

Governmental Units, and Administrative and Statistical Boundaries

Theme Strategic Plan

FY2017 through FY2021

10/1/2016

Theme Lead: Lynda Liptrap

Theme Lead Agency: U.S. Census Bureau

Executive Theme Champion: Timothy Trainor

Executive Champion Agency: U.S. Census Bureau

## Table of Contents

<b>Executive Summary</b> .....	<b>3</b>
<b>Background</b> .....	<b>5</b>
<b>Goal 1: Ensure the effective development and maintenance of the Governmental Units, and Administrative and Statistical Boundaries Theme datasets</b> .....	<b>7</b>
<b>Objective 1.1.</b> Governmental units (legal) datasets .....	<b>8</b>
<b>Objective 1.2.</b> Statistical boundaries datasets. ....	<b>9</b>
<b>Objective 1.3.</b> Administrative boundaries datasets. ....	<b>11</b>
<b>Objective 1.4.</b> Topological relationships and quality standards.....	<b>12</b>
<b>Objective 1.5.</b> Lifecycle Maturity Assessments (LMAs).. ....	<b>13</b>
<b>Goal 2: Facilitate the sharing and distribution of the Governmental Units, and Administrative and Statistical Boundaries Theme datasets</b> .....	<b>13</b>
<b>Objective 2.1.</b> Metadata on Data.gov and the Geospatial Platform (GeoPlatform).....	<b>14</b>
<b>Objective 2.2.</b> Web Map Services (WMS) with quality metadata to improve the GeoPlatform experience .....	<b>14</b>
<b>Goal 3: Coordinate the Governmental Units, and Administrative and Statistical Boundaries Theme among stakeholders</b> .....	<b>15</b>
<b>Objective 3.1.</b> The National Boundaries Group (NBG) .....	<b>15</b>
<b>Objective 3.2.</b> The Tribal Boundaries Subgroup .....	<b>16</b>
<b>Objective 3.3.</b> Federal Lands Working Subgroup .....	<b>17</b>
<b>Objective 3.4.</b> International Boundary Commission (IBC) and the International Boundary and Water Commission (IBWC).....	<b>17</b>
<b>Objective 3.5.</b> Leveraging the Geospatial Platform (GeoPlatform).....	<b>18</b>
<b>Challenges and opportunities</b> .....	<b>18</b>
<b>Implementation</b> .....	<b>19</b>
<b>Theme management roles and responsibilities</b> .....	<b>19</b>
<b>Appendix 1: Geographic Programs Timeline</b> .....	<b>20</b>
<b>Appendix 2: Glossary of terms and acronyms</b> .....	<b>21</b>

## Executive Summary

The Governmental Units, and Administrative and Statistical Boundaries Theme (referred to in this report as the Governmental Units Theme) ensures the quality of boundary data using geospatial resources from the U.S. Census Bureau, state or county governments, American Indian and Alaska Native tribal governments, and other federal agencies. The Census Bureau is the Theme Lead Agency for this National Geospatial Data Asset (NGDA) Theme. The Census Bureau's primary role is to coordinate national coverage and stewardship for this theme, as well as reconcile legal documents or descriptions from multiple agency resources into a single data representation with the spatial boundaries data in the Topologically Integrated Geographic Encoding and Referencing System (TIGER) database.

The Federal Geographic Data Committee (FGDC) operates under the Office of Management and Budget (OMB) Circular No. A-16 Revised (August 19, 2002) and provides leadership for the National Spatial Data Infrastructure (NSDI) using a portfolio management approach for federal geospatial datasets. The Governmental Units Theme is one of the 16 themes approved by the FGDC Steering Committee in 2011 and described in Appendix E of the OMB Circular A-16:

“These data describe, by a consistent set of rules and semantic definitions, the official boundary of federal, state, local, and tribal governments as reported/certified to the U.S. Census Bureau by responsible officials of each government for purposes of reporting the Nation's official statistics.”<sup>1</sup>

The Governmental Units Theme Lead provides leadership and coordination at the NGDA Theme level and reports to the FGDC Steering Committee on an annual basis. The annual report requires input from the Governmental Units Theme collection or management unit of 41 NGDA Datasets and Dataset Managers, as well as information provided from other associated Working Groups and Subcommittees. The National Boundaries Group (NBG) and subgroups (Federal Lands Working Subgroup, Tribal Boundaries Subgroup), function as the primary coordinating body for the Governmental Units Theme. NBG represents governmental and non-governmental FGDC-recognized stakeholders in state, tribal, county, and local governments, as well as private industry, academic, and other professional organizations that have a common interest in boundary issues that crosscut or are pertinent to multiple themes.

An example of this is the ongoing Boundary Quality Assessment and Reconciliation Project (BQARP) involving inter-agency collaboration to evaluate all boundaries in the MAF/TIGER database and improve geospatial data quality.<sup>2</sup> Boundary segments in TIGER are reconciled during BQARP using cadastral data such as the Public Land Survey System (PLSS) and parcel data. Input from the Federal Geographic Data Committee (FGDC), National Boundaries Group (NBG) and subgroups, NGDA Dataset Managers, and the Cadastral Subcommittee has guided BQARP and contributed to the overall success of the A-16 NGDA Portfolio.

---

<sup>1</sup> Richard Darman, “Circular No. A-16 Revised,” *Office of Management and Budget*, October 19, 1990, [https://www.whitehouse.gov/omb/circulars\\_a016/](https://www.whitehouse.gov/omb/circulars_a016/) [Note: “Tribe” or “tribal” relates to recognized American Indian and Alaska Native entities].

<sup>2</sup> The MAF/TIGER database refers to the Master Address File (MAF)/Topologically Integrated Geographic Encoding and Referencing System (TIGER) database. Occasionally referred to in official documentation as the MTDB.

The Strategic Plan for the Governmental Units, and Administrative and Statistical Boundary Theme follows Objective 2B of the National Geospatial Data Asset Management Plan that requires all NGDA Themes to prepare a strategic plan for the period FY2017-FY2021.<sup>3</sup> The goals and objectives set by the National Boundaries Group reflect the priorities for this theme over the next five years. This general outline for the Strategic Plan specifies the content and organization necessary for the successful interchange of current geographic area boundary data.<sup>4</sup> This plan does not suggest a particular structure for interchange of boundary data. Further, data producers and users may structure geographic area boundary data in any format for their internal use.

**Goal 1: Ensure the effective development and maintenance of the Governmental Units, and Administrative and Statistical Boundaries datasets.**

- **Objective 1.1.** Develop, maintain, and distribute authoritative governmental units (legal) datasets.
- **Objective 1.2.** Develop, maintain, and distribute authoritative statistical boundary datasets.
- **Objective 1.3.** Develop, maintain, and distribute authoritative administrative boundary datasets.
- **Objective 1.4.** Maintain topological relationships and quality standards for all geographic units and their associated NGDA Datasets in the Governmental Units Theme.
- **Objective 1.5.** Complete annual Lifecycle Maturity Assessments (LMAs).

**Goal 2: Facilitate the sharing and distribution of Governmental Units, and Administrative and Statistical Boundaries datasets.**

- **Objective 2.1.** Publish metadata on Data.gov and the Geospatial Platform (GeoPlatform) to facilitate discovery and use of theme datasets.
- **Objective 2.2.** Provide reliable Web Map Services (WMS) with quality metadata to improve the GeoPlatform experience.

**Goal 3: Coordinate the Governmental Units, and Administrative and Statistical Boundaries Theme among stakeholders.**

- **Objective 3.1.** National Boundary Group (NBG), formally designated as an FGDC working group in 2014, leads the development of nationally consistent boundaries that are integrated using the same geographic base. Federal boundary sources will be consistent, accurate, and integrated.
- **Objective 3.2.** The Tribal Boundaries Subgroup formally designated as an NBG working group in 2015 identifies the data and communication needs for agencies and governments using tribal boundary data. These agencies include the Department of Interior (DOI), the Census Bureau, Federal Emergency Management Agency (FEMA), U.S. Forest Service (USFS), and Tribal governments.
- **Objective 3.3.** The Federal Lands Working Subgroup (FLWG) develops a data standard and the organizational strategies for the aggregation of federally-owned lands in a spatial database.

---

<sup>3</sup> Federal Geographic Data Committee, “National Geospatial Data Asset Management Plan: Portfolio Management Implementation Plan for the OMB Circular A–16 Supplemental Guidance” (Reston, Virginia, USA, 2014), 25.

<sup>4</sup> “Current geographic area boundary data” refers to the most current year or vintage for data maintained and disseminated by NGDA Dataset Managers.

- **Objective 3.4.** Continue collaboration between Census Bureau, International Boundary Commission (IBC), and the International Boundary and Water Commission (IBWC) to complete the update of all international boundaries in Census Bureau’s Digital Map of the United States.
- **Objective 3.5.** The Governmental Units, and Administrative and Statistical Boundaries Theme leverages the GeoPlatform to increase community membership and facilitate dataset management and communication across the theme.

## Background

The Census Bureau is the lead federal agency for the Governmental Units Theme. OMB Circular A-16 Revised defines a theme as representations of conceptual topics describing digital spatial information for the Nation. Themes contain associated datasets (with attribute records and coordinates) that are documented, verifiable, and officially designated to meet recognized standards. A theme contains one or more datasets of geographic information from which other datasets can be derived. One of the themes listed in OMB Circular A-16 pertains to Governmental Units.

Paragraph 8.d. of OMB Circular No. A-16 Revised, dated August 19, 2002, directs the development of a strategic plan for each theme:

(2) Provide leadership and facilitate the development and implementation of a plan for nationwide population of each data theme. Plans will include the development of partnership programs with states, tribes, academia, the private sector, other federal agencies, and localities that meet the needs of users, address human and financial resource needs, identify needs for standards, metadata, and the Clearinghouse, and advance a timetable for the development of National Spatial Data Infrastructure (NSDI) data themes.<sup>5</sup>

The purpose of the following Strategic Plan is to present the activities associated with the Governmental Units Theme in addition to noting opportunities and challenges in managing the theme. Specific boundaries included in this theme:

“...delineate geographic areas for uses such as governance and the general provision of services (e.g., states, American Indian reservations, counties, cities, towns, etc.), administration and/or for a specific purpose (e.g., congressional districts, school districts, fire districts, Alaska Native Regional Corporations, etc.), and/or provision of statistical data (census tracts, census blocks, metropolitan and micropolitan statistical areas, etc.) ... Other boundaries may include international limits, those of federal land ownership, the extent of administrative regions for various federal agencies, as well as the jurisdictional offshore limits of U.S. sovereignty.”<sup>6</sup>

The primary means to define these boundaries are “through a documented legal description or through criteria and guidelines.”<sup>7</sup> The following is a description of the types of geographic areas considered in the Strategic plan:

---

<sup>5</sup> Circular No. A-16 Revised

<sup>6</sup> Geoplatform.gov [<https://cms.geoplatform.gov/a16govunits-home>]

<sup>7</sup> Ibid

- **Governmental units:** a geographic area with legally defined boundaries established under federal, tribal, state, county, or local law, and with the authority to elect or appoint officials and raise revenues through taxes.
- **Administrative units:** a geographic area established by rule or regulation of a legislative, executive, or judicial governmental authority, a non-profit organization, or private industry for the execution of some function.
- **Statistical units:** a geographic area defined for the collection, tabulation, and/or publication of demographic, economic, and/or other statistical data.

The Governmental Units Theme consists of the following datasets:

Governmental Units, and Administrative and Statistical Boundaries NGDA	Manager
114th Congressional District	Department of Commerce/ U.S. Census Bureau
2010 Census 5-digit ZIP Code Tabulation Area <sup>8</sup>	Department of Commerce/ U.S. Census Bureau
2010 Census Population & Housing Unit Counts	Department of Commerce/ U.S. Census Bureau
2010 Census Public Use Microdata Area	Department of Commerce/ U.S. Census Bureau
2010 Census Urban Area	Department of Commerce/ U.S. Census Bureau
2010 Census Voting District	Department of Commerce/ U.S. Census Bureau
2010 Urban Growth Area	Department of Commerce/ U.S. Census Bureau
Alaska Native Regional Corporation (ANRC)	Department of Commerce/ U.S. Census Bureau
American Indian Tribal Subdivision	Department of Commerce/ U.S. Census Bureau
American Indian/Alaska Native/Native Hawaiian (AIANNH) Homeland Areas <sup>9</sup>	Department of Commerce/ U.S. Census Bureau
BLM Administrative Unit Boundary Polygons	Department of Interior/ Bureau of Land Management
BLM Administrative Unit Office Points	Department of Interior/ Bureau of Land Management
Block Group	Department of Commerce/ U.S. Census Bureau
Census Block	Department of Commerce/ U.S. Census Bureau
Census Bureau Regional Office Boundaries	Department of Commerce/ U.S. Census Bureau
Census Tract	Department of Commerce/ U.S. Census Bureau
Combined New England City and Town Area	Department of Commerce/ U.S. Census Bureau
Combined Statistical Area	Department of Commerce/ U.S. Census Bureau
Consolidated City	Department of Commerce/ U.S. Census Bureau
County and Equivalent	Department of Commerce/ U.S. Census Bureau
County Subdivision	Department of Commerce/ U.S. Census Bureau
Elementary School Districts	Department of Commerce/ U.S. Census Bureau
EPA Facility Locations And Regional Boundaries	U.S. Environmental Protection Agency
Estate (US Virgin Islands)	Department of Commerce/ U.S. Census Bureau
HUD Entitlement Grantee Jurisdiction	Department of Housing and Urban Development
International Boundary United States Mexico Minute 315	Department of State/ International Boundary and Water Commission
Metropolitan Division	Department of Commerce/ U.S. Census Bureau

<sup>8</sup> All dataset names preceded with the “2010” designation for current year or vintage refers to datasets and corresponding results of the 2010 decennial census exclusively except for the “Urban Growth Area”.

<sup>9</sup> This includes American Indian Reservation, American Indian Off-reservation Trust Land, Hawaiian Home Land, Alaska Native Village, Alaska Native Village Statistical Area, Oklahoma Tribal Statistical Area, State-Designated Tribal Statistical Area, Tribal Designated Statistical Area, and American Indian Joint-Use Area.

Metropolitan Statistical Area/Micropolitan Statistical Area	Department of Commerce/ U.S. Census Bureau
National Weather Service County Warning Area Boundaries	Department of Commerce/ National Oceanic and Atmospheric Administration
NECTA Division	Department of Commerce/ U.S. Census Bureau
New England City and Town Area	Department of Commerce/ U.S. Census Bureau
Place <sup>10</sup>	Department of Commerce/ U.S. Census Bureau
Secondary School District	Department of Commerce/ U.S. Census Bureau
State and Equivalent	Department of Commerce/ U.S. Census Bureau
State Legislative District (SLD) Lower Chamber	Department of Commerce/ U.S. Census Bureau
State Legislative District (SLD) Upper Chamber	Department of Commerce/ U.S. Census Bureau
Subbarrio (Subminor Civil Division)	Department of Commerce/ U.S. Census Bureau
Tribal Block Group	Department of Commerce/ U.S. Census Bureau
Tribal Census Tract	Department of Commerce/ U.S. Census Bureau
Unified School Districts	Department of Commerce/ U.S. Census Bureau
United States Canadian Boundary	International Boundary Commission

It is important to note that the management of the Governmental Units, and Administrative and Statistical Boundaries Theme is an interagency effort. All agencies that contribute to the theme’s assets share responsibility to meet the goals, objectives, and actions outlined below for theme management.

Overall, the goals and objectives of the Governmental Units Theme plan provide data that is:

- Current (how is it defined by responsible agency)
- Accurate (what is required by responsible agency)
- Consistent (Between agencies)
- Accessible (To federal agencies and the public where possible)
- Integrated (Ability to use each other’s data without duplication)

Program schedules for census operations involving boundary updates are included in Appendix 1.

**Goal 1: Ensure the effective development and maintenance of the Governmental Units, and Administrative and Statistical Boundaries Theme datasets.**

The NGDA Theme Lead Agency and NGDA Dataset Managers are committed to the development, maintenance, and distribution of authoritative boundary data. A major focus of this strategic plan is to prevent duplication of effort. Internally, the NGDA Dataset Managers across the theme standardize the geospatial datasets and work together to ensure that these datasets meet NGDA requirements. Fostering partnerships with other agencies and throughout the geospatial community encourages widespread use of these datasets. The NGDA Theme Lead Agency conducts yearly programs to improve boundary data so that it is consistent, compatible, accurate, and available to users in the geospatial community.

---

<sup>10</sup> “Place” refers to Incorporated Place or Census Designated Place (CDP).

**Objective 1.1. Develop, maintain, and distribute authoritative governmental units (legal) datasets.**

**Anticipated Outcomes.** Legal entities originate from legal actions, treaties, statutes, ordinances, resolutions, and court decisions. Authoritative Governmental Units Theme datasets will contain up-to-date information about the boundaries and names of all governmental units in the United States. The authoritative boundary information provides the framework for the tabulation and presentation of collected data during the decennial and economic censuses, and annual estimates and surveys such as the Population Estimates Program and the American Community Survey (ACS).

**Authoritative governmental units (legal) datasets include:**

- Alaska Native Regional Corporation (ANRC)
- American Indian/Alaska Native/Native Hawaiian (AIANNH) Homeland Federally Recognized Tribes
- American Indian Tribal Subdivision
- Consolidated City
- County and Equivalent
- County Subdivision
- Estate (US Virgin Islands)
- International Boundary United States Canada
- International Boundary United States Mexico
- Place
- State and Equivalent
- Subbarrio (Subminor Civil Division)
- Urban Growth Area

**Action 1.1.1.** Unless otherwise noted in other actions listed below, maintain and update all legal boundary data as needed according to program schedules. Program schedules pertaining to Census Bureau datasets are detailed in Appendix 1.

**Action 1.1.2.** Request that local, county, state, and tribal governments increase their levels of participation in the review and update of their legal boundaries annually through the Census Bureau's Boundary and Annexation Survey (BAS). Increase the number of states with formal cooperative agreements to provide boundary and annexation information.

**Action 1.1.3.** Secure sufficient funding to conduct the annual BAS.

**Action 1.1.4.** Give the highest elected officials a final opportunity to review their official legal boundaries before the 2020 Census tabulation through the Boundary Validation Program (BVP) beginning in the 4<sup>th</sup> quarter of 2019.

**Action 1.1.5.** The Census Bureau's Tribal BAS will collect boundary data via a government-to-government policy, verify proposed changes with the Bureau of Indian Affairs (BIA), incorporate changes as appropriate, and increase the accessibility of AIANNH data on federal websites and data repositories.

**Action 1.1.6.** The BIA will implement the Boundary Inventory and Update program to: 1) portray federally recognized American Indian Land Boundaries that are linked to official land, title, and cadastral



records in all land status mapping products; 2) assign “certainty” ranking to boundary segments and investigate/resolve discrepancies based on legal determinations; 3) publish the single authoritative source for American Indian land boundaries for use by tribes and other agencies (Census Bureau, USDA, EPA, FEMA, state, county, local, etc.).

**Action 1.1.7.** International Boundary Commission (IBC) will continue to implement the database to maintain the 5,625-mile long international boundary between the United States and Canada using control networks, land monuments, and reference monuments.

**Action 1.1.8.** Implement International Boundary and Water Commission (IBWC) goals to resurvey and repair land boundary monuments (last surveyed in 2007) on the international border between the United States and Mexico.

**Action 1.1.9.** Implement IBWC goals to review recently surveyed boundary monuments 120, 121, 122, 122C, and 123 on the international border between the United States and Mexico.

**Action 1.1.10.** Implement IBWC goals to compile a joint report on the repair of boundary monuments 142A & 145 on the international border between the United States and Mexico.

**Action 1.1.11.** Implement IBWC goals to complete the restoration of recently rehabbed boundary monument 207 on the international border between the United States and Mexico.

**Objective 1.2. Develop, maintain, and distribute authoritative statistical boundary datasets.**

**Anticipated Outcomes.** Accomplishment of the objective will produce meaningful, relevant census tracts, block groups, Census Designated Places (CDPs) and Census County Divisions (CCDs), tribal statistical areas, tribal census tracts, and tribal block groups to obtain meaningful, relevant small area and place-level statistical data. The updated boundaries for census tracts, block groups, CDPs, CCDs, and the various tribal statistical areas provide the framework for the tabulation and presentation of data from the 2020 Census, and the ACS. Local, state, and federal agencies, private sector organizations, academic institutions, and the public use data tabulations for planning and funding purposes.<sup>11</sup>

**Authoritative statistical boundary datasets include:**

- Block Group
- Census Block
- Census 5-digit ZIP Code Tabulation Area
- Census Population & Housing Unit Counts
- Census Public Use Microdata Area
- Census Tract
- Census Urban Area
- Combined New England City and Town Area
- Combined Statistical Area
- Metropolitan Division

---

<sup>11</sup> “2010 Participant Statistical Areas Program Participant Information,” *U.S. Census Bureau*, June 25, 2008, [http://www2.census.gov/geo/pdfs/partnerships/psap2010\\_part\\_info.pdf](http://www2.census.gov/geo/pdfs/partnerships/psap2010_part_info.pdf).

- Metropolitan Statistical Area/Micropolitan Statistical Area
- NECTA Division
- New England City and Town Area
- Oklahoma Tribal Statistical Area (OTSA)
- Public Use Microdata Area (PUMA)
- Tribal Block Group
- Tribal Census Tract
- Tribal Designated Statistical Area (TDSA)
- ZIP Code Tabulation Area (ZCTA)

**Action 1.2.1.** Unless otherwise noted in other actions listed below, maintain and update all statistical boundary data as needed according to program schedules. The program schedules pertaining to Census Bureau datasets are detailed in Appendix 1.

**Action 1.2.2.** Beginning Fall 2018, initiate the Participant/Tribal Statistical Areas Program (PSAP/TSAP) to help local, regional, and tribal governments fill in statistical data gaps by defining statistical boundaries, including tribal statistical boundaries, in communities where no legal boundaries exist.<sup>12</sup>

**Action 1.2.3.** Beginning in early 2020, initiate the ZIP Code Tabulation Area (ZCTA) Program to build a generalized geographic area representation of a five-digit U.S. Postal Service ZIP Code to tabulate and disseminate 2020 census data and minimize data disclosure concerns. Complete the ZCTA program by late 2021.<sup>13</sup>

**Action 1.2.4.** Beginning in early 2021, review criteria and standards for urban areas and delineate new boundaries with 2020 census results. Complete urban area delineations in mid-2022.<sup>14</sup>

**Action 1.2.5.** Beginning in late 2021, review criteria and standards for Public-Use Microdata Areas (PUMAs) and coordinate recommended changes with state-partners and other stakeholders. Complete PUMA boundary delineations in late 2022.<sup>15</sup>

**Action 1.2.6.** Initiate the Block Boundary Suggestion Project (BBSP) in 2016 to review state submissions for the 2020 Census tabulation block inventory. Complete the BBSP by May 2017.<sup>16</sup>

**Action 1.2.7.** Initiate program criteria and delineate census tabulation block boundaries using 2020 census results no later than the end of 2020.<sup>17</sup>

---

<sup>12</sup> "Accurate Geography Is the Starting Point for Accurate Data," *U.S. Census Bureau*, April 1, 2016.

<sup>13</sup> "2020 Census Operational Plan: A New Design for the 21st Century, Version 1.1," *U.S. Census Bureau*, November 2015, <http://www2.census.gov/programs-surveys/decennial/2020/program-management/planning-docs/2020-oper-plan.pdf>.

<sup>14</sup> Ibid

<sup>15</sup> Ibid

<sup>16</sup> Ibid

<sup>17</sup> Ibid

**Action 1.2.8.** Beginning in 2019, work with the Office of Management and Budget (OMB) to review the current standards for delineating metropolitan, micropolitan, and related statistical areas in anticipation of OMB delineating these areas after the 2020 census."

**Objective 1.3. Develop, maintain, and distribute authoritative administrative boundary datasets.**

**Anticipated Outcomes.** Administrative measures create administrative boundaries, specify their governmental or administrative functions, and contain provisions to update names and boundaries. Updated boundaries are the framework for the tabulation and presentation of data from the 2020 Census, and the ACS. Local, county, state, and federal agencies, private sector organizations, academic institutions, and the public use data tabulations for planning and funding purposes.<sup>18</sup>

**Authoritative administrative boundary datasets include:**

- BLM Administrative Unit Boundary Polygons
- BLM Administrative Unit Office Points
- Census Bureau Regional Office Boundaries
- Census Voting Districts
- Congressional Districts
- EPA Facility Locations And Regional Boundaries
- HUD Entitlement Grantee Jurisdiction
- National Weather Service County Warning Area Boundaries
- School Districts
  - Elementary School Districts
  - Secondary School Districts
  - Unified School Districts
- State Legislative District (SLD) Lower Chamber
- State Legislative District (SLD) Upper Chamber

**Action 1.3.1.** Unless otherwise noted in other actions listed below, maintain and update all administrative boundary data as needed according to program schedules. The program schedules pertaining to Census Bureau datasets are detailed in Appendix 1.

**Action 1.3.2.** On a biennial basis beginning in August 2017, and subsequent years (2019, 2021), review suggested changes and updates from state officials to modify school district boundaries, grade ranges, and official names for the School District Review Program (SDRP). Submit changes to the Elementary School Districts, Secondary School Districts, and Unified School Districts to the National Center for Education Statistics to Allocate Title 1 funding to school districts.

**Action 1.3.3.** Initiate Phase 1 of the 2020 Census Redistricting Data Program (RDP) coincident with the Block Boundary Suggestion Project (BBSP) in 2016 (see also Action 1.2.6).

---

<sup>18</sup> "2010 Participant Statistical Areas Program Participant Information," U.S. Census Bureau, June 25, 2008, [http://www2.census.gov/geo/pdfs/partnerships/psap2010\\_part\\_info.pdf](http://www2.census.gov/geo/pdfs/partnerships/psap2010_part_info.pdf).

**Action 1.3.4.** Initiate Phase 2 of the 2020 Census RDP in early 2018 to collect Voting District (VTD) boundaries, names, codes. Complete updates of these boundaries in the Master Address File/TIGER database (MTDB) in late 2019.

**Action 1.3.5.** Update Bureau of Land Management (BLM) data on Administrative Unit Boundary Polygons and Administrative Unit Office Points. The information contained in these data is updated when necessary. These data are neither legal documents nor land surveys.

**Action 1.3.6.** Update Environmental Protection Agency (EPA) data on facility locations and regional boundaries. The information contained in these data is updated when necessary.

**Action 1.3.7.** Update Housing and Urban Development (HUD) data on Entitlement Grantee Jurisdictions. The Community Development Block Grant (CDBG) program provides annual grants on a formula basis to local, county, and state governments. The information contained in these data is updated when necessary.

**Action 1.3.8.** Update National Oceanic and Atmospheric Administration (NOAA) data on National Weather Service County Warning Area Boundaries. Shoreline boundaries of the data is dependent on the shoreline edges of rivers and bays as delineated on a USGS DLG. The edges or borders of the boundary might change as the natural land changes and Weather Forecast Office (WFOs) request changes. The information contained in this data is updated when necessary.

**Objective 1.4. Maintain topological relationships and quality standards for all geographic units and their associated NGDA Datasets in the Governmental Units Theme.**

**Anticipated Outcomes.** Updates to all legal, statistical, and administrative boundary data received through scheduled Census Bureau Geographic Programs to maintain topological relationships and data quality standards in the MTDB (see Appendix 1). The Geographic Area Reconciliation Project (GARP) and Boundary Quality Assessment and Reconciliation Project (BQARP) are two Geographic Programs that improve spatial accuracy. Alignment with Parcel and Public Land Survey System (PLSS) boundaries are essential components of the BQARP. The National Boundaries Group (NBG) ensures consistent, accurate, integrated geographic base information for all federal boundaries.

**Action 1.4.1.** Review all geographic areas and their topological relationships following the Census survey in 2020 to identify “small” summary-level records and unnecessary tabulation blocks during the Geographic Area Reconciliation Project (GARP)<sup>19</sup>. The GARP is conducted once a decade at the end of the decennial program to ensure the integration and quality of boundary information before final block creation. Note: “Small” could mean area, but could also mean minimum thresholds of housing and/or population.

**Action 1.4.2.** Obtain annual updates from theme partners from the Geographic Update Partnership Software (GUPS) tool to load, edit, and display geospatial data, as well as generate yearly output files (to FY 2023) that the Census Bureau will use to update the MTDB.

---

<sup>19</sup> “2020 Census Operational Plan: A New Design for the 21st Century, Version 1.1,” U.S. Census Bureau, November 2015, <http://www2.census.gov/programs-surveys/decennial/2020/program-management/planning-docs/2020-oper-plan.pdf>.

**Action 1.4.3.** Expand the use of available imagery for source data assessments.

**Action 1.4.4.** Align spatial boundaries data boundaries to maintain topological relationships using authoritative sources, parcel, and Public Land Survey System (PLSS) boundaries during the Boundary Quality Assessment and Reconciliation Project (BQARP). Assess all boundaries and set a quality flag on each boundary segment in the MTDB. The FLWG identifies topology errors between federal agency datasets for editing by agency data stewards.

**Action 1.4.5.** Reconcile the legal documents (or descriptions) against the Census Bureau spatial boundaries data and cadastral data such as Public Land Survey System (PLSS) and parcel data. This reconciliation is a joint effort between the state or county government and the Census Bureau as well as other federal agencies.

**Action 1.4.6.** U.S. Census Bureau will ensure topological integration with international boundary datasets.

**Objective 1.5. Complete annual Lifecycle Maturity Assessments (LMAs).**

**Anticipated Outcomes.** In 2015, dataset managers completed LMAs that established an initial baseline maturity assessment of the Governmental Units Theme datasets. The Theme Summary Report generated from the assessments provides an overview of the status, overall maturity, and other characteristics for the NGDA Datasets for the Governmental Units Theme. Yearly reports define business requirements and evaluate data user requirements, accessibility, cyclic updates, and overall status of the A-16 NGDA Portfolio. Dataset managers evaluate each new NGDA Dataset added to the Governmental Unit Theme and apply the same methodologies to determine data maturity to contribute to a new Theme Summary Report.

**Action 1.5.1.** Perform initial baseline assessments on new data.

**Action 1.5.2.** Update maturity assessments yearly as needed on existing datasets.

**Goal 2: Facilitate the sharing and distribution of Governmental Units, and Administrative and Statistical Boundaries Theme datasets.**

The GeoPlatform is a critical resource for decision makers and the public to access and use NGDA Datasets within the Governmental Units Theme. The GeoPlatform is trending towards new technologies to improve data acquisition, processing, analysis, access, and maintenance of boundary information. New Web Map Services (WMS), Application Program Interfaces (APIs), press releases, and articles, are gateways to boundary data, tools, and products. Mashups of geospatial and statistical data fuel entrepreneurship, innovation, and discovery through real-time visualization and data processing. To support this objective, dataset managers develop machine-readable and open formats, data standards, and documentation of common core and extensible metadata.

**Objective 2.1. Publish metadata on Data.gov and the Geospatial Platform (GeoPlatform) to facilitate discovery and use of theme datasets.**

**Anticipated Outcomes.** Identify Governmental Units Theme datasets and improve accessibility to a wider audience of geospatial and statistical users through cataloguing systems such as Data.gov and the Geospatial Platform (GeoPlatform.gov).

**Action 2.1.1.** Include National Geospatial Data Asset (NGDA) designation keyword tags and NGDA alternate titles in metadata to clearly identify NGDA Datasets within the Governmental Units Theme. Ensure the use of the same title in the metadata record and the NGDA Master Dataset List.

**Action 2.1.2.** Provide direct Uniform Resource Locators (URLs) to the data set, online resources, web services, APIs, and additional documentation per FGDC guidelines.

**Action 2.1.3.** Create geospatial metadata in compliance with International Standard Organization (ISO) or Content Standard for Digital Geospatial Metadata (CSDGM) standards. Use the appropriate metadata structure to describe the download or access URL.

**Action 2.1.4.** Ensure that all data received from external sources includes original metadata. Include terms found in published taxonomies and include a referencing thumbnail “browse” graphic in dataset metadata where appropriate. Specify content dates (use the word “present” in lieu of an end-date for continuously collected data).

**Action 2.1.5.** Provide unique records for collections or series of homogenous datasets (collection-level and member level metadata records) that vary in content date and geographic extent. Note: this type of collection management is not applicable to indexed records.

**Objective 2.2. Provide reliable Web Map Services (WMS) with quality metadata to improve the GeoPlatform experience.**

**Anticipated Outcomes.** NGDA Datasets for the Governmental Units Theme will be available as web services for efficient consumption and proliferation in web applications.

**Action 2.2.1.** Provide Web Map Services (WMS) for all NGDAs in the Governmental Unit theme per FGDC guidelines.

**Action 2.2.2.** All WMS linked via URL to the GeoPlatform meet the GeoPlatform’s performance metrics standards.

**Action 2.2.3.** Metadata for WMS must include an actionable Service Endpoint URL that will launch a web mapping service. If no actionable Service Endpoint is available, provide the URL that gets the user closest to the WMS. As individual services are developed, the metadata link will be updated to the actionable Service Endpoint.

**Action 2.2.4.** In the metadata, URLs will be tagged with the acronym that best represents the service such as REST, WMS, WFS, etc. per the NGDA Metadata Guidance.<sup>20</sup>

---

<sup>20</sup> NGDA Metadata Guidance: Service (In development)

**Action 2.2.5.** ISO metadata developers will document their WMS using as a standalone Service Identification Record. This will allow the linking of the metadata of current and future versions of the same dataset to the same Service Identification Record.

**Action 2.2.6.** CSDGM metadata developers must document their WMS using the distribution section the NGDA Metadata Guidance. Failure to do so will result in the inability of the Geospatial Platform to trigger identification and promotion of the service.

**Goal 3: Coordinate the Governmental Units, and Administrative and Statistical Boundaries Theme among stakeholders.**

The Theme agency and dataset managers will coordinate Governmental Units, and Administrative and Statistical Boundary information sharing among federal, tribal, state, county, local, and private organizations. Forums for the open exchange of information about Governmental Units Theme data will assure the availability of, and public access to, boundary data and associated metadata from distributed databases. The effective sharing of data will also require the theme to support the development and application of federal, national and international standards. Outreach to agencies that consume or produce datasets will reduce duplication of effort and will increase the overall quality of shared boundary data.

**Objective 3.1. National Boundary Group (NBG), formally designated as an FGDC working group in 2014, leads the development of nationally consistent boundaries that are integrated using the same geographic base. Federal boundary sources will be consistent, accurate, and integrated.**

**Anticipated Outcomes.** Participating federal agencies achieve currency, accuracy, consistency, accessibility, interoperability with all boundary datasets through collaborative opportunities. FGDC subcommittees and subgroups that collaborate participate with in the NBG, maintain and access high-quality boundary datasets. Identify authoritative sources and authoritative integrators for boundary data including but not limited to federal land boundaries, tribal areas, state lines, county lines, maritime boundaries, and international boundaries.

**Action 3.1.1.** Conduct quarterly meetings of the National Boundary Group (NBG). Continue to provide an open forum for the exchange of ideas to improve the overall management and availability of boundaries in federal datasets.

**Action 3.1.2.** Identify collaborative opportunities with federal, tribal, state, county, and local governments regarding consistent boundaries and datasets.

**Action 3.1.3.** Collect locally sourced data with federal, tribal, state, county, and local partners to update the theme's boundary datasets where necessary.

**Action 3.1.4.** Maintain and facilitate charter goals of the NBG subgroups (Tribal Boundaries Subgroup, Federal Lands Working Subgroup).

**Action 3.1.5.** Collaborate with the Cadastral Subcommittee to identify where boundaries are coincident with cadastral features.

**Action 3.1.6.** Collaborate with the Cadastral Subcommittee on BQARP activities. The Census Bureau reconciles the legal documents (or descriptions) against the Census Bureau spatial boundaries data and cadastral data such as Public Land Survey System (PLSS) and parcel data.

**Action 3.1.7.** The National Boundary Group will coordinate with the Marine and Coastal Spatial Data Subcommittee of the Water – Oceans and Coasts Theme to establish and publish standards and specifications for marine and coastal spatial data, and establish priorities for marine and coastal spatial data collection, processing, and dissemination.

**Objective 3.2. The Tribal Boundaries Subgroup, formally designated as a NBG working group in 2015, identifies the data and communication needs for agencies and governments using tribal boundary data. These agencies include the Department of Interior (DOI), the Census Bureau, Federal Emergency Management Agency (FEMA), Forest Service (USFS), and Tribal governments.**

**Anticipated Outcomes.** The Tribal Boundaries Subgroup documents tribal land and boundary data use, data quality requirements, and boundary attribute needs for all federal agencies, governments, and institutions. Online resource of meeting notes, documents, presentations, and upcoming events maintained and distributed to members on a regular basis.

**Action 3.2.1.** Maintain approved charter goals of the recently established Tribal Land Boundary Working Group.

**Action 3.2.2.** Identify uses of tribal boundary data for all federal agencies. Geospatial resources include legal tribal land boundary data, tribal statistical areas (for data collection, tabulation, and analysis), and a FEMA Tribal Consultation database (with emergency contacts, grants, assistance, programs, and major disaster declarations).

**Action 3.2.3.** Facilitate regular meetings of the Tribal Land Boundary Working Group as a platform for federal agencies and tribal governments to document needs for data quality and boundary attributes.

**Action 3.2.4.** Create an instructional resource to document legislation or program criteria for tribal boundaries.

**Action 3.2.5.** Define and document datasets of tribal lands and boundaries, population and economic data, mineral resources, and criteria for programs, where appropriate.

**Action 3.2.6.** Document responsible authority or authoritative sources for tribal lands and boundaries datasets.

**Action 3.2.7.** Discuss ways that agencies can collaborate, reduce duplication, and share tribal boundary information.

**Action 3.2.8.** Coordinate collection, verification, and publication of authoritative data for American Indian Land legal boundaries, statistical boundaries, and cultural boundaries for use by tribal governments and other federal, state, county, and local agencies (i.e. Reservation and Trust Land Boundary Inventory and Update)



**Action 3.2.9.** Create a Tribal Nations Community on the GeoPlatform.

**Objective 3.3. The Federal Lands Working Subgroup (FLWG) develops a data standard and the organizational strategies for the aggregation of federally-owned lands in a spatial database.**

**Anticipated Outcomes.** Federal agencies achieve currency, accuracy, consistency for federal land areas information and use or generate new data without duplication. Alignment with applicable agency business plans (i.e., Bureau of Land Management, Environmental Protection Agency, National Park Service, U.S. Forest Service, U.S. Geological Survey) to access, update and publish federal land areas data.

**Action 3.3.1.** Continue collaborative testing and refinement of the PAD-US Data Standard for an aggregated Federal Lands Geodatabase that contributes to the Protected Areas Database of the U.S. (PAD-US), maintained by the FLWG in collaboration with USGS.

**Action 3.3.2.** Maintain the Protected Areas Database of the U.S. (PAD-US), a geodatabase developed by the USGS Gap Analysis Program (PAD-US 1.4 published May 2016) in collaboration with the FLWG. Improve data compatibility within the PAD-US geodatabase with documented source data files and field mapping.

**Action 3.3.3.** Aggregate federal land ownership and management designations from authoritative sources to meet common agency needs, through the publication of PAD-US in a multiple feature class structure to better manage overlaps.

**Action 3.3.4.** Evaluate federal naming standards to improve the federal theme in PAD-US.

**Action 3.3.5.** Complete boundary adjudication effort with all applicable sources and agencies to reduce topology errors (overlaps and gaps) between agency datasets.

**Action 3.3.6.** Review the draft PAD-US Standards Manual to improve the efficiency and effectiveness of updates and ensure stakeholder needs are met.

**Action 3.3.7.** Develop and publish source data documentation to identify the data sources aggregated from applicable agencies and field mapping.

**Action 3.3.8.** Document common agency needs for PAD-US.

**Objective 3.4. Continue collaboration between Census Bureau, the International Boundary Commission (IBC) and the International Boundary and Water Commission (IBWC) to complete the update of all international boundaries in Census Bureau's Digital Map of the United States.**

**Anticipated Outcomes.** Census Bureau will have an accurate depiction of international boundaries of the United States for use by all those who need it.

**Action 3.4.1.** Update international boundaries in the MTDB through continued agency collaboration, meetings, and webinars between the Census Bureau, the International Boundary Commission (IBC), the International Boundary and Water Commission (IBWC), and the US Geological Survey (USGS).

**Action 3.4.2.** Release IBC changes to international boundary points in 2016. Update as needed.

**Action 3.4.3.** Incorporate recently resurveyed monument data from the US and Mexico border.

**Objective 3.5. The Governmental Units, and Administrative and Statistical Boundaries Theme community leverages the GeoPlatform to increase community membership and facilitate dataset management and communication across the theme.**

**Anticipated Outcomes.** The Geospatial Platform (GeoPlatform) supports new and innovative web mapping services and tools, shared applications, visualization, and continuing improvements to geospatial data to increase use by all federal agencies, tribal governments, state, county, and local governments, academia, and the public.

**Action 3.5.1.** The Governmental Units Theme will develop and maintain both public and private webpages for all established working groups and subgroups within the theme (i.e. Tribal Boundary Subgroup and Federal Lands Working Subgroup) on the GeoPlatform.

**Action 3.5.2.** Encourage and support all working group members to establish GeoPlatform accounts. Ensure that members have the appropriate level of access to the webpages on the GeoPlatform.

### **Challenges and Opportunities**

The Governmental Unit Theme community and the Census Bureau face several challenges in implementing this strategic plan:

- The NGDA Dataset Managers need to develop a plan for making FOUO (For Official Use Only) datasets available to approved users.
- The NBG, Tribal Boundaries Subgroup, and Federal Lands Working Subgroup stakeholders need to determine criteria for granting access to the theme’s community pages on the GeoPlatform, and assign administrative roles and responsibilities for the GeoPlatform community page.
- Several of the Governmental Units Theme datasets are not owned/managed by Census Bureau, making it difficult to ensure the implementation of the strategic goals.
- Many of the Governmental Units Theme datasets are based on datasets from authoritative sources outside of the Census Bureau. The Census Bureau is dependent on voluntary partnerships with local, state, and federal partners to fulfill its Constitutional mandate.<sup>21</sup>
- “Seven states have no program for developing statewide governmental boundaries.”<sup>22</sup>

With the challenges, the Governmental Units Theme community and the Census Bureau have opportunities:

---

<sup>21</sup> John Bossler, David J. Cowen, James Geringer, Susan Lambert, John Moeller, Thomas Rust, & Robert Welch, “Report Card on the U.S. National Spatial Data Infrastructure,” *Compiled for the Coalition of Geospatial Organizations*, February 6, 2015, [http://www.cogo.pro/uploads/COGO-Report\\_Card\\_on\\_NSDI.pdf](http://www.cogo.pro/uploads/COGO-Report_Card_on_NSDI.pdf).

<sup>22</sup> John Bossler, David J. Cowen, James Geringer, Susan Lambert, John Moeller, Thomas Rust, & Robert Welch, “Report Card on the U.S. National Spatial Data Infrastructure,” *Compiled for the Coalition of Geospatial Organizations*, February 6, 2015, [http://www.cogo.pro/uploads/COGO-Report\\_Card\\_on\\_NSDI.pdf](http://www.cogo.pro/uploads/COGO-Report_Card_on_NSDI.pdf).

- The Governmental Units Theme community and the Census Bureau are developing and leveraging relationships with agencies to coordinate boundary related activities.
- The Census Bureau will continue to build strong partnerships with the non-Census Bureau NDGA Dataset Managers.
- The Census Bureau will explore collaborative opportunities with partner agencies to update older NGDA Datasets.
- Publication of WMS for Governmental Units Theme datasets with linkages to the Geoplatform will increase the visibility and use of these valuable assets.

### **Implementation of the Governmental Units, and Administrative and Statistical Boundaries Theme Strategic Plan**

Following the adoption of the Governmental Units, and Administrative and Statistical Boundaries Theme Strategic Plan, the Theme Lead and NGDA Dataset Managers will develop an implementation plan outlining how the goals and objectives will be achieved. The implementation plan will include:

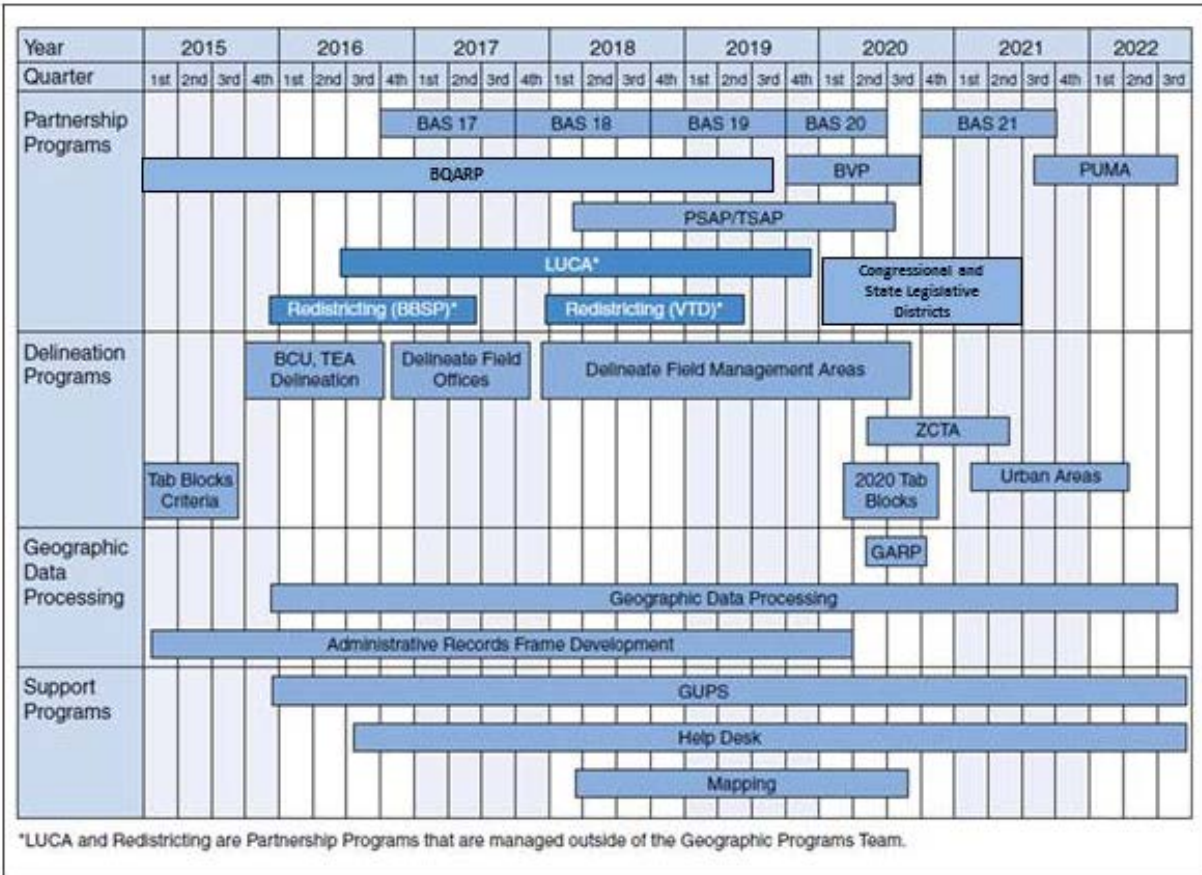
- Tasks and milestones
- Timelines
- Responsible parties
- Performance indicators/measures
- Identification of resources available to achieve the objectives

The Executive Champion and Senior Agency Official for Geospatial Information will provide guidance throughout the development and implementation of the project plan.

### **Theme Management Roles and Responsibilities**

<b>Role</b>	<b>Responsibilities</b>
Executive Champion	Provide high-level sponsorship and support for the Governmental Units, and Administrative and Statistical Boundaries Theme and associated NGDA Datasets; facilitate communication among the FGDC, other Executive Theme Champions, and agencies to promote effective and efficient development and management of themes and their associated resources to benefit implementation.
Senior Agency Official for Geospatial Information	Oversee, coordinate, and facilitate the agency’s implementation of the geospatial-related requirements, policies, and activities. While distribution of these may cover various components of an agency, OMB will look to the senior agency official for information regarding the agency’s coordination of these activities.
Theme Lead	Coordinate and oversee the strategic planning and implementation of the Governmental Units, and Administrative and Statistical Boundaries Theme and associated NGDA Datasets and the development of annual Governmental Units, and Administrative and Statistical Boundaries Theme Report.
NGDA Dataset Manager	Act as primary data steward(s), directly develop(s) national geospatial data assets (i.e. datasets) that fall under an NGDA Theme (in whole or part) in conjunction with other NGDA Dataset Managers and data stewards; work with Theme Lead to produce annual NGDA Dataset Reports.

**Appendix 1: Geographic Programs Timeline**



**Figure 1. Geographic Programs Timeline** <sup>23</sup>

<sup>23</sup> 2020 Census Operational Plan—Executive Summary, January 11, 2016

## Appendix 2: Glossary of Terms and Acronyms

ACRONYM	MEANING
ACS	American Community Survey
AIANNH	American Indian/Alaska Native/Native Hawaiian
ANRC	Alaska Native Regional Corporation
API	application program interface
BAS	Boundary and Annexation Survey
BBSP	Block Boundary Suggestion Project
BCU	Basic Collection Unit
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BQARP	Boundary Quality Assessment and Reconciliation Project
BVP	Boundary Validation Program
CCD	Census County Division
CDBG	Community Development Block Grant
CDP	Census Designated Place
CSDGM	Content Standard for Digital Geospatial Metadata
DLG	Digital Line Graphs
DOI	Department of Interior
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee
FLWG	Federal Lands Working Subgroup
FOUO	For Official Use Only
FY	Fiscal Year
GARP	Geographic Area Reconciliation Project
GUPS	Geographic Update Partnership Software
HUD	Housing and Urban Development
IBC	International Boundary Commission
IBWC	International Boundary and Water Commission
ISO	International Organization for Standardization
LMA	Lifecycle Maturity Assessment
LUCA	Local Update of Census Addresses
MAF/TIGER	Master Address File/Topologically Integrated Geographic Encoding and Reference System
MTDB	MAF/TIGER Database
NBG	National Boundaries Group
NECTA	New England City and Town Area
NGDA	National Geospatial Data Asset
NOAA	National Oceanic and Atmospheric Administration
NSDI	National Spatial Data Infrastructure
OGC	Open Geospatial Consortium
OMB	Office of Management and Budget
OTSA	Oklahoma Tribal Statistical Area
PAD-US	Protected Areas Database of the United States

PLSS	Public Land Survey System
PSAP	Participant Statistical Areas Program
PUMA	Public Use Microdata Area
QC	Quality control
RDP	Redistricting Data Program
REST	Representational State Transfer
SDRP	School District Review Program
SLD	State Legislative District
TDSA	Tribal Designated Statistical Area
TEA	Targeted Employment Area
TIGER	Topologically Integrated Geographic Encoding and Reference System
TSAP	Tribal Statistical Areas Program
URL	Uniform Resource Locator
US	United States
USDA	United States Department of Agriculture
USFS	United States Forest Service
USGS	United States Geological Survey
WFO	Weather Forecast Office
WFS	Web Feature Service
WMS	Web Mapping Services
VTD	Voting District Project/Voting Districts
ZCTA	ZIP Code Tabulation Area
ZIP	Zone Improvement Plan