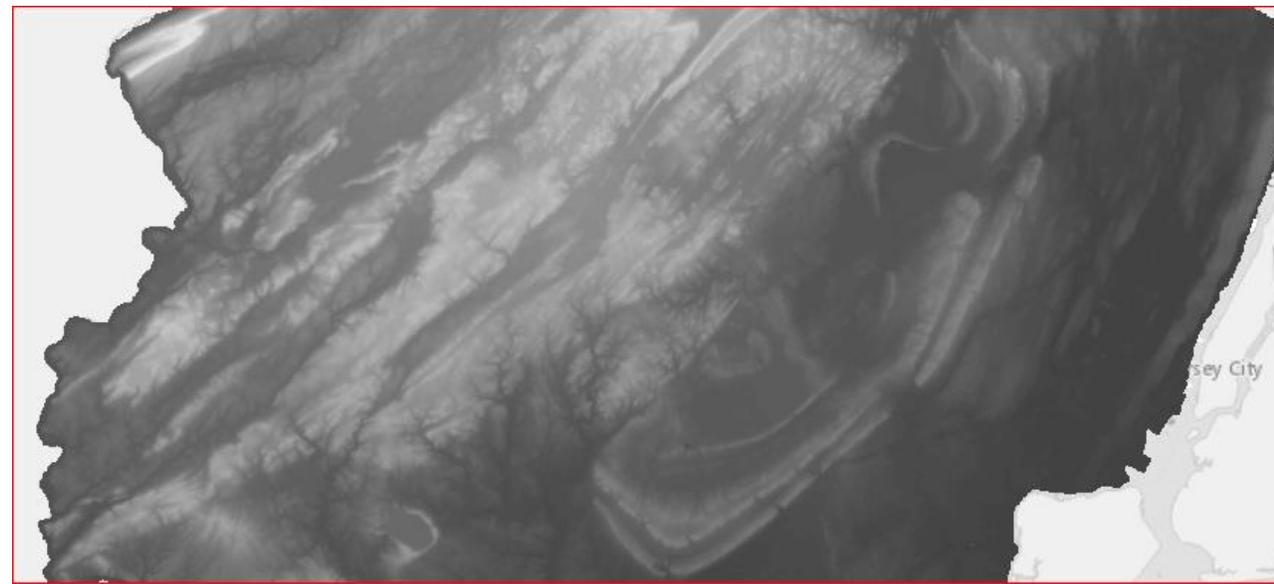
Color Topo 24k

- Elevation

- Image
- 10 ft DEM

- Cascading Geocoder

- Address Points
- Roads
- Intersections



Next Steps

- More caching of imagery (NJSP and WM)
- Currently regenerating all cached basemaps – goal is automation
- Considering use of vector tiles
- Testing Feature Services

Brian R. Embley brian.embley@tech.nj.gov

Access

- Services Directory - <http://geodata.state.nj.us/arcgis/rest/services>
- NJOGIS ArcGIS Online - <http://newjersey.maps.arcgis.com>
- NJOGIS Open Data site - <http://njogis-newjersey.opendata.arcgis.com>
- NJGIN Website – <https://njgin.state.nj.gov>

NJGIN 3.0

Sharing Your Content: Walk Through

Brian R. Embley

Enterprise Architect

NJ Office of GIS, NJOIT

Ann Borowik

GIS Coordinator

Somerset County

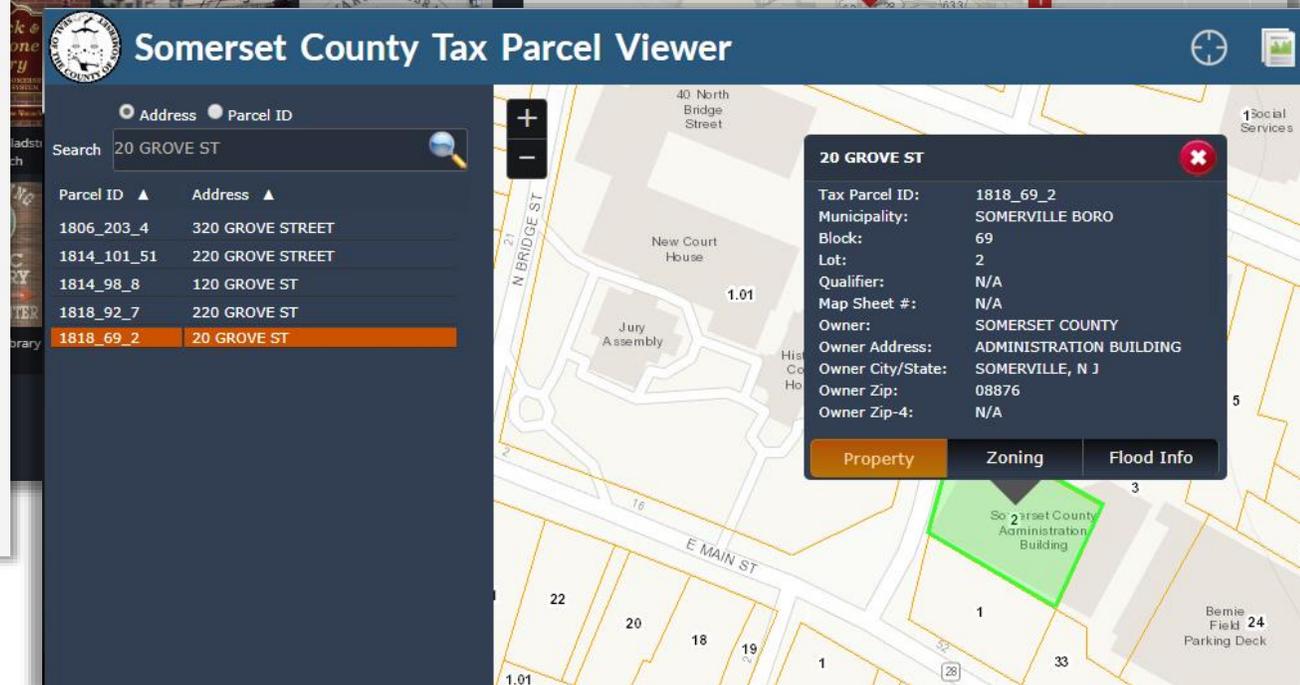
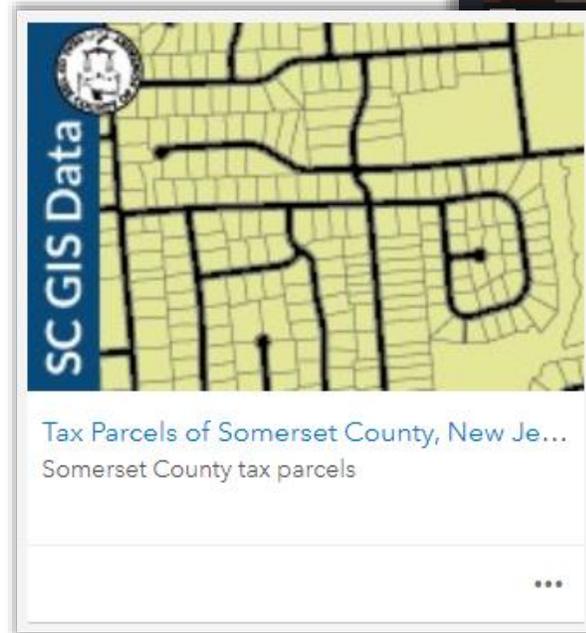
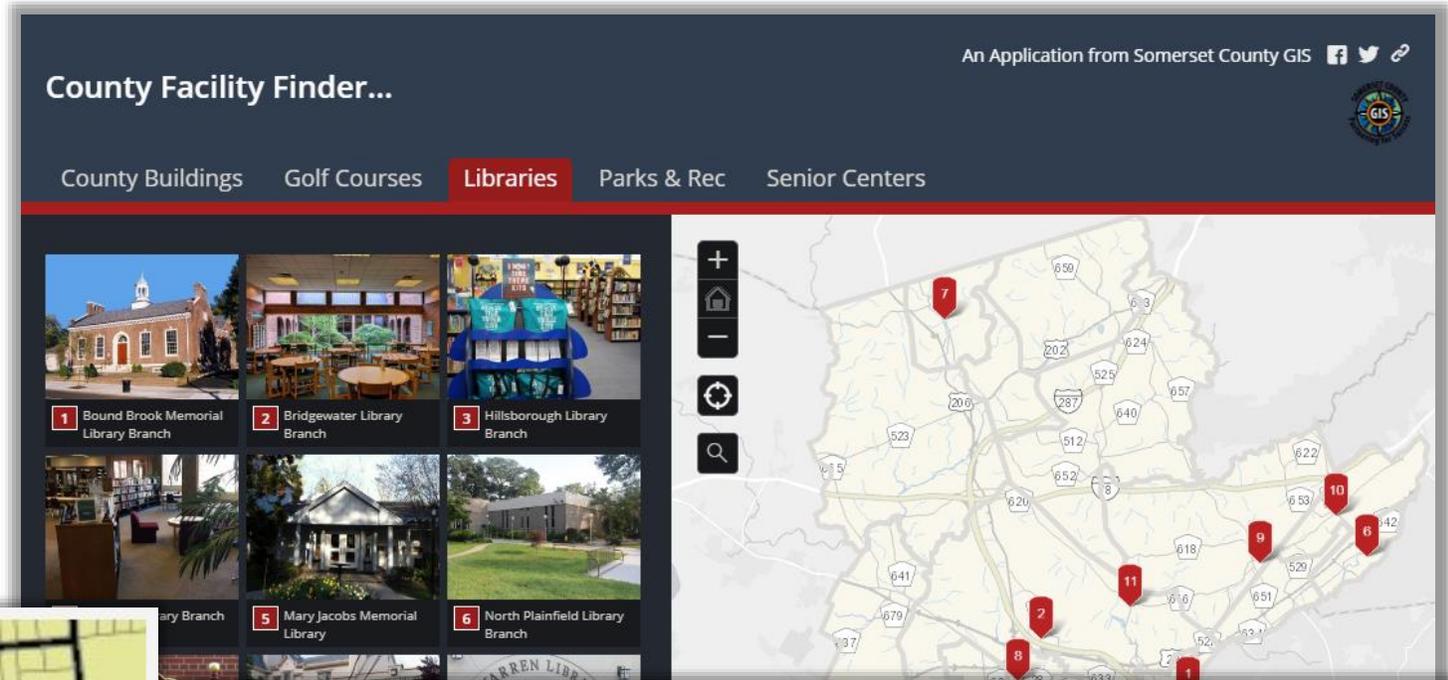


MAC URISA 2018



Why Share Data

- Public web applications
- Transition County users
- Off-site access
- OPRA requests



Somerset County's Geospatial Gateway

- ArcGIS Online platform
 - Easy
 - Available with maintenance
 - Connect to 3rd party sources

SOMERSET COUNTY
NEW JERSEY
SOMERSET COUNTY
MAKING VIBRANT CONNECTIONS
MAPS & APPS

SC GIS App
Substance Abuse Resources

SC GIS App
Somerset County Permanent Prescription Drug Drop-off

SC GIS App
Somerset County's Weekend Journey Through the Past
2018

SC GIS App
Public Notification

Welcome to Somerset County's Geospatial Gateway

This is the County's new public platform for sharing and visualizing GIS data with our partners and the public. This collaborative information site and mapping platform provides access to interactive mapping applications, allows the public to create maps, and facilitates the distribution of open data. You can scroll through the featured content above or visit the Gallery to view the entire catalog of available maps, apps, and data.

INTERACTIVE APPS **HOW TO CREATE MAPS** **GEOSPATIAL DATA SHARING POLICY**

- **Limitations:**
 - data downloads
 - Still maintaining copy of data on FTP site for OPRA requests



<http://somerset.maps.arcgis.com>



Esri Open Data

- Public data catalog
- Data downloads
 - OPRA requests
 - variety of formats, filters
- Connected to source



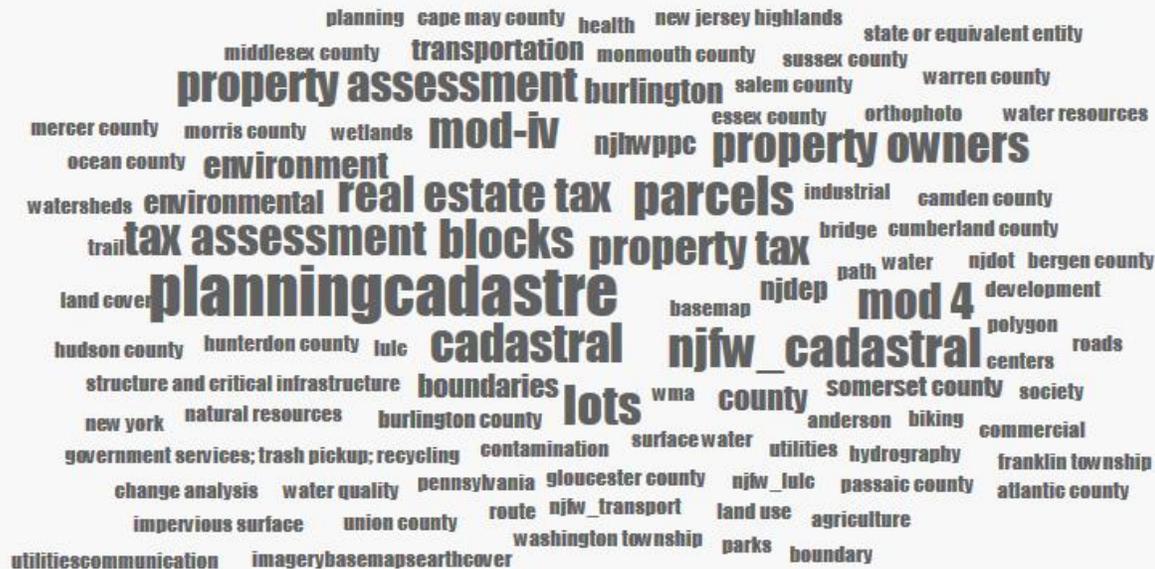
NJGIN - Open Data

Search - ex. Streams



Welcome to the New Jersey Geographic Information Network Open Data Site

The most commonly occurring tags from NJGIN Open Data items are listed in the tag cloud below. Click on a tag to perform a search.



Browse by Organization



Sharing via NJGIN 3.0

- Not much extra work!
- Easier to find
- One stop shopping
- Direct connection
 - We own our content
 - All changes, updates, & removals reflected immediately



How Somerset shares data

Home Gallery Map Scene Groups Content Organization

Content

My Content My Favorites My Groups My Organization Living Atlas

Add Item Create Folders

Search All My Content

33 - 48 of 48 in All My Content Sort by: Title

Filters: Shared: With Everyone (public) Type: Layers Clear All

Title	Modified
Parks	Feature Layer Sep 28, 2018
Permanent	Feature Layer (hosted) Oct 18, 2018
Drop Off	
olling	Feature Layer Oct 17, 2018
outes	Feature Layer Oct 12, 2018
Parcel Updates	
Somerset County School Districts	Feature Layer Sep 26, 2018
Somerset County Senior Centers	Feature Layer Oct 17, 2018
Somerset County Substance Abuse Resources	Feature Layer (hosted) Oct 1, 2018

URL View

<https://services2.arcgis.com/2g2XvfUyv>

Somerset County Polling Places

Overview Data Visualization Usage Settings

Edit Thumbnail



Add to Favorites

Point data locations of polling places in Somerset County. This data layer is utilized in the Polling Place Locator app on ArcGIS Online to help the public in locating their desired polling place and associated district numbers.

Feature Layer by Somerset County

Created: Apr 7, 2016 Updated: Apr 7, 2016

View Count: 492

Description

This data layer contains the point locations of polling places for the 2018 election year. This polling data includes attribute data such as address, polling hours, next election date. This layer is joined to the Election District layer to power the Polling Place Locator app on ArcGIS Online.



DEMO





< 31 - 40 of 309 results >

Forest Resource Area

Shared by NJHWPPC

The Forest Resource Area includes high ecological value forest area. The Highlands Council assessed the ecological integrity of forests through the examination of landscape level characteristics at both the forest patch and subwatershed level,

🔒 Custom License 📅 2/3/2012 🗺️ Spatial Dataset 📄 14 Rows

Highlands Boundary

Shared by NJHWPPC

The purpose of this dataset is to provide a cartographic representation of the outside boundary of the combined Highlands Preservation and Planning Areas. This dataset derived from a multiple-feature dataset developed to correspond to language in

🔒 license specified 📅 8/27/2018 🗺️ Spatial Dataset 📄 1 Rows

County Zoning

nkunz

icts the Municipal Zoning Boundaries of Sussex County. It was compiled ale zoning maps as provided by the townships.

📅 12/5/2013 🗺️ Spatial Dataset 📄 2,478 Rows

Open Space

ected open space and recreation areas within the nty, NJ. Types of property in this data layer include parcels natural areas and wildlife management areas. The data

🗺️ Spatial Dataset 📄 2,673 Rows

NJGIN Open Data Site

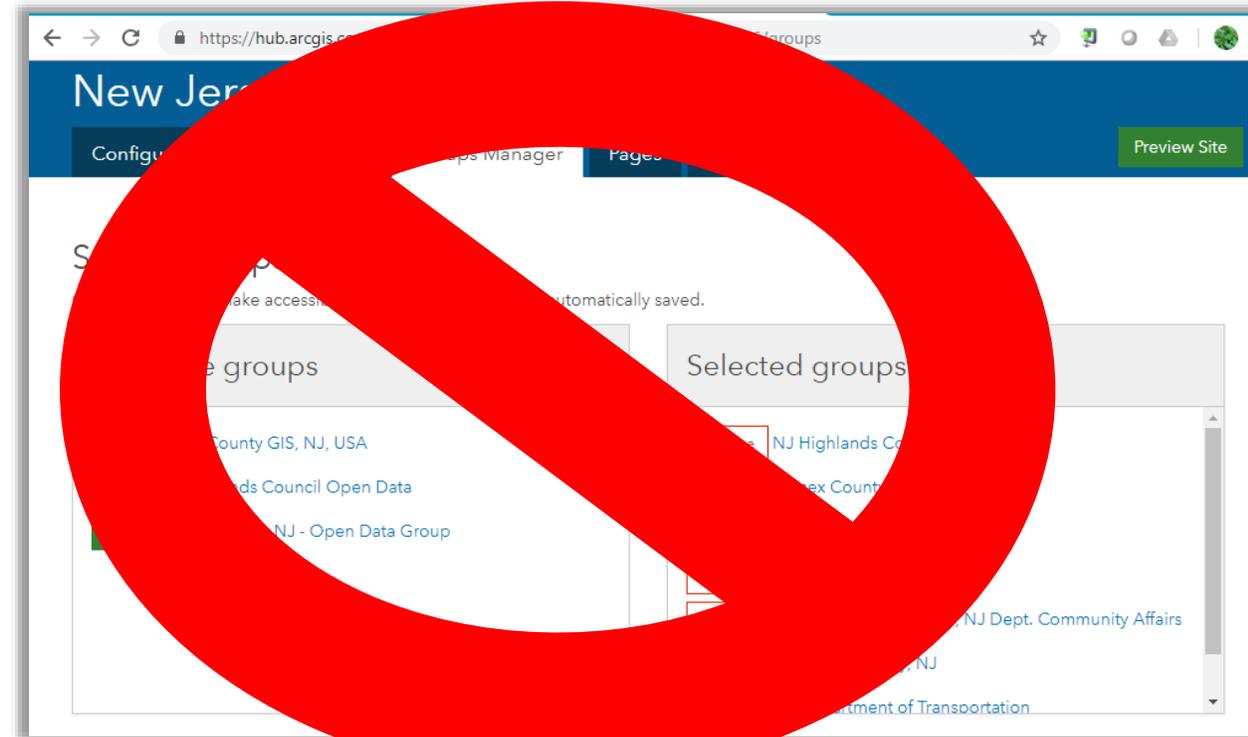
<https://njogis-newjersey.opendata.arcgis.com>

Welcome to the New Jersey Geographic Information Network Open Data Site

This website provides access to many of the state's spatial datasets, allowing users to search, query and download filtered or complete records for each dataset

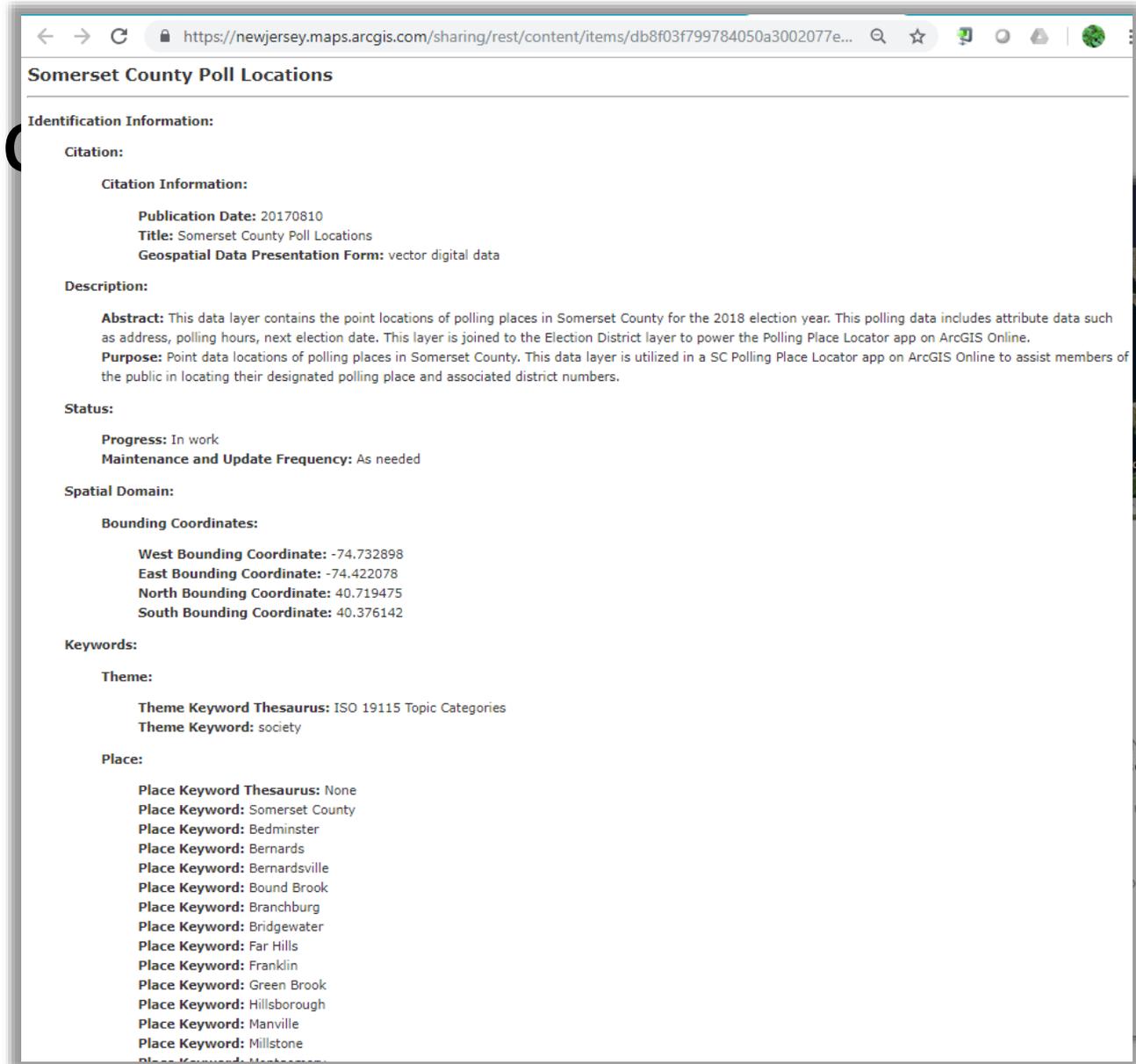
Partner Content

- Partner Requirements:
 - Publish content publicly
 - Document your content
- Open Data site not required
- OGIS curates partner content
- Prioritize authoritative, unique data
- Preferably a map service but data files are OK



Adding Partner Co

- Level of documentation
 - Title, Description, Tags
 - Metadata record:
 - FGDC CSDGM
 - NJGIN Core



The screenshot shows the metadata page for 'Somerset County Poll Locations' on ArcGIS Online. The page is titled 'Somerset County Poll Locations' and contains the following information:

Identification Information:

- Citation:**
 - Citation Information:**
 - Publication Date:** 20170810
 - Title:** Somerset County Poll Locations
 - Geospatial Data Presentation Form:** vector digital data
- Description:**
 - Abstract:** This data layer contains the point locations of polling places in Somerset County for the 2018 election year. This polling data includes attribute data such as address, polling hours, next election date. This layer is joined to the Election District layer to power the Polling Place Locator app on ArcGIS Online.
 - Purpose:** Point data locations of polling places in Somerset County. This data layer is utilized in a SC Polling Place Locator app on ArcGIS Online to assist members of the public in locating their designated polling place and associated district numbers.
- Status:**
 - Progress:** In work
 - Maintenance and Update Frequency:** As needed
- Spatial Domain:**
 - Bounding Coordinates:**
 - West Bounding Coordinate:** -74.732898
 - East Bounding Coordinate:** -74.422078
 - North Bounding Coordinate:** 40.719475
 - South Bounding Coordinate:** 40.376142
- Keywords:**
 - Theme:**
 - Theme Keyword Thesaurus:** ISO 19115 Topic Categories
 - Theme Keyword:** society
 - Place:**
 - Place Keyword Thesaurus:** None
 - Place Keyword:** Somerset County
 - Place Keyword:** Bedminster
 - Place Keyword:** Bernards
 - Place Keyword:** Bernardsville
 - Place Keyword:** Bound Brook
 - Place Keyword:** Branchburg
 - Place Keyword:** Bridgewater
 - Place Keyword:** Far Hills
 - Place Keyword:** Franklin
 - Place Keyword:** Green Brook
 - Place Keyword:** Hillsborough
 - Place Keyword:** Manville
 - Place Keyword:** Millstone
 - Place Keyword:** Monticello

Adding Partner Content

The screenshot shows the ArcGIS Online interface for a group named "Somerset County, NJ". The page includes a navigation menu with "Home", "Gallery", "Map", "Scene", "Groups", "Content", and "Organization". The group name "Somerset County, NJ" is displayed in a blue header with an "Edit" link. Below the header, there are tabs for "Overview", "Content", "Members", and "Settings". The main content area features an "Edit Thumbnail" section with the Somerset County logo and a description: "Content in this group is owned by Somerset County and configured to be searchable from NJGIN. owned by NJOGIS". There is an "Invite Users" button and a "Share" button. A "Details" section shows "Created: March 27, 2018", "Viewable by: Everyone (public) (open data)", and "Contributors: Members". A "Latest Content" section displays three map thumbnails labeled "SC GIS Data".

- Create a group in the NJ org for the Partner
 - Publicly Accessible
 - Open Data enabled

The summary card displays the group name "Somerset County, NJ" with a "Leave Group" button. It lists the owner as "NJOGIS", the creation date as "Mar 27, 2018", and the last update as "May 3, 2018". The visibility is set to "Everyone (public)". The description below reads: "Content in this group is owned by Somerset County and configured to be searchable from NJGIN."



Adding Partner Content

- How does OGIS identify new partner content?
 - Public content only
 - Direct communication from the Partner
 - Browsing all public content
 - Automated change detection

The screenshot shows the ArcGIS Online search results page for the query 'orgid:2g2XvfUywwLJoF2c'. The page displays three search results:

- Facility_Locations**: A Web Map by S_Rock. Description: Map displaying the locations of Somerset County operated & maintained facilities. Created: Apr 24, 2017 | Updated: Feb 2, 2018 | View Count: 1,202.
- County Facility Finder**: A Web Mapping Application by S_Rock. Description: Interactive app displaying the location of Somerset County facilities along with some information about each location. Created: Apr 24, 2017 | Updated: Feb 2, 2018 | View Count: 1,213.
- Somerset County Municipal Boundaries**: A Feature Layer by SomersetAdmin. Description: To provide basic jurisdictional information. This data set was developed to produce the most accurate delineation of municipal boundaries achievable from existing data sources.

The interface includes a search bar, navigation tabs (Home, Gallery, Map, Scene, Groups), and a filter sidebar on the left with options for Item Type (Maps, Layers, Scenes, Apps, Tools, Files), Date Modified, and Status.

Somerset County for the 2018
 es, polling hours, next
 er the Polling Place

About

Somerset County, NJ
 Shared By: SomersetAdmin
 Data Source:
gis.co.somerset.nj.us

[View Metadata](#)
[Create Webmap](#)
[Create a Story Map](#)

Somerset County Po

[Download](#) [APIs](#)

- Full Dataset
- Spreadsheet
- KML
- Shapefile

Somerset County Polling Places

[Favorite](#) [Download](#) [APIs](#)

Showing 1 to 10 of 100

OBJECTID	Polling Place ID	Polling Location	Address
1	PL0804	BEACON HILL CLUBHOUSE	1 BEACONHILL WA
2	PL0803	WYNNEFIELD CLUBHOUSE	31 DESOTO DR, FF
3	PL0806	SOCIETY HILL II CLUBHOUSE	111 FISHER DR, F
4	PL0805	SOCIETY HILL III CLUBHOUSE	2 BETHANY CT
5	PL0807	SOCIETY HILL I CLUBHOUSE	137 PEAR TR
6	PL0812	CONSOLATA MISSIONS	2301 STA
7	PL0813	SOMERSET NATIONAL GUARD	1040 L

<https://njogis-newjersey.opendata.arcgis.com>

Partner Content is Live in NJGIN Open Data!



Summary

- Publisher controls their content
- Leverages what you already publishing
- OGIS Next Steps
 - OGIS reviewing available public content
 - Need your help in documenting your content
- Don't use AGO? Contact us, we can help you
- Want to contribute? Contact us, we can help you

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NJGIN 3.0 – Federated Search & Sharing

Brian R. Embley

Enterprise Architect

NJ Office of GIS, NJOIT

NJGIN 3.0

Effort Underway

<https://njgin.state.nj.us>

- Integrate Search of Open Data site into NJGIN website
- NJGIN website refresh
- Energetically adding content

<https://njogis-newjersey.opendata.arcgis.com>

What content to publish?

- Map services
 - Your server
 - AGO hosted
- The all powerful Document Link
 - Data files – NJGIN examples

njgin State of New Jersey - GIS Open Data

Find

My Data

Brian

Overview Data API Explorer

Groundwater Contamination (classification exception areas)

Favorite Download APIs

Custom License 10/9/2018 Spatial Dataset 4,040 Rows

This data identifies those sites where groundwater contamination has been identified and, where appropriate, the NJDEP has established a Classification Exception Area (CEA) in accordance with N.J.A.C. 7:9-1.6 and 1.9(b). CEAs are institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards (NJGWQS) for

About

Open Data
Shared By: NJDEP
Data Source: geodata.state.nj.us

View Metadata
Create Webmap
Create a Story Map

Attributes

njgin State of New Jersey - GIS Open Data

Find

My Data

Brian

parcels and mod-iv of burlington county, nj (shp download)

Favorite Open

No license specified Accessible to Everyone 10/24/2018 Document Link

This parcels dataset is a spatial representation of tax lots for Burlington County, New Jersey that have been extracted from the NJ statewide parcel composite by the NJ Office of Information Technology, Office of GIS. Parcels at county boundaries have been modified to correspond with the NJ county boundaries and parcels in adjacent counties. The data set was updated and normalized between 2009 - 2013 as a component of the New Jersey Office of Information Technology, Office of GIS (OGIS) Parcels Normalization Project to develop a statewide composite of parcels data. During this project, parcels were modified at municipal boundaries to conform to the spatial framework of the OGIS Municipalities of New Jersey (nj_munis) data set, and attributes were modified to conform with the New Jersey GIS Parcel Mapping Standard. This GIS data set contains parcels created by the Burlington County

About

Open Data
Shared By: NJOGIS
Data Source: njgin.state.nj.us

View Metadata

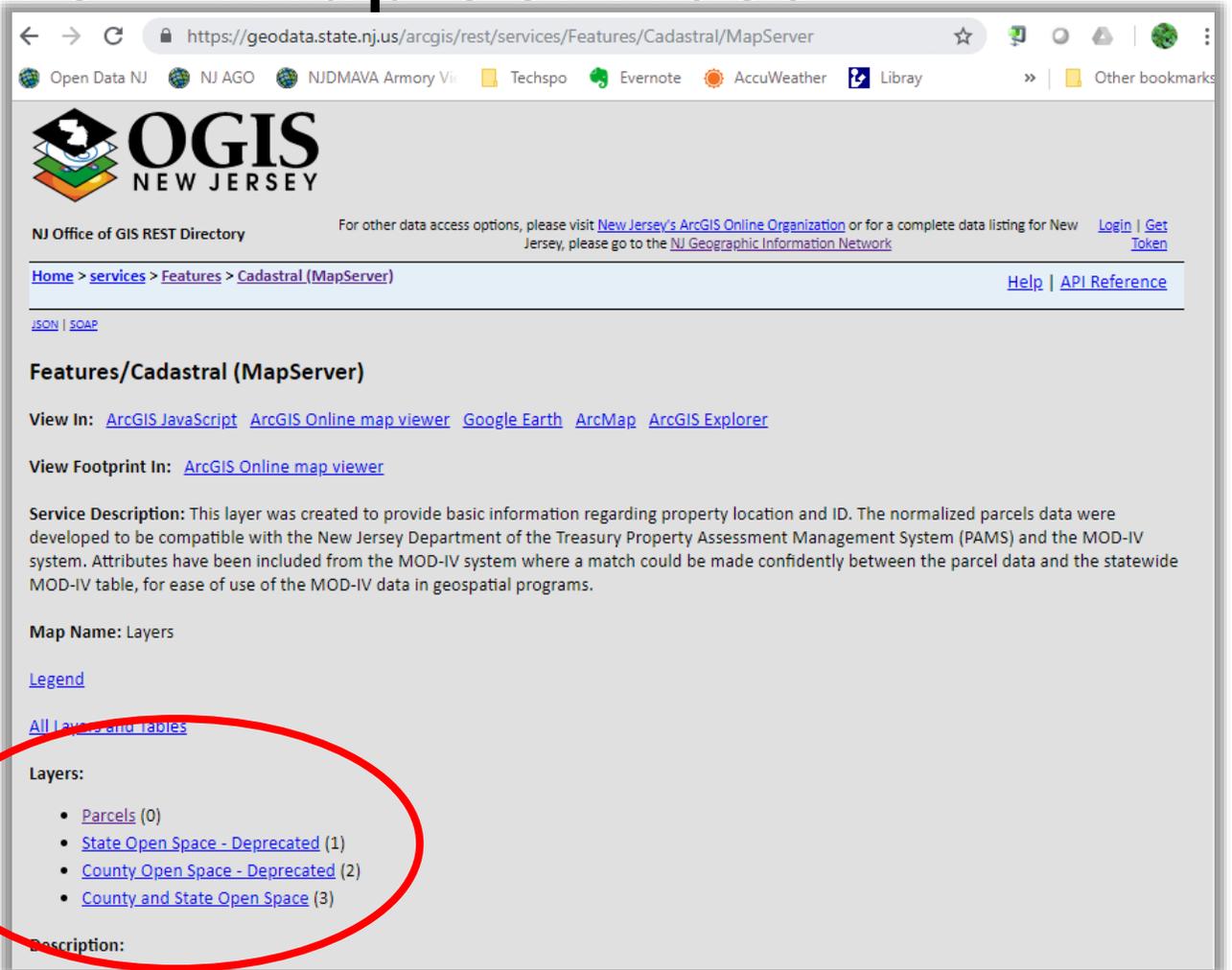
Technical Architecture



Authoritative content managed by authoritative data stewards

Technical Architecture – Map Services

- Downloads
 - Extraction by AGO backend
 - Automatic by default
 - Considerations
- Multi-layer map service
 - One item per layer
 - Concise control



The screenshot shows a web browser window displaying the OGIS New Jersey REST Directory page for the Cadastral (MapServer) service. The page includes the OGIS logo, navigation links, and a list of layers. A red circle highlights the 'Layers' section, which contains the following items:

- [Parcels](#) (0)
- [State Open Space - Deprecated](#) (1)
- [County Open Space - Deprecated](#) (2)
- [County and State Open Space](#) (3)

Adding Partner Content

- How to add to my local group
- Take a look at the partner's information
 - Access via New Jersey Org
 - Use the orgid - 2g2XvfUywwL
 - Execute Query
- Then can add to my group

```
url": "http://route.arcgis.com/arcgis/rest/services/World/ServiceAreas/MapServer/ServiceArea_World",  
"defaultTravelMode": "FgIfRtFndKncJM"  
},  
"syncVRP": {  
  "url": "http://logistics.arcgis.com/arcgis/rest/services/World/VehicleRoutingProblemSync/GPServer/EditVehicleRoutingProblem",  
  "defaultTravelMode": "FgIfRtFndKncJM"  
},  
"traffic": {  
  "url": "https://traffic.arcgis.com/arcgis/rest/services/World/Traffic/MapServer"  
},  
"analysis": {  
  "url": "http://analysis2.arcgis.com/arcgis/rest/services/tasks/GPServer"  
},  
"geoenrichment": {  
  "url": "http://geoenrich.arcgis.com/arcgis/rest/services/World/GeoenrichmentServer"  
},  
}
```

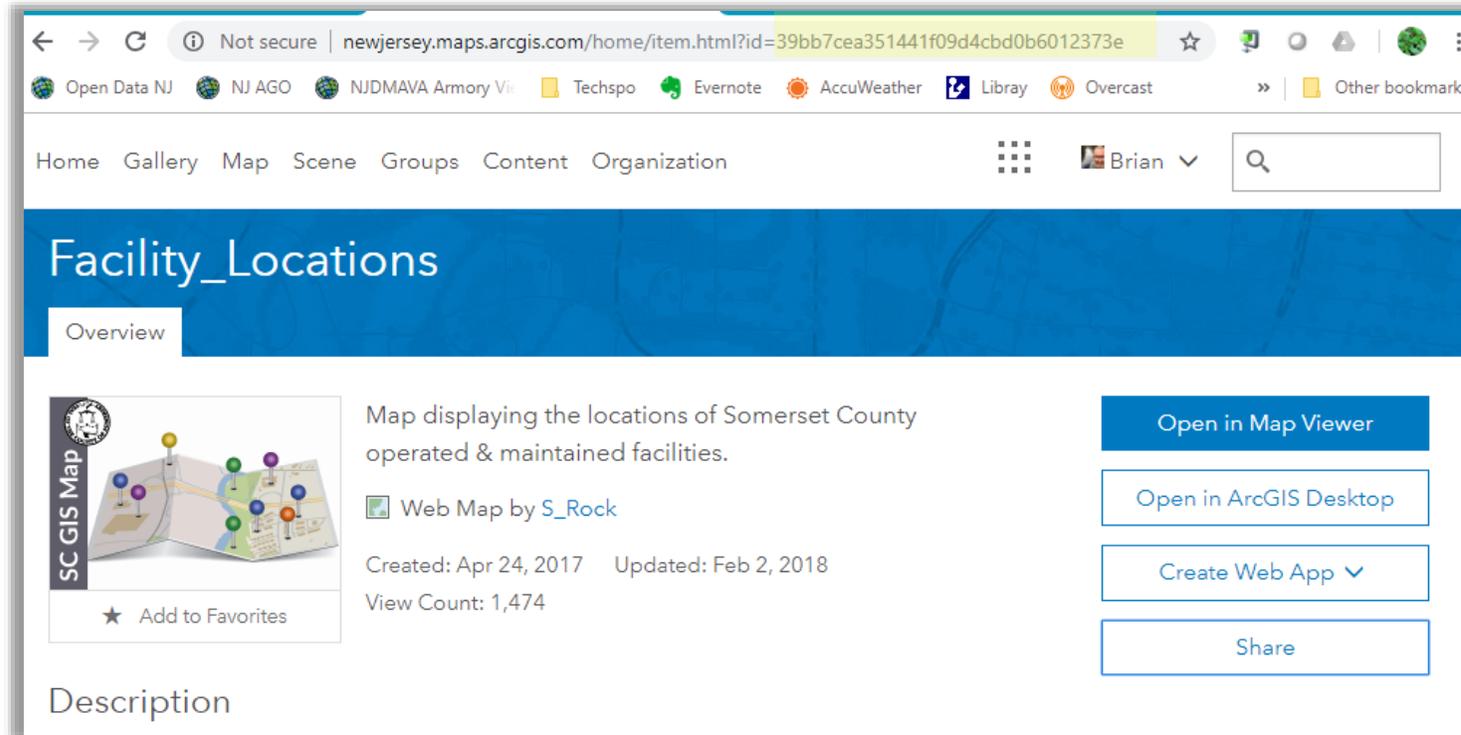
The screenshot shows the ArcGIS Online interface for an item titled "Facility_Locations". The page includes a map thumbnail, a description, and various action buttons. The "Share" button is highlighted with a red circle. The "Details" section shows the item size as 5 KB and a 5-star rating. The "Owner" is listed as S_Rock, and the "Categories" include "Government".

<http://someset.maps.arcgis.com/sharing/rest/portals/self?culture=en&f=pjson>



Persistent Item IDs

- Every AGO item has a unique ID



<http://newjersey.maps.arcgis.com/home/item.html?id=39bb7cea351441f09d4cbd0b6012373e>

Criticality of Documentation

- Describe your content
- Mashed up with content from data stewards across NJ
- Title standard, Description, tags
- Md can be attached to any item
 - Turn on in your Org
 - Upload – parses out title, tags, description, others
 - Can use the AGO Md editor

Introducing NJGIN Core

- Requested by community
- Just enough info
- Document your stuff

- Title
- Description (Abstract)
- Credits
- Keywords & Tags
- Time Period of Content (temporal extent)
- Metadata date & language
- Publication Date
- Summary (Purpose)
- Status
- Location (geographic extent)
- Use Limitations
- Point of Contact

NJGIN Core Simple Documentation with the ArcGIS Online Metadata Editor

Abstract

The New Jersey Office of Information Technology, Office of Geographic Information Systems, is releasing NJGIN Core as a brief and concise means to document shared authoritative geospatial content for the New Jersey GIS community via <https://njgin.state.nj.us>.

September 2018
Version 1.0

New Jersey Office of Information Technology
Office of Geographic Information Systems
njgin@oit.nj.gov

Whitepaper at njgin.state.nj.us

But I don't use AGO...

- Every Esri customer has AGO licensing
- OGIS Support
 - <https://newjersey.maps.arcgis.com> – OGIS AGO org
 - <https://geodata.state.nj.us> – OGIS GIS servers
 - Instruction and knowledge transfer
 - Publishing
 - Documenting
 - Hosting

Thank You

brian.embley@tech.nj.gov

<https://njogis-newjersey.opendata.arcgis.com/>



Geodata Service for Partner Data Exchange

Deepa Sanjeevaraya and Stephanie Bosits

Outline

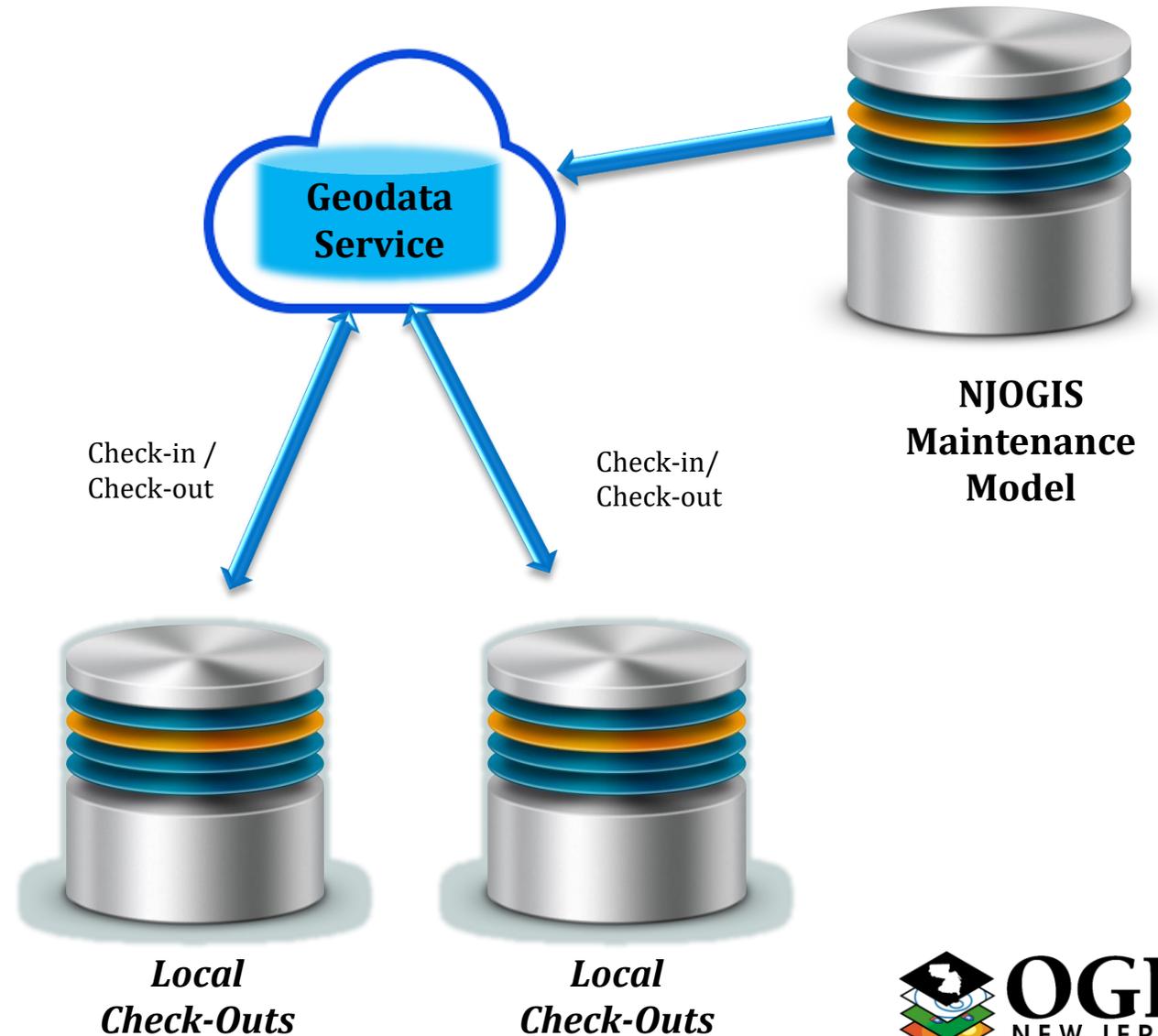
- Background
- Service Configuration
- Check In/Check Out Process
- Data Review Process

Background

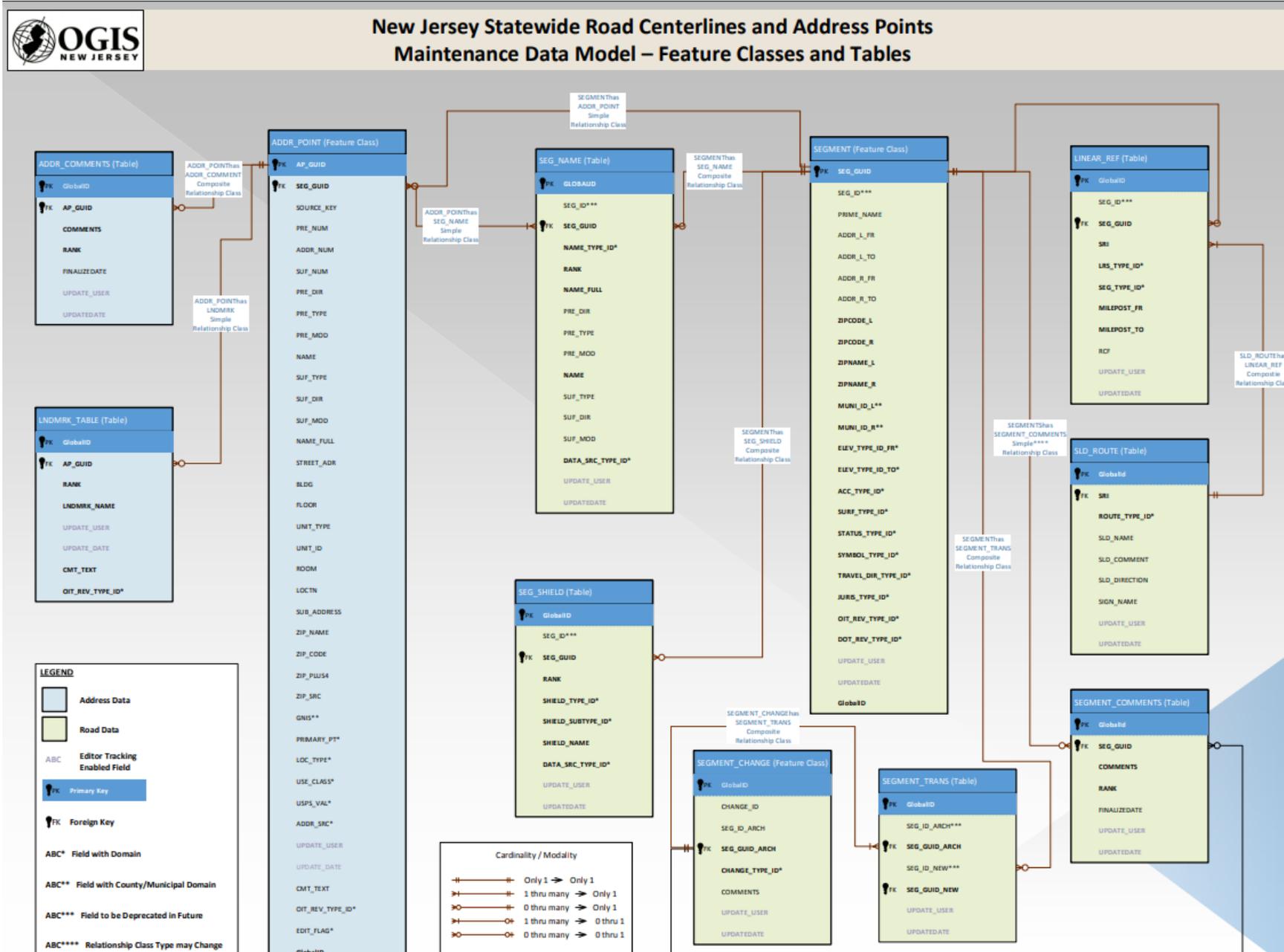
- NJOGIS acts as aggregator for many statewide datasets
- Road Centerlines and Address points some of the most critical datasets
- Datasets cannot be maintained effectively without local knowledge
- To obtain data from local governments -
 - Local schemas vary
 - NJOGIS maintains complex database
 - Hard to move large amounts of data and edits around
- Geodata service helps overcome these challenges

Geodata Service Configuration

- Allows users to access our enterprise database through a specialized web service using ArcGIS Server
- Users can replicate our enterprise database and then synchronize their edits

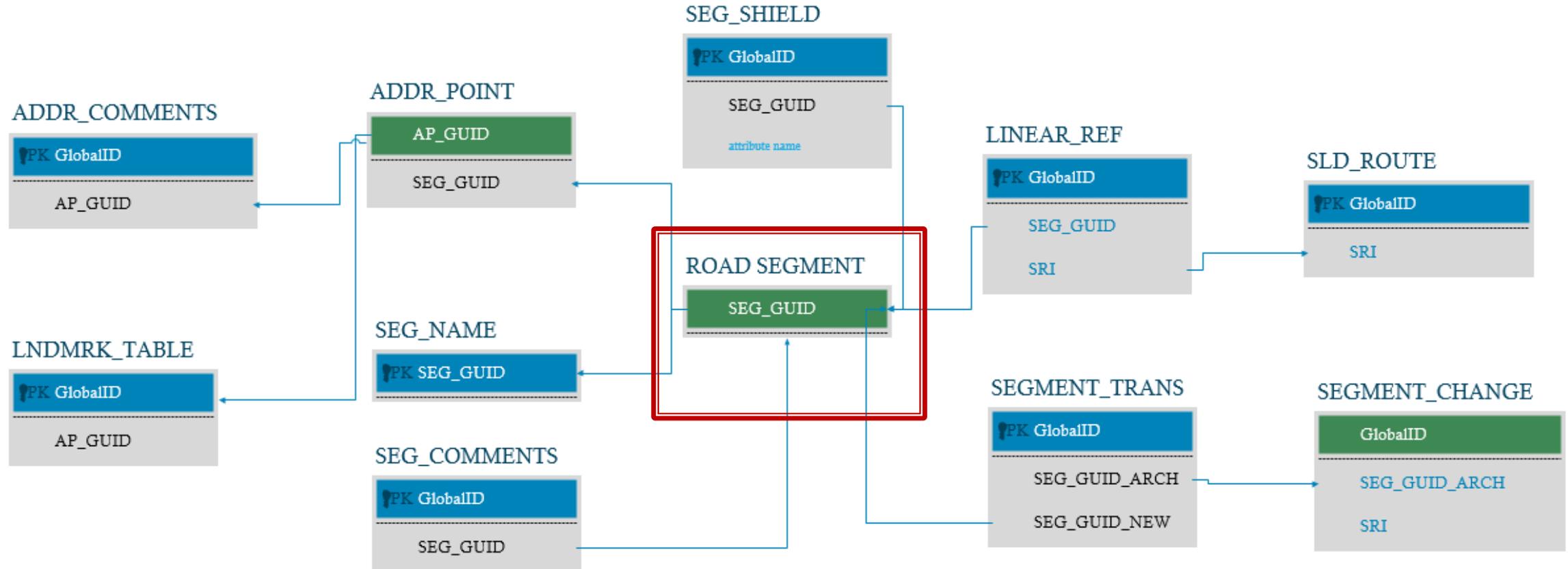


Enterprise Database Structure



Enterprise Database Structure

New Jersey Statewide Road Centerlines and Address Points Maintenance Data Model

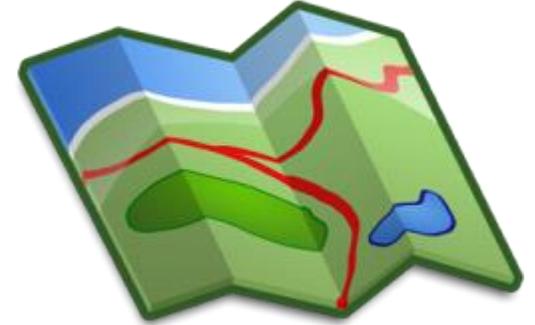


-  Table
-  Feature class

Service Configuration

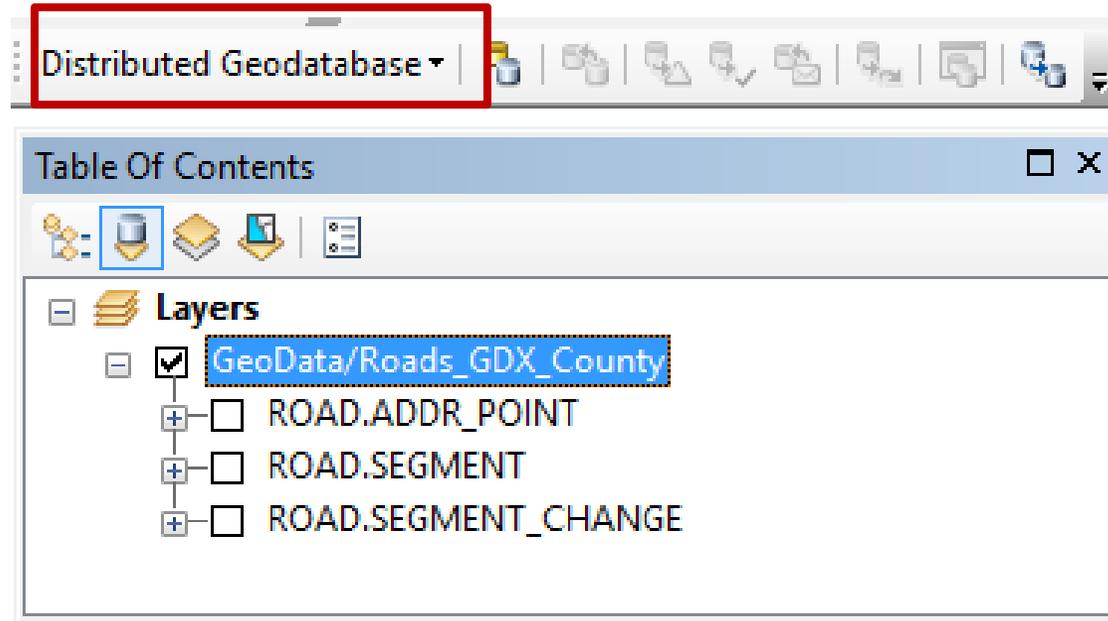


Our set-up consists of two secure services
Each partner will have their own secure user account



Map Service

Geodata service is accessed using map service
Use Distributed Geodatabase toolbar to replicate and synchronize edits through map service



Service Configuration

In order for the Map Service and the Geodata Service to communicate:

- ✓ The service names must match
- ✓ They must reside in the same folder on ArcGIS Server
- ✓ When publishing the Map Service - layer names must match the feature class names in your geodatabase

The screenshot displays the ArcGIS Server Administration Center interface. On the left, a navigation pane shows the site structure: Site (root) > Applications > Basemap > Elevation > Features > **GeoData** > System > Tasks > Utilities. The 'GeoData' folder is selected. The main content area shows two service instances for 'Roads_GDX_County':

- Roads_GDX_County (Geodata Service)**: Status: Started, Instances Running: 1, Instances in Use: 0, Maximum Instances: 2.
- Roads_GDX_County (Map Service)**: Roads geodata service for county edits, Status: Started, Instances Running: 1, Instances in Use: 0, Maximum Instances: 2.

At the bottom of the main content area, there is a pagination control showing '1'.

The screenshot displays the feature class list for the geodatabase 'TestCheckOut.gdb'. The list is organized as follows:

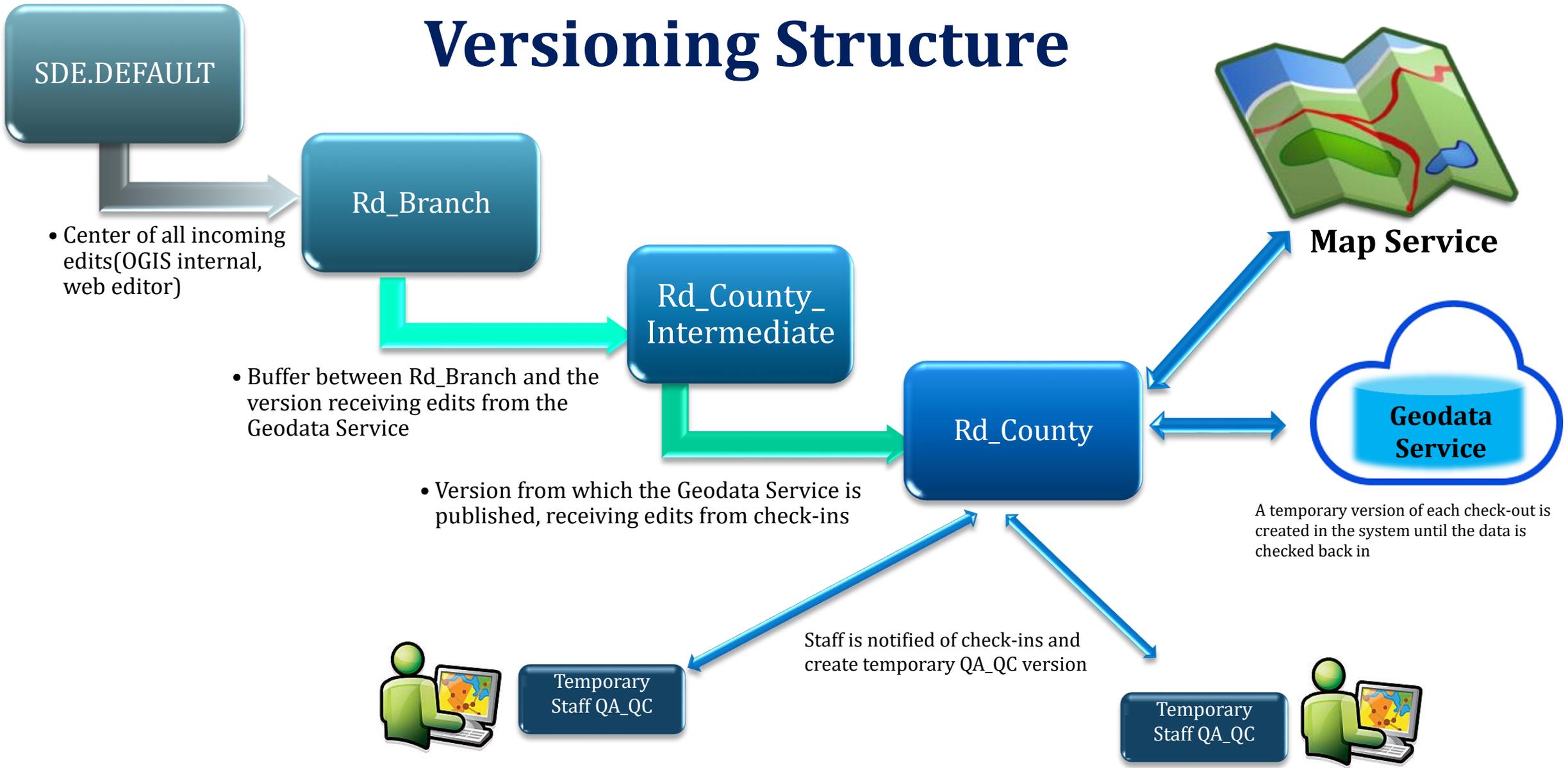
- TestCheckOut.gdb
 - Centerline
 - Centerline_Topology
 - SEGMENT
 - SEGMENThasADDR_POINT
 - SEGMENThasLINEAR_REFS
 - SEGMENThasSEG_NAMES
 - SEGMENThasSEG_SHIELDS
 - SEGMENThasSEGMENT_COMMENTS
 - ADDR_COMMENTS
 - ADDR_POINT
 - ADDR_POINThasADDR_COMMENTS
 - ADDR_POINThasLNDMRK_NAME
 - ADDR_POINThasSEG_NAME
 - LINEAR_REF
 - LNDMRK_NAME
 - SEG_NAME
 - SEG_SHIELD
 - SEGMENT_CHANGE
 - SEGMENT_CHANGEhasSEGMENT_TRANS
 - SEGMENT_COMMENTS
 - SEGMENT_TRANS
 - SLD_ROUTE
 - SLD_ROUTEhasLINEAR_REFS

Service Configuration

Geodata Service Publication

- You can publish a version of the database using the geodata service
- The incoming edits will be stored in this version.
- For our service we used our road user connection to the rd_county version of our database

Versioning Structure



SDE.DEFAULT

Rd_Branch

Rd_County_
Intermediate

Rd_County

Geodata
Service

Map Service

Temporary
Staff QA_QC

Temporary
Staff QA_QC

- Center of all incoming edits(OGIS internal, web editor)

- Buffer between Rd_Branch and the version receiving edits from the Geodata Service

- Version from which the Geodata Service is published, receiving edits from check-ins

Staff is notified of check-ins and create temporary QA_QC version

A temporary version of each check-out is created in the system until the data is checked back in

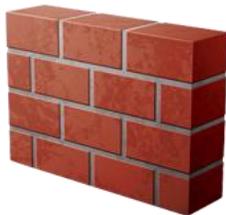
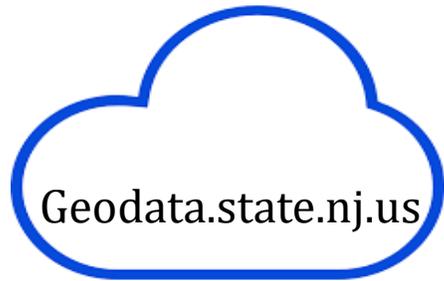
Service Configuration

- Manage the Map Service and Geodata Service independently:
 - Set longer time-outs on the Geodata Service to support replication operations
 - Set shorter time-outs and limit the number of instances on the Map Service to support viewing operations

Needed to increase **the maximum time a client can use a service** on the pooling tab of Geodata Service:

The screenshot shows the ArcGIS Server Manager interface. The top navigation bar includes 'Services', 'Site', 'Security', and 'Logs'. Below this, there are tabs for 'Manage Services', 'OGC Services', 'KML Network Links', and 'Sharing'. The breadcrumb path is 'Editing: Site (root) > GeoData > Roads_GDX_County'. On the left, a sidebar menu has 'Pooling' selected. The main content area is titled 'Specify Number of Instances' and 'Specify Service Timeouts'. The 'Specify Number of Instances' section has two input fields: 'Minimum number of instances per machine:' with a value of 1, and 'Maximum number of instances per machine:' with a value of 2. The 'Specify Service Timeouts' section has three input fields: 'The maximum time a client can use a service:' with a value of 6000 seconds, 'The maximum time a client will wait to get a service:' with a value of 60 seconds, and 'The maximum time an idle instance can be kept running:' with a value of 1800 seconds. At the top right of the configuration area, there are buttons for 'Help', 'Save and Restart', and 'Cancel'.

Service Configuration



30 minutes firewall timeout

Adjusted geodata service Timeout

Check Out Process



Check Out Wizard

This wizard lets you check out data from this geodatabase to another geodatabase where it can be edited. By default, all feature classes and tables in the map are checked out, along with any related data.

Checking out data from:

What do you want to check out?

Data Schema Only Register existing data only

Which geodatabase do you want to check out to?

Geodatabase XML Document

Re-use schema if the geodatabase already contains the schema for the check-out

What do you want to call this check-out?

Show advanced options for overriding check-out defaults when I click Next

[About extracting data](#)

< Back Next > Cancel

Advanced Create Replica Options.

Which geodatabase model should be used?

Full Model:
Assumes features are stored with the same feature type in both the parent replica geodatabase and the child replica geodatabase.

Simple Model:
The child geodatabase will contain only simple features. Non-simple features in the parent (e.g. features in geometric networks and topologies) will be converted to simple features in the child and vice versa during replication.

Use of archiving for 1 way replication

Use archiving to track changes for 1 way replication

< Back Next > Cancel

Check Out Process

Advanced Check Out Options

What spatial extent do you want to apply to the check-out

The current display extent

The full extent of the data

The boundary of the currently selected graphic

The following extent:

Left: Top:

Bottom: Right:

Choose which items you want to check out

Include	Data	Target Name	Type	Check Out	Use Spa
<input checked="" type="checkbox"/>	ROAD.ADDR_POINT	ADDR_POINT	Feature Class	All Features	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ROAD.SEGMENT	SEGMENT	Feature Class	All Features	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ROAD.SEGMENT_CHAN	SEGMENT_CHANGE	Feature Class	All Features	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ROAD.SEG_NAME	SEG_NAME	Table	Schema Only	<input type="checkbox"/>
<input checked="" type="checkbox"/>	ROAD.LNDRMK_NAME	LNDRMK_NAME	Table	Schema Only	<input type="checkbox"/>
<input type="checkbox"/>	ROAD.ADDR_COMMENT	ADDR_COMMENT	Table	Schema Only	<input type="checkbox"/>

Extract related data

Post Check Out Options

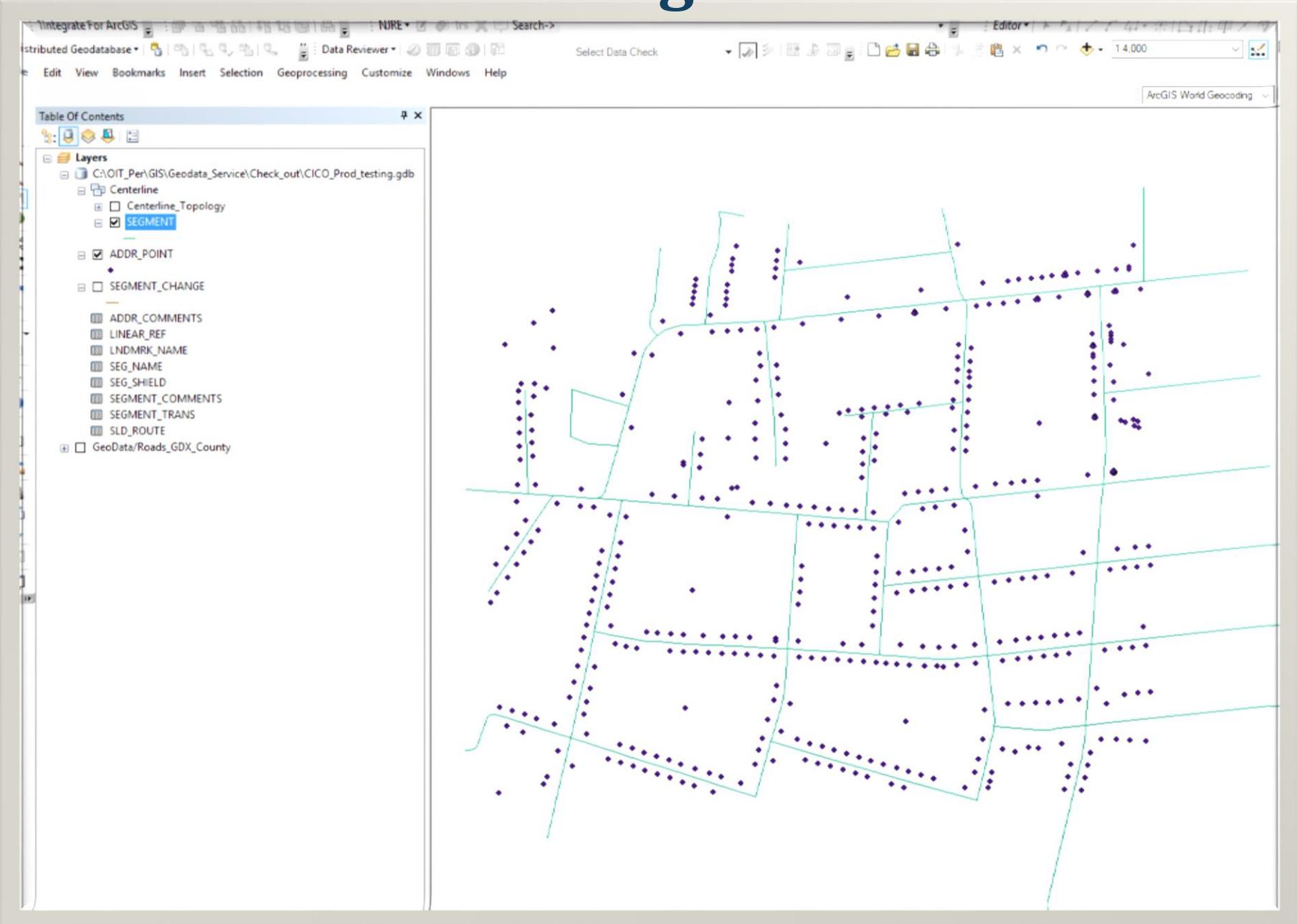
What do you want to do once the check out has been completed?

No further action

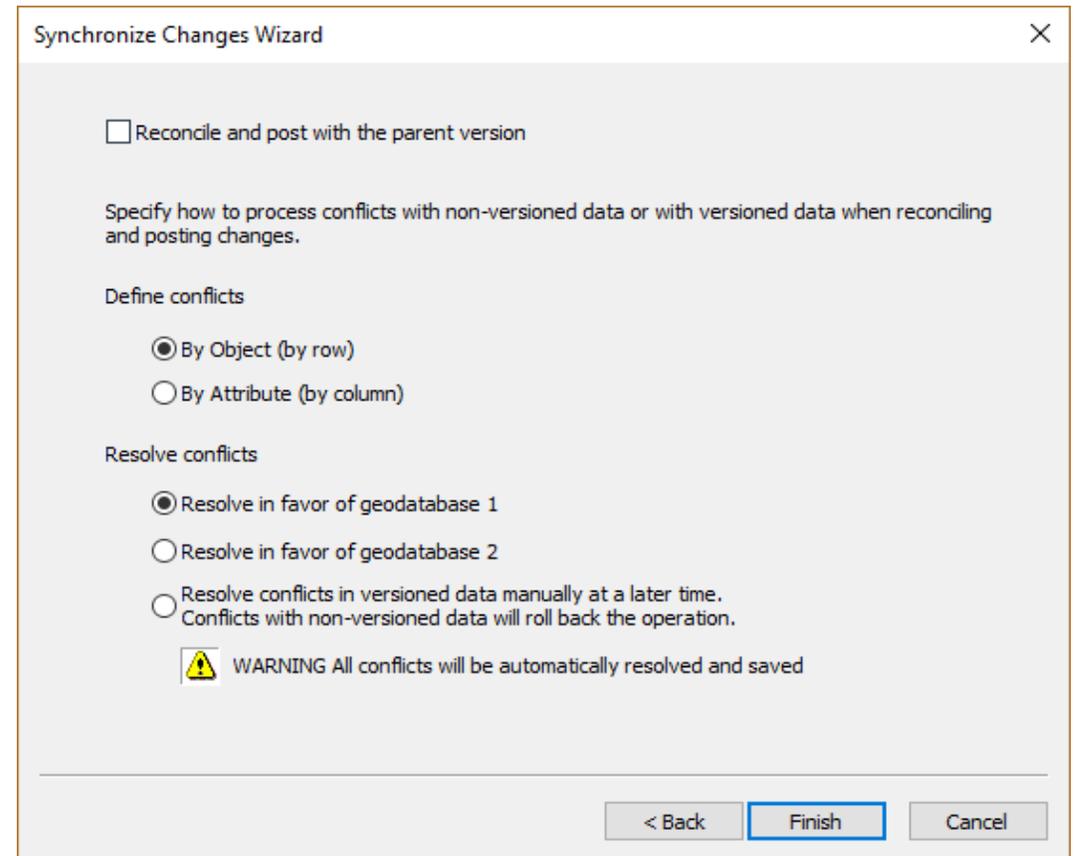
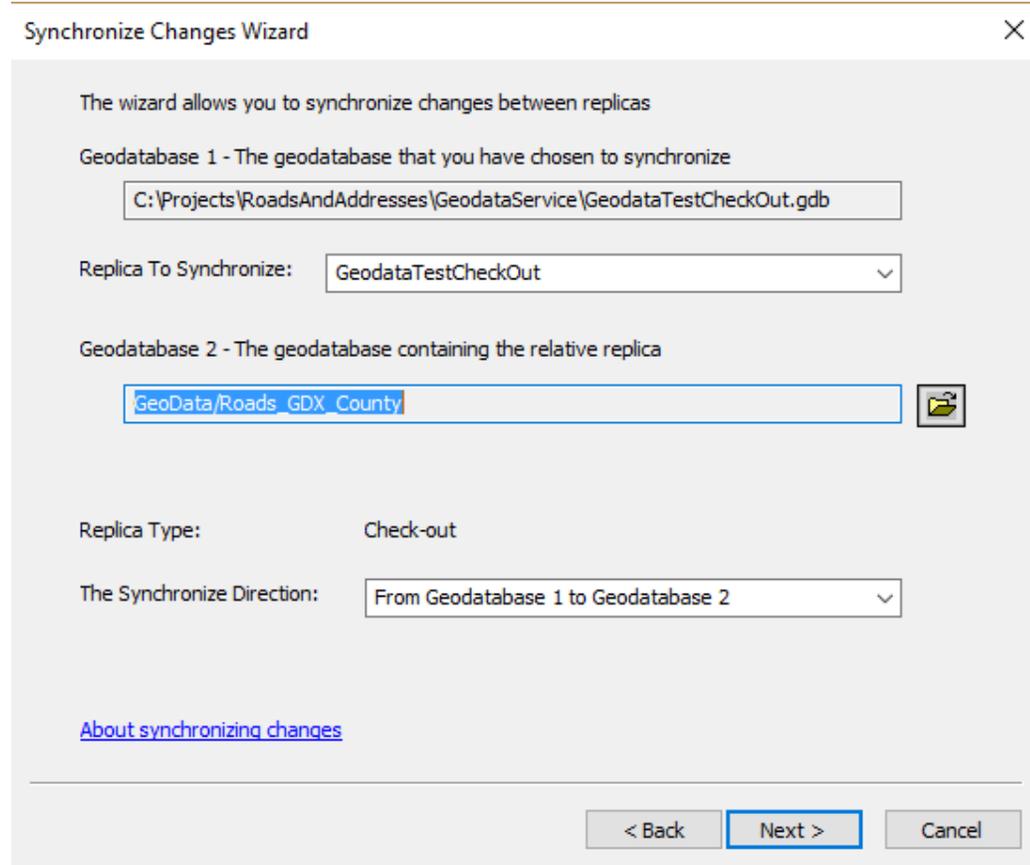
Change the layers and tables to point to the checked out data

Save a copy of this map document with the layers and tables pointing at the check-out data:

Editing Data



Check In Process



Resolve in favor of geodatabase 1- to conserve edits from the local check out in case of a conflict

Check In/Check Out Monitoring

- There is a list of existing replicas in service directory
- When there is a change in the list of replicas, it indicates that a check-out or check-in has occurred
- Script sends email notification when there is a change.



Replicas:

- [ROAD.TestCheckOut_1](#)
- [ROAD.TestCheckOut_2](#)
- [ROAD.TestCheckOut_3](#)

Child Resources: [Replicas](#) [Info](#)

Supported Operations: [Unregister Replica](#)

Reply Reply All Forward IM
gis-alerts@oit.nj.gov 0

CICO Scanner Update

CICO Scanner Update From: <https://geodata.state.nj.us>

-New Replica Created: ROAD.GS_Notify

Location of replica:

Monmouth County : Brielle Borough, Wall Township

Ocean County : Point Pleasant Borough, Point Pleasant Beach Borough, Brick Township

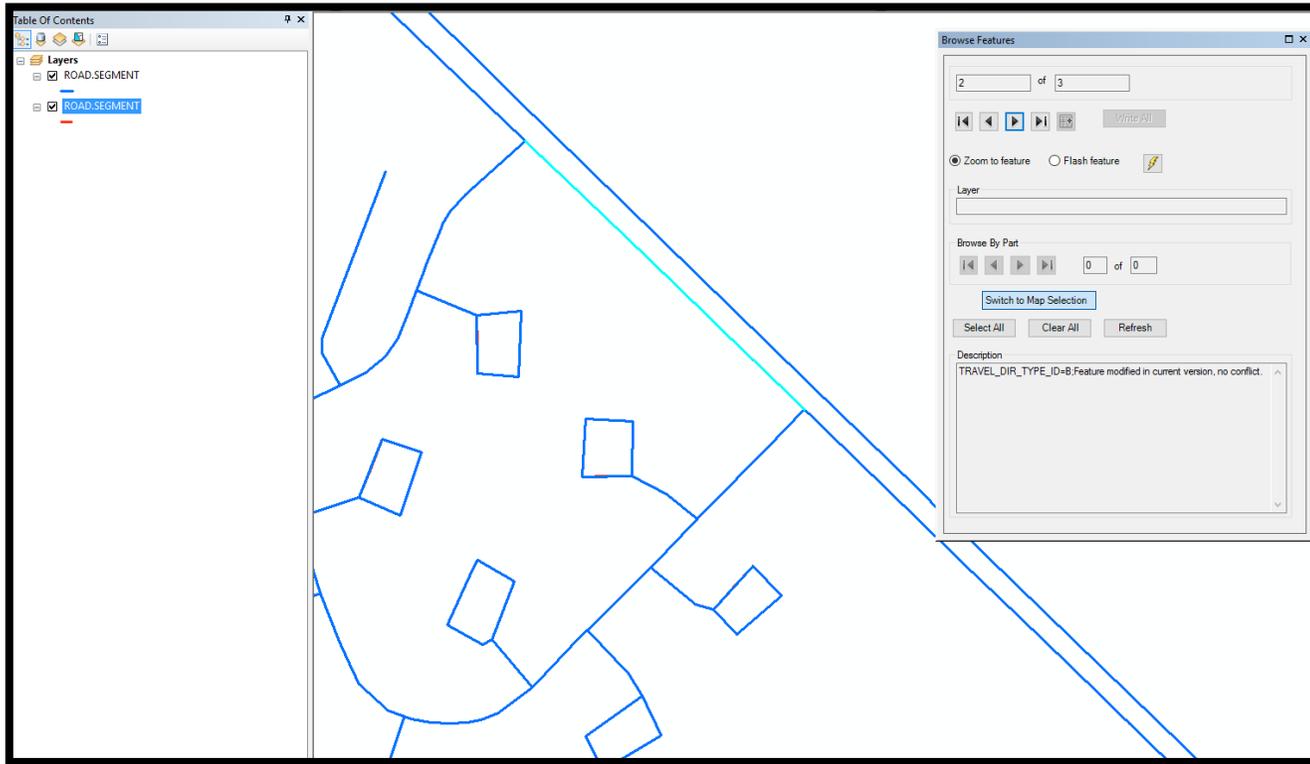
Features checked out:

ROAD.ADDR_POINT : 1871

ROAD.SEGMENT : 308

ROAD.SEGMENT_CHANGE : 19

NJOIT Data Review Process



Edits are reconciled and posted up through the version tree

OGIS Staff Creates a QA/QC Version and reviews submissions with data reviewer

Summary

- Challenges obtaining data
- Solutions – Geodata service
- Status

Patrick McDonald

Data Development Supervisor
NJ Office of GIS

Patrick.McDonald@tech.nj.gov

Metadata Requirements & Recommendations

For New Jersey Geographic Information
Network (NJGIN) 3.0

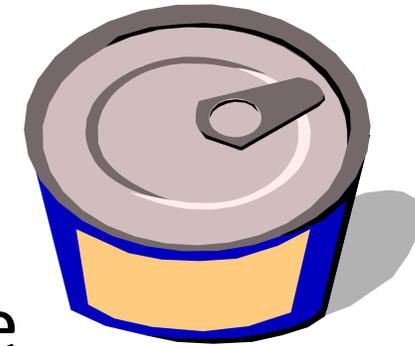
Edith Konopka Edith.Konopka@tech.nj.gov

njgin@oit.nj.gov

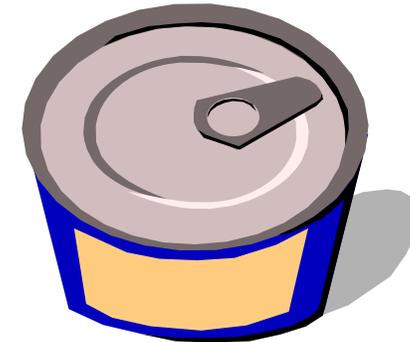
Why bother?

- Effective discovery
- Cost-effective sharing, distribution
- Provide legal protection
- Enable interoperability
- Add more elements to
 - Understand valid uses
 - Preserve data value over time

Which one
would you
eat?



Tuna?



Cat food?

NJGIN 3 catalog – news about metadata

- ArcGIS Online / Open Data platform
- Federated – NJGIN 3 links to partner Items
 - Partners control their own Items, updates
- Good News! Easier-to-use editors
- Good News! MUCH easier to publish
- New metadata format
- New workflows
 - Create Item, add metadata
 - Write metadata, create Item

NJGIN 3.0

Metadata requirements

- Configure AGOL for metadata
 - Special help from OGIS for non-Esri users
- ArcGIS format
 - Set FGDC CSDGM Style (for now)
 - (ISO 19115 Style future)
- NJGIN Core element list

Metadata recommendations

- Branded thumbnails
- Keep local archive
- When you can...full documentation element list

Save Cancel

General
Home Page
Gallery
Map
Items
Groups
Utility Services
Roles
Marketplace
Credits
Security
Open Data

Items

Configure aspects of your organization related to items.

Comments



Show and allow comments on items in the organization.

Metadata ?



Enable metadata for your organization.

Choose the metadata style for your organization. The style controls how the metadata appears and which fields are available for editing.

- FGDC CSDGM Metadata
- INSPIRE Metadata Directive
- ISO 19139 Metadata Implementation Specification GML3.2
- ISO 19139 Metadata Implementation Specification
- North American Profile of ISO19115 2003

Getting there...

- ArcGIS metadata tools
- Workflows

NJGIN 3 requires ArcGIS metadata format

- ArcGIS Metadata version 1.0
 - Not FGDC endorsed
 - Set **Style** supports named standard
 - Different: tag names, organization
 - Similar: content
 - ArcCatalog supports import<->export standard-compliant metadata
 - Storage structure more like ISO than like CSDGM
 - Xml files -> stylesheets, html, AGOL, REST content, JSON
- “Style” affects
 - Some parts of editors
 - Some validation flags
 - Export results
 - AGOL stylesheet for display (layout, content)
- NJGIN 3.0 uses Style FGDC CSDGM

Editors for ArcGIS Metadata

- ArcCatalog – best for collection management (use 10.3.1 or later)
 - “Fully” functional editor, processing tools available, somewhat clunky interface
 - Can convert existing metadata
 - Auto-capture of data info
 - Metadata live with data
 - Easy to switch style later
 - Must be configured by user
 - Help documents on NJGIN web site for several workflows
 - NJGIN Core list in editor order
- ArcGIS Online – easy to get started
 - Interface works well (use Chrome)
 - **Help doc for NJGIN Core**
 - Navigation (+/-)
 - Bug(s)
 - Export/save a copy (owner vs viewers get different results)
- ArcGIS Pro
 - Not quite ready for prime time

Getting metadata into ArcGIS Online/NJGIN 3

- AGOL Editor – semi-automatic 😊
 - Save a local copy
- ArcCatalog
 - Export
 - Clean up
 - Overwrite on AGOL item or submit with Item
- Both
 - Contact OGIS to notify us about candidate shared Items
- Other
 - Contact NJGIN – we'll gladly help!

NJGIN Core

- Small subset of elements
- Easy 😊
- Minimum for data discovery
- More than AGOL Item requirements
- Created by NJOIT – OGIS, standards based
- Requirement for OGIS to link to Item from NJ Open Data site

Information Needed – NJGIN Core

- Identification
 - Title
 - Publication date
 - Originator, Publisher
 - Abstract, Purpose
 - Credits (as in, who to thank)
 - Status
 - Bounding coordinates (Geographic Extent)
 - Time period of content (Temporal Extent)
 - Keywords/tags
- Access, Use constraints
- Metadata Reference
 - Date
 - Contact

NJGIN Core white paper

- NJGIN Core

Simple Documentation with the ArcGIS Online Metadata Editor

https://njgin.state.nj.us/oit/gis/NJ_NJGINExplorer/docs/MD_NJGIN_core_AGOL.pdf

New Jersey County Seats



[View](#) [Validate](#) [Download](#) | [Delete](#) [Overwrite](#) [Save](#) [Close](#)

- Resource
- Quality
- Distribution
- Representation
- Content
- Fields
- Reference
- Metadata

- Citation
- Details
- Keywords
- Extent
- Contact
- Maintenance
- Constraints
- Additional

- Titles & Dates
- URLs
- Identifiers
- Form
- Other
- Contact

Title*

NJ County Seat Courthouse points

Alternate Title

Collective Title

Help documents for ArcCatalog

- From scratch

https://njgin.state.nj.us/oit/gis/NJ_NJGINExplorer/docs/MD_ArcGIS_from_scratch_for_AGO.pdf

- Transitioning

https://njgin.state.nj.us/oit/gis/NJ_NJGINExplorer/docs/MD_Transitioning_FGDC_to_ArcGIS_AGO.pdf

- Core and fully-compliant element lists

https://njgin.state.nj.us/oit/gis/NJ_NJGINExplorer/docs/MD_ArcGIS_Req_Element_Lists.pdf

For any editor

- Updated metadata help page (still on old NJGIN site)

https://njgin.state.nj.us/NJ_NJGINExplorer/jviewer.jsp?pg=metadata_help

- Human help:

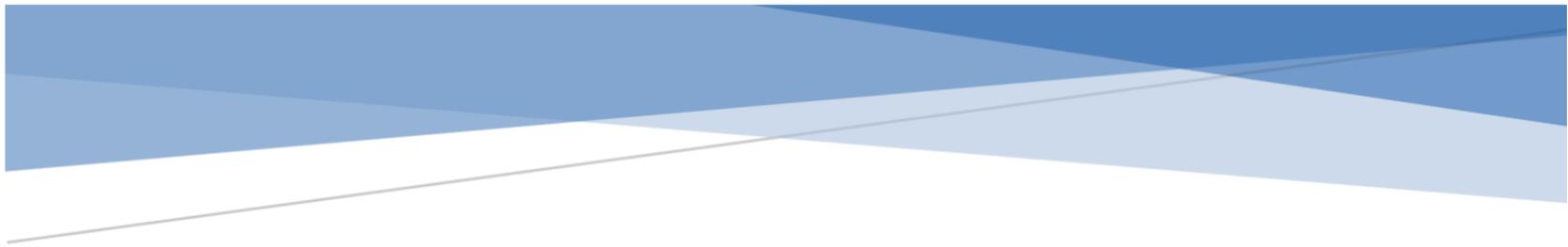
- Edith.Konopka@tech.nj.gov
- Naomi.Barnes@tech.nj.gov
- Maya.Thomas@tech.nj.gov
- njgin@oit.nj.gov

Item Description & Metadata

- Interaction governed by AGOL programming
- Has changed over time
- Experiment with your AGOL site
- Title vs Title

NJGIN Core limitations

- Incomplete for preserving data value over time
- Does not answer:
 - What do the fields mean/record?
 - How were the data developed?
 - Spatial Reference? Data format and organization?
 - Update frequency?
 - How good are the data?



NJGIN Core
Simple Documentation
with the ArcGIS Online Metadata Editor

njgin@oit.nj.gov



Extras and Screen shots

Full Information

- More effort required
- Just add to NJGIN Core
- Skip for [most] old data
- Maintain the value of new data, created and purchased
- Same editors

Add for Full Information

- Supplemental Information
- Data Quality reports
- Source Citations
- Process Steps
- Distribution Information (o if outside of AGOL/Open Data)
- Attribute fields documentation (in metadata or data dictionary)
- Data format and organization *
- Spatial Reference (projection, datum, coordinate system) *

Aside – Free Desktop Editors for non-Arc metadata

The conditions:

- Create standard-compliant metadata
- Contact NJGIN for help to translate to ArcGIS and publish

The editors:

- EPA Metadata Editor (CSDGM and ISO)
- USGS Metadata Wizard (CSDGM)
- Alaska ADIwg MdEditor (JSON <-> ISO, CSDGM)
 - Editor site
<https://www.mdeditor.org/>
 - Wiki
<https://github.com/adiwg/mdEditor/wiki>

New Jersey County Seats [Edit](#)

Overview Data Visualization Usage Settings

[Edit Thumbnail](#)



NJ Office of GIS

★ Add to Favorites

This data set was created for use in the Recovery funding map. It has been revised for general cartographic use. [Edit](#)

Feature Layer by [NJOGIS](#)

Created: Jul 23, 2018 Updated: Jul 23, 2018 View Count: 10

Description [Edit](#)

This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat.

A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the county business transacted.

Layers

[Government_Boundaries](#)

[Open In](#) [Service URL](#)

Terms of Use [Edit](#)

This data set is not survey data and must not be used as survey data. See Legal Constraints, Use limitation (Distribution Liability) for additional legal disclaimer, and the balance of this metadata record for conditions that limit appropriate uses.

Acknowledgement of the data set provider, NJ Office of Information Technology, Office of Geographic Information Systems (NJOIT -

Open in Map Viewer

Open in Scene Viewer

Open in ArcGIS Desktop

Share

Metadata

Item Information [Learn more](#)

Low

High

[Top Improvement: Add a longer description](#)

Details

Source: [Feature Service](#)

Size: 1 KB

Shared with: [Everyone \(public\)](#), [Open Data](#), [Gallery](#), [Data Development](#)

★★★★★



Owner

[Change Owner](#)



```
<?xml version="1.0" encoding="UTF-8"?>
<metadata xml:lang="en">
  <dataIdInfo>
    <idCitation>
      <resTitle>NJ County Seat Courthouse points</resTitle>
      <date>
        <pubDate>2018-07-06T00:00:00</pubDate>
      </date>
      <resEd>Originally published 2014-12-03. No change to point locations.</resEd>
      <presForm>
        <PresFormCd value="005"/>
      </presForm>
      <citRespParty>
        <rpOrgName>NJ Office of Information Technology, Office of Geographic Information Systems (NJOIT - OGIS)</rpOrgName>
        <role>
          <RoleCd value="006"/>
        </role>
        <rpCntInfo>
          <cntAddress addressType="postal">
            <eMailAdd>njgin@oit.nj.gov</eMailAdd>
            <delPoint>PO Box 212</delPoint>
            <city>Trenton</city>
            <adminArea>NJ</adminArea>
            <postCode>08625-0212</postCode>
            <country>US</country>
          </cntAddress>
          <cntPhone>
            <voiceNum>609-633-9103</voiceNum>
          </cntPhone>
        </rpCntInfo>
      </citRespParty>
    </idCitation>
  </dataIdInfo>
</metadata>
```

AGOL search as anonymous

Search

county seat Search

Content Groups

Only search in New Jersey Office of GIS

1 - 1 of 1 Sort by: Relevance

Item Type

- Maps
- Layers
- Scenes
- Apps
- Tools
- Files

> Date Modified

> Status

 Open Map Viewer

NJ Office of GIS

New Jersey County Seats

Feature Layer by NJOGIS

This data set was created for use in the Recovery funding map. It has been revised for general cartographic use.

Created: Jul 23, 2018 Updated: Jul 23, 2018 View Count: 4

Item opened

New Jersey County Seats

Overview Data Visualization



This data set was created for use in the Recovery funding map. It has been revised for general cartographic use.

Feature Layer by NJOGIS

Created: Jul 23, 2018 Updated: Jul 23, 2018 View Count: 11

Description

This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat.

A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the county business transacted.

Layers

[Government_Boundaries](#)

Open In Service URL

Terms of Use

This data set is not survey data and must not be used as survey data. See Legal Constraints, Use limitation (Distribution Liability) for additional legal disclaimer, and the balance of this metadata record for conditions that limit appropriate uses.

Acknowledgement of the data set provider, NJ Office of Information Technology, Office of Geographic Information Systems (NJOIT - OGIS), would be appreciated for maps, data or other products derived from this data set.

Open in Map Viewer

Open in Scene Viewer

Open in ArcGIS Desktop

Metadata

Details

Source: Feature Service

Size: 1 KB

★★★★★



Owner

NJOGIS

Tags

county seat, county, NJ, county courthouse, New Jersey, boundaries, county court house, New Jersey, NJ

Credits (Attribution)

NJ Office of Information Technology, Office of Geographic Information Systems (NJOIT - OGIS)



Viewing metadata

NJ County Seat Courthouse points

Identification Information:

Citation:

Citation Information:

Publication Date: 20180706

Title: NJ County Seat Courthouse points

Edition: Originally published 2014-12-03. No change to point locations.

Geospatial Data Presentation Form: vector digital data

Publication Information:

Publisher: NJ Office of Information Technology, Office of Geographic Information Systems (NJGIT - OGIS)

Description:

Abstract: This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the county business transacted.

Purpose: This data set was created for use in the Recovery funding map. It has been revised for general cartographic use.

Supplemental Information: Candidate municipalities were identified from the list printed on the NJ State Tourist Map published by NJ Department of Transportation. Two of the entries on that list were for place names rather than legal municipalities, so the enclosing municipality had to be identified: for Atlantic County: Mays Landing in Hamilton Township for Cape May County: Cape May Court House, in Middle Township.

Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date: 20090916

Currentness Reference: ground condition

Status:

Progress: Complete

Maintenance and Update Frequency: None planned

Spatial Domain:

Bounding Coordinates:

West Bounding Coordinate: -75.487689

East Bounding Coordinate: -74.042483

North Bounding Coordinate: 41.058797

South Bounding Coordinate: 39.079726

Keywords:

Theme:

Theme Keyword Thesaurus: ISO 19115 Topic Category

Theme Keyword: society

Theme:

Theme Keyword Thesaurus: None

Theme Keyword: county seat

Theme Keyword: county

Theme Keyword: county courthouse

Theme Keyword: county court house

Place:

Place Keyword Thesaurus: None

Place Keyword: New Jersey

Place Keyword: NJ

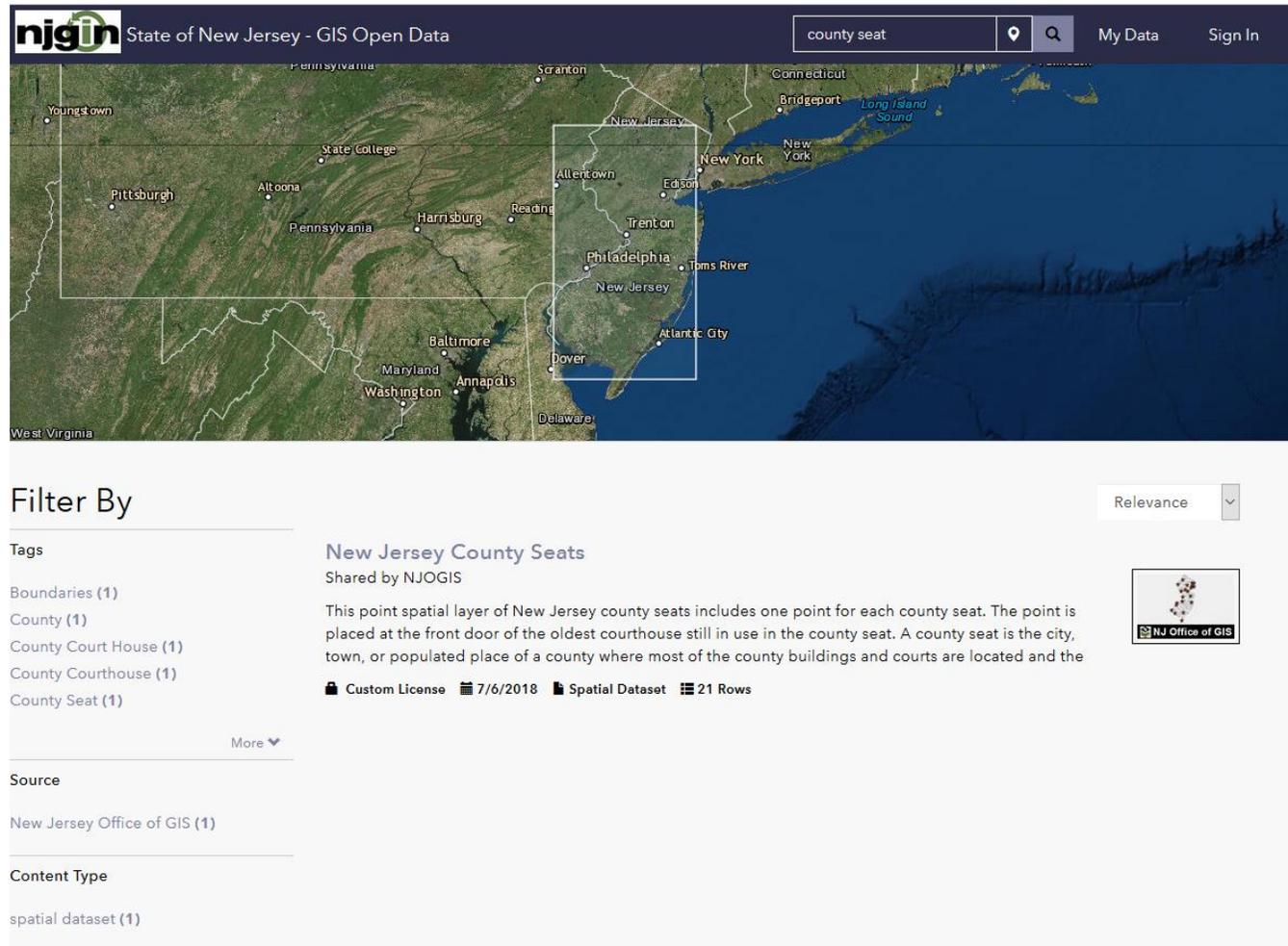
Access Constraints:

Access Constraints: None

Use Constraints: This data set is not survey data and must not be used as survey data. See Legal Constraints, Use limitation (Distribution Liability) for additional legal disclaimer, and the balance of this metadata record for conditions that limit appropriate



Open Data search as anonymous



The screenshot shows the NJGIS website interface. At the top, there is a search bar with the text 'county seat' and a search icon. To the right of the search bar are links for 'My Data' and 'Sign In'. Below the search bar is a map of the Eastern United States, with a white box highlighting the state of New Jersey. The map shows major cities like Philadelphia, New York, and Washington, D.C. Below the map, there is a 'Filter By' section with a 'Relevance' dropdown menu. The 'Tags' section lists various categories: Boundaries (1), County (1), County Court House (1), County Courthouse (1), and County Seat (1). The 'Source' section lists 'New Jersey Office of GIS (1)'. The 'Content Type' section lists 'spatial dataset (1)'. The main content area displays the search results for 'New Jersey County Seats', shared by NJOGIS. It includes a description: 'This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the'. Below the description are icons for 'Custom License', '7/6/2018', 'Spatial Dataset', and '21 Rows'. There is also a small thumbnail image of the NJOGIS logo.

njgis State of New Jersey - GIS Open Data

county seat

My Data Sign In

Filter By

Tags

Boundaries (1)
County (1)
County Court House (1)
County Courthouse (1)
County Seat (1)

More

Source

New Jersey Office of GIS (1)

Content Type

spatial dataset (1)

New Jersey County Seats
Shared by NJOGIS

This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the

Custom License 7/6/2018 Spatial Dataset 21 Rows

NJ Office of GIS

Open Item overview

The screenshot shows the 'Overview' tab of a data item titled 'New Jersey County Seats'. The page includes a map header with navigation tabs (Overview, Data, API Explorer) and a map showing the state of New Jersey. Below the title, there are buttons for 'Favorite', 'Download', and 'APIs'. The item is identified as a 'Spatial Dataset' with '21 Rows' and a 'Custom License' from '7/6/2018'. A descriptive paragraph explains that the data is a point spatial layer representing county seats. An 'Attributes' section lists fields: CO, COUNTY, COUNTY_GNIS, COUNTY_LAB, FIPSSTCO, GNIS, KEY, NAME, Place_key, and Place_name. A 'SHOW MORE' button indicates there are 2 additional attributes. The 'About' section on the right provides links for 'Open Data', 'View Metadata', 'Create Webmap', and 'Create a Story Map', along with sharing information.

Overview Data API Explorer

Earthstar Geographics | Esri, HERE, Garmin | NJ Office of Information Technology, Office of Ge

New Jersey County Seats

★ Favorite ▾ Download ▾ APIs ▾

🔒 Custom License 📅 7/6/2018 📄 Spatial Dataset 📊 21 Rows

This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the county business transacted.

Attributes

📊 Chart • Map Visualization

CO Text	COUNTY Text	COUNTY_GNIS Text	COUNTY_LAB Text	FIPSSTCO Text	GNIS Text	KEY Text	NAME Text	Place_key Text
------------	----------------	---------------------	--------------------	------------------	--------------	-------------	--------------	-------------------

Place_name
Text

SHOW MORE
2 Attributes

About

[Open Data](#)
Shared By: NJOGIS
Data Source: geodata.state.nj.us

[View Metadata](#)
[Create Webmap](#)
[Create a Story Map](#)

View metadata

NJ County Seat Courthouse points

Identification Information:

Citation:

Citation Information:

Publication Date: 20180706

Title: NJ County Seat Courthouse points

Edition: Originally published 2014-12-03. No change to point locations.

Geospatial Data Presentation Form: vector digital data

Publication Information:

Publisher: NJ Office of Information Technology, Office of Geographic Information Systems (NJGIT - OGIS)

Description:

Abstract: This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A majority of the county buildings and courts are located and the county business transacted.

Purpose: This data set was created for use in the Recovery funding map. It has been revised for general cartographic use.

Supplemental Information: Candidate municipalities were identified from the list printed on the NJ State Tourist Map published by NJ Department of Transportation. Two of the entries on that list were identified: for Atlantic County: Mays Landing in Hamilton Township for Cape May County: Cape May Court House, in Middle Township.

Time Period of Content:

Time Period Information:

Single Date/Time:

Calendar Date: 20090916

Currentness Reference: ground condition

Status:

Progress: Complete

Maintenance and Update Frequency: None planned

Spatial Domain:

Bounding Coordinates:

West Bounding Coordinate: -75.487689

East Bounding Coordinate: -74.042483

North Bounding Coordinate: 41.058797

South Bounding Coordinate: 39.079726

Keywords:

Theme:

Theme Keyword Thesaurus: ISO 19115 Topic Category

Theme Keyword: society

Theme:

Theme Keyword Thesaurus: None

Theme Keyword: county seat

Theme Keyword: county

Theme Keyword: county courthouse

Theme Keyword: county court house

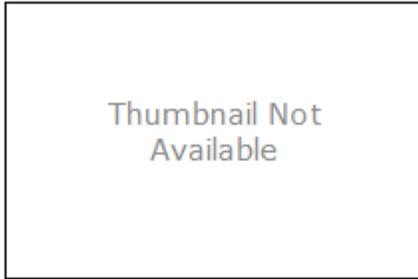
Place:

Place Keyword Thesaurus: None

Place Keyword: New Jersey

Place Keyword: NJ

NJ County Seat Courthouse points



Tags

society, county seat, county, county courthouse, county court house

Summary

This data set was created for use in the Recovery funding map. It has been revised for general cartographic use.

Description

This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the county business transacted.

Credits

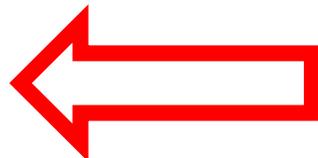
NJ Office of Information Technology, Office of Geographic Information Systems (NJOIT - OGIS)

Use limitations

This data set is not survey data and must not be used as survey data. See Legal Constraints, Use limitation (Distribution Liability) for additional legal disclaimer, and the balance of this metadata record for conditions that limit appropriate uses. Acknowledgement of the data set provider, NJ Office of Information Technology, Office of Geographic Information Systems (NJOIT - OGIS), would be appreciated for maps, data or other products derived from this data set.

Extent

There is no extent for this item.



Metadata included with download

Hide Fields ▲

FGDC Metadata (read-only) ▶

Identification ▶

CITATION

CITATION INFORMATION

ORIGINATOR
 PUBLICATION DATE 2018-07-06
 TITLE
 NJ County Seat Courthouse points
 EDITION Originally published 2014-12-03. No change to point locations.
 GEOSPATIAL DATA PRESENTATION FORM vector digital data
 PUBLICATION INFORMATION
 PUBLICATION PLACE
 PUBLISHER NJ Office of Information Technology, Office of Geographic Information Systems (NJGIT - OGIS)

DESCRIPTION

ABSTRACT

This point spatial layer of New Jersey county seats includes one point for each county seat. The point is placed at the front door of the oldest courthouse still in use in the county seat. A county seat is the city, town, or populated place of a county where most of the county buildings and courts are located and the county business transacted.

PURPOSE

This data set was created for use in the Recovery funding map. It has been revised for general cartographic use.

SUPPLEMENTAL INFORMATION

Candidate municipalities were identified from the list printed on the NJ State Tourist Map published by NJ Department of Transportation. Two of the entries on that list were for place names rather than legal municipalities, so the enclosing municipality had to be identified: for Atlantic County: Mays Landing in Hamilton Township for Cape May County: Cape May Court House, in Middle Township.

TIME PERIOD OF CONTENT

TIME PERIOD INFORMATION

SINGLE DATE/TIME
 CALENDAR DATE 2009-09-16

CURRENTNESS REFERENCE

ground condition

STATUS

PROGRESS Complete
 MAINTENANCE AND UPDATE FREQUENCY None planned

SPATIAL DOMAIN

BOUNDING COORDINATES

WEST BOUNDING COORDINATE -75.487689
 EAST BOUNDING COORDINATE -74.042483
 NORTH BOUNDING COORDINATE 41.058797
 SOUTH BOUNDING COORDINATE 39.079726



Metadata
 included
 with
 download

Metadata structure

ArcGIS

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FGDC CSDGM

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NJOGIS Resources for Elevation Products in NJ

Maya Thomas, Web GIS Specialist

maya.thomas@tech.nj.gov

Background

- Business case
- Inventory & metadata
- Layer, web maps and apps

Elevation Product Apps

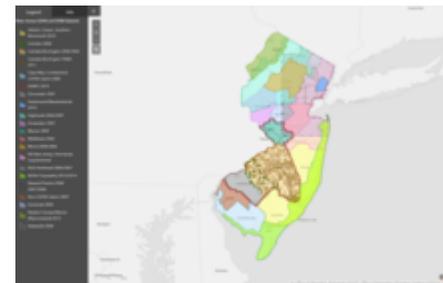
NJ Elevation Product Finder Web App

- Which elevation products are available in my area?
- <https://bit.ly/2q53ZyP>
- AGO Information Lookup Configurable App



NJ Elevation Product Extent Web App

- What are the spatial extents of the elevation products?
- <https://bit.ly/2ytlln8>
- AGO Minimalist Configurable App



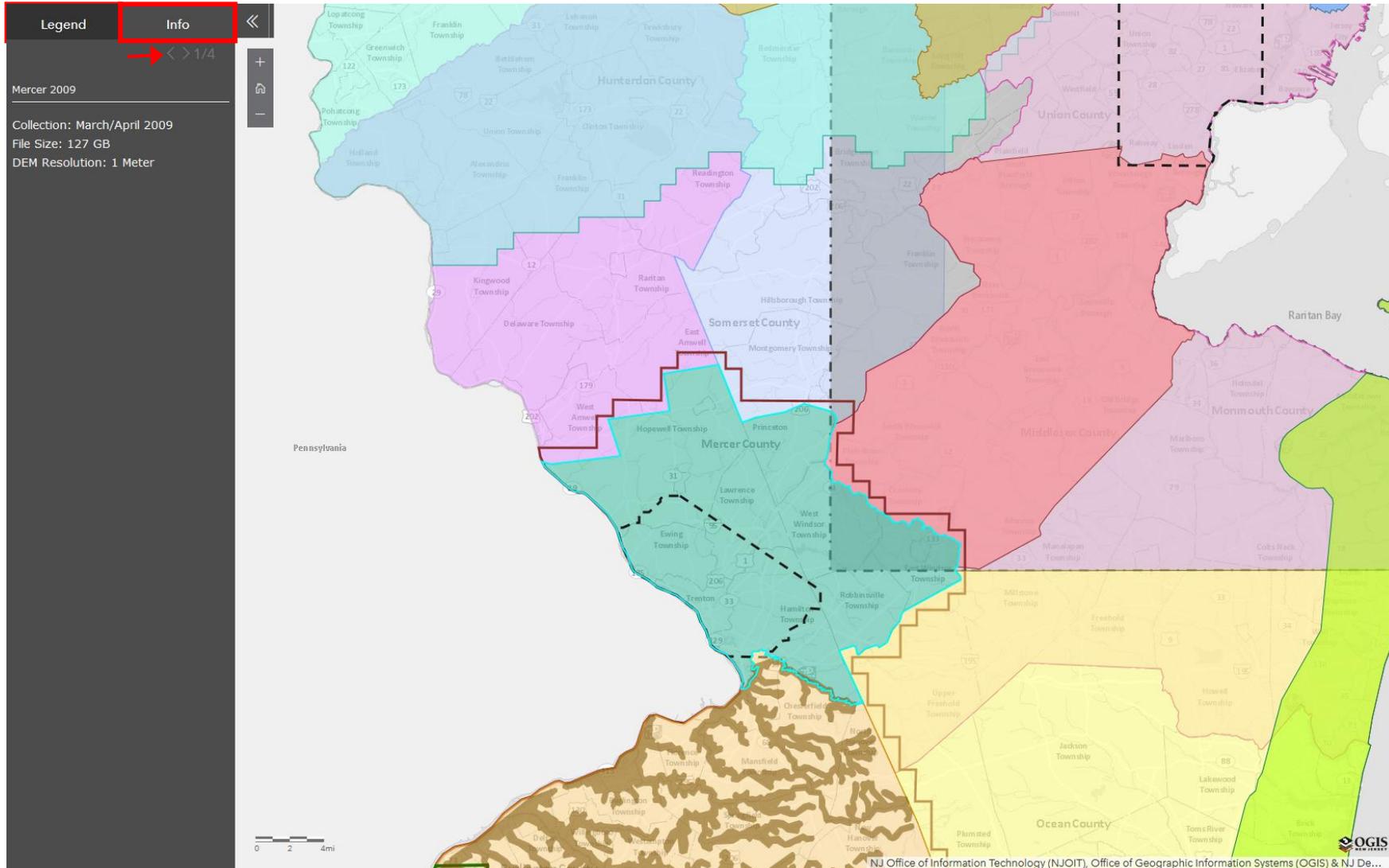
Demo

NJ Elevation Product Finder Web App

Search Results

Mercer 2009	
Project Name/Year	Mercer 2009
Project Name	Mercer
Collection Year	2009
Metadata	Yes
File Size	127 GB
Collection Month	March/April
Leaf On/Off	Off
NPS (m ²)	0.56
Horizontal Confidence	1 Meter
Tide Coordinated	No
Tide Window	
Coordinate System	NJSP
Point Density (m ²)	2
Vertical Accuracy (FVA 95%)	.185 m (.363 ft.)
Horizontal Datum	NAD83
Horizontal Units	Feet
Vertical Units	Feet
Vertical Datum	NAVD88
Collection Standard	
Quality Level	3
LAS File Version	1.1
Returns	4.00
Return Classes	1,2,9,12
Bare Earth DEM	Yes
DEM Resolution	1 Meter
Intensity Values	Yes
Tiling Structure	NJ Ortho Imagery Grid
DEM Format	Floating Point Grid
Hydro Flattened	No
Hydro Enforced	Yes
Hydro Breaklines	No
Contours	No
Contractor	PhotoScience, Dewberry
Lead Agency	USGS
Map_ID	9
Partners	Mercer Co., NJDEP
Processing Software	TerraScan

NJ Elevation Product Extent Web App



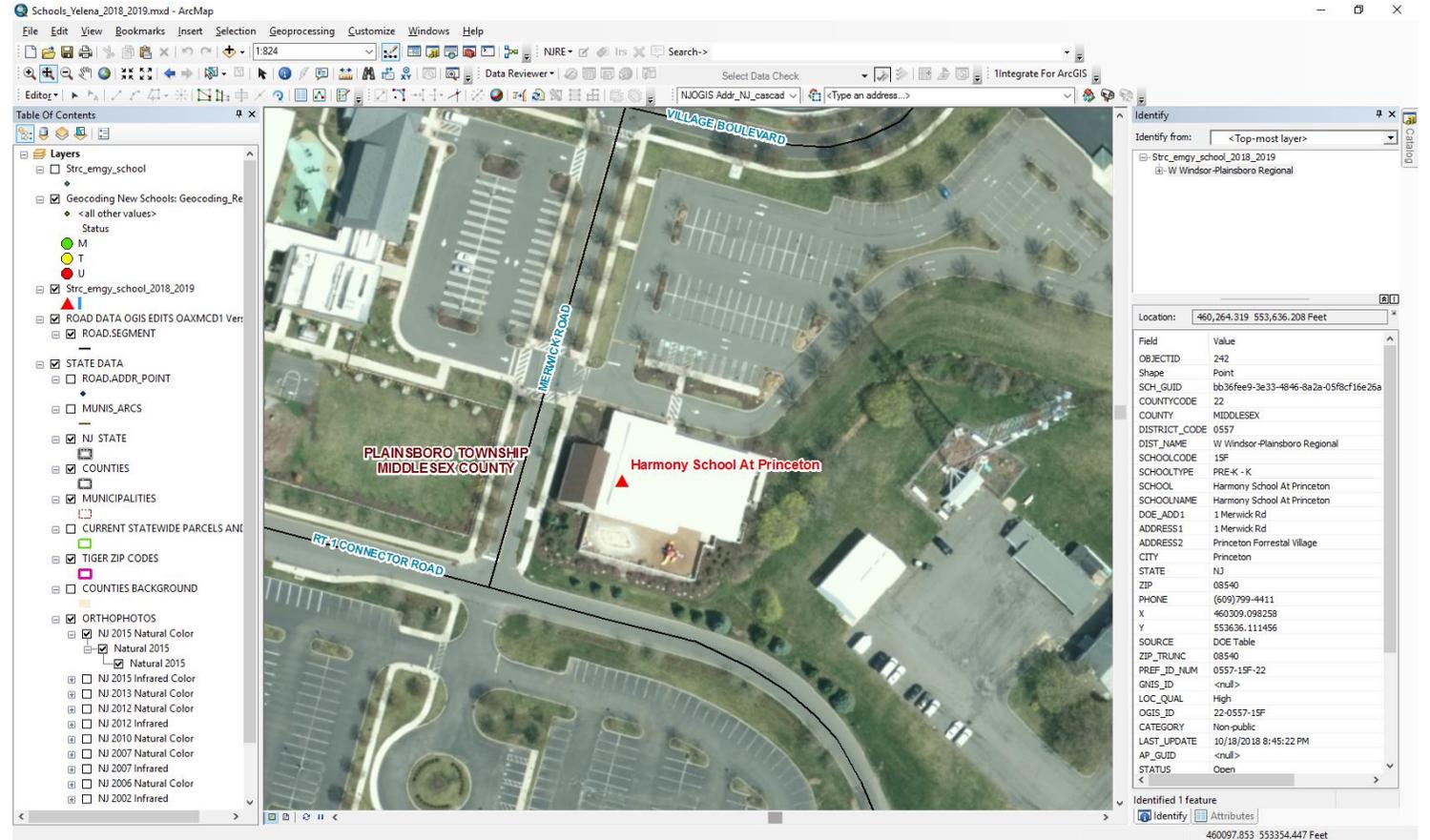
Detailed Statewide School Locations:

The OGIS Approach of annual editing data

Yelena Pikovskaya

Mapping of school exact locations is important for...

1. Emergency dispatching
2. Homeland security
3. Determining the proximity to Known Contaminated Sites
4. Prospective homebuyers
5. Megan's Law applications
6. Drug free zone development
7. Address Points update process



Some of a History

The first spatial data set of public schools were created by NJDEP in 2002-2003.



Since 2011 the annual school location editing process was initiated at NJOIT-OGIS in partnership with NJDOE.



STATE OF NEW JERSEY
DEPARTMENT OF EDUCATION



What kind of data are we mapping and editing?

Sources:

- Data provided by the NJ Department of Education (DOE)*
- NJDEP data
- County sources of information

School categories:

- Public
- Public Charter
- Non-Public (Private) schools

School Types:

- Pre-School
- Kindergarten
- Elementary
- Middle
- High (including College Prep)
- Special Needs (for students with disabilities and development delays)
- Athletic
- Vocational, Adult, Alternative Education
- Day Care – only regulated by NJDOE (not Division of Children and Family).

* NJDOE tabular data contain only schools which are reporting to the DOE. Numerous non-public schools do not report on annual basis.

Download DOE tabular data

<https://homeroom5.doe.state.nj.us/directory/>

The screenshot shows a web browser window displaying the NJ School Directory website. The browser's address bar shows the URL <https://homeroom5.doe.state.nj.us/directory/>. The website header includes the State of New Jersey Department of Education logo and navigation links for Home, About Us, Programs, Data, News Room, and Contact Us. A search bar is present with a dropdown menu set to 'NJ DOE' and a search button. Below the header, there is a navigation bar with links for Home, About Us, Programs, Data, News Room, and Contact Us, along with a Facebook icon. The main content area is titled 'New Jersey School Directory' and is divided into two columns. The left column contains a 'School Directory Search' section with links for 'Find a Public School' and 'Find a Non-Public School', and a 'School Directory Download (Excel-Only CSV Files)' section with links for 'Public Schools (includes school grade levels)' (subdivided into 'Atlantic - Mercer' and 'Middlesex - Warren & Charter Schools'), 'Public School Districts', and 'Non-Public Schools'. A paragraph explains that the school district file contains names of superintendents, business administrators, special education coordinators, and HIB coordinators, while the school file contains names of principals and HIB coordinators. A link for 'New Jersey Public Schools Fact Sheet' is also provided. The right column is titled 'Other Directories' and lists various links such as 'Adult Education Testing Centers in NJ', 'Approved Career and Technical Education Programs', 'Approved Community Transition Programs', 'Approved Providers of Clinical Nursing Services for Medically Fragile Students', 'Approved Clinics and Agencies', 'Approved Private Schools for Students with Disabilities (In State)', 'Approved Private Schools for Students with Disabilities (Out of State)', 'Charter School Details', 'Directory of Educational Programs and Resources for Students Who Are Deaf or Hard of Hearing in New Jersey', 'New Jersey Public-College-Operated Programs for Students with Disabilities', and 'State Government Directories' (subdivided into 'NJ Department of Education Organization Overview'). At the bottom of the page, there is a footer with a logo for 'OPRA Open Public Records Act' and a navigation bar with links for 'NJDOE: Educators | Families | Programs | Data | Newsroom | DOE A to Z'. The browser's status bar at the bottom right shows a zoom level of 100%.



Data Processing

1. **Convert** *.csv files to File Geodatabase table format.
2. **Load** data into a single table **with OGIS schema**.

ArcCatalog - C:\Schools_Locations\School_Editing\2018\School_Tables\OIT_Tables.gdb\NJCharterSchools

File Edit View Go Geoprocessing Customize Windows Help

C:\Schools_Locations\School_Editing\2018\School_Tables\OIT_Tables.gdb\NJCharterSchools

Catalog Tree

- Python27
- Recovery
- Read_Cnt
- School_Design_docs
- School_district
- School_groj
- Schools_Locations
- School_Editing
 - 2017
 - 2018
 - School_Tables
 - DOE_Tables.gdb
 - OIT_Tables.gdb
 - NJCharterSchools
 - NINonPublicSchools
 - NIPublicSchools
 - SCHOOL_EDITS_2018_2019_Test.gdb
 - SCHOOL_DATA
 - DOE_DISTRICT
 - DOE_SCH_TYP
 - DOE_SCH_TYP2003
 - DOE_SCHOOLS
 - DOE_SCHOOLS_has_Strc_emgy_school
 - SCHOOL_COMMENTS
 - SchoolTools
 - Strc_emgy_school_dict
 - SCHOOL_EDITS_2018_2019.gdb
 - SCHOOL_DATA
 - DOE_DISTRICT
 - DOE_SCH_TYP
 - DOE_SCH_TYP2003
 - DOE_SCHOOLS
 - DOE_SCHOOLS_has_Strc_emgy_school
 - Geocoding_Result
 - Sch_loc_closed
 - Sch_loc_closed_2018
 - Sch_loc_new
 - SCHOOL_COMMENTS
 - SchoolTools
 - Strc_emgy_school_dict
 - SCHOOL_EDITS_2018_2019_ORG_backup.gdb
 - Sch_closings.txt
 - Comments
 - Docs
 - School_Edits
 - School_GUID
 - Validation
 - Schools_Yelena.mxd
 - Schools_Yelena_2017_2018.mxd

Contents Preview Description

| COUNTYCODE | COUNTY | DIST_CODE | DIST_NAME | SCHOOLCODE | SCHOOL | ADDRESS1 |
|------------|------------|-----------|--|------------|--|--------------------------|
| 80 | MONMOUTH | 6010 | Academy Charter High School | 910 | Academy Charter High School | 1725 MAIN STREET |
| 80 | MIDDLESEX | 6032 | Academy for Urban Leadership Charter School | 901 | Academy for Urban Leadership Charter School | 612 Amboy Ave |
| 80 | ESSEX | 6110 | Achieve Community Charter School | 902 | Achieve Community Charter School | 352 South 7th Street |
| 80 | ATLANTIC | 6060 | Atlantic Community Charter School | 942 | Atlantic Community Charter School | 112 South New York Rd |
| 80 | HUDSON | 6082 | BelovED Community Charter School | 963 | BelovED Community Charter School | 508 Grand Street |
| 80 | BURLINGTON | 6076 | Benjamin Banneker Preparatory Charter School | 961 | Benjamin Banneker Preparatory Charter School | 300 Willingboro Way |
| 80 | BERGEN | 6013 | Bergen Arts and Sciences Charter School | 900 | Bergen Arts and Sciences Charter School | 200 MACARTHUR AVENUE |
| 80 | CUMBERLAND | 6100 | Bridgeton Public Charter School | 991 | Bridgeton Public Charter School | 790 East Commerce Ave |
| 80 | ESSEX | 6022 | Burch Charter School of Excellence | 990 | Burch Charter School of Excellence | 100 LINDEN AVE |
| 80 | CAMDEN | 6107 | Camden's Promise Charter School | 998 | Camden's Promise Charter School | 879 Bedeman Ave |
| 80 | SOMERSET | 6018 | Central Jersey College Prep Charter School | 900 | Central Jersey College Prep Charter School | 101 Metters Road |
| 80 | ATLANTIC | 7410 | Chartertech High School for the Performing Arts | 940 | Chartertech High School for the Performing Arts | 413 NEW ROAD |
| 80 | PASSAIC | 6230 | Classical Academy Charter School of Clifton | 915 | Classical Academy Charter School of Clifton | 1255 Main Avenue |
| 80 | UNION | 6101 | College Achieve Central Charter School | 992 | College Achieve Central Charter School | 365 Emerson Ave |
| 80 | MONMOUTH | 7891 | College Achieve Greater Asbury Park Charter School | 904 | College Achieve Greater Asbury Park Charter School | 508 3rd Avenue |
| 80 | PASSAIC | 7892 | College Achieve Paterson Charter School | 909 | College Achieve Paterson Charter School | 21 Market Street |
| 80 | PASSAIC | 6021 | Community Charter School of Paterson | 905 | Community Charter School of Paterson | 75 SPRUCE ST |
| 80 | CUMBERLAND | 6089 | Compass Academy Charter School | 976 | Compass Academy Charter School | 23 West Chestnut Ave |
| 80 | UNION | 6102 | Cresthaven Academy Charter School | 993 | Cresthaven Academy Charter School | 530 West 7th Street |
| 80 | ESSEX | 6320 | Discovery Charter School | 920 | Discovery Charter School | 240 Halsey St |
| 80 | HUDSON | 6064 | Dr. Lena Edwards Academic Charter School | 946 | Dr. Lena Edwards Academic Charter School | 509 Branch Ave |
| 80 | ESSEX | 6410 | East Orange Community Charter School | 920 | East Orange Community Charter School | 99 WASHINGTON STREET |
| 80 | HUDSON | 6420 | Elysian Charter School of Hoboken | 925 | Elysian Charter School of Hoboken | 1460 GARDEN STREET |
| 80 | HUDSON | 6103 | Empowerment Academy Charter School | 994 | Empowerment Academy Charter School | 240 Ege Avenue |
| 80 | BERGEN | 6430 | Englewood on the Palisades Charter School | 930 | Englewood on the Palisades Charter School | 65 WEST DEMAREST AVENUE |
| 80 | CAMDEN | 6232 | Environment Community Opportunity (ECO) Charter School | 920 | Environment Community Opportunity (ECO) Charter School | 817 CARPENTER STREET |
| 80 | MERCER | 6017 | Foundation Academy Charter School | 932 | Foundation Academy Charter School | 363 West State Street |
| 80 | CAMDEN | 6240 | Freedom Prep Charter School | 900 | Freedom Prep Charter School | 1000 ATLANTIC AVE |
| 80 | ESSEX | 6053 | Great Oaks Legacy Charter School | 917 | Great Oaks Legacy Charter School | 24 Maiden Lane |
| 80 | MIDDLESEX | 6635 | Greater Brunswick Charter School | 930 | Greater Brunswick Charter School | 429 JOYCE KILMER AVENUE |
| 80 | MIDDLESEX | 6041 | Hatkvah International Academy Charter School | 916 | Hatkvah International Academy Charter School | 7 Lexington Avenue |
| 80 | HUDSON | 6720 | Hoboken Charter School | 930 | Hoboken Charter School | 713 Washington St |
| 80 | HUDSON | 6036 | Hoboken Dual Language Charter School | 921 | Hoboken Dual Language Charter School | 123 Jefferson Street |
| 80 | MONMOUTH | 6740 | Hope Academy Charter School | 950 | Hope Academy Charter School | 601 GRAND AVENUE |
| 80 | CAMDEN | 6086 | Hope Community Charter School | 972 | Hope Community Charter School | 838 S. 4th Street |
| 80 | HUDSON | 6105 | Hudson Arts and Science Charter School | 996 | Hudson Arts and Science Charter School | 131 Midland Ave |
| 80 | ATLANTIC | 6104 | International Academy of Atlantic City Charter School | 995 | International Academy of Atlantic City Charter School | 6718 Black Horse Pike |
| 80 | MERCER | 6810 | International Charter School | 940 | International Charter School | 105 GRAND STREET |
| 80 | HUDSON | 6910 | Jersey City Community Charter School | 940 | Jersey City Community Charter School | 128 DANFORTH AVENUE |
| 80 | HUDSON | 6093 | Jersey City Global Charter School | 981 | Jersey City Global Charter School | 255 Congress Street |
| 80 | HUDSON | 6915 | Jersey City Golden Door Charter School | 950 | Jersey City Golden Door Charter School | 3044 Kennedy Blvd |
| 80 | PASSAIC | 6079 | John P. Holland Charter School | 964 | John P. Holland Charter School | 190 Oliver Street |
| 80 | ESSEX | 6109 | LEAD Charter School | 953 | LEAD Charter School | 201 Bergen Street |
| 80 | CAMDEN | 7109 | Leap Academy University Charter School | 931 | Leap Academy University Charter School | 130 North Broadway |
| 80 | HUDSON | 7115 | Learning Community Charter School | 960 | Learning Community Charter School | 2495 John F Kennedy Blvd |
| 80 | ESSEX | 6099 | Link Community Charter School | 986 | Link Community Charter School | 23 Pennsylvania Ave |

Preview: Table (of 87)



Data Processing (continue)

Compare, query and validate data

3. **Calculate** PREF_ID_NUM field

PREF_ID_NUM is a school identifier necessary for querying schools.

It is the concatenation of (school) district code, school code, and county code. These codes are provided by DOE.

The attribute field with PREF_ID_NUM is used as a join field for comparing tabular data and spatial data set.

4. **Join** feature class attribute table and DOE no-spatial table in both directions in order to obtain non-matched records (potential "new" and "closed" schools).

5. **Research** "closed schools" (not recorded in the DOE table) using online information. Among them could be schools that in fact are open but not reporting to DOE. Keep them in data set.

6. **Geocode** and locate new schools.

7. Check school websites, locate new campuses (it can be more than one campus for one school).

7. Each school point has a unique identifier called **SCH_GUID**. For new schools and campuses, SCH_GUID is calculated.

8. **Run models, queries** and **expressions** created at OGIS to populate all fields and validate data.

The Completed school points and Metadata are available from the OGIS NJGIN-Open Data site:

<http://njogis-newjersey.opendata.arcgis.com/>

The screenshot shows a web browser window displaying the NJGIN Open Data portal. The browser's address bar shows the URL: [http://njogis-newjersey.opendata.arcgis.com/datasets?q=new%20jersey%20schools%20\(public%2C%20private%2C%20charter\)](http://njogis-newjersey.opendata.arcgis.com/datasets?q=new%20jersey%20schools%20(public%2C%20private%2C%20charter)). The page header includes the NJGIN logo and the text "State of New Jersey - GIS Open Data". A search bar contains the text "new jersey schools (publi" and a search icon. To the right of the search bar are links for "My Data" and "Sign In".

The main content area features a satellite map of New Jersey and surrounding regions, with a white box highlighting the state of New Jersey. Below the map, there is a "Filter By" section with a list of tags: "Charter School (1)", "Education (1)", "Elementary School (1)", "High School (1)", and "Middle School (1)". To the right of the tags, the search results for "New Jersey Schools (public, private, charter)" are displayed. The results include the following information:

- Title:** New Jersey Schools (public, private, charter)
- Shared by:** NJOGIS
- Description:** This feature class (shapefile) consists of point locations of public, private, and charter schools including pre-schools, day care facilities, adult and vocational schools in New Jersey, with minimal attributes. Most of the public schools were initially located in 2003 by the New Jersey Department of Environmental Protection, and were checked in 2007-2017 by the NJ Office of
- Metadata:** Custom License, 6/11/2018, Spatial Dataset, 3,623 Rows

The bottom right corner of the page features the OGIS New Jersey logo, which consists of a stylized map of New Jersey with a graduation cap on top, and the text "OGIS NEW JERSEY".

Future Methodology

- ✓ NJOGIS is currently working on creating a new workflow that will utilize the ArcGIS Data Reviewer.
- ✓ This will further streamline the overall review process with built-in preconfigured checks.

For details please contact us!

Patrick McDonald

Data Development Supervisor

NJ Office of GIS

Patrick.McDonald@tech.nj.gov

Yelena Pikovskaya

GIS Specialist

NJ Office of GIS

yelena.pikovskaya@tech.nj.gov