

Overview of Census Bureau Geographic Areas for the 2020 Census

Transportation Research Board :
Applying Census Data for Transportation
Kansas City, MO
October 15, 2017

Outline

- What is statistical geography?
- Why define statistical geographic areas?
- What do statistical geographic areas represent?
- How do statistical geographic areas relate to legal and administrative areas?
- How do we define/collect boundaries for statistical areas?
- Participant Statistical Areas Program (PSAP) entities

What is statistical geography?

Geographic areas:

- Defined solely for data collection, tabulation, dissemination, and analysis
- Representing geographic concepts, such as urban, rural, metropolitan
- Representing communities, localities, and other recognizable areas that do not have legally defined boundaries or are surrogates for legal entities

Why define statistical geography?

- Need for data and information
- Counterparts to legal entities
- Provide finer spatial resolution
- Consistent and comparable entities for longitudinal analysis
- Entities designed to ensure statistical reliability, protect confidentiality of data

Why should we care about statistical areas?

- Critical for analysis at lower levels of geography (i.e. place, neighborhood)
- Used in a wide variety of federal programs
 - Community Development Block Grants (CDBGs)
 - Small Business Administration (SBA) programs
 - Rural development, rural health programs
 - Place-based planning and programs
- Used by planners and policy makers
 - Transportation planning
 - Urban planning

What do statistical areas represent?

- Commonly understood areas or communities that lack legally defined boundaries
 - ZIP Code tabulation areas (ZCTAs)
 - Census designated places (CDPs— unincorporated places)
 - Tribal designated statistical areas, state designated tribal statistical areas
- Geographic, demographic, economic concepts
 - Metropolitan, micropolitan, urban, rural
- Representations of entities that have (or had) a legal existence, but may lack clear boundaries or may not fit within an agency’s definition of legal entities
 - Oklahoma tribal statistical areas (former reservations), Alaska Native village statistical areas
- Areas defined specifically for data presentation and analysis
 - Census tracts, block groups, census county divisions, public use microdata areas (PUMAs)

Relationship to legal areas

Statistical counterparts, where legal entities:

- Do not exist or may not be optimal for presenting data.

Examples:

- Census county divisions (instead of less optimal minor civil divisions)
 - Tribal designated statistical areas (defined for federally-recognized American Indian tribes that lack a legal land base)
-
- May not represent the full universe of entities at a particular hierarchical level.

Example:

- Census designated places (unincorporated places)

Tabulation Geography

Legal

- States (and equivalents)
- Counties
- County subdivisions (Towns & townships)
- Places (Incorporated)
- Tribal areas (Reservations and off-reservation trust land)

Administrative

- Election areas
- School districts

Statistical

- Regions
- Divisions
- County subdivisions
(Census county divisions)
- Places (Census designated)
- Tribal areas (Statistical areas)
- Census tracts
- Block groups
- Tabulation blocks
- Metropolitan/Micropolitan areas
- Urban areas
- ZCTAs

Delineation and collection of boundaries

- Published criteria, generally in the *Federal Register*
- Boundaries often follow visible features
- Statistical areas may be aggregations of other geographic entities
 - Metropolitan Areas defined based on counties
 - Urban Areas based on census tracts and census blocks
 - Rural-Urban Commuting Areas based on census tracts
- Work with local government agencies, such as planning department, regional planning organizations, etc.
 - Examples: census tracts, block groups, traffic analysis zones
- Defined solely by agency staff
 - Examples: Metropolitan and Micropolitan Statistical Areas, urbanized areas and urban clusters

Geography Division Partnership Goals

- Expand and encourage geographic partnerships with all sectors of government, the organizations that serve them, and the private sector
- Develop and deploy new strategies to:
 - communicate more effectively with these groups
 - increase participation in geographic programs
 - effectively integrate the address list review program, street centerline update program, and boundary reporting programs that now exist as separate programs
- Establish new partnerships that can be used to improve the accuracy, currency and coverage of the MAF/TIGER system.

Census Partnership Programs

- **GSS** – Geographic Support System Program
- **BAS** – Boundary and Annexation Survey
- **LUCA** – Local Update of Census Addresses
- **New Construction**
- **PSAP** – Participant Statistical Areas Program
- **School Districts**
- **RDP** – Redistricting Data Program

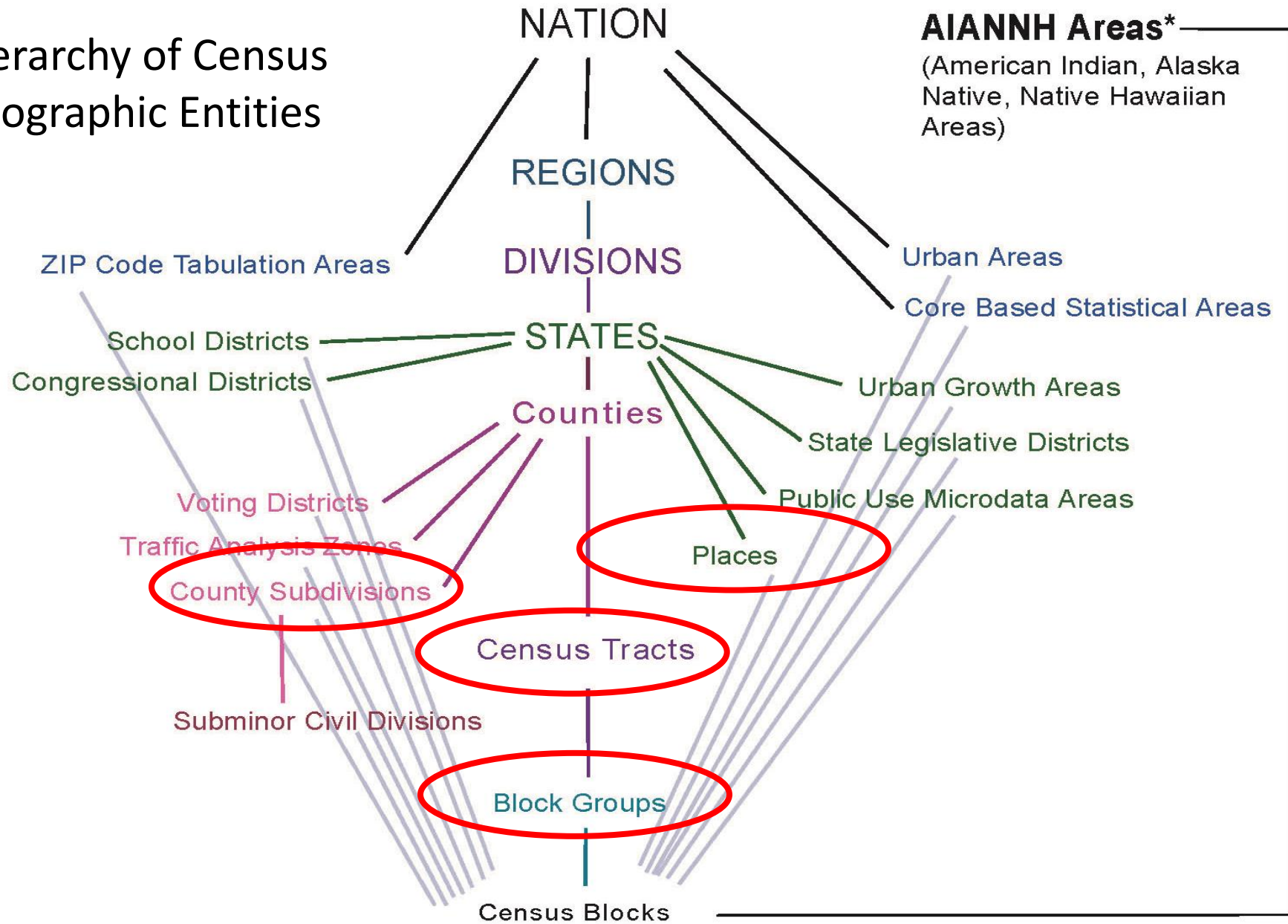
Participant Statistical Areas Program (PSAP)

A Decennial program that allows local participants, following Census Bureau criteria and guidelines, to review and suggest modifications to the inventory, boundaries, and names of statistical geographic areas.

2020 PSAP geography includes:

- Census tracts
- Block groups
- Census designated places (CDPs)
- Census county divisions (CCDs)
- Tribal statistical geographic areas

Hierarchy of Census Geographic Entities



General Characteristics of PSAP Entities

Type of Entity	Primary Purpose	Nationwide wall-to-wall coverage	Nest within
Census Tract	<ul style="list-style-type: none"> Reliable small area data Data comparability 	Yes	County
Block Group	<ul style="list-style-type: none"> Spatial resolution Demographic characteristics 	Yes	Census Tract
Census Designated Place (CDP)	<ul style="list-style-type: none"> Demographic and economic data for unincorporated places 	No-CDPs represent distinct communities	None
Census County Division (CCD)	<ul style="list-style-type: none"> Subcounty units that have stable boundaries 	21 states (nationwide coverage with MCDs)	County

No Changes to Concepts or Criteria from 2010

All 2020 PSAP geographies are recognizable in:

- Concept and purpose
- Coding and naming conventions
- Types of boundary features permitted

Criteria and guidelines were revised to improve clarity and to standardize informal practices and interpretations of previous operations.

Substantial Changes to 2020 PSAP Operations/Delineation

All PSAP geographies will be reviewed in-house (NPC/HQ) for adherence to:

- Published criteria and guidelines
- Coding and naming conventions
- Optimal boundary feature use

External Users will have the choice to update:

- Census updated boundaries (“current”)
- 2010 boundaries

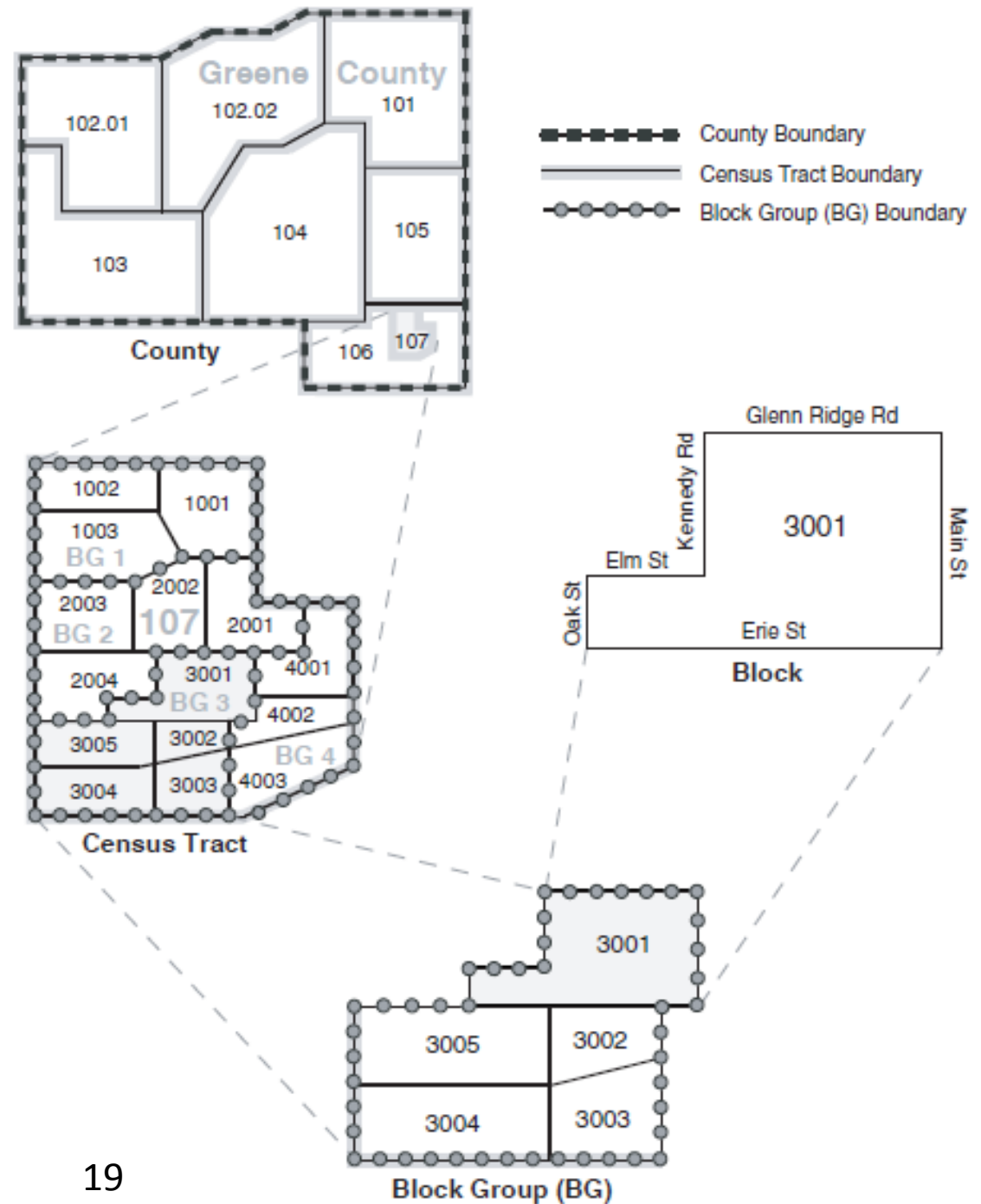
Current 2020 Census PSAP Schedule (as of 09/18/2017)

March – May 2018	Contact 2010 Census PSAP participants to inquire about 2020 Census PSAP participation
July 2018	PSAP invitation materials sent to PSAP participants
Dec. 2018	PSAP delineation phase begins. Participants have 120 calendar days to submit updates
Jan. 2019	PSAP Webinar trainings begin
July 2019	Send PSAP participants communication notifying closeout of delineation phase
Dec. 2019	PSAP verification phase begins. Participants have 90 calendar days to review updates
Oct. 2020	Close out the 2020 Census PSAP

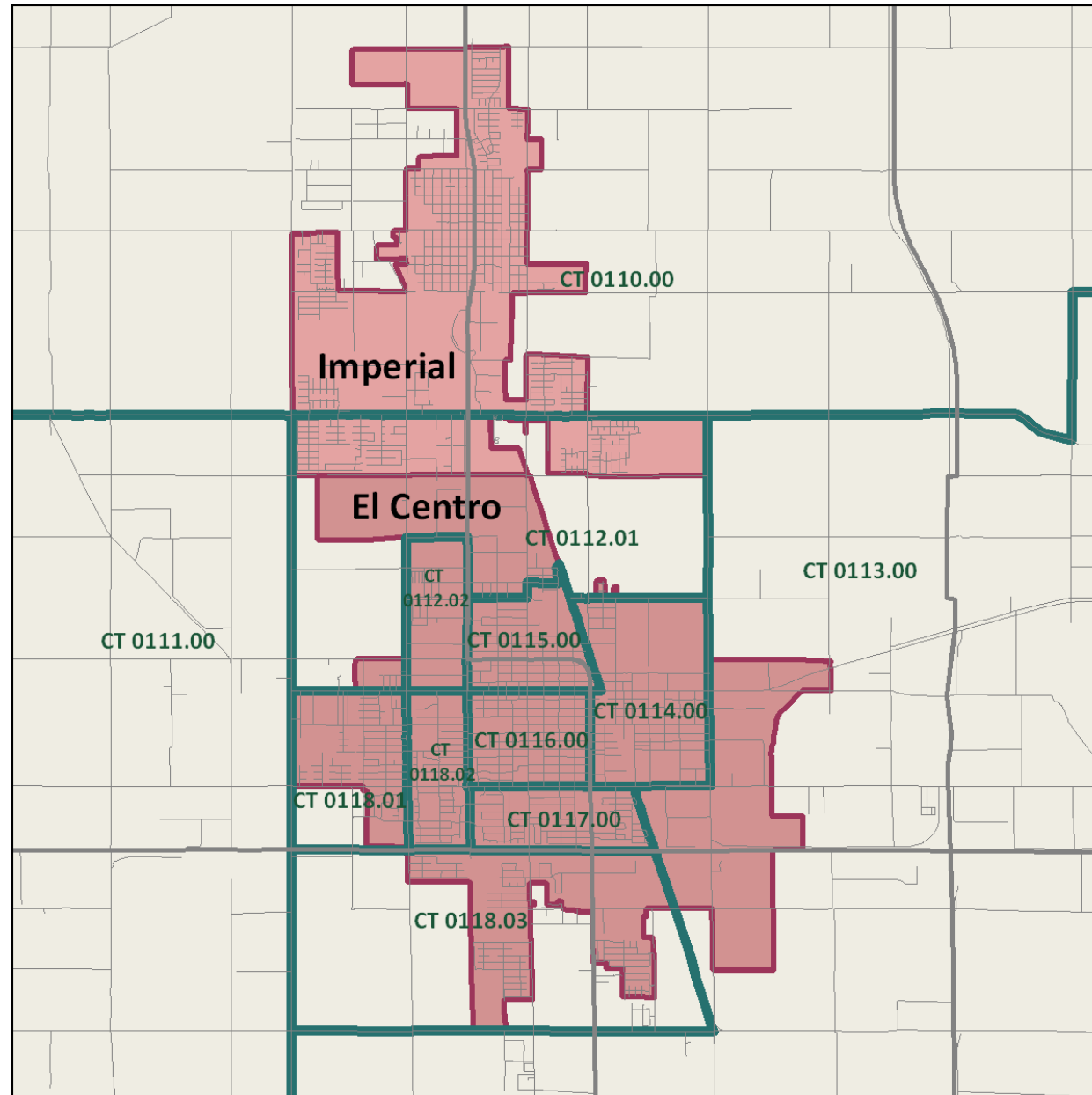
Census Tract Thresholds

Tract Type	Threshold Type	Optimum	Minimum	Maximum
Standard and Tribal Census Tracts	Population	4,000	1,200	8,000
	Housing Units	1,600	480	3,200
Special Use Census Tracts	Area	>= 1 sq. mi. in urban area and >= 10 sq. mi. outside urban area		
	Population	None, or within standard tract thresholds		




Geographic Area Relationships: Small Statistical Areas



Geographic Area Relationships: Census Tracts and Incorporated Places



Imperial and El Centro, CA

-  Census tracts
-  Imperial city
-  El Centro city

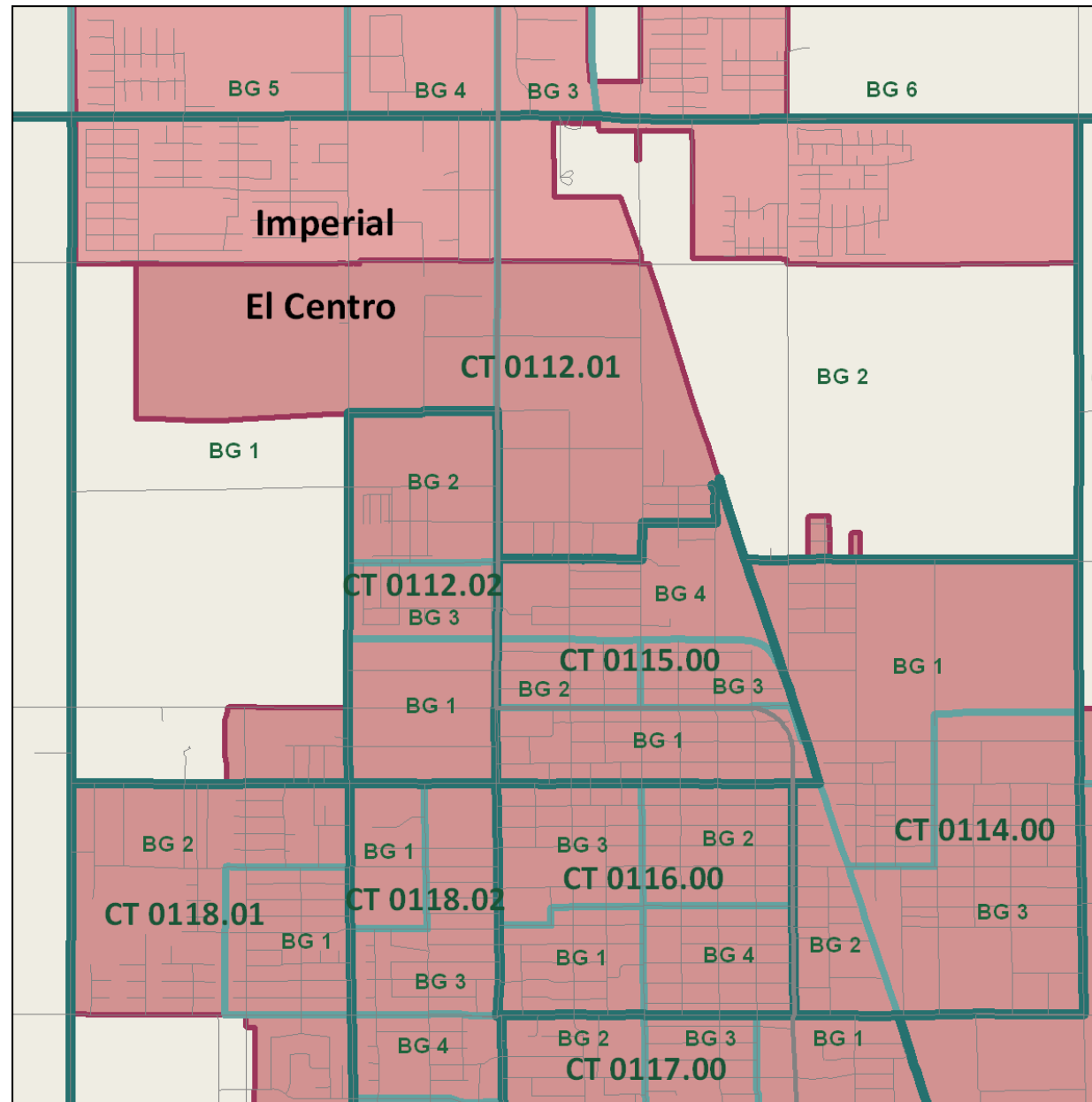
0 0.5 1 Miles







Block Group Thresholds

BG Type	Threshold Type	Optimum	Minimum	Maximum
Standard and Tribal Block Groups	Population		600	3,000
	Housing unit		240	1,800
Special Use Block Groups	Area	>= 1 sq. mi. in urban area and >= 10 sq. mi. outside urban area		
	Population	None, or within standard tract thresholds		


Geographic Area Relationships: Census Tracts, Block Groups, and Incorporated Places



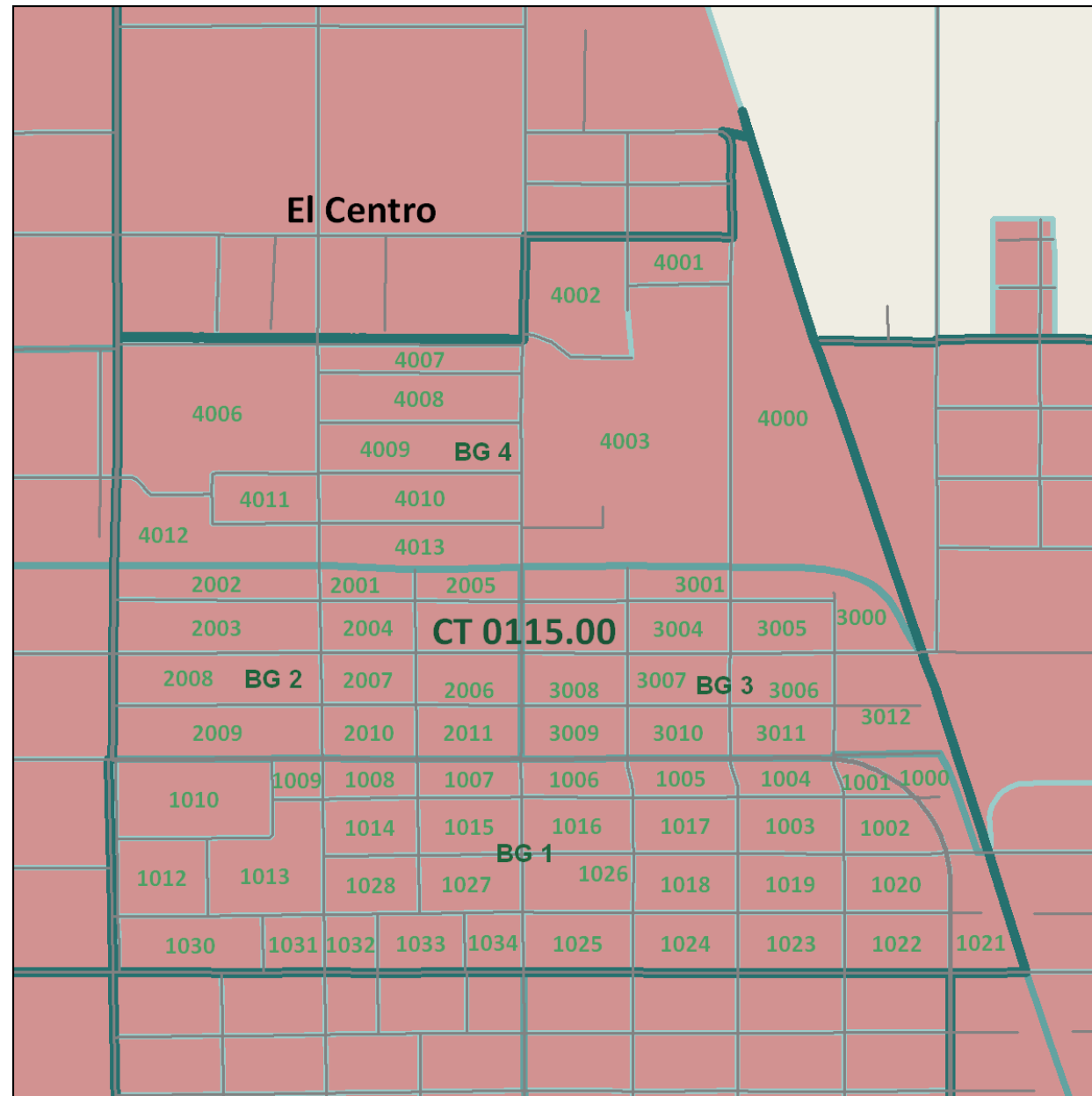
Imperial and El Centro, CA

-  Census tracts
-  Census block groups
-  Imperial city
-  El Centro city

0 0.25 0.5 Miles



Geographic Area Relationships: Census Tracts, Block Groups, Tabulation Blocks, and Incorporated Places

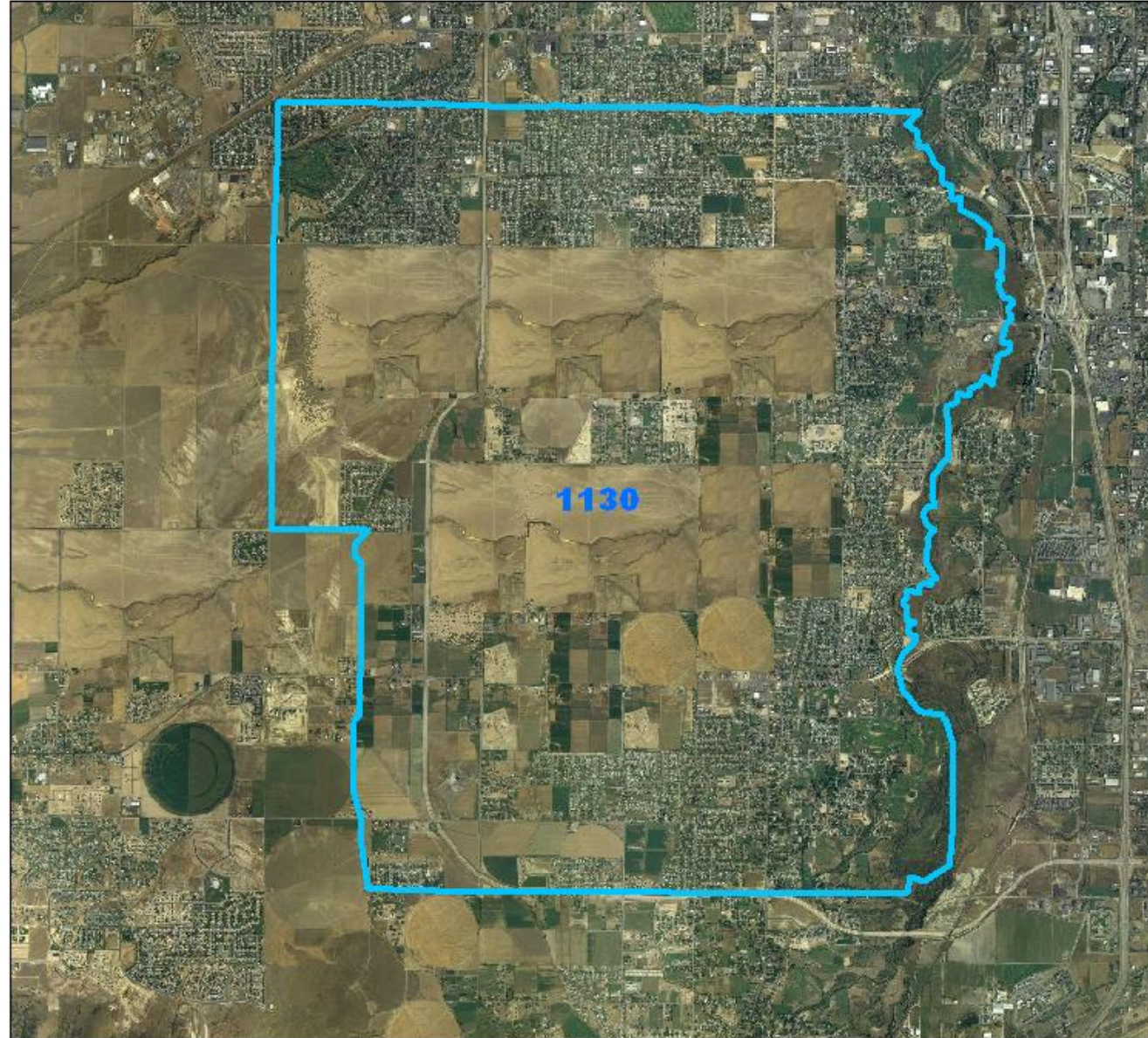


Imperial and El Centro, CA

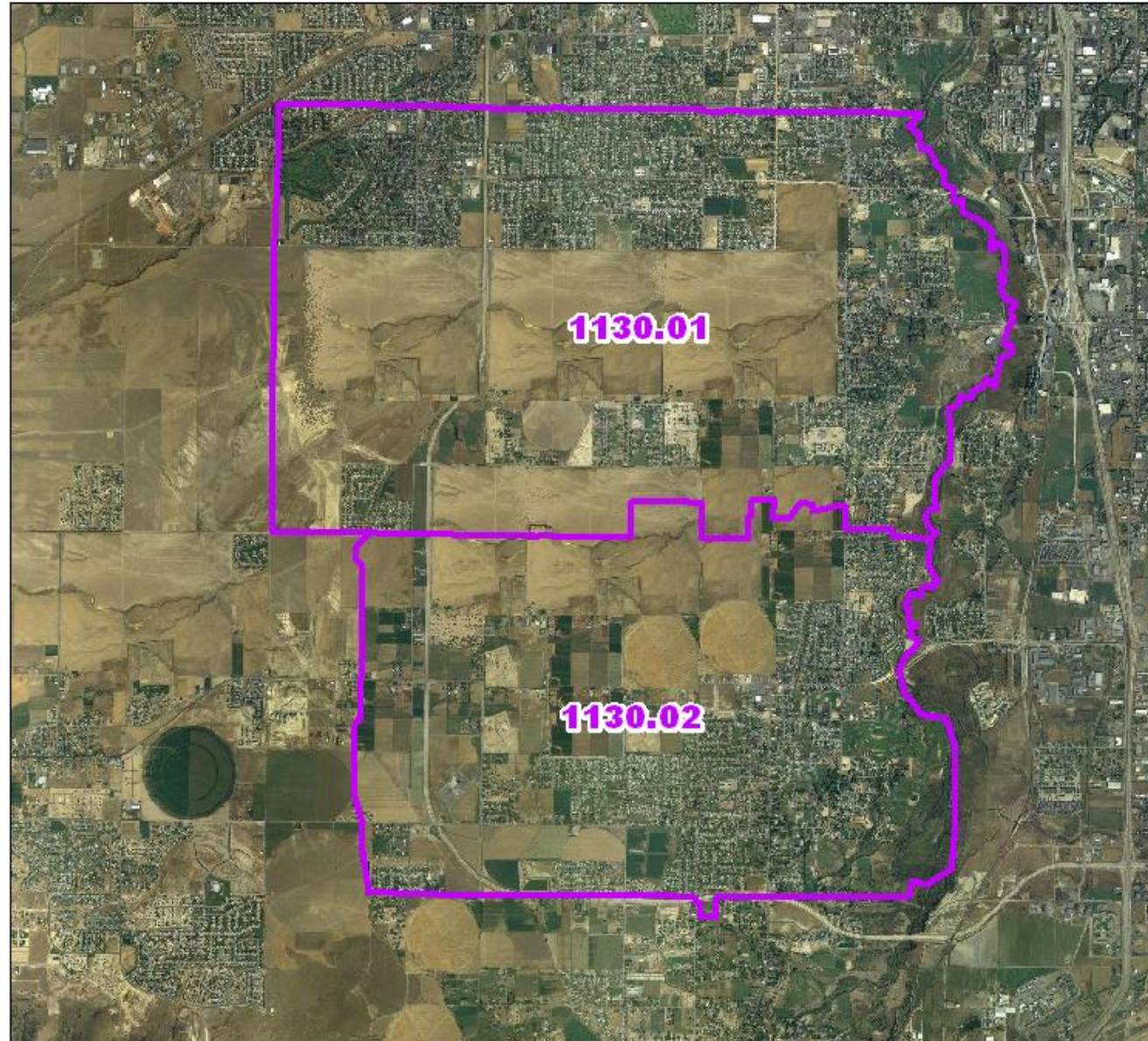
- Census tracts
- Census block groups
- Census blocks
- El Centro city



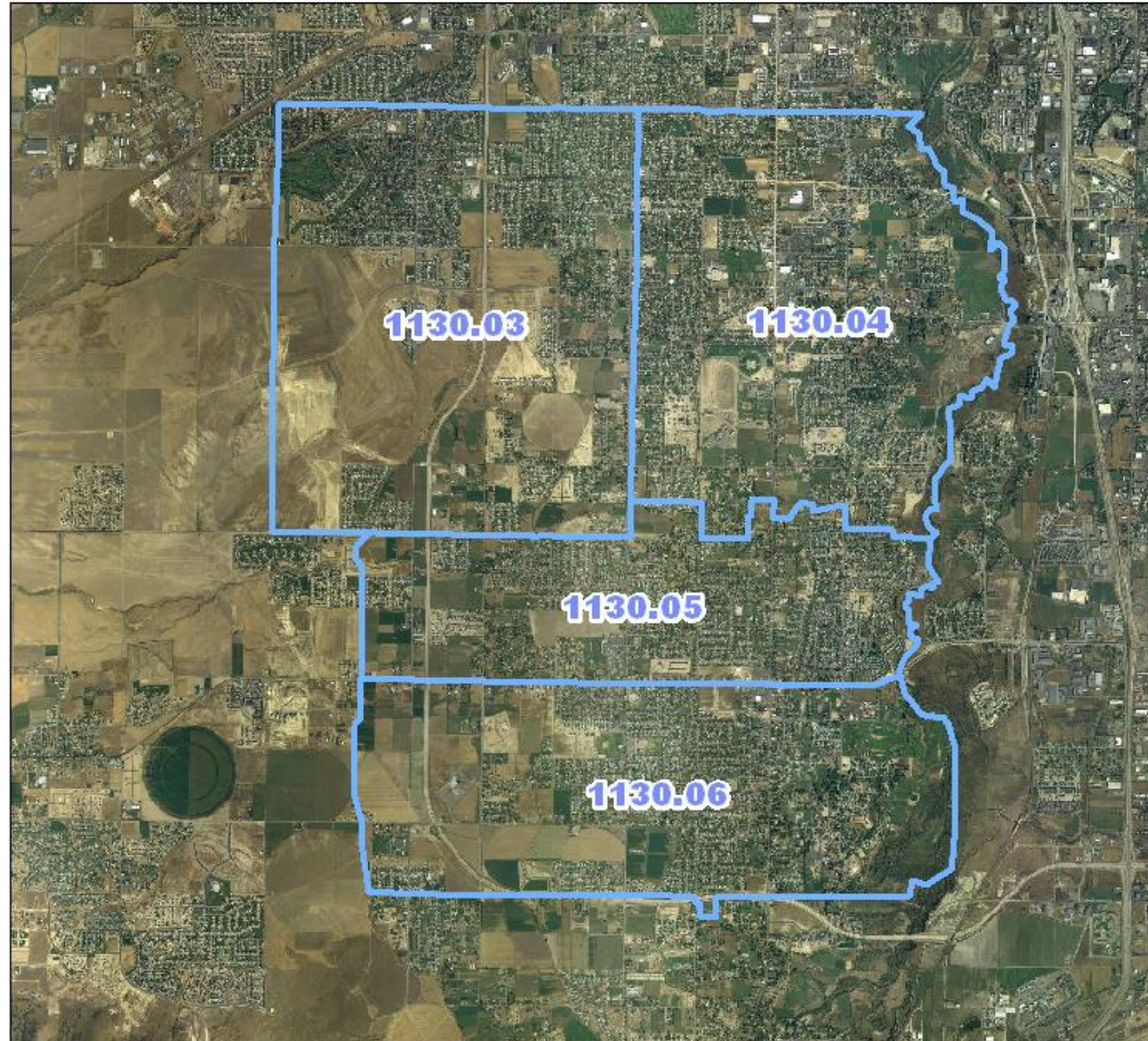
1970 Census Tract



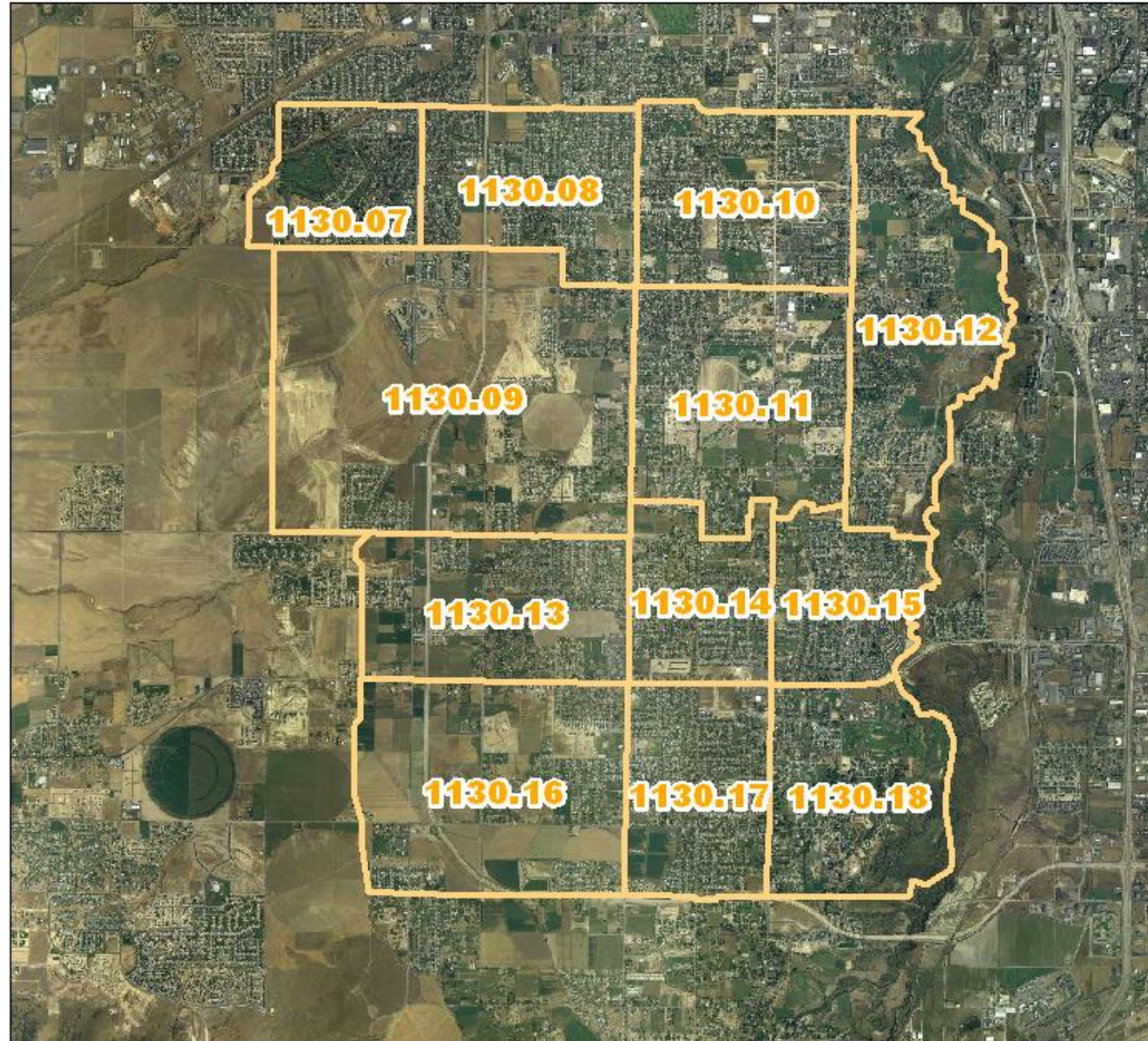
1980 Census Tracts



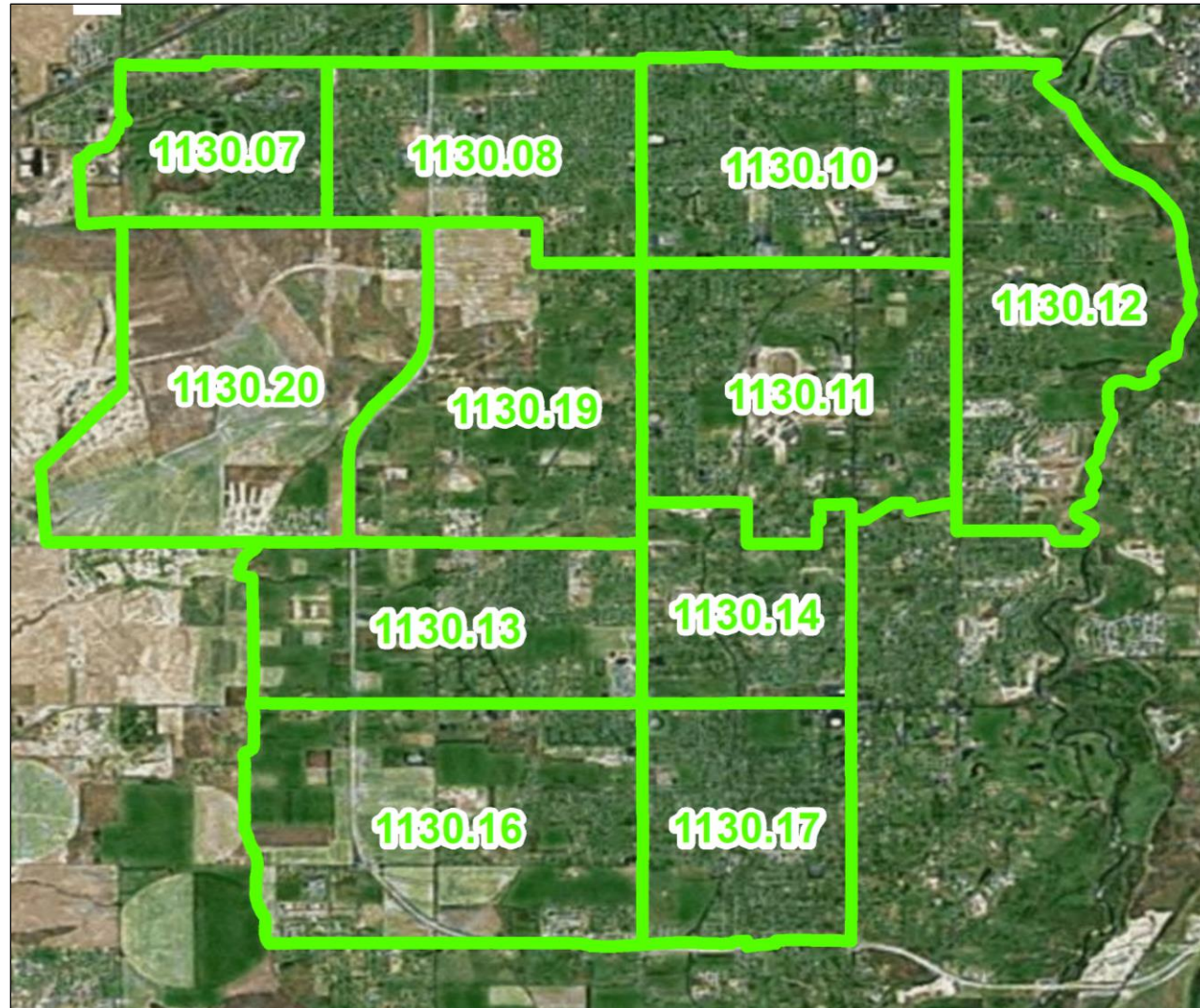
1990 Census Tracts



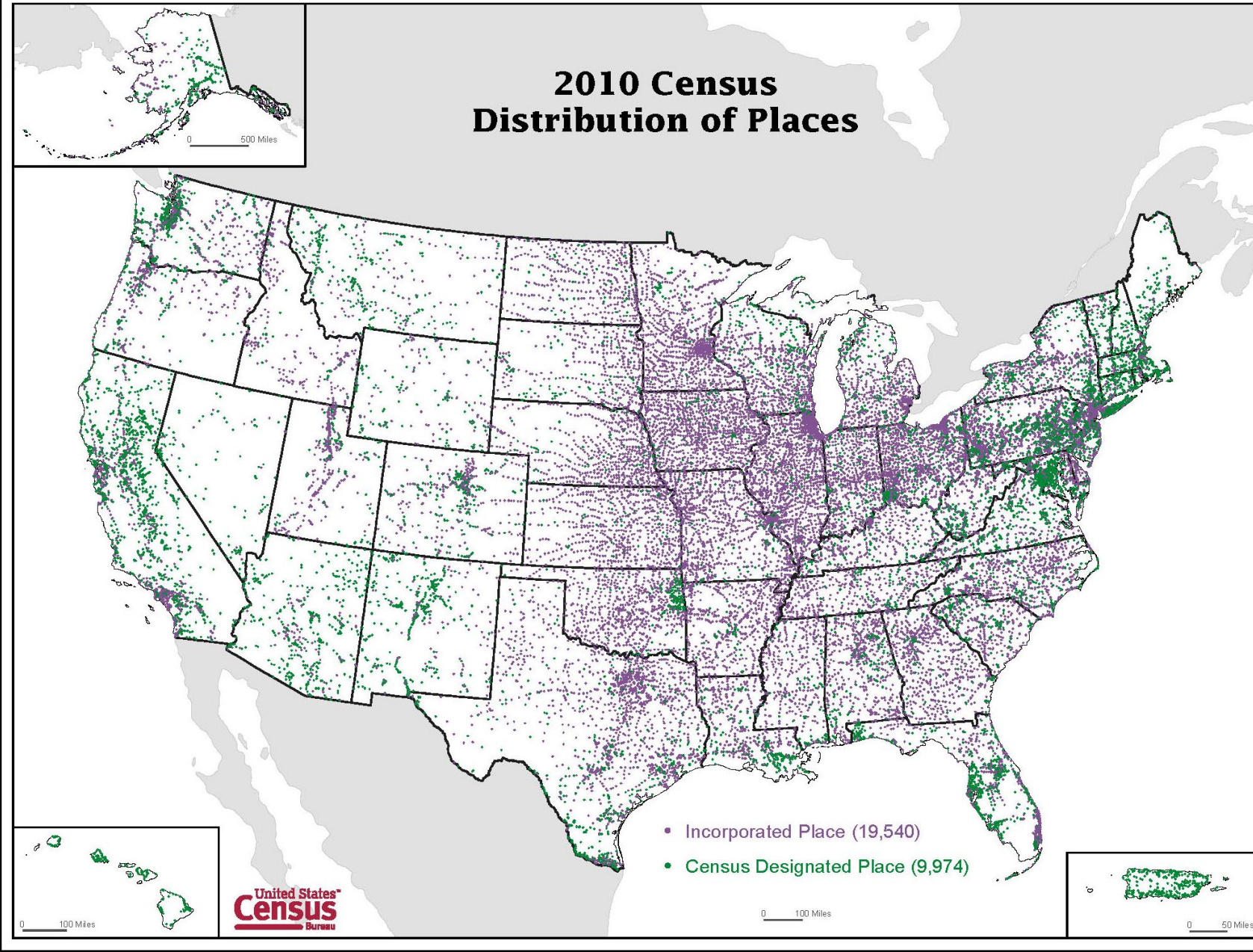
2000 Census Tracts



2010 Census Tracts: South Jordan City, UT



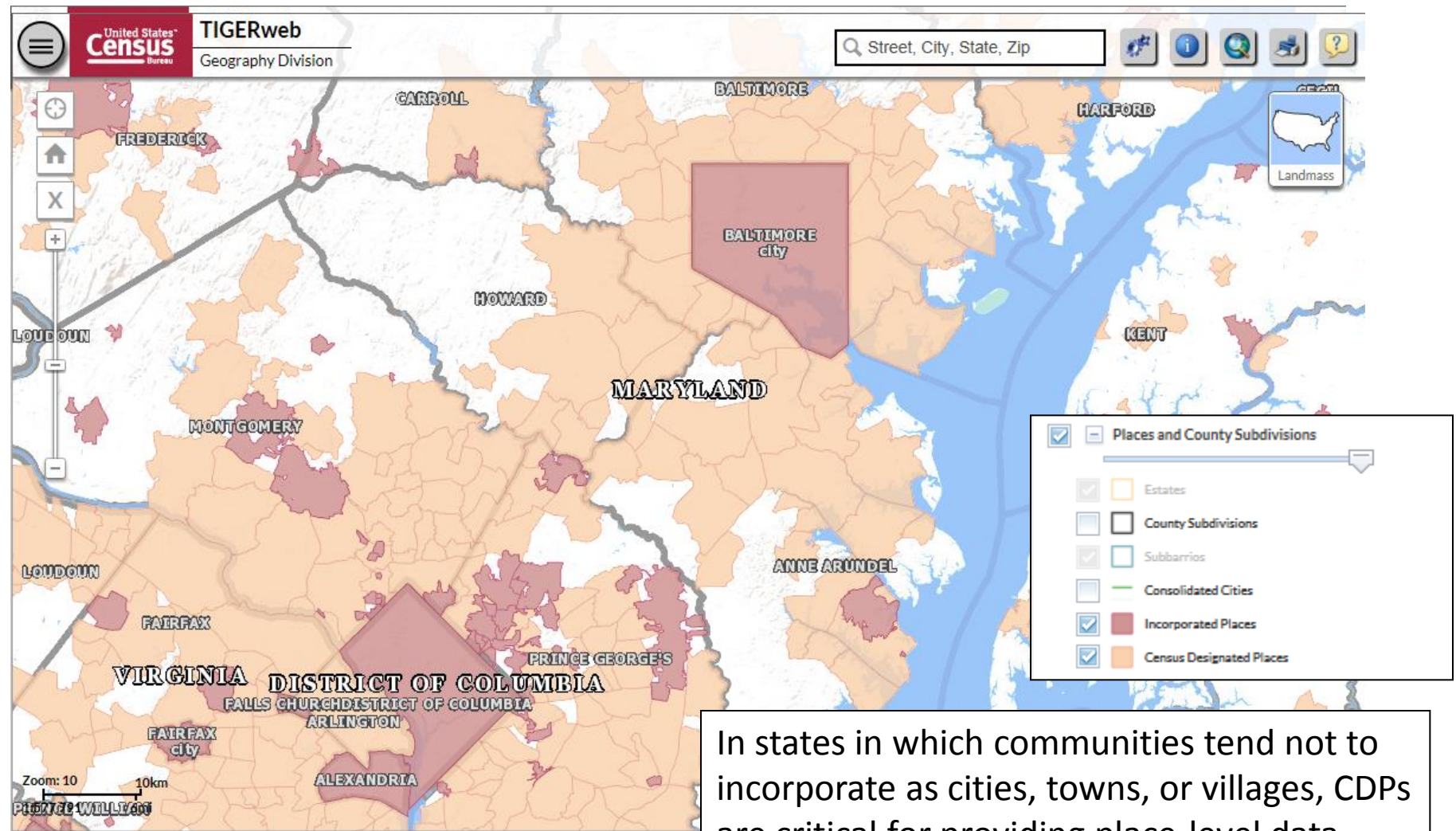
2010 Census Distribution of Places



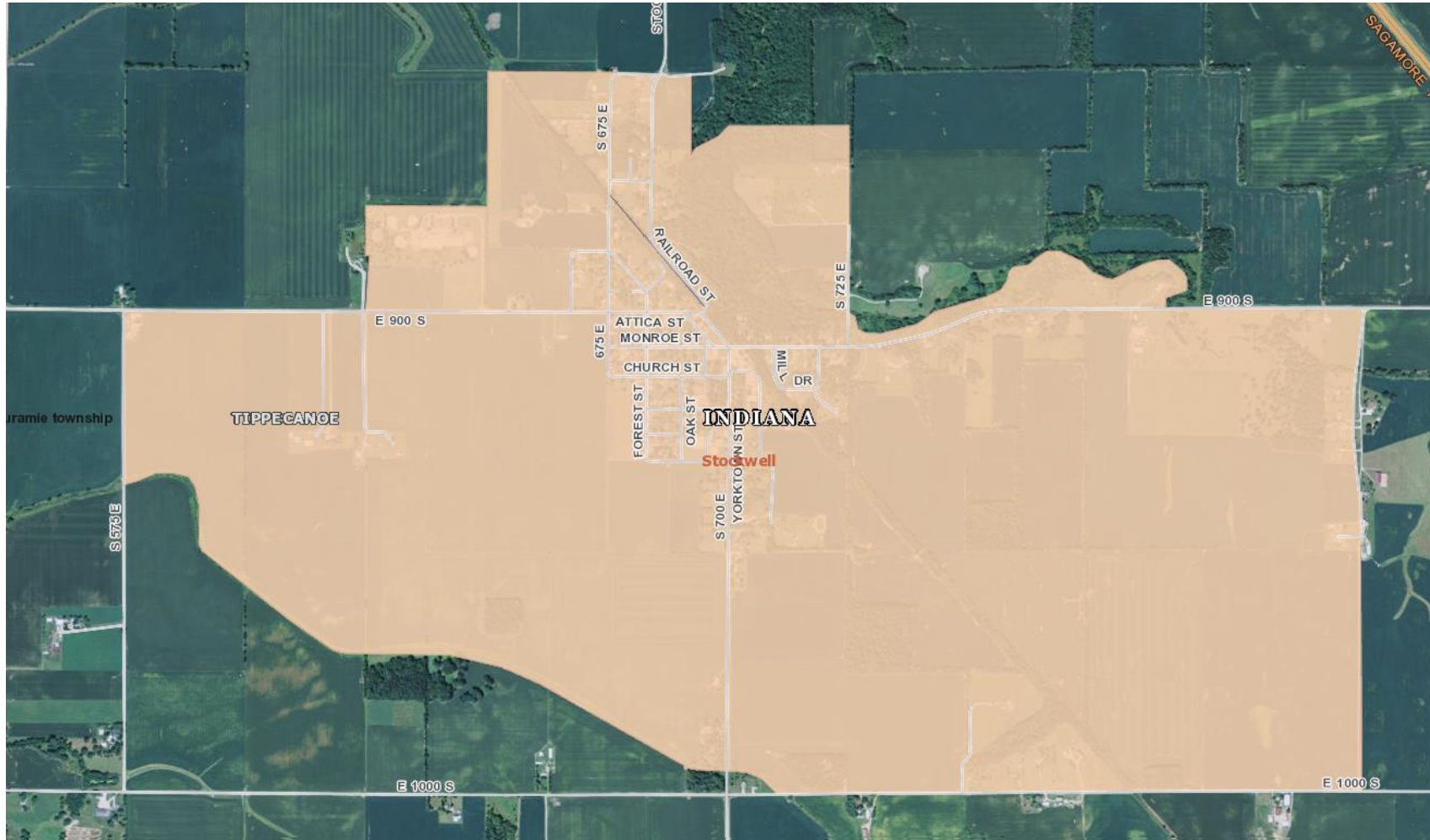
Census Designated Places (CDPs): Historical Development

- 1940: Supplementary report for unincorporated places. Must have population of at least 500.
- 1950: unincorporated places defined only outside urbanized areas. Must have a population of at least 1,000.
- 1960 through 1990: defined inside urbanized areas, with the minimum population threshold declining from 10,000 to 5,000, then to 2,500 during this period. Outside urbanized areas, population of at least 1,000.
- 2000 to present: no minimum population threshold.

Census Designated Places (CDPs) and Incorporated Places



CDPs: Small rural communities



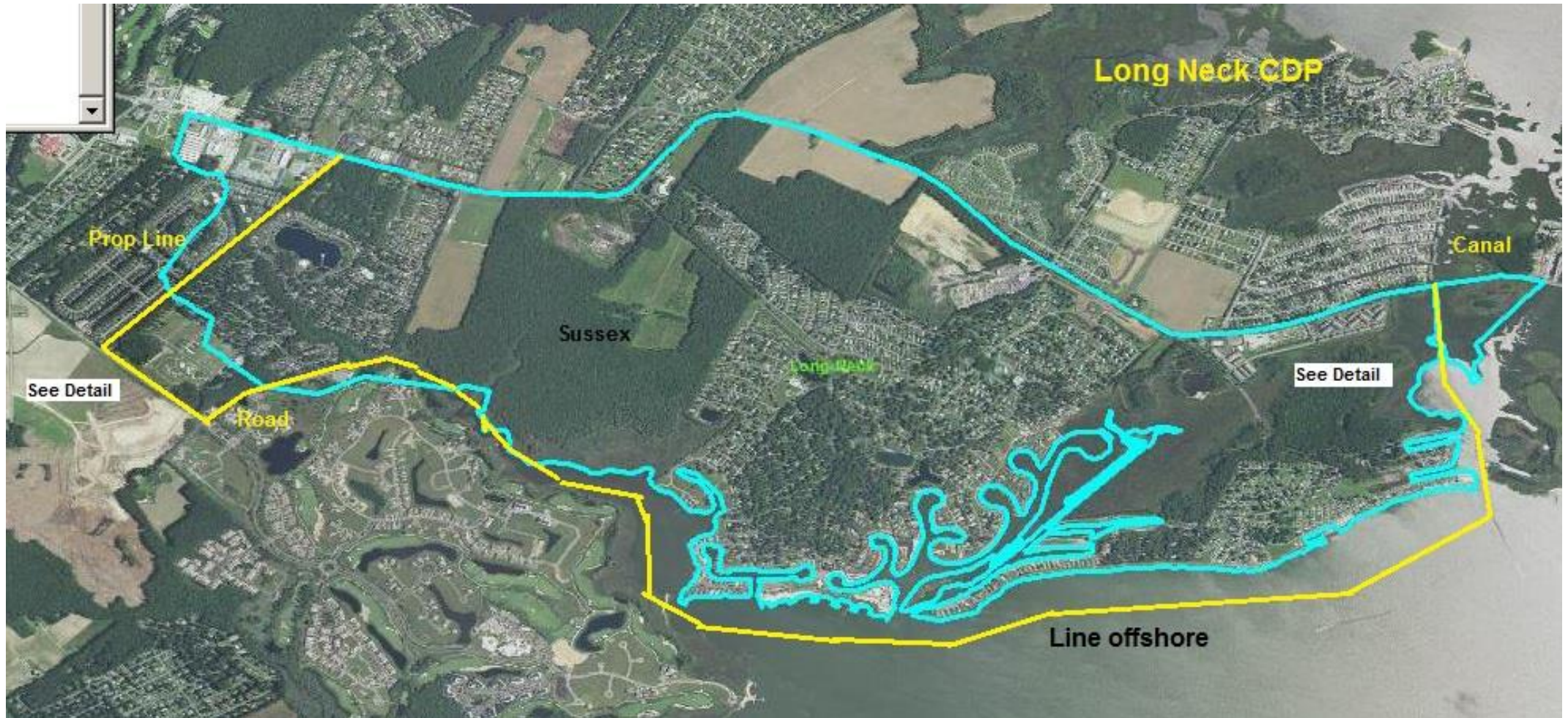
CDPs: Colonias



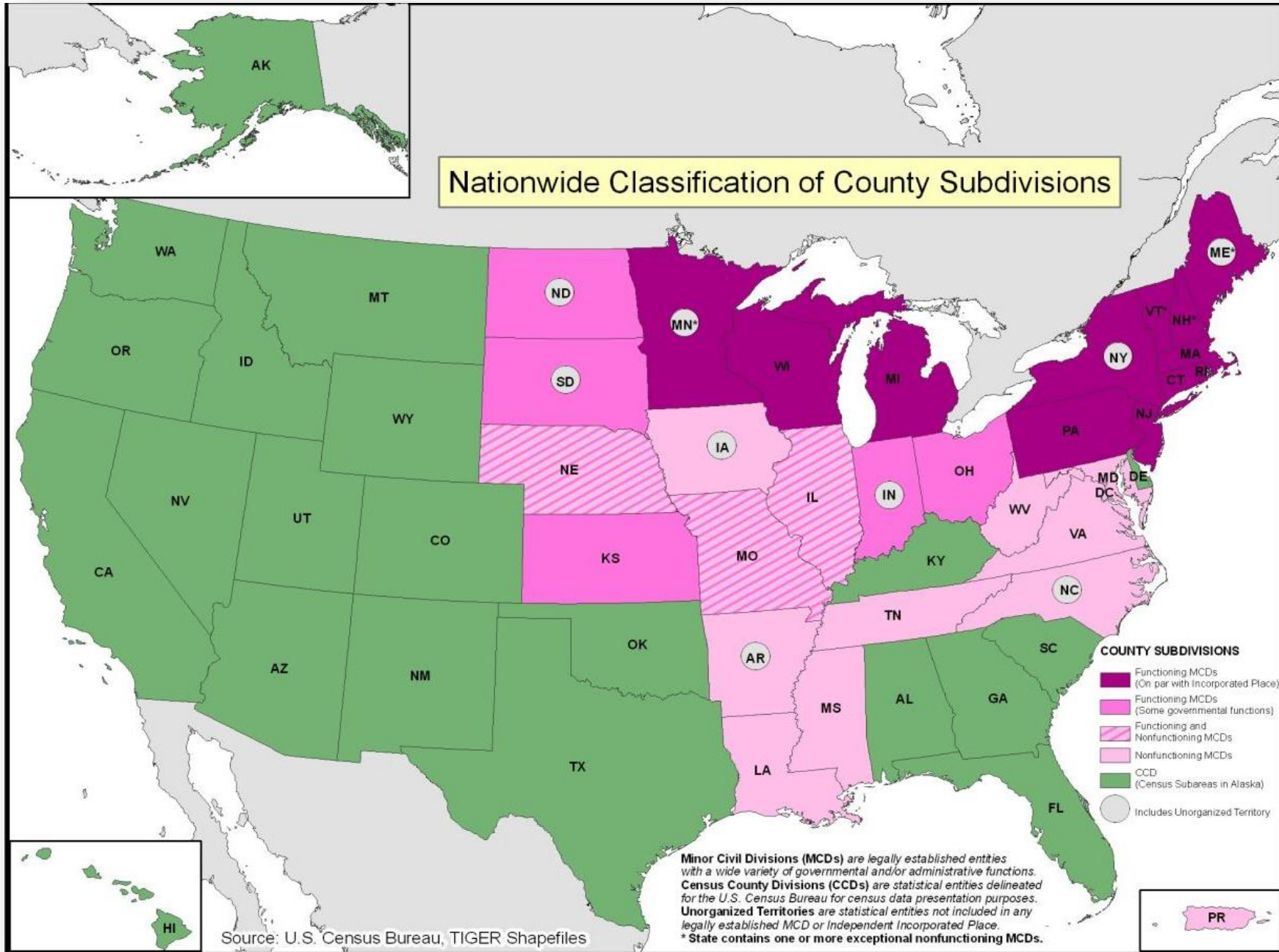
CDPs: Dona Ana, New Mexico



CDP Review Example: Long Neck CDP, Delaware

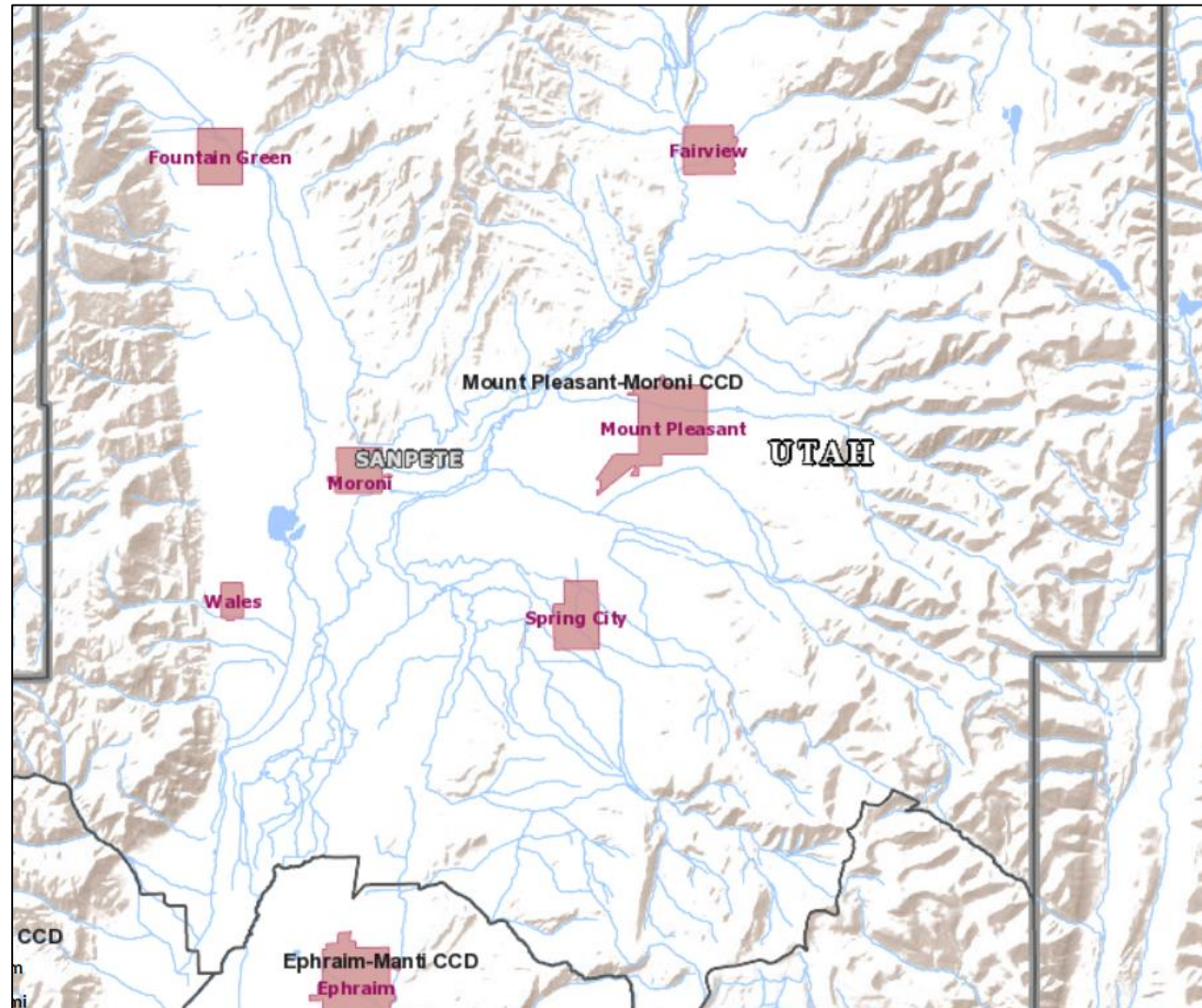


Cyan – current CDP boundary
Yellow – potential adjustment

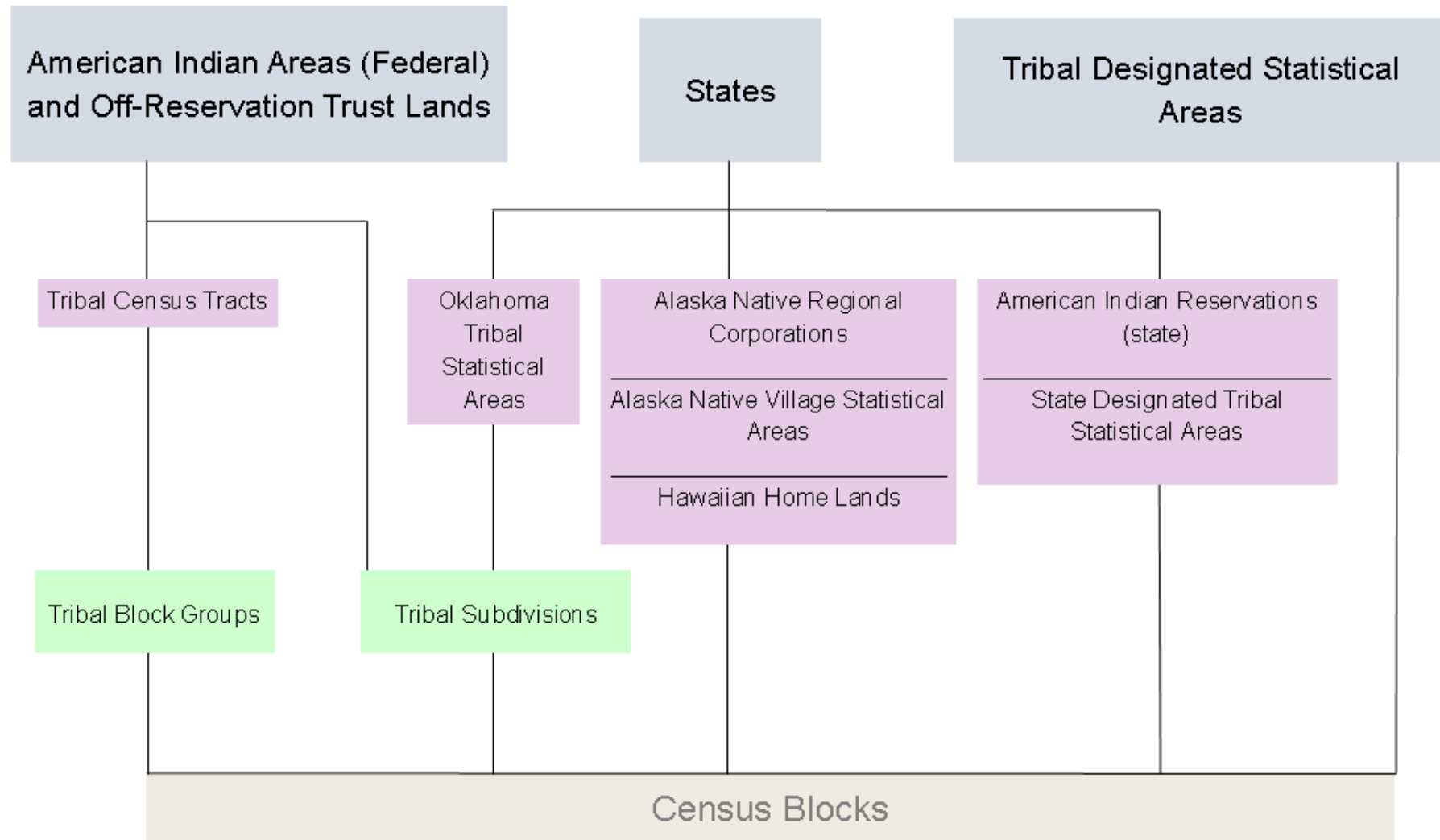


Source: U.S. Census Bureau, TIGER Shapefiles

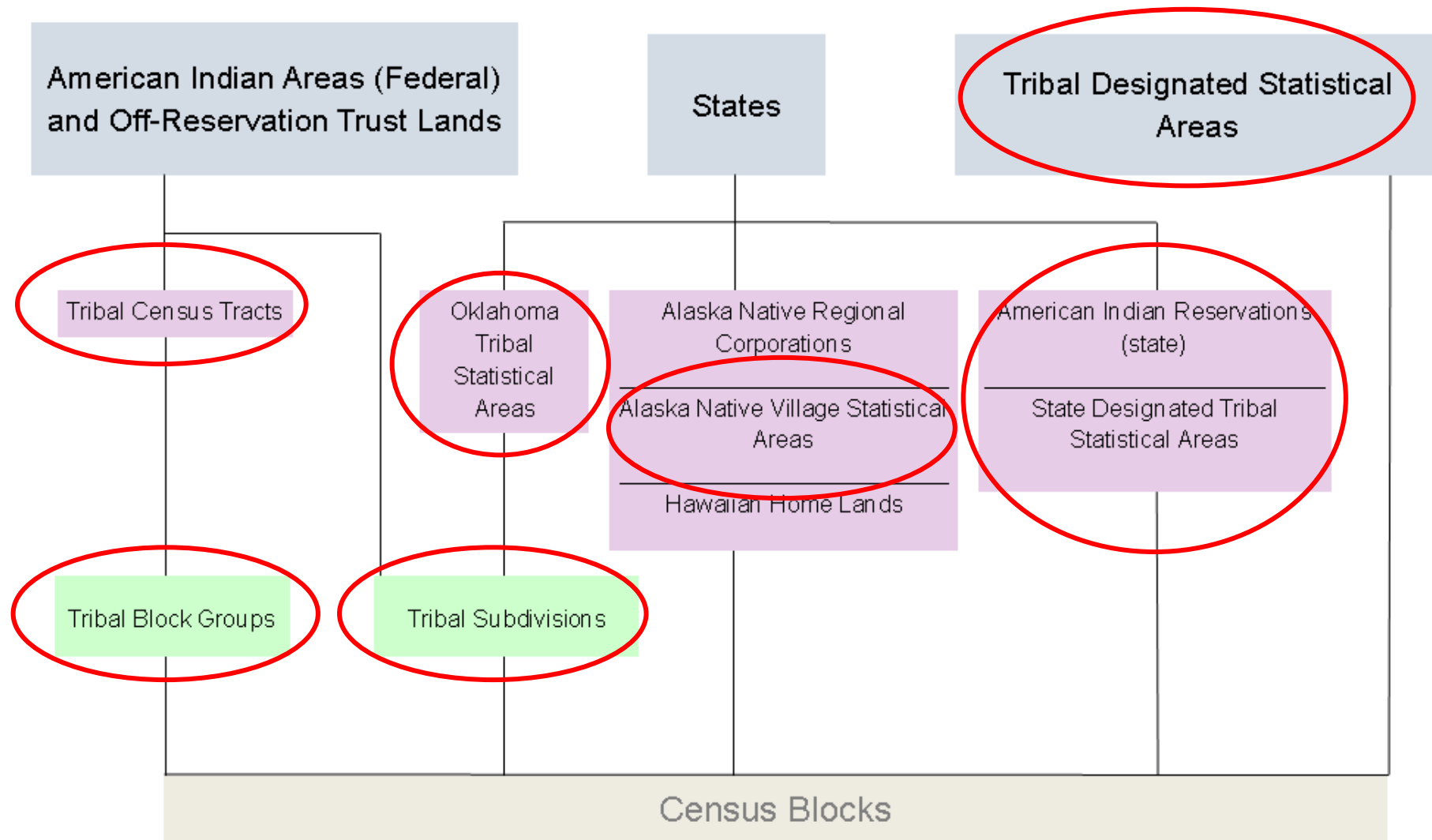
Census County Divisions (CCDs)



Hierarchy of American Indian, Alaska Native, and Native Hawaiian Geographies

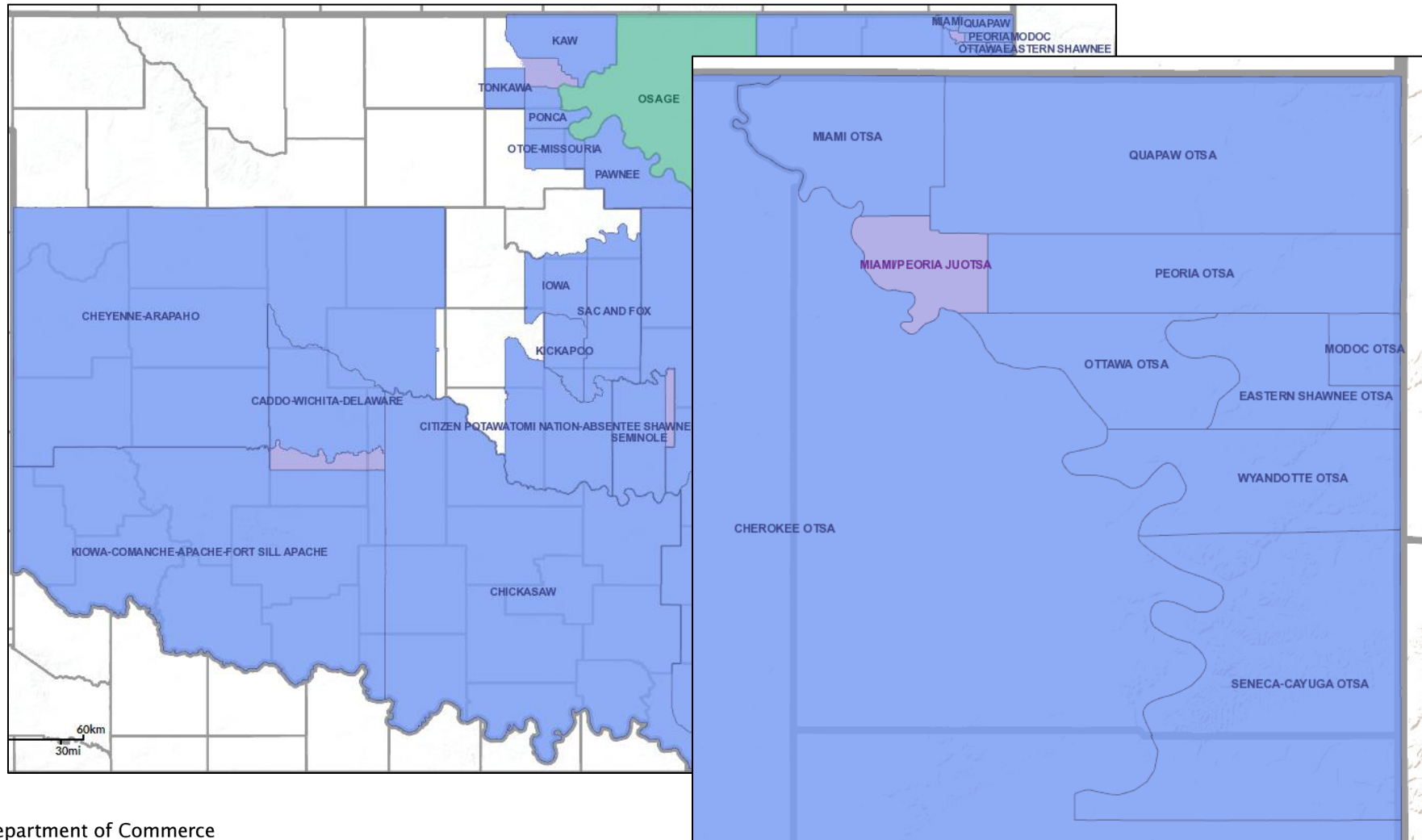


Hierarchy of American Indian, Alaska Native, and Native Hawaiian Geographies



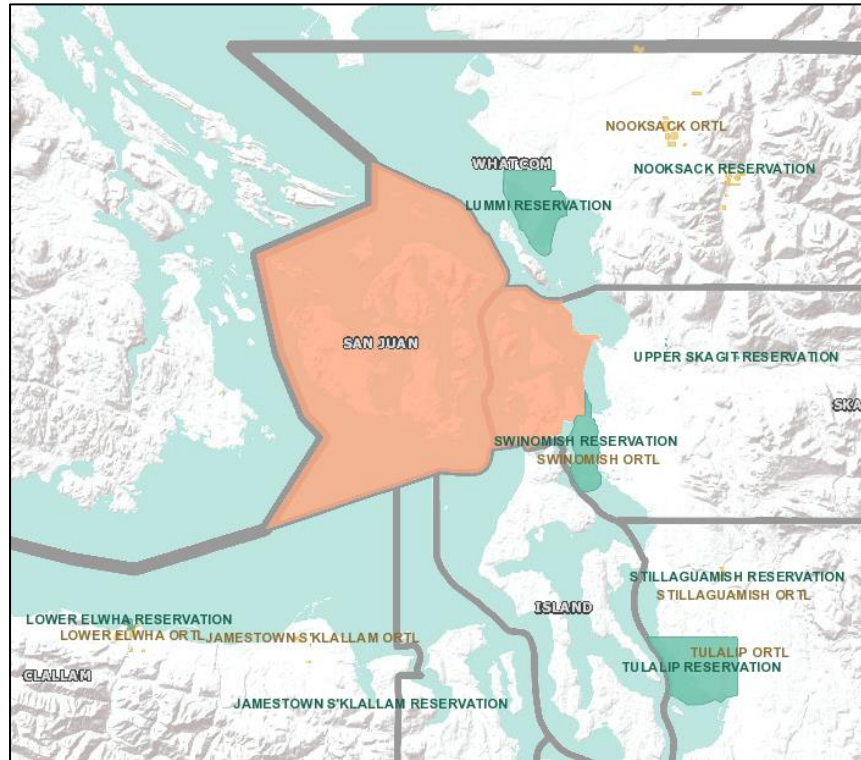
Oklahoma Tribal Statistical Areas (OTSA)

Oklahoma's former reservations

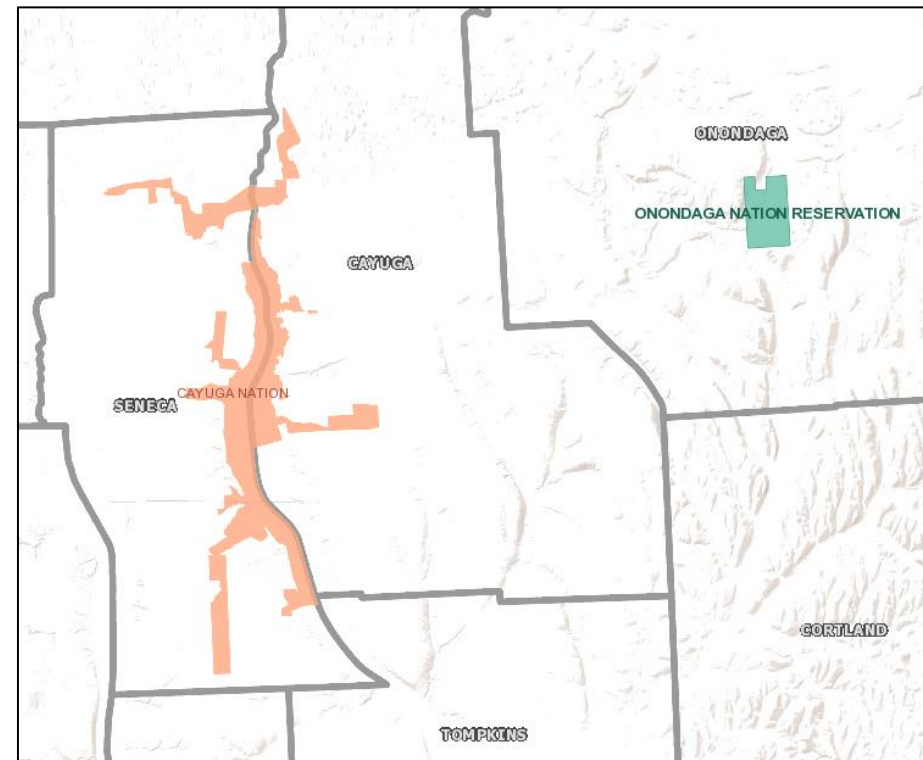


Tribal Designated Statistical Areas (TDSAs)

Federally-recognized tribes lacking a legal land base



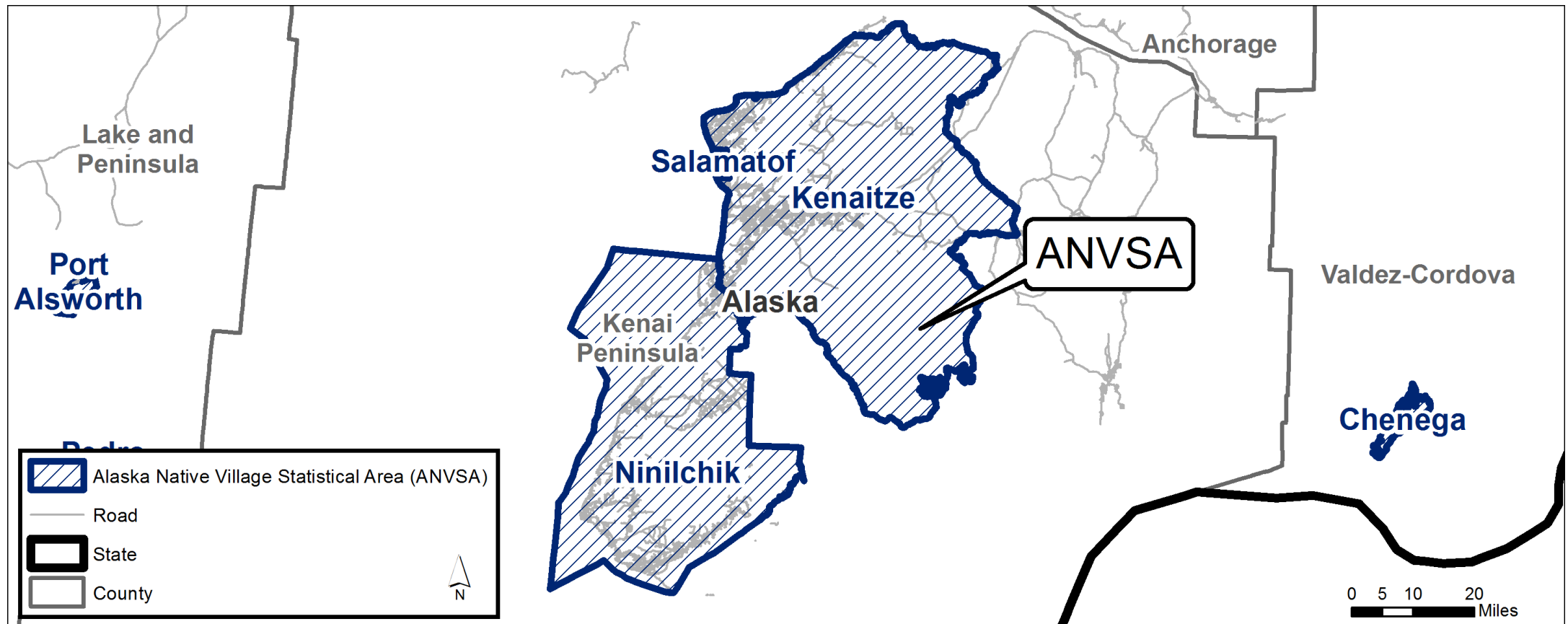
Samish TDSA
Washington



Cayuga Nation TDSA
New York

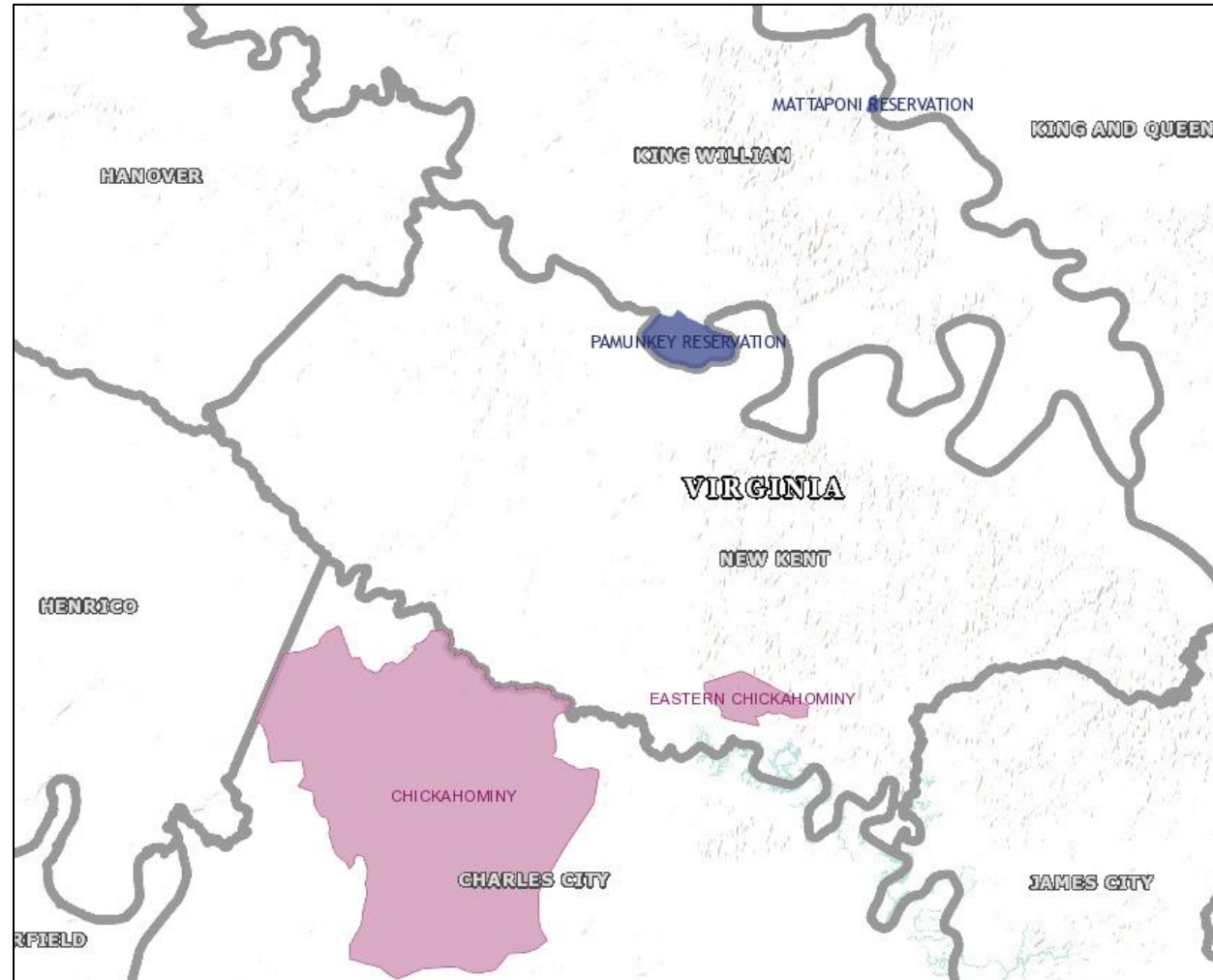
Alaska Native Village Statistical Areas (ANVSAs)

- Alaska Native Villages (ANVs) are legal entities lacking clearly defined boundaries.
- Each ANVSA represents an approximate extent of its respective ANV.



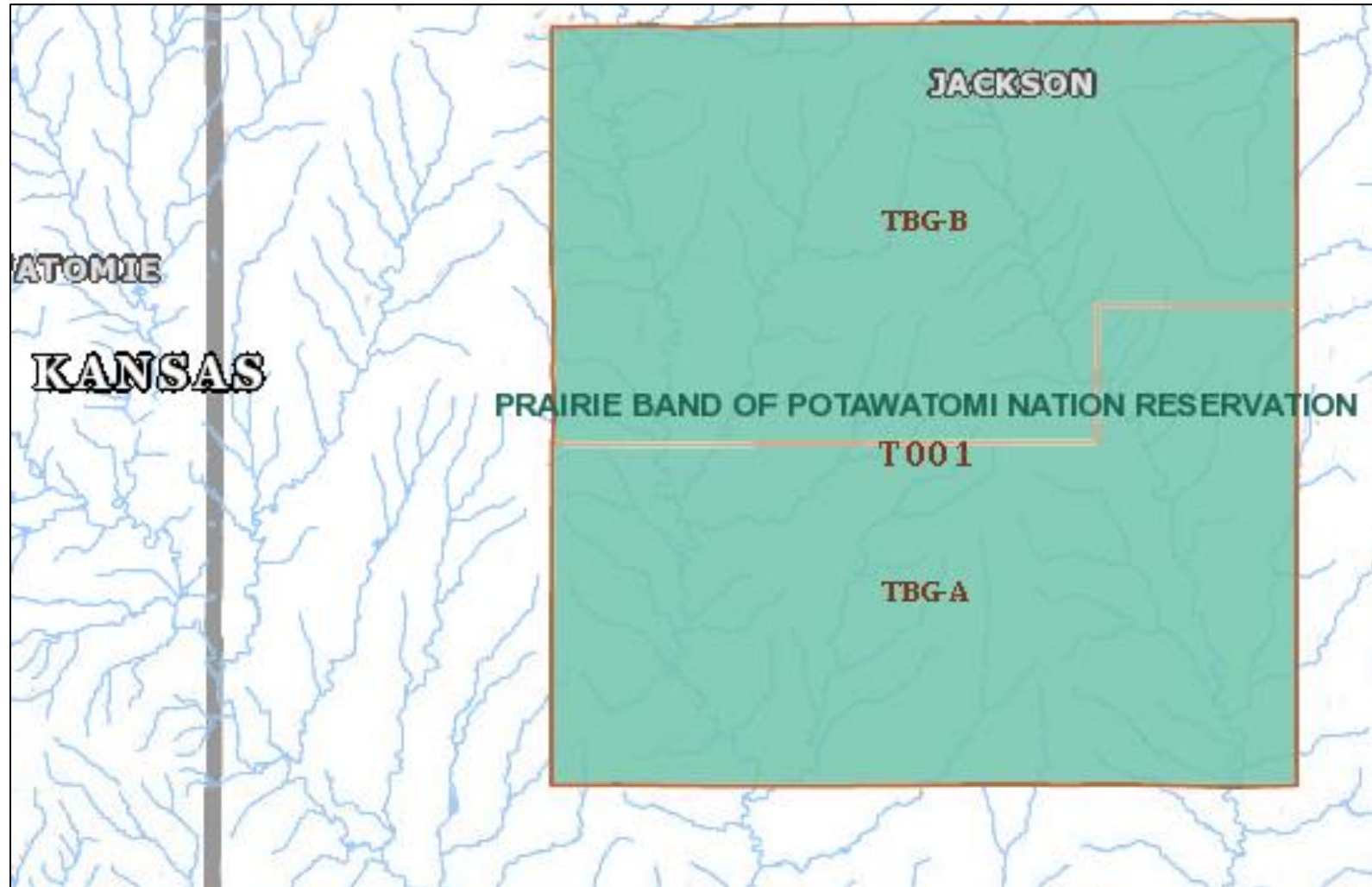
State-Recognized American Indian Areas

Reservations and State Designated Tribal Statistical Areas



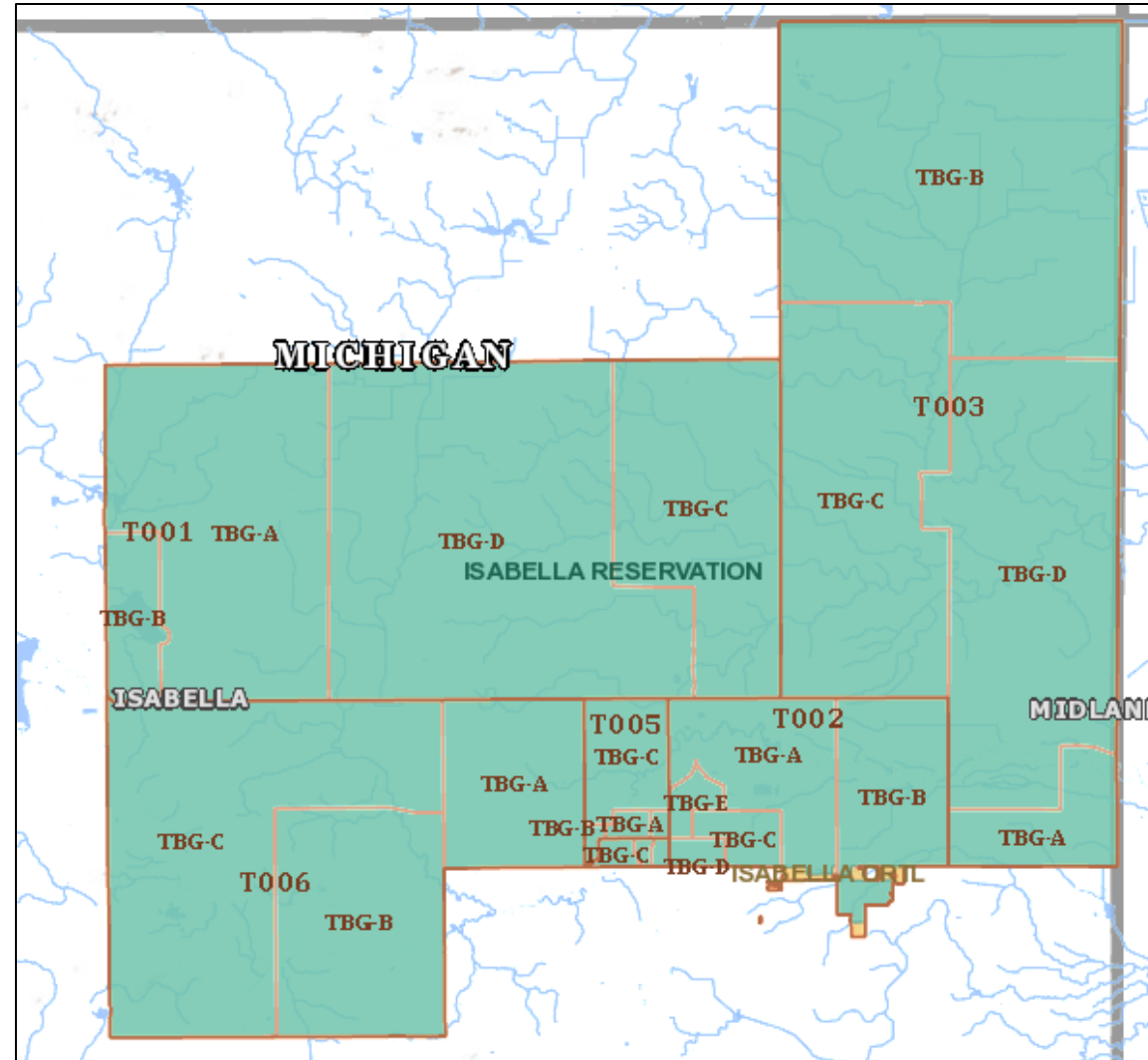
Tribal Tracts and Tribal Block Groups

Statistical subdivisions of federally-recognized reservations



Tribal Tracts and Tribal Block Groups

Statistical subdivisions of federally-recognized reservations



Thank you!