2020 Census Redistricting Data Program, Phase 4
Collection of Post-2020 Census Redistricting Plans
Participant Instructions

During Phase 4, as official redistricting data program liaisons designated by the legislative leadership in your state, the District of Columbia, and Puerto Rico, you have the opportunity to submit any newly drawn congressional, state legislative, or legislative (DC, PR) district plans to the Census Bureau. You will also be provided an opportunity to ensure that the Census Bureau has correctly inserted those plans into our geographic database. We recognize that many of these plans have not yet been enacted. With that in mind, we have an extended submission window to capture these updated plans once they have become enacted.

Paperwork Reduction Project

We estimate that the Collection of Post-2020 Census Redistricting Plans will take a total of **8** hours on average per participant. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to rdo@census.gov. This collection has been approved by the Office of Management and Budget (OMB). The eight-digit OMB approval number that appears at the upper right of this document confirms this approval. If this number were not displayed, we could not conduct this survey. This collection is voluntary. The Census Bureau conducts this program under the legal authority of the Title 13 United States Code (U.S.C.), Sections 16, 141, and 193. The Census Bureau issued a Federal Register Notice to revise its confidentiality pledge language to address the new cybersecurity screening requirements: Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

Phase 4 Timeline

Item	Timing
States Receive Phase 4 invitation	January 2022
States Submit CD/SLD Plans to Census Bureau	January 2022 – July 25, 2022
Status Submit CD/SLD Verification Updates to Census Bureau	June 28 – Sept 21, 2022
Release CD/SLD products to the Census Website	Nov 2022 – March 2023

Phase 4 - Submission Materials

1. Block Equivalency File (Required)
2. Population Totals (Required)
3. State legislation documenting your post-2020 Census boundaries (Required)
4. Split Blocks (if applicable)
5. SLD Names (if applicable, if names are not provided district number becomes the name)
6. Relationships between SLDL, SLDU, or CD boundaries and other geographic boundaries (if applicable)
7. Check List (Optional)

1. A block equivalency file (BEF) representing Congressional Districts (CDs) and State Legislative Districts (SLDs) by whole 2020 Census blocks

- A separate file is required for each entity type; one for CDs and one for SLDs.
- Include the state name or abbreviation and either CD118 or SLD22 in the file name. For example; CD118_MD.txt or SLD22_VA.txt.
- All files must be in comma delimited text format, zero filled, and formatted as follows.

NOTE: These files should contain a record for every 2020 census tabulation block in your state, including all water blocks. If water blocks are not assigned, they will be given a "ZZ" code for unassigned congressional districts and a "ZZZ" code for unassigned state legislative districts.

Congressional District Files

Field Name	Length	Type	Description
State FIPS code	2	String	FIPS State Code
County FIPS code	3	String	FIPS County Code
Census Tract	6	String	Census Tract Code
Census Block	4	String	Tabulation Block Number
Congressional District code	2	String	Congressional District Code

Example: 09,013,020192,3005,01

State FIPS code	County FIPS code	Census Tract code	Census Block code	Congressional District code
09	013	020192	3005	01

State Legislative District Files

Field Name	Length	Type	Description
State FIPS code	2	String	FIPS State Code
County FIPS code	3	String	FIPS County Code
Census Tract	6	String	Census Tract Code
Census Block	4	String	Tabulation Block Number
Senate District (upper chamber) code (SLDU)	3	String	SLD Upper Chamber Code
House District (lower chamber) code (SLDL)	3	String	SLD Lower Chamber Code

Example: 09,013,020102,3005,011,003

State FIPS code	County FIPS code	Census Tract	Census Block	SLDU	SLDL
09	013	020102	3005	011	003

2. Population Totals – To assist us in verifying the accuracy of the boundaries that we have inserted into our geographic database, please provide:
- A list of the official 2020 Census population totals identified by your state for each CD, SLDU, and SLDL (if applicable).
- A list of the counties or county equivalents in your state that are split by a CD, SLDL, or SLDU boundary (if applicable) and the 2020 Census population associated with each district's part in those counties.

3. State legislation documenting your post-2020 Census boundaries.

4. Split Blocks - If your state CD and SLD boundaries DO NOT follow 2020 Census blocks, see Appendix A. You will need to submit the block equivalency file (BEF), a separate list of block splits, and block split shapefiles that you create using the Geographic Update Partnership Software (GUPS).

5. SLD Names – You may also submit state legislative district names at this time. We request two separate files for this purpose, one for house (SLDL) names (if applicable) and one for senate (SLDU) names. All files should be in comma delimited text format. Include the state name or abbreviation and either "house" or "senate" in the file name. For example: "IL_senate_names.txt". The format of these files is as follows:

SLD Names Files

Field Name	Length	Type	Description
State code	2	String	FIPS State Code
SLDU or SLDL code	3	String	SLD Upper/SLD Lower Chamber Code
SLDU or SLDL name	60 (maximum)	String	SLD Upper/SLD Lower Chamber Name

Example: 17,006,State Senate District 6

State Code	SLDU or SLDL code	SLDU or SLDL name
17	006	State Senate District 6

6. Relationships between SLD and CD boundaries and other geographic boundaries
As we update our databases with your state's congressional, senate, and house districts, we will discover many situations where other boundaries have changed since the 2020 Census. These changes will not be reflected in the 2020 Census data we tabulate for the new plans that you submit under this project.

However, as we move forward throughout the decade, we will need to know how to manage any permanent relationships that the CDs and SLDs have to other governmental unit boundaries such as incorporated places and county subdivisions. Providing us with this information will help us maintain your boundaries.

If your CDs and/or SLDs have relationships to other governmental boundaries, please fill out the document Appendix C. "Update and Maintenance of Congressional and State Legislative District Boundaries Coincident to Other Geographic Entities". If we do not receive any relationship information from you we will hold your plans to their block definition throughout the decade.

7. An optional Check List is provided as a tool to help ensure that you have provided all the information we need, and so that we can check that we have received all the information you intended to submit. The Check List is available in Appendix D, or on our website at: https://www.census.gov/programs-surveys/decennial-census/about/rdo/program-management.html

Submitting Materials

We are using the Secure Web Incoming Module (SWIM) to accept both whole block and split block submissions. For more information, refer to Appendix B. File Submission Via the Secure Web Incoming Module (SWIM)

Appendix A: Using GUPS to Create your Block Split Shapefile

A. Introduction

GUPS should only be used if your Congressional District (CD) or State Legislative District Upper or Lower (SLDU/SLDL) boundaries split census blocks. We are using the BBSP module of GUPS to facilitate the capture of blocks splits when they are part of a state's redistricting plan. The file you create in GUPS must be included with the whole block BEF (Block Equivalency File) and the split block list to create a complete submission to the Census Bureau.

Even though we are accepting block splits via GUPS, we cannot accept any other geographic updates, such as block boundary suggestions, additional linear feature updates (beyond those needed for your block splits), Boundary and Annexation Survey (BAS) updates, or Voting District Updates.

This process will be completed on a county basis (referred to as a project). Additionally, it must be repeated for each layer: CD, SLDU, and SLDL where applicable in the same project. Once an edge is flagged as a block split, it cannot be flagged again. For example, if you need a block split that serves as a boundary for the CD, SLDU, and SLDL. Once you create the block split for the CD, it will serve as the block split for the SLDU and SLDL. However, you will have to import the SLDU and SLDL BEFs and manually adjust the SLDU and SLDL area feature to match the new boundary.

B. Suggested Workflow Summary

There is no specific CD/SLD Update Program listed in GUPS. We will be accepting updates for the 118th CDs through the current program which is the Block Boundary Suggestion Project.

B.0. Install GUPS

B.1. Start a Project: Open State/County in GUPS. Block splits are created on a county basis and we are unable to accept a state level CD/SLD shapefile with block splits at this time.

B.2. Bring in your CD/SLDs: In GUPS, BEFs are called tabular equivalency files (TEF)s. Import your BEF using the Import Working File tool. This tool conflates your BEF to 2020 Census blocks in TIGER. Once the BEF is imported, you can review the CDs or SLDs and make the block splits and spatial adjustments. A statewide BEF can be supplied to the import tool, and GUPS will extract the county that you are working in.

B.3. Create block splits: Use the linear feature tool (if needed) and block boundary flagging tool to create the block splits.

B.4. Review Block Splits: Review your block splits to ensure that they align with CD/SLD boundaries.

B.5. Adjust CD/SLDs to match block splits: Use the Modify Area Feature Tool to adjust CDs or SLDs to the block splits. The Census Redistricting & Voting Rights Data Office (CRVRDO) will be reviewing these areas and will reach out if they do not align.

B.6. Repeat process (Steps 2-5) for other layers (CD/SLDL/SLDU) within the same county (if applicable)

B.7. Run Quality Control Check: Run the Criteria Review Tool to ensure that the CDs and SLDs are wall-to-wall within the county and validate any discontiguous districts (within your working county).

B.8. Export Project for Submission

C. Suggested Workflow Detailed

This detailed workflow outlines the procedures for creating block splits, if needed, for submission as part of your plan. Additional information on GUPS functionality is often referred to in these instructions and can be found in the ***Voting District Verification II Project GUPS User's Guide*** located at https://www2.census.gov/programs-surveys/decennial/rdo/about/2020-census-program/Phase2/VTDV2/VTD_Verification_ParticipantMaterials.zip

C.0. Install GUPS

You must use the most current GUPS Version as it includes all the functionality needed for making the CD/SLD updates. It is available for download at <https://www2.census.gov/geo/pvs/gups/gups.zip>

If you are having issues installing GUPS, please contact our office at 301-763-4039 or rdo@census.gov.

C.1. Start a Project

1. Select Block Boundary Suggestion Project, then your State, and County

2. When prompted to Select Data Folder, Directory, or Location, we recommend that you select Census Web. This will automatically download the partnership shapefiles required for your submission into the project.

3. As GUPS loads the data, it unzips and copies the files to a folder that was created on your computer's home directory (i.e., C:/Users/<username>/GUPSGIS/gupsdata/BBSP<yy>/shape, where <yy> is the year of the program) during the installation process. It then pulls the shapefiles into the GUPS.

   For more information, refer to **Table 6. How to Start a GUPS Project (pg. 24).**

4. Change the symbology from BBSP to VTD. This will shift the symbology from block boundaries to features such as roads, rivers, and rails as well as the CD/SLD Block Splits using the Switch To Tool

C.3. Bring in your CD/SLDs via the Import Working File

This tool allows you to import a BEF or shapefile into your GUPS project. Once you import the file, it will be become the active CD, SLDU, or SLDL layer that you can edit and will be submitted. It will replace the current CD, SLDU, or SLDL layer and cannot be undone. This tool also lets you replace the active layer to restart the project if needed. The BEF can be used for inserting the CDs and SLDs, a Shapefile of the CDs and SLDs is not required.

This process must be repeated for each layer: CD, SLDU, and SLDL (where applicable).

1. Select Import Working File

2. Select Import Tabular Equivalency File (TEF)

3. Map the fields in your BEF to the fields in GUPS

4. GUPS will conflate the BEF to the MAF/TIGER blocks. This may take a few minutes.
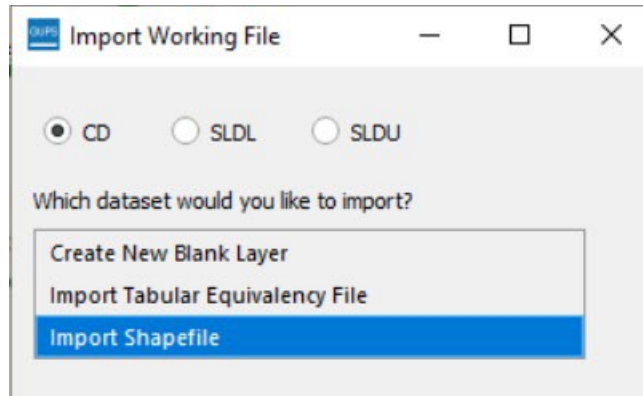
5. For more information refer to Table 20: Import Tabular Equivalency File (pg. 52).

6. Optional: Adding a Shapefile (Vector Data): This tool allows you to bring a shapefile into the project that can be used as a reference to determine which areas need to be split. Using Add Vector Layer does not bring the shapefile into the project as an editable layer.

   For more information refer to **Table 13: Adding a Shapefile (Vector Data) (pg. 37).**

C. 4. Create block splits

Use the Feature Flagging Tool to flag either existing or new edges as block splits.

1. Navigate to the edge that you need to flag.

2. Select the Feature Flagging Tool and then click on the edge.

3. Under actions, select CD/SLD Block Split. This assigns a value of BBSP_2020=S to the edge and will now have a green dashed line.

4. If you need to remove the block split, select the Feature Flagging Tool, select the edge, and then select NULL under Actions. This will remove the value from the edge, and it will not be held as a CD/SLD Block Split.

Optional: Add Linear Features: If you need to add an edge to create your block split this tool allows you to digitize the edge that you need to use as the block split. It is important to note, there may be an existing edge in MAF/TIGER which is not a block boundary but can be used to split the block, rather than digitizing a new edge. We ask that you do not digitize edges within 7.5 meters of an existing edge that can be used. If you do add edges, you will have to adjust the CD/SLDs to match the new edges.

For more information on how to add a linear feature, refer to **Table 29: Adding a Linear Feature (pg. 76).**

C.5. Review Block Splits

Use Review Block Boundary Tool to review your block splits.

1. Select the Review Block Boundary Tool and Select CD/SLD from the Category dropdown menu. This will list all the block splits applied within the county. It is important to ensure that the block splits and the CD/SLD boundaries align.

2. Use the arrows to navigate through the list. Selecting on Verify Split, will remove the edge from the window until you reopen the tool and is not a necessary step. Selecting Null will remove the CD/SLD Block Split.

3. Ensure for each block split that it is in the correct location and the appropriate CD and SLD boundaries match the split.

Review Block Boundary   [x]

Category   CD/SLD Block Split   ▼

[△] [▼]

[⚑Verify Split]   [⚑Null]

	FEATURE ID	NAME	MTFCC
1	610	Hazel St	S1400
2	5911	Turnpike St	S1200
3	20526	Limestone St	S1400
4	12408	Miles St	S1400
5	17905	Boggs St	S1400
6	20574		L4020
7	21410	Dry Top Rd	S1400
8	22228	Market St	S1400
9	23058		P0001
10	25367	Water St	S1400

Total **Split** edges is: **10** Out of **26389**.

C.6. Adjust CDs/SLDs to match block splits

If you need to adjust the CD/SLD boundary to match the block split, especially if you added a new edge, you will need to adjust the CD/SLD Area features themselves using the Modify Area Feature Tool.

1. Open the Modify Area Feature Tool

2. Select the Geography from the drop-down menu

3. Select the CD/SLD to modify

4. Select the face(s) on the map that you want to add to the CD/SLD to match the new boundary

5. Select the Add Area button

6. The faces have been added to the CD/SLD

7. Repeat the process as needed

For more information on how to edit area features, refer to ***Table 23: Using the Modify Area Feature Tool to Update Area Features (pg. 59)***

C.7. Repeat process for other layers (if applicable)

C.8. Run Quality Control Check

When you have completed your updates for all the CDs/SLDs in the county, you will need to run the Criteria Review Tool which will ensure that all faces within the county have CD/SLD coverage and alert you to any discontiguous CDs or SLDs. If a face is unassigned, it will need to be fixed before you can export your file. Discontiguous CDs or SLDs are just an alert and do not require to be fixed before export.

C.9. Export Project for Submission

When you are ready to export your shapefiles, use the Export Tool and select "Export for Census". This will create the required shapefiles that are needed for processing the CD/SLD Block Splits.

Appendix B: File Submission via the Secure Web Incoming Module (SWIM)

SWIM is a tool for U.S. Census Bureau partners to send their geospatial data to a Census Bureau server. For security reasons, we cannot accept files sent via email or through our former FTP site. Note that SWIM cannot accept files larger than 250MB or zip files that contain additional zip files within them. SWIM supports the current and last previous versions of Internet Explorer, Microsoft Edge, Google Chrome, Mozilla Firefox and Apple Safari browsers.

To establish a SWIM account, the Census Bureau must first provide a user a registration token, which is a unique, single-use 12-digit number associated to an individual. Every user must have a unique token in order to register. Once the token has been used to establish your account, it is no longer required to access your account.

If you have submitted files for BBSP, BBSPV, VTD, VTDV, and/or VTDV2 use the same SWIM account. To access the SWIM, enter the following URL in a new browser window: https://respond.census.gov/swim. Follow the directions below for account access and file upload.

If you do not yet have a SWIM Account:
- Click the Register Account button, which directs you to the Account Registration page, shown in the figure below.
- Enter the 12-digit Registration Token number provided to you by the Census Bureau. If you do not have a token, contact the CRVRDO at 301-763-4039 or rdo@census.gov.
- Complete all other fields. Note that email addresses are case sensitive, but passwords and security question answers are not.
- Click the Submit button.

1. After logging in, choose "Start New Upload"

2. Select Redistricting Data Program- **CD-SLD (RDP)**

What Census program are you reporting data for?

Select the geographic program that you currently wish to submit data for the Census Bureau to review. This selection affects only your current upload. You may select a different option for future uploads. Please send an email to geo.swim@census.gov with any questions.

○ Boundary and Annexation Survey (BAS)
○ Boundary Quality Assessment and Reconciliation Project (BQARP)
○ Participant Statistical Areas Program (PSAP)
○ Public Use Microdata Areas Program (2020 PUMA)
○ Redistricting Data Program - CD-SLD (RDP)
○ School District Review Program (SDRP)
○ Spatial, Address, and Imagery Data Program (SAID)

Next

3. Select the state

4. To submit files to SWIM, they must be in a zip file.

> **Mandatory for all participants:** For the statewide plan and its documentation, please zip your files (1. Block Equivalency File (Required), Population Totals (Required), State legislation documenting your post-2020 Census boundaries (Required), SLD Names (if applicable), Relationships between SLDs or CD boundaries and other geographic boundaries (ifapplicable), and Checklist (Optional) files into a file named **cdsld22_ssccc_return**.

> **Mandatory if you have Split Block GUPS Files:** If you have not moved the GUPS export, it will be located at GUPSGIS\gupsdata\BBSP22\ bbsp22_ssccc_return.zip. If you made updates for several counties, you will see and can select several counties to upload at one time from this location.

> It is very important that if you have split block zip files from GUPS that they **ARE NOT** added to the **cdsld22_ssccc_return** zip file as SWIM cannot process zip files within zip files.

5.   Click Next

The "Thank You" page confirms the receipt of your file submission. If you do not have any additional files to upload, click on Log Out.

If you are having issues with SWIM, please contact our office at 301-763-4039 or rdo@census.gov

Appendix C: Update and Maintenance of Congressional and State Legislative District Boundaries Coincident to Other Geographic Entities

As we move forward throughout the decade, we will need to know how to manage any permanent relationships that your congressional districts (CDs) and state legislative districts (SLDs) have to other governmental unit boundaries, such as incorporated places and minor civil divisions (MCDs). If your CDs or SLDs currently share boundaries with incorporated places or MCDs, we request that you tell us if you would like the Census Bureau to maintain those relationships by moving the CD or SLD boundary when the place or MCD boundaries move, so that they will continue to share the boundary.

There are two main reasons why the Census Bureau moves MCD and incorporated place boundaries:

Drafting Correction: A boundary is moved slightly to a more spatially accurate location.

Legal Annexation: This is a legal boundary change. These often include housing units and population.

For your reference, graphic examples can be found at the end of this document.

Currently, if a CD or SLD boundary is following a Minor Civil Division (MCD) or incorporated place boundary, and the MCD or incorporated place boundary is 1) moved due to a drafting correction, and 2) it is not on a physical feature such as a road or river, the Census Bureau moves the CD or SLD boundary so it will continue to follow the MCD or place boundary. Please indicate in the tables below, how you would like the Census Bureau to handle these situations in the future.

Congressional Districts

> ➤ **County Subdivisions and Congressional Districts (CD)**

If the **CD** is following a county subdivision (MCD) boundary and the MCD boundary moves due to a:

Move CD boundary to new MCD boundary	Drafting Correction	Legal Annexation
Yes		
No		

> ➤ **Incorporated Place and Congressional Districts (CD)**

If the **CD** is following an incorporated place boundary and the place boundary moves due to a:

Move CD boundary to new place boundary	Drafting Correction	Legal Annexation
Yes		
No		

State Legislative Districts (Upper)

➢ **County Subdivisions and State Legislative Districts Upper (SLDU)**

If the **SLDU** is following a county subdivision (MCD) boundary and the MCD boundary moves due to a:

Move SLDU boundary to new MCD boundary	Drafting Correction	Legal Annexation
Yes		
No		

➢ **Incorporated Places and State Legislative Districts Upper (SLDU)**

If the **SLDU** is following an incorporated place boundary and the place boundary moves due to a:

Move SLDU boundary to new place boundary	Drafting Correction	Legal Annexation
Yes		
No		

State Legislative Districts (Lower)

➢ **County Subdivisions and State Legislative Districts Lower (SLDL)**

If the **SLDL** is following a county subdivision (MCD) boundary and the MCD boundary moves due to a:

Move SLDL boundary to new MCD boundary	Drafting Correction	Legal Annexation
Yes		
No		

➢ **Incorporated Places and State Legislative Districts Lower (SLDL)**

If the **SLDL** is following an incorporated place boundary and the place boundary moves due to a:

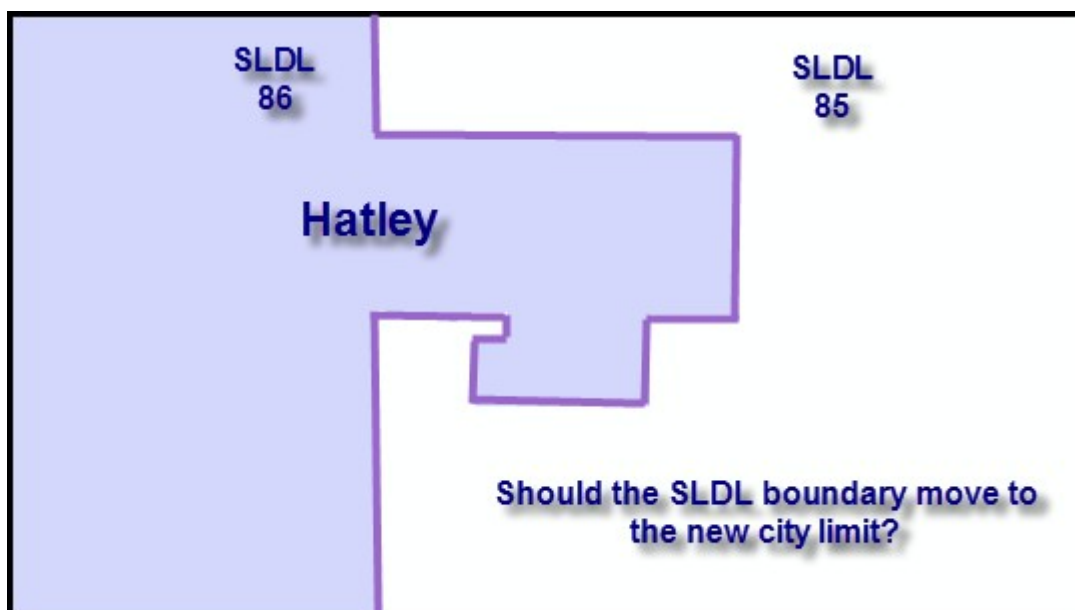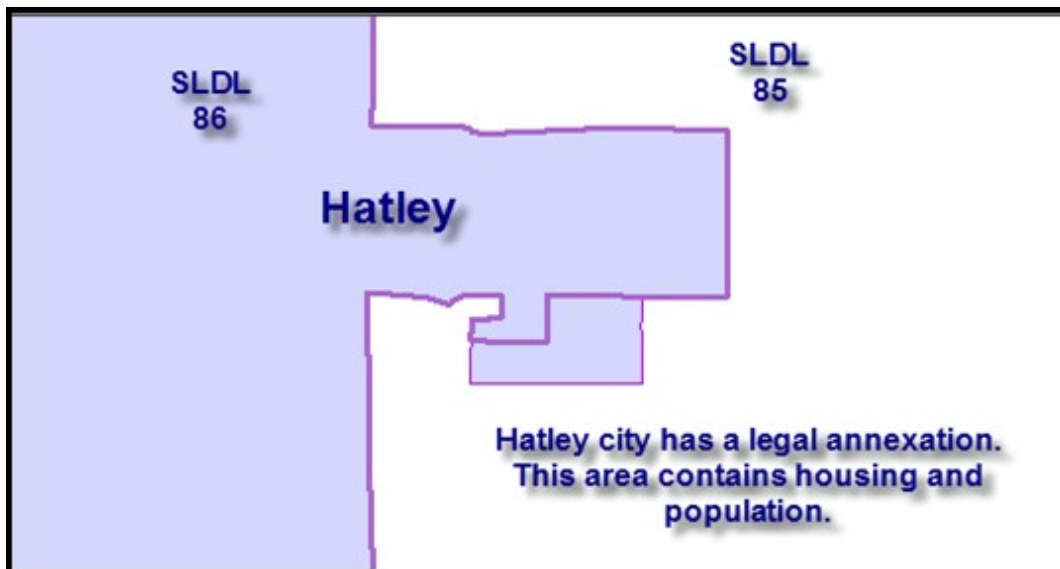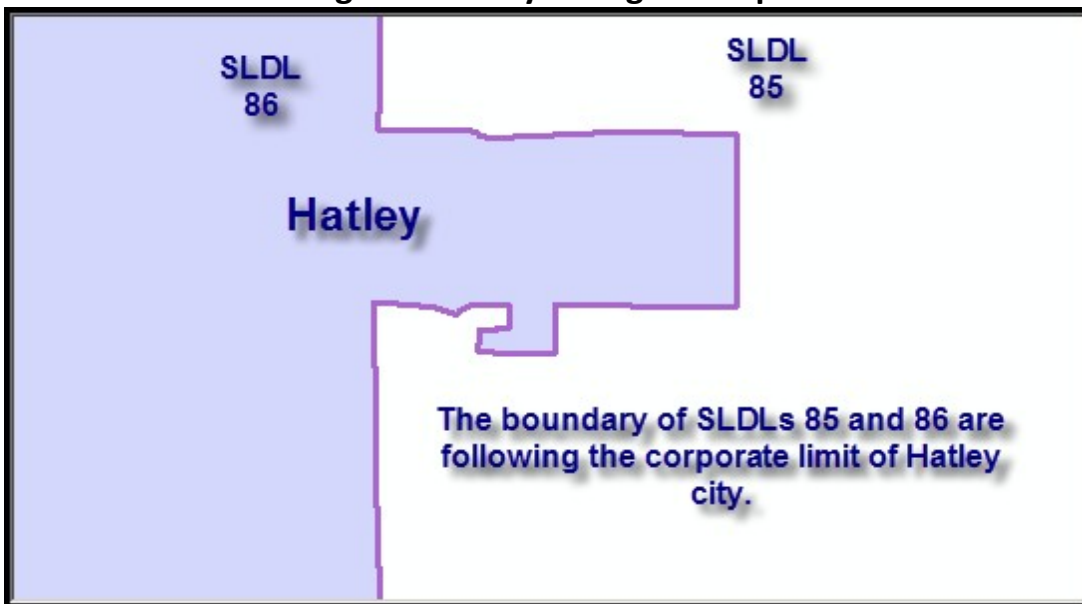| Move SLDL boundary to new place boundary	Drafting Correction	Legal Annexation
Yes		
No		

Additional Congressional District Relationships

	Yes	No	Comments
Places nest within Congressional Districts			
Other Relationship (enter in Comments)			

Additional State Legislative District Relationships

	Yes	No	N/A	Comments
SLDLs are coextensive with SLDUs				
SLDLs nest within SLDUs				
Places nest within SLDL				
Places nest within SLDU				
MCDs nest within SLDL				
MCDs nest within SLDU				
SLDLs and SLDUs are the same				
Other SLDL Relationship (enter in Comments)				
Other SLDU Relationship (enter in Comments)				

Legal Boundary Change Example

SLDL
86

SLDL
85

Hatley

The boundary of SLDLs 85 and 86 are following the corporate limit of Hatley city.

SLDL
86

SLDL
85

Hatley

Hatley city has a legal annexation. This area contains housing and population.

SLDL
86

SLDL
85

Hatley

Should the SLDL boundary move to the new city limit?

18

Boundary Correction Example
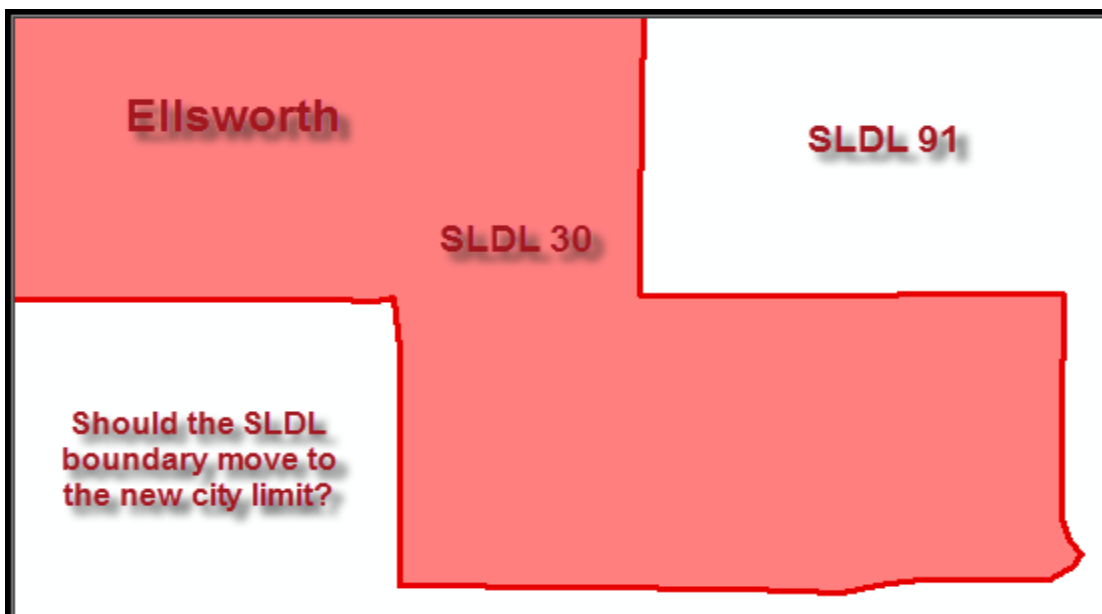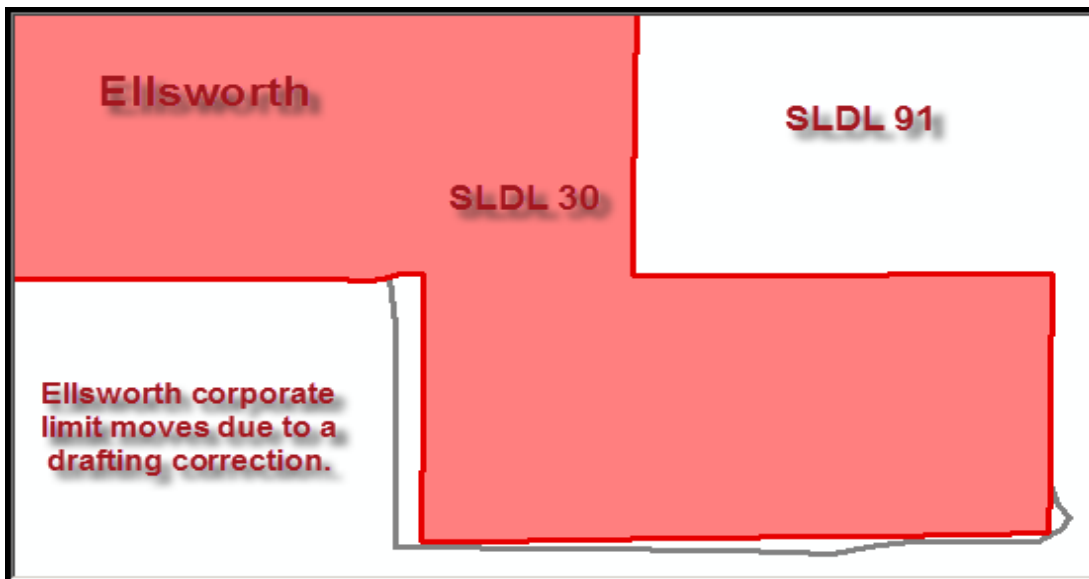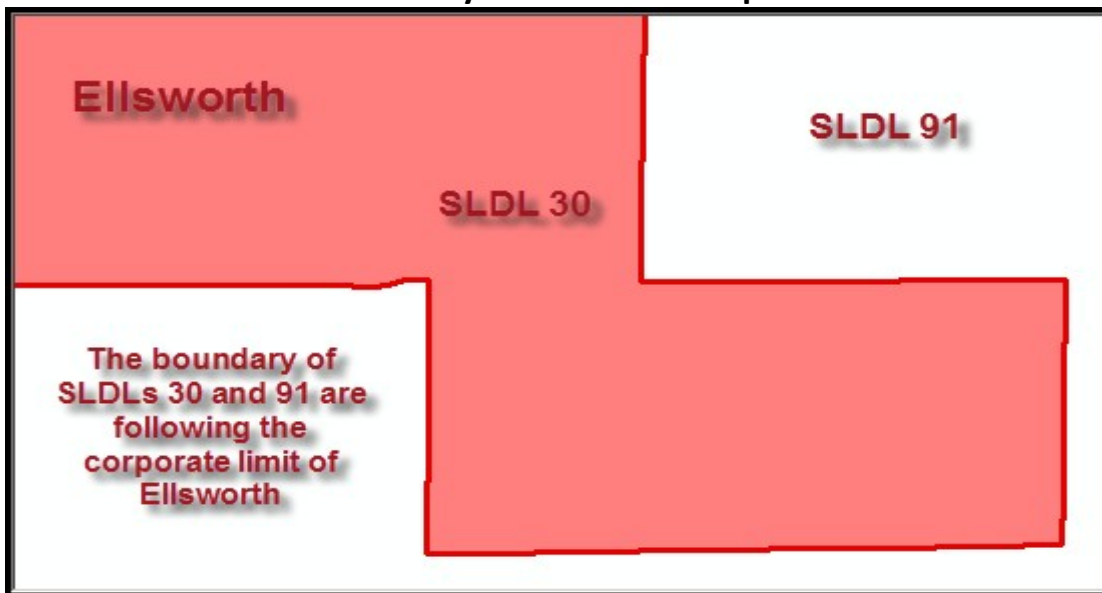
Appendix D: Check List

➢ **Block equivalency files (BEF)**
☐ CD
☐ SLDU and SLDL
☐ SLDU only

➢ **Population totals**
☐ CD
☐ SLDU
☐ SLDL

➢ **Names**
☐ SLDU Names
☐ SLDL Names

➢ **State legislation**
☐ CD
☐ SLDU
☐ SLDL

➢ **Form**
☐ Filled out the Appendix C: Update and Maintenance of Congressional and State Legislative District Boundaries Coincident to Other Geographic Entities
☐ N/A

If any 2020 Census blocks contain more than one CD or SLD (split blocks), submit via GUPS for the following geographies:

➢ **GUPS Submission**
☐ CD
☐ SLDU
☐ SLDL

➢ **Listing of split blocks**
☐ CD
☐ SLDU
☐ SLDL