

Geographic Program Updates

California State Data Center Meeting October 8, 2015

Topics

- Geographic Support System Initiative (GSS-I)
- Local Update of Census Addresses Program (LUCA)
- Boundary and Annexation Survey (BAS)
- Boundary Quality Assessment and Reconciliation Project (BQARP)
- Redistricting Data Program (RDP)

Geographic Support System Initiative

- An integrated program that utilizes a [partnership program](#) for:
 - Improved address coverage
 - Annual, transaction-based address and spatial feature updates
 - Enhanced quality assessment and measurement

Address Updates



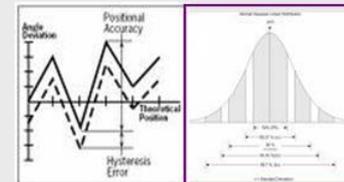
123 Testdata Road
Anytown, CA 94939

Lat 37 degrees, 9.6 minutes N
Lon 119 degrees, 45.1 minutes W

Street/Feature Updates



Quality Measurement



The GSS-I Partnership Program

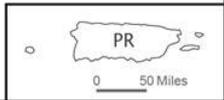
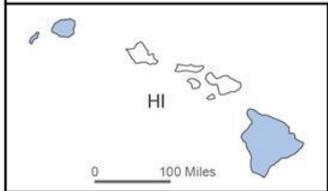
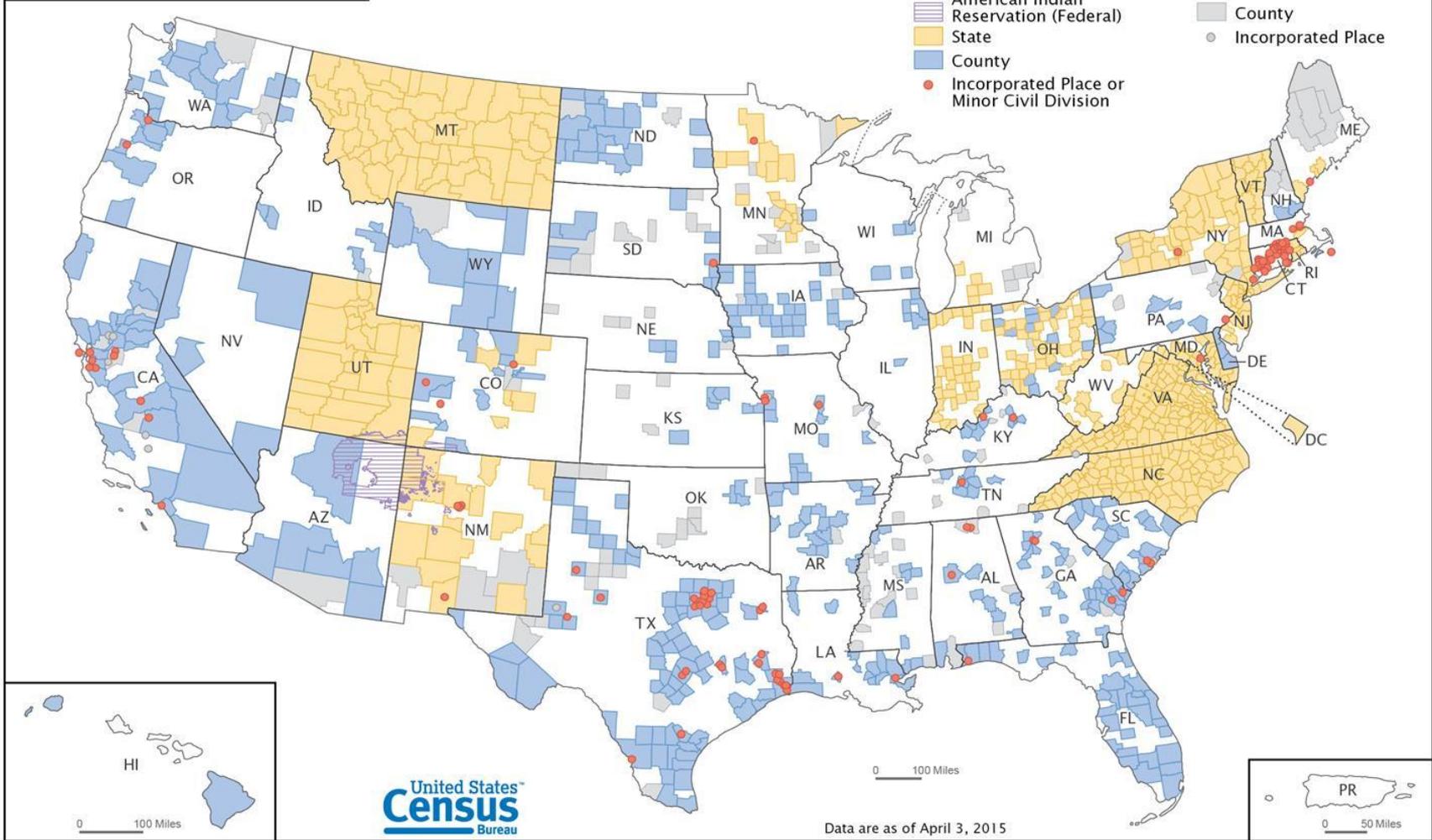
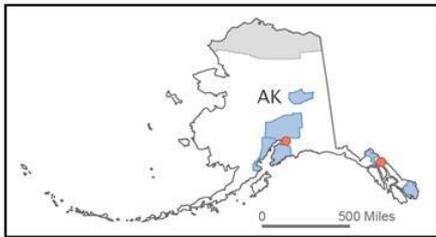
- Launched in October 2012
- Opportunity for tribal, state, county, and local governments to continually exchange address & spatial data with the Census Bureau
- Recognizes partner governments as a definitive authority for quality address and street data within their communities
- Leverages the Census Bureau's broad partner network to encourage participation

Data Content Guidelines

- The Census Bureau has released Data Content Guidelines to describe the minimal and optimal information required for Addresses (including structure points), Street Centerlines, and Metadata provided by partners for the GSS-I
- Data Content Guidelines are located at:

<http://www.census.gov/geo/www/gss/gdlns/addgdln.htm>

GSS-I Participation Status, by Data Provider



Block Level Address Feedback

Consists of block tallies detailing:

- What the partner provided
- Number of records matched or added to the Census address list
- Number of records not accepted
- Total number of residential records currently in the MAF

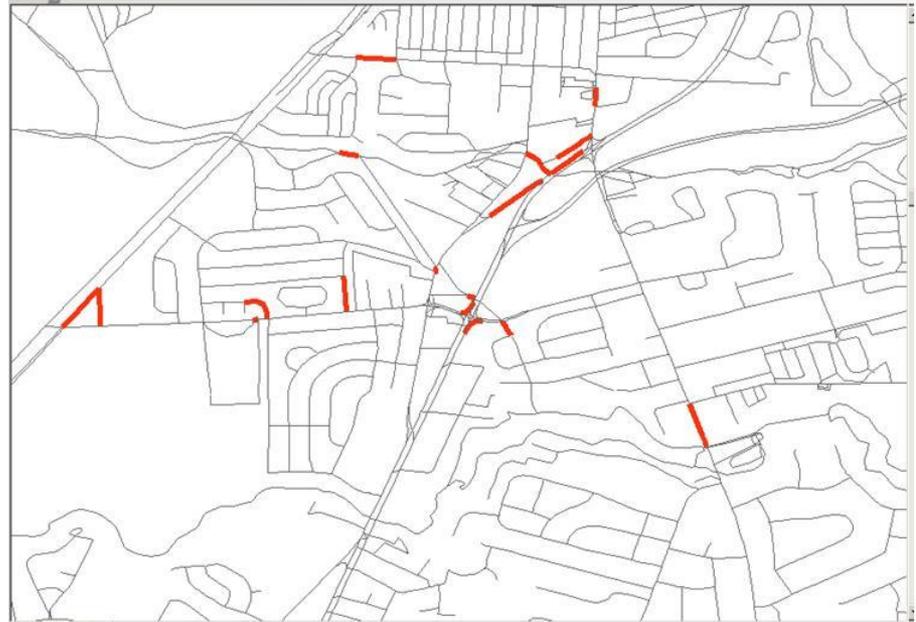
State	County	Tract	Block	GEOID	Total Addressess	Total Residential	Total Non-residential	Total Other	Total Matched	Total Added	Total Coordinates Used	Total Not Accepted	Total Not Accepted Duplicate	Total Not Accepted Incomplete	Total Not Accepted Other	Residential Currently in MAF
					6	0	0	6	6	0	5	0	0	0	0	5
					1	0	0	1	1	0	1	0	0	0	0	1
					26	0	0	26	26	0	26	0	0	0	0	27
					18	0	0	18	18	0	18	0	0	0	0	18
					17	0	0	17	17	0	15	0	0	0	0	17
					35	35	0	0	35	0	35	0	0	0	0	35
					7	7	0	0	5	0	5	2	0	0	2	6
					48	45	2	1	47	0	47	1	0	0	1	45
					65	65	0	0	48	0	48	17	0	0	17	64
					1	0	0	1	-	-	-	-	-	-	-	-
					1	0	0	1	-	-	-	-	-	-	-	-
					2	0	0	2	-	-	-	-	-	-	-	-
					1	0	0	1	-	-	-	-	-	-	-	-
				Unable to Geocode	-	-	-	-	-	-	-	-	-	-	-	-
					228	152	2	74	203	0	200	20	0	0	20	218

Feature Feedback

Adding a date of last update field to the partnership shapefiles:

live_2014_edges_10001

	MTFCC	FIDELITY	FULLNAME	SMID	MTUPDATE
	S1200	Y	Rd 4	4379	1/2/2013
	H3010	Y	Hudson Br	5364	1/2/2013
	H3010	Y	Meredith Br	5364	1/2/2013
	S1400	Y	Dupont Hwy	4379	1/2/2013
	H3010	Y	St Jones Riv	5364	1/2/2013
	S1200	Y	E Lebanon Rd	0	1/2/2013
	S1400	Y	Green Acres Dr	4379	1/2/2013
	S1200	Y	E Lebanon Rd	4379	1/2/2013
	S1400	Y	Court St	4379	1/2/2013
	S1630	Y		0	1/2/2013
	S1630	Y		0	1/2/2013
	S1200	Y	Korean Veterans Memori	4379	1/2/2013
	H3010	Y		5364	1/2/2013
	H3010	Y		5364	1/2/2013
	R1011	Y	Conrail RR	0	1/2/2013
	S1400	Y		0	1/2/2013
	R1011	Y	Conrail RR	0	1/2/2013



LUCA Background

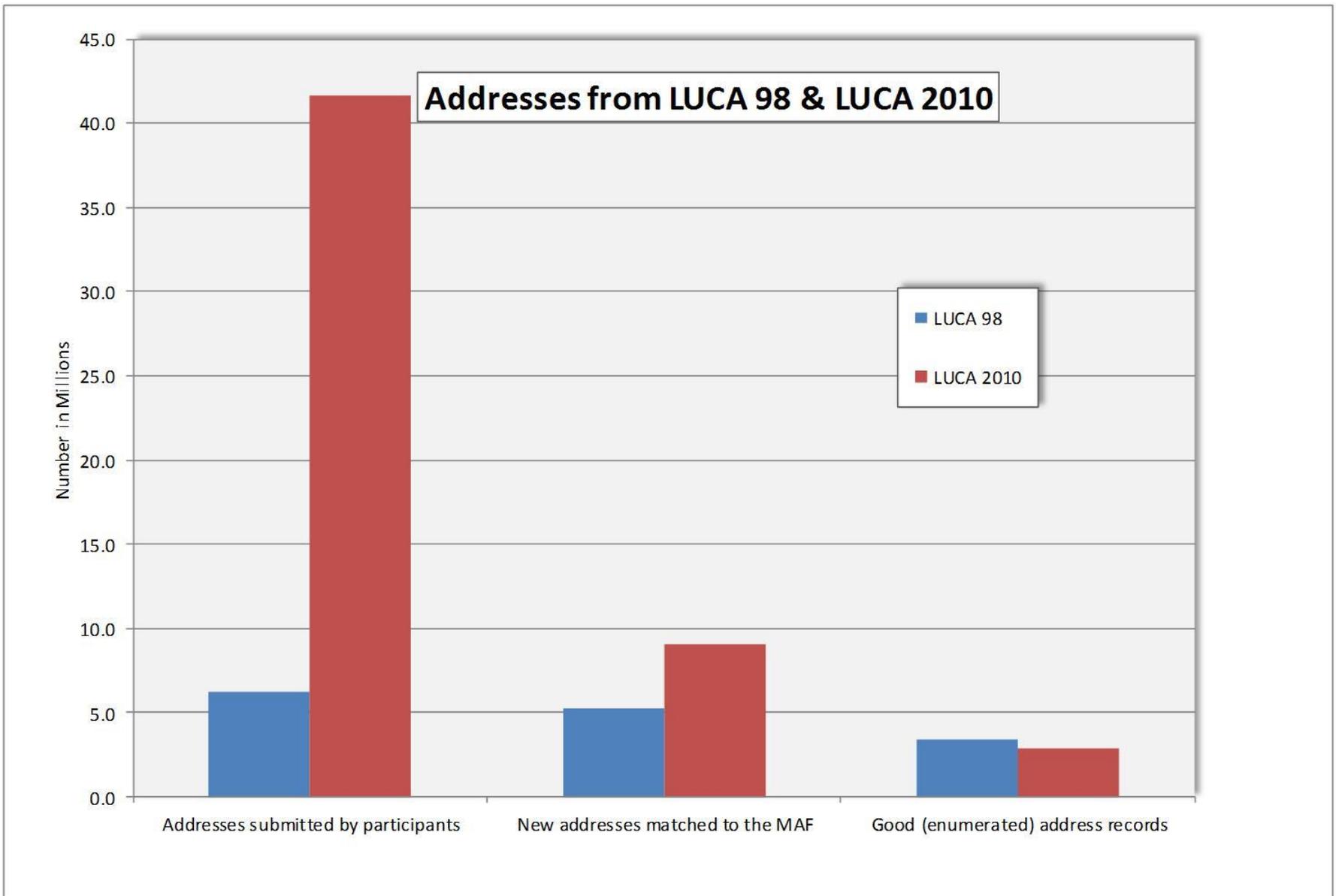
The LUCA program was designed based on requirements specified by the [Census Address List Improvement Act of 1994 \(Public Law 103-430\)](#) which provides an opportunity for designated representatives of local, state, and tribal governments to review the addresses used to conduct the decennial census.

Background (continued)

LUCA 1998/99: First opportunity for tribal and local governments to review and update the Census address list.

2010 LUCA: Based on Census 2000 feedback, three participation options were offered:

- Option 1: Title-13 Full Address List Review (similar to LUCA 1998)
- Option 2: Title-13 review, full address list submission
 - Partners provide their entire residential address list with access to Census Title-13 addresses
- Option 3: Non-Title-13, full address list submission
 - Partners provide their entire residential address list without access to Census Title-13 addresses



2020 LUCA Improvement Research

- To develop potential alternative designs for LUCA 2020 based on research by four sub-teams
 - Looking Back at 2010 (assessments, surveys, lessons learned)
 - GSS-I's impact on LUCA (utilizing address data, software and processes for LUCA)
 - Re-engineered address canvassing's impact on LUCA (in-office validation)
 - Focus Groups

LUCA Recommendations

1. Continue the 2010 Census LUCA Program improvements that were successful
 - Continue to provide a 120-day review time for participants.
 - Continue the six month advance notice about the LUCA program registration
 - Continue a comprehensive communication program with participants
 - Continue to provide a variety of LUCA media types.
 - Continue to improve the partnership software application
 - Continue State participation in the LUCA program
2. Eliminate the full address list submission options that were available in 2010 LUCA, (Options 2 and 3). This will:
 - Reduce the number of deleted LUCA records in field verification activities
 - Reduce the burden and cost of processing addresses and LUCA address validation
3. Reduce the complexity of the Local Update of Census Addresses Program

LUCA Recommendations (continued)

4. Include census housing unit location coordinates in the census address list and allow partners to return their housing unit location coordinates as part of their submission
5. Provide any ungeocoded United States Postal Service Delivery Sequence File addresses for their area to State and County partners
6. Provide the address list in more standard formats
7. Include an in-office verification of LUCA submitted addresses
8. Utilize Geographic Support System Initiative data and tools to validate Local Update of Census Addresses submissions

LUCA Recommendations (continued)

9. Encourage governments at the lowest level to work with higher-level governments to consolidate their submission.
10. Eliminate the Block Count Challenge
11. Eliminate the use of the asterisk (*) designation for multi-units submitted without unit designations
12. Encourage Local Update of Census Addresses participants to identify addresses used for mailing, location, or both

Current Activities/Next Steps

- In-office validation processes, procedures, and tools development. Current small scale testing with the In-Office Verification Group
- Larger test using partner-supplied addresses prior to the 2017 Census Test and comparing the results to the Address Canvassing results
- Define relationship between Administrative Records and LUCA and determine whether Administrative Records can be used as an independent source of validating LUCA submitted addresses
- Define relationship between Address Canvassing and LUCA, taking into consideration the timing of LUCA feedback and the appeals operation.

Current Activities/Next Steps (continued)

- Determine the feasibility of several of the technical recommendations for 2020 LUCA need to be investigated:
 - Use of background imagery on paper maps
 - Ability to provide structure locations within LUCA materials
 - Feasibility of web based registration
- Develop and Test LUCA component of the GUPS software
- Determine feasibility of using areas where we have planned field activities to validate LUCA records
- Work with OMB to develop a 2020 LUCA Appeals process
- Determine the relationship between late decade GSS-I and LUCA.

How Can You Help?

- Encourage the development/use of within structure identifiers (Apt 101, Unit B etc...)
- Encourage the development and use of structure type codes in address development (residential, commercial, etc...)

Boundary and Annexation Survey (BAS)

- Annual, voluntary survey to collect legal status and boundaries for local governments
- Boundaries must be legally in effect on or before January 1st of BAS year
- Boundary updates submitted by deadline are reflected in American Community Survey and Population Estimates
- Almost 3,000 governments updated

2016 BAS – What's Different?

- The return of BAS Paper maps
 - Minor design updates
 - PDFs available online
- Introducing the Geographic Update Partnership Software (GUPS) tool
 - Provides a common geographic update tool that will allow over 40,000 tribal, state, and local governments to submit digital updates for geographic programs, including the BAS
 - Makes geographic program participation more convenient for participants by offering the ability to view and update Census Bureau geospatial and tabular data

Geographic Update Partnership Software

Create Change Poly...

* Indicates required field

STATEFP : 55

COUNTYFP : 025

PLACEFP : 51575

NAME : Middleton

LSAD : city (suffix)

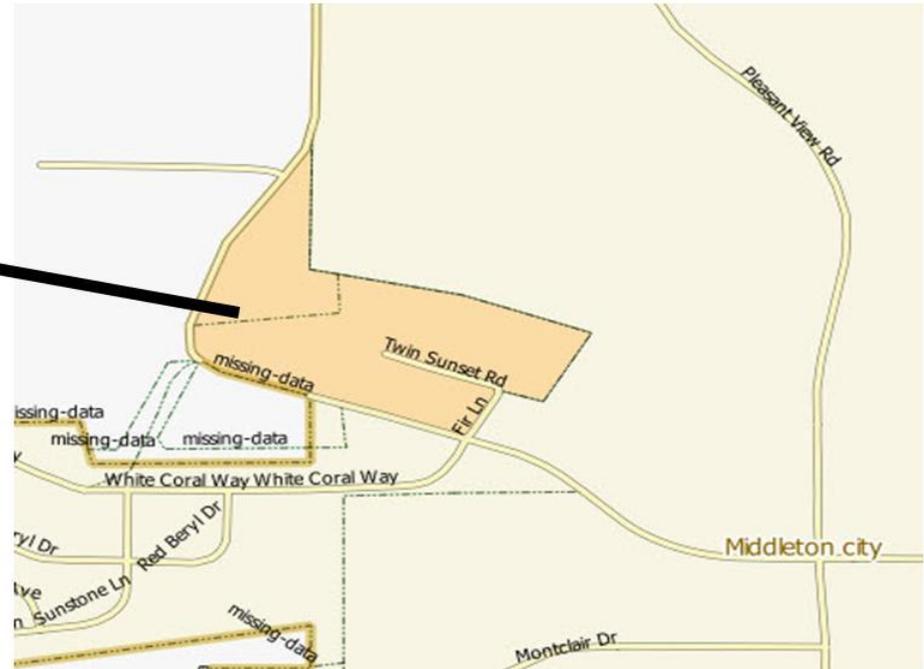
EFF_DATE : 09/16/2015

AUTHTYPE : a

DOCU : 12345

CHNG_TYPE : Annexation

Ok Cancel



- Quickly create legal area boundary updates and submit to the Census Bureau

BAS 2016 Schedule

- **December 2015/January 2016** – Annual Response information emailed
- **January 1, 2016** – Annexations must be effective by this date in order to be processed
- **March 1, 2016** – Deadline for BAS submission to be included in Population Estimates Program and American Community Survey
- **March/April 2016** – State Data Center non-response follow up
- **May 31, 2016** – Deadline for BAS submission to be reflected in 2017 BAS Materials

BAS and Redistricting

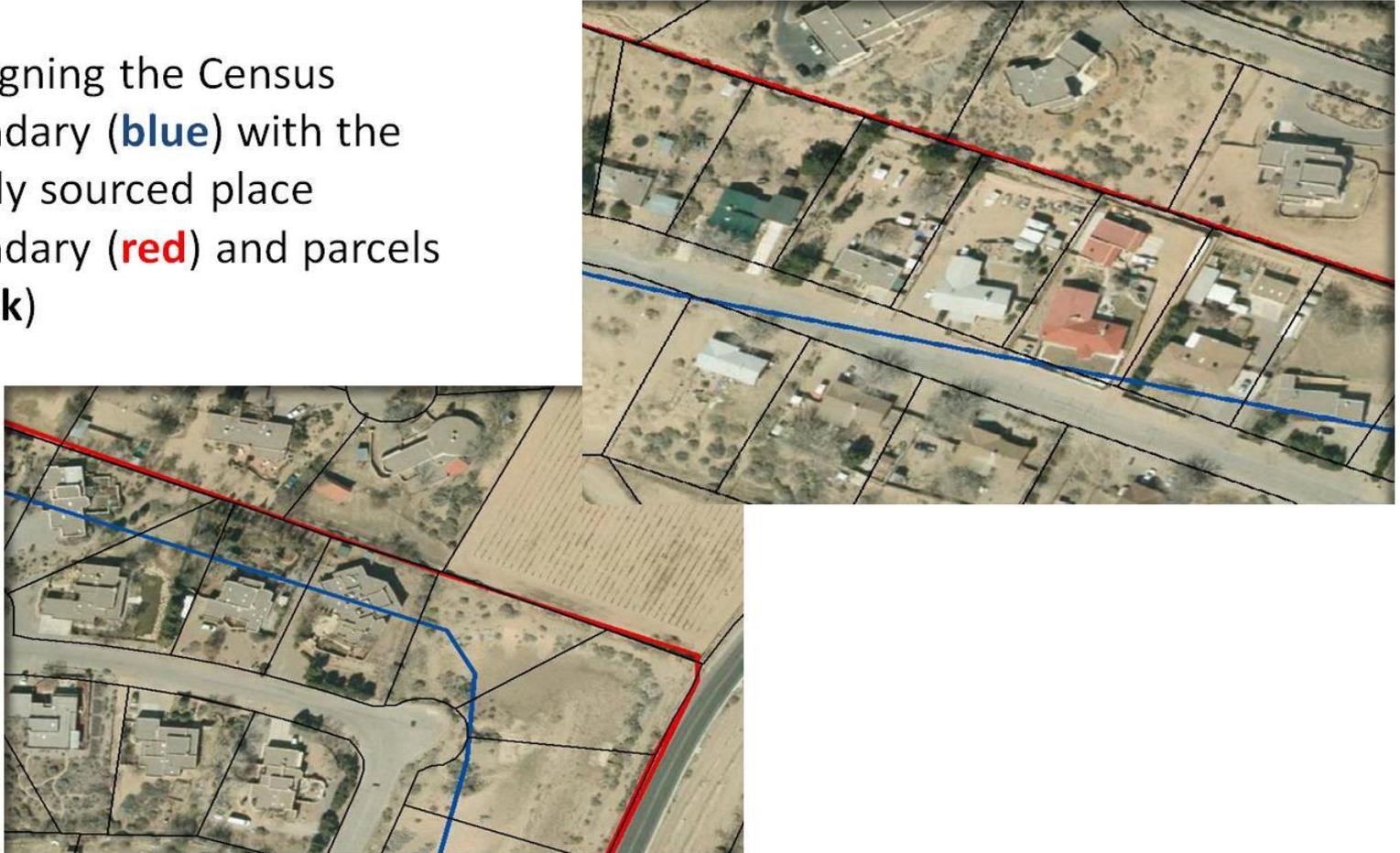
- State Redistricting Data Program (RDP) Liaisons may submit boundary updates as part of Phase 1 (BBSP) & Phase 2 (VTD) (new for 2020)
- Census coordinates RDP Liaison-submitted boundary updates with local officials
 - BAS 2016 and BAS 2017

Boundary Quality Assessment and Reconciliation Project (BQARP)

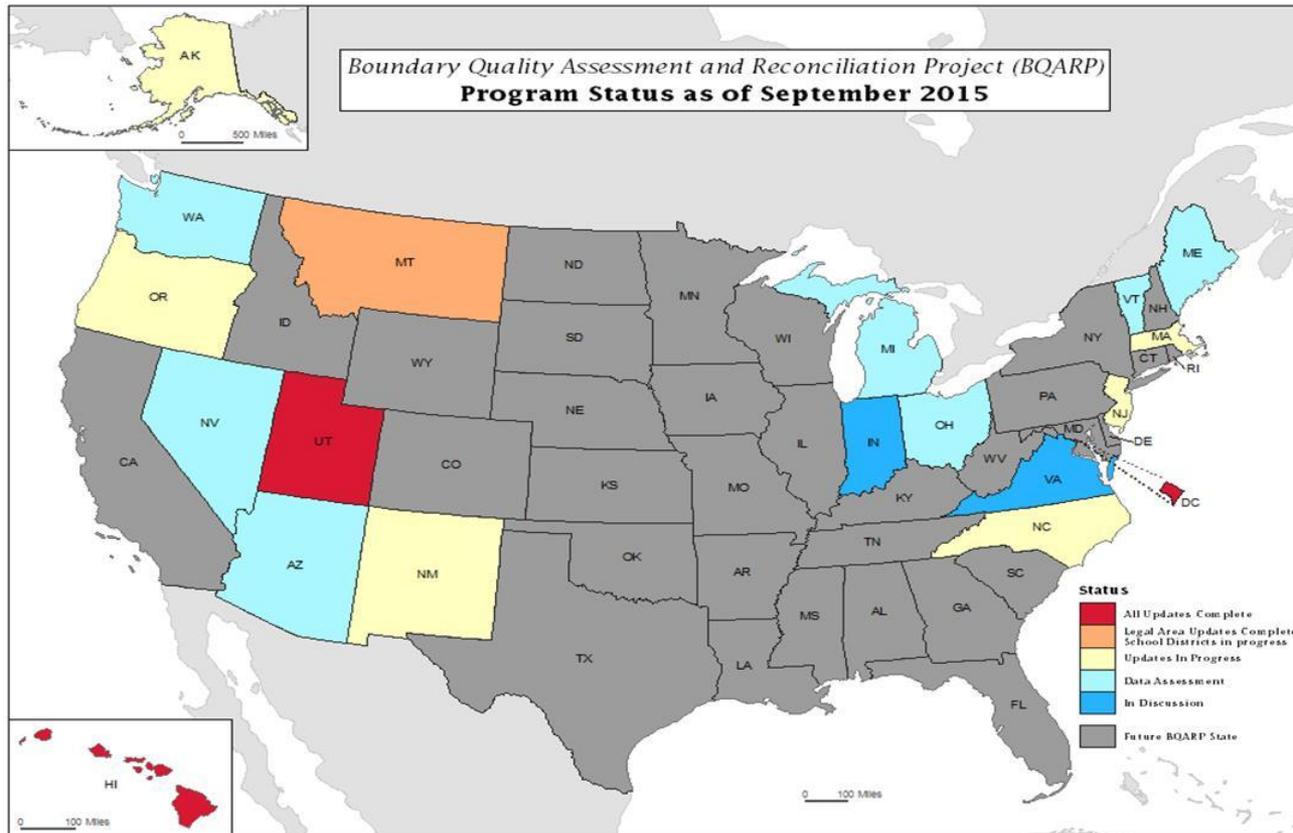
- Comparing locally sourced data to adjust Census boundaries where necessary
- Coordinating efforts with State partners
- Aligning with Parcel and Public Land Survey System (PLSS) boundaries, where applicable
- Improving the spatial quality of legal and administrative boundaries within the MAF/TIGER System
 - Establish spatial accuracy for each boundary section
 - Lock boundaries in place to avoid changes without legal documentation

BQARP

- Realigning the Census boundary (**blue**) with the locally sourced place boundary (**red**) and parcels (**black**)



BQARP Status



2020 Redistricting Data Program

- **Phase 1 – The Block Boundary Suggestion Project (BBSP)**
- Phase 2 – The Voting District Project (VTDP)
- Phase 3 – Data Delivery
 - P.L. 94-171 Redistricting Data Tabulations
 - Geographic Support products
- Phase 4 – Collection of the new plans
 - 118th Congressional Plans
 - New State Legislative District Plans
- Phase 5 – The View From the States
 - The evaluation of the 2020 Redistricting Data Program (RDP), the recommendations from the states, and the plan for the 2030 RDP

2020 Redistricting Data Program

- **Phase 1 – The Block Boundary Suggestion Project (BBSP)**
 - States can influence the 2020 tabulation blocks
 - Must Hold/ Do Not Hold
 - Missing Features
 - Misaligned Features
 - Suggest updates to legal boundaries – NEW for 2020
- **Phase 2 – The Voting District Project (VTDP)**
 - States provide their Election Districts/Precincts/Wards
 - Suggest updates to legal boundaries – NEW for 2020

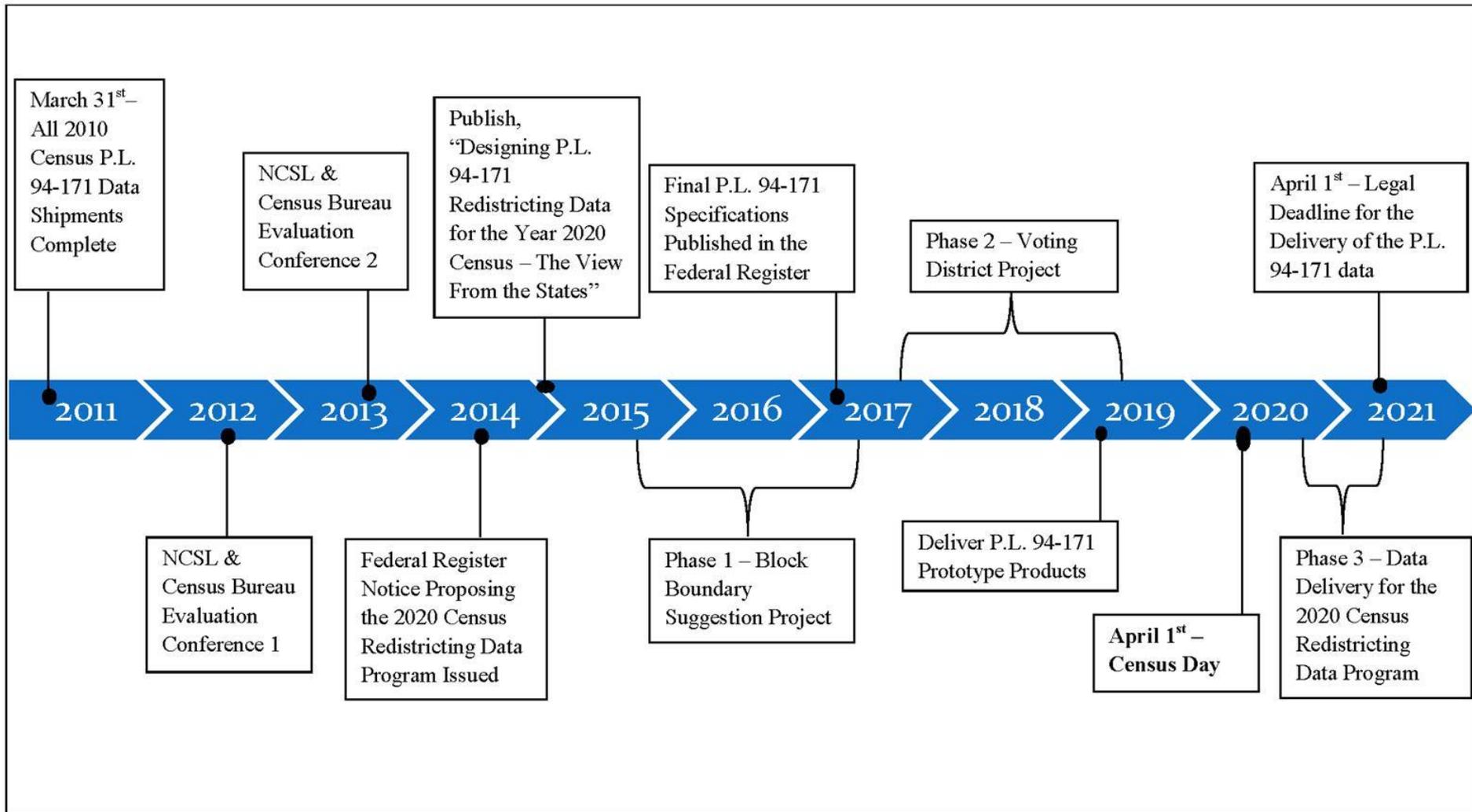
2020 Redistricting Data Program

- Phase 3 – Data Delivery
 - P.L. 94-171 Redistricting Data File
 - Race
 - Hispanic or Latino, and not Hispanic or Latino by Race
 - Race for the Population 18 Years and Over
 - Hispanic or Latino, and not Hispanic or Latino by Race for the Population 18 Years and Over
 - Occupancy Status (Housing)
 - Group Quarters – NEW for 2020
 - Geographic Support Products
 - Shapefiles
 - Maps (PDF only)
 - Block Assignment Files
 - Block to Block Relationship Files – NEW (timing) for 2020

2020 Redistricting Data Program

- Phase 4 – Collection of the New Plans
 - Collect Congressional plans on a 2-year cycle
 - Collect State Legislative District Plans on a 2-year cycle
- Phase 5 – The View From the States
 - Generate, from the States' point of view, a report detailing:
 - Successes of the 2020 Program
 - Failings of the 2020 Program
 - Recommendations for the 2030 Program
 - Report is vetted and approved up through the Director and with the official Redistricting Data Program liaisons
 - Report is used as the guiding document for designing the next cycle of the Redistricting Data Program

2020 Redistricting Data Program



2020 Redistricting Data Program

- 1990 – 2000 – Paper submissions for digitizing into TIGER
- 2010 Census – Digital with Census supplied software requirement
- 2020 Census – Digital with no software restrictions but with a supplied software option

2020 RDP Workflow

Recommended Workflow – Geographic Updates

- Linear Feature Review and Update
 - Add missing features/Delete features
 - Correct misaligned features
- Area Landmark Review and Update
 - Add/Delete/Modify area landmarks
 - Flag boundaries as must hold if needed
- Legal Boundary Review and Update
 - Review and update boundaries to legal areas (Counties, MCDs, Places, Consolidated Cities)

2020 Redistricting Data Program

Recommended Workflow – Geographic Updates Continued...

- Point Landmark Review
 - Limited Updates
 - Low Priority

Recommended Workflow – Block Suggestions

- 2010 Feature Extension Review and Update
 - Delete, flag, ignore extensions from 2010

2020 Redistricting Data Program

Recommended Workflow – Block Suggestions

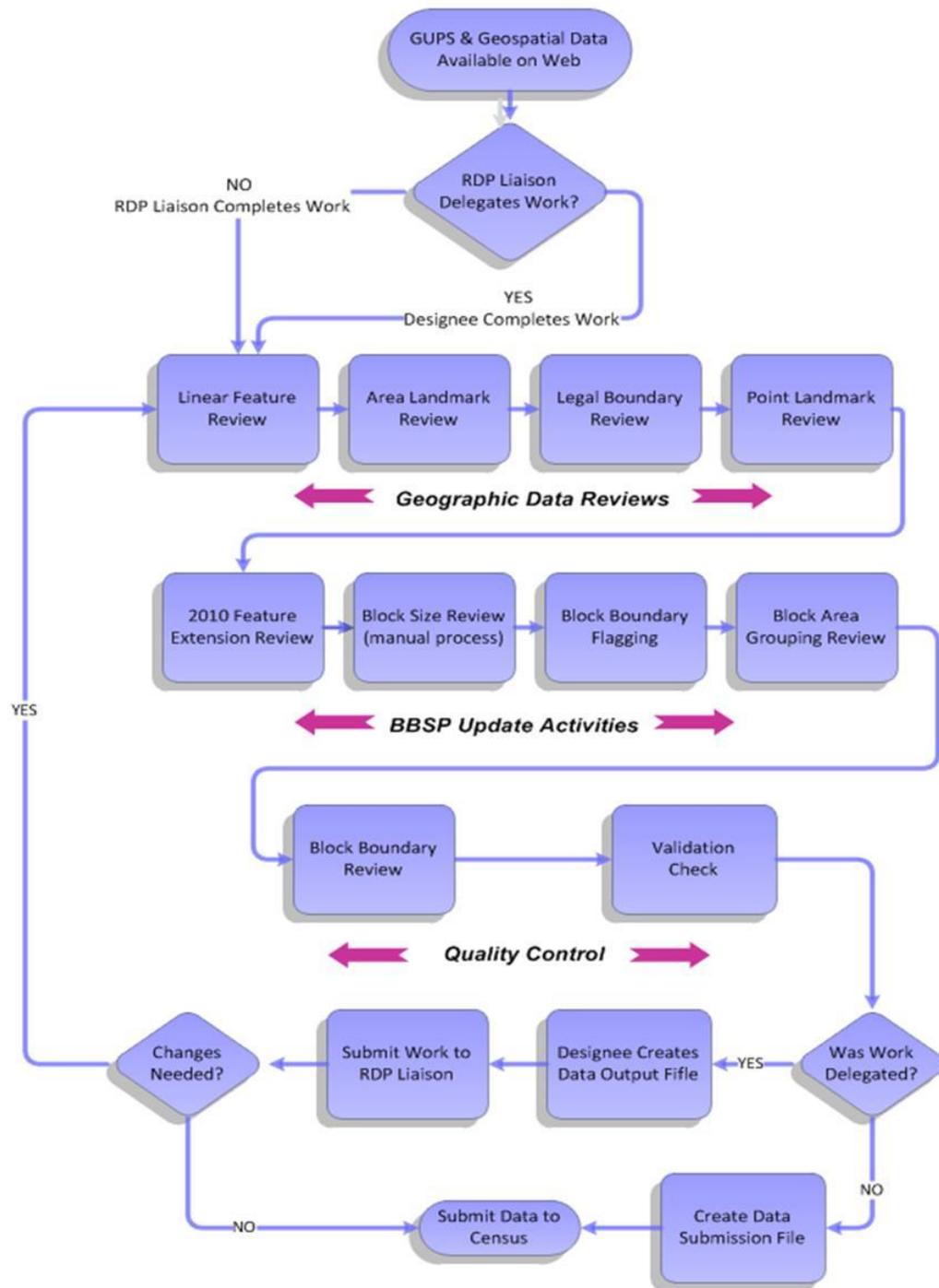
- Block Size Review
 - Size indicator for easy location and evaluation
- Block Suggestion Flagging (Must Hold/Do Not Hold)
 - Identify remaining block boundaries needed
 - Identify remaining edges not wanted as block boundaries
- Block Area Grouping
 - Grouping Islands into single block

2020 Redistricting Data Program

Recommended Workflow – Quality Control

- Block Boundary Review
 - Evaluate all flags applied
- Validation Check
 - Ensure all block suggestions and census planned block boundaries make closed polygons

How it all comes together



2020 RDP Communication

- The Census Redistricting and Voting Rights Data Office (CRVRDO) coordinates all communication between participants and the Census Bureau
- Liaisons have the option to parcel work
- Liaisons must certify all work
- The CRVRDO will facilitate legal boundary updates with the Boundary and Annexation Survey team and area's highest elected official

Thank You!

- <http://www.census.gov/geo/www/gss/>
- LUCA 2020 page coming soon
- <https://www.census.gov/geo/partnerships/bas.html>
- <https://www.census.gov/rdo/>

Questions regarding Redistricting?

James Whitehorne, Chief, Redistricting Data Office
(301)763-4039, james.whitehorne@census.gov

Questions regarding anything else?

Linda Akers Smith, Geographer
(818)267-1724, linda.kane.akers.smith@census.gov