Request for Non-Substantive Change to the School District Review Program (SDRP) OMB Control No. 0607-0987 U.S. Department of Commerce U.S. Census Bureau

Purpose

The U.S. Census Bureau, sponsored by the U.S. Department of Education's National Center for Education Statistics, conducts the School District Review Program (SDRP) annually. The SDRP gives state officials the opportunity to update and review the Census Bureau's school district data. States can provide updates and corrections to the Census Bureau's database of Federal School District Local Education Agency (SDLEA) ID numbers, school district names, school district boundaries, levels, and grade ranges.

Approved on August 2, 2021, the current SDRP OMB collection will expire on August 31, 2024. This non-substantive change (NSC) request is to provide the updated materials used for the 2023 SDRP Annotation Phase. It includes the following materials:

- 2023 SDRP Welcome Letter (SDRP-L2).
- 2023 School District Review Program (SDRP) Quick Start Guide.
- 2023 School District Review Program Respondent Guide: Annotation Phase.

Background

The release of materials to support the Annotation Phase will begin September 2022. Participants will then have approximately four months to review, update, and submit changes through listings, the submission log, or Geographic Update Partnership Software (GUPS). The 2023 SDRP submission deadline is December 31, 2022.

There are no substantive changes to the SDRP resulting from these modifications. The finalized guides and letter do not alter the content or objective of the SDRP. The changes made were necessary to reflect the most current SDRP information or to update the style and organization of the content in the guides.

Burden

The burden of the 2023 SDRP is unchanged by this update.

Attachments

Table 1: 2023 SDRP Material Changes Since 2022 SDRP

Reported Change	Material	Location in Material	Description/Summary of Change(s)
Updated references and screenshots for various program dates	Respondent Guide, Quick Start Guide, and Welcome Letter	Throughout each document	Updated references and screenshots throughout each document as appropriate to reflect the proper dates for the 2023 program.
Reorganized arrangement and style of material	Quick Start Guide	Throughout the document	Standardized section headings, applied consistent bullet style, and created a table (instead of a graphic) for the type of updates. The table was updated to include references to sections in the updated respondent guide.
Reorganized arrangement and style of material	Respondent Guide	Throughout the document	Standardized section headings, applied consistent styles to the content within the guide, and reorganized content in the sections to promote better flow of instruction.
Added "Important" note regarding images used in the materials that may differ from production version of website, software, and materials	Respondent Guide	Introduction	Created a new note that mentions some images, due to timing of the creation of the guide, may differ between what is documented in the materials and what appears on website or in software itself.
Added mention of financial responsibility	Respondent Guide	Section A and Appendix A	Added language on financial responsibility to section A and included additional information in a new Appendix A.
Added new type of school district	Respondent Guide	provided	Added new type, Type 3, and provided information regarding the new type.
Modified first sentence to identify National Center for Education Statistic's (NCES's) role	Respondent Guide	Section B	Revised first sentence to identify the NCES's role in the program and clarify the process for designation of the state's mapping coordinator.
Streamlined instruction on what mapping coordinators need to review prior to submission	Respondent Guide	Section B	Removed specific language that listed the potential types of updates that could be part of a submission to streamline the guide.

Reported Change	Material	Location in Material	Description/Summary of Change(s)
Removed language that mentioned submitting work by county	Respondent Guide	Section B	Modified sentences to remove references for submitting work by county since 2023 SDRP is statebased submission.
Modified table for the types of school district updates	Respondent Guide	Table 1 (Section C)	Updated the table for type of school district updates to standardize, clarify, and simplify the update descriptions as well as update links to the examples.
Removed distinction of boundary change types	Respondent Guide	Section D and Section 3.7	Removed sentences and instruction regarding need to distinguish the boundary change types (e.g., annexation and boundary correction) because this is no longer a requirement for 2023 SDRP.
Removed reference to providing listing files in text (.txt) format, reorganized the appearance of the listing files, and deleted reference to record layouts for the files	Respondent Guide	Section 1.4	Edited language in this section to confirm distribution of listing files in .xls format and no longer in .txt format. Reorganized the listing files so they appear in the order as described in this section's subsections. Deleted reference to the record layouts for the listing files because that information is not included; instead, a new Appendix B provides the details of the listing files.
Reorganized the TIGERweb information	Respondent Guide	Part 2/Chapter 2	Reorganized so the chapter included the primary TIGERweb details in support of 2023 SDRP rather than all details for using TIGERweb. Referred users to the TIGERweb User Guide for details that may not be covered in this chapter.
Revised table with the hardware and operating system requirements information	Respondent Guide	Table 4 (Section 4.1)	Recreated the table to clarify requirements and improve readability of the table.
Added instruction regarding contact with Census Bureau if software installation problems occur	Respondent Guide	Table 5 (Section 4.1)	Added a note to the beginning of Table 5 describing installation requirements, security privileges, and need to work with local IT staff prior to contacting the Census Bureau.

Reported Change	Material	Location in Material	Description/Summary of Change(s)
Updated screenshots used in various tables to reflect most current STATE GUPS version and reorganized to focus more on SDRP specific tasks.	Respondent Guide	Chapter 5	The 2023 SDRP uses a state-based GUPS version instead of a county-based version, so screenshots in tables were updated to reflect this change. Reorganized entire chapter to focus on specifics for SDRP rather than broad GUPS tasks. The infrequent GUPS tasks were moved to Appendix E.
Removed language discussing the warning that was removed for school districts with less than 10 faces since it no longer applies	Respondent Guide	Chapter 5	The 2023 SDRP uses a state-based GUPS version, so this warning was no longer applicable and reference to it was removed from the guide.
Simplified language in the introductory paragraphs for this section regarding the two export options.	Respondent Guide	Section 5.5	Streamlined the details included in the two paragraphs that describe the two options for exporting.
Updated the Secure Web Incoming Module chapter	Respondent Guide	Chapter 6	Updated the chapter to include introductory paragraphs prior to the step/action table with specific instructions, updated screenshots with state-based GUPS files, and added instruction for submitting more than one .zip file.
Reordered and renamed Appendix B Pseudo School Districts to Appendix A Financial Responsibility	Respondent Guide	Appendix A	Renamed previous Appendix B from Pseudo School Districts to Financial Responsibility to encompass larger topic. Move language in section A regarding financial responsibility to this appendix and reorganized it to be Appendix A.
Created a new Appendix B that describes data dictionaries for the listing files	Respondent Guide	Appendix B	Clarified the listing files are only provided as .xls files and included sub-appendices that detailed the naming convention and fields within each of the four potential listing files.

Reported Change	Material	Location in Material	Description/Summary of Change(s)
Removed two appendices that are unnecessary to support 2023 SDRP: MAF/TIGER Feature Class Codes (MTFCCs) and Standard Street Types	Respondent Guide	Former Appendices C and D	Former Appendix C detailed MTFCCs and former Appendix D listed valid street type abbreviations. SDRP does not permit the addition of new streets, so these two appendices are no longer necessary for inclusion in the respondent guide.
Updated shapefile names and layouts to support 2023 SDRP	Respondent Guide	Appendix C and Appendix D	With removal of former Appendix C (MTFCC) and Appendix D (Street Types), the new Appendix C provides the naming conventions for the state based and county-based shapefiles as well as lists the most common shapefiles used for 2023 SDRP. The new Appendix D provides the current data dictionaries for each of the shapefiles listed in Appendix C. Appendix D has been updated to reflect the new shapefiles structure post-2020 Census.
Created new Appendix E that includes additional GUPS information previously found in the body of the guide	Respondent Guide	Appendix E	As part of reorganization of guide, this additional GUPS content was previously located in the main body of the guide. This information distracted from important SDRP details so, while important, it is better located in an appendix.



September 2022

Dear Mapping Coordinator:

The National Center for Education Statistics (NCES) sponsors the School District Review Program (SDRP), enabling the U.S. Census Bureau to create poverty and population estimates by school district geography. The poverty and population estimates produced by the Census Bureau are of vital importance for each state's allocation under Title I, Part A of the Elementary and Secondary Education Act (ESEA) as amended (Public Law 114-95).

The 2023 SDRP annotation materials are posted on the SDRP website < www.census.gov/programs-surveys/sdrp.html>. The materials include the quick start and respondent guides, the Geographic Update Partnership Software, school district inventory listing files, a submission log file, and school district boundary shapefiles. Please review the posted materials and update the following information, if necessary:

- Census Bureau school district boundaries;
- School district names;
- School district levels;
- Federal School District Local Education Agency codes;
- Grade ranges for allocating children if two school districts occupy the same area;
- · Counties in which school districts are located; and
- Relationships where school districts are coextensive with other legal areas such as counties, cities, towns, and townships.

The Census Bureau requests that the state's SDRP submission reflect the school districts, as they will exist on **January 1, 2023**. The deadline for submitting updates to the Census Bureau is **December 31, 2022**. If you have any questions about the SDRP, please contact the Census Bureau by telephone at 301-763-1099 or by email at <geo.school@census.gov>.

Sincerely,

Deirdre Dalpiaz Bishop

Deirdre Dalpiaz Bishop Chief, Geography Division

cc: State Title I Coordinator

We estimate that participating in the School District Review Program will take 40 hours on average. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to <qeo.school@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 left of this document confirms this approval. If this number were not displayed, we could not conduct this program. The Census Bureau's legal authority for conducting activities in this document comes from Title 13 U.S. Code, Sections 16, 141, and 193. The NCES' legal authority for conducting activities in this document comes from Title I, Part A of the ESEA as amended by the Every Student Succeeds Act of 2015, Public Law 114-95.



2023 School District Review Program (SDRP) Quick Start Guide

Getting Started

- Review this Quick Start Guide and the SDRP Annotation Phase Respondent Guide.
- Gather information on any changes to a state's school districts effective on or before January 1, 2023.
- Coordinate with school districts, state education officials, county planners, or State Data Centers to ensure school district boundaries and attributes are up to date.

Conducting a School District Boundary Review

- Review the school districts using the annotation materials.
- Compare the Census Bureau's representation of the school district's boundary with the local representation of the school district's boundary to determine which, if any, school district boundaries need update.
- Inform the Census Bureau by email at <<u>geo.school@census.gov</u>> if no updates are necessary. Otherwise, review the table on the second page to determine which updates are reported using the Submission Log or the Geographic Update Partnership Software (GUPS).

Preparing Updates for the Census Bureau

The **Submission Log** is a Microsoft Excel file used to report nonspatial and simple school district updates. The file is available for download from the SDRP website www.census.gov/programs-surveys/sdrp.html>.

- Enter the changes on the Submission Log and confirm that attribution for all mandatory fields is accurate and complete.
- Zip the Submission Log file and name it "Submission_Log.zip."
- Review Part 3 in the respondent guide for more information on using the Submission Log.

The *Geographic Update Partnerships Software (GUPS)* is a customized geographic information system software application provided to participants by the Census Bureau. GUPS is used to report school district updates that involve spatial changes. It is available for download from the SDRP website www.census.gov/programs-surveys/sdrp.html.

- Use GUPS to view and update school district boundaries.
- Validate the work before exporting the file for submission to the Census Bureau. GUPS automatically names the .zip file during the export process.
- Review Part 4 in the respondent guide for more information on using GUPS.

Providing the Updates to the Census Bureau

The Secure Web Incoming Module (SWIM) is the official web portal for providing all SDRP updates to the Census Bureau. Review Part 5 in the respondent guide for details on using SWIM.

SDRP Schedule

- **September 2022** Notify the mapping coordinators by email that the Annotation Phase materials are available to download and review.
- October 2022 Provide a free training webinar on responding to the SDRP to mapping coordinators.
- December 31, 2022 Deadline for the submission of updated school districts.
- April 2023 Review of Verification Phase materials by mapping coordinators.
- December 2023 Release of preliminary poverty estimates based on the updated school districts.

SDRP Contact Information

Email: <geo.school@census.gov>

• Phone: 301-763-1099

SDRP website: <www.census.gov/programs-surveys/sdrp.html>

Types of School District Boundary Updates

The table below lists the eleven types of school district updates accepted through the SDRP; a description of the type of update; the recommended submission method; and where to find more information on each in the respondent guide.

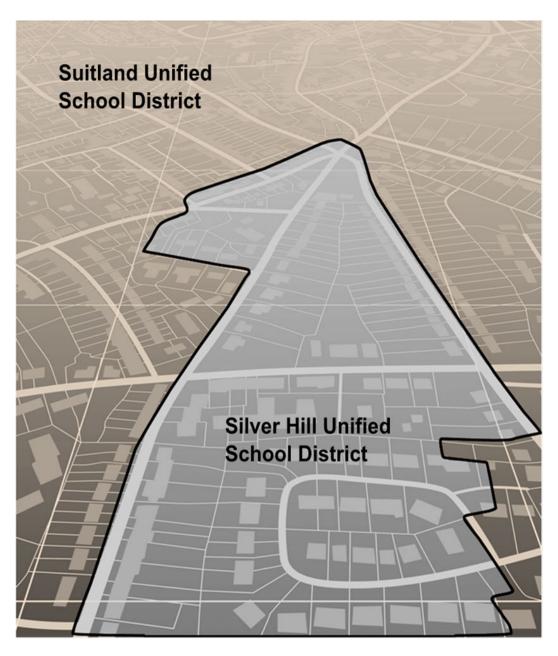
Table 1: Types of Updates

	Table 1: Types of Updates				
Type of Update	Update Description	Submission Method	Respondent Guide Section		
Boundary Change	Occurs when a school district adds or removes area from the same school district level or across school district levels.	GUPS	5.3.1 – 5.3.7		
Complex Consolidation	Occurs when two or more school districts merge to create a new school district with a new name and new Federal School District Local Education Agency (SDLEA) ID number, along with additional boundary changes. Note: the Census Bureau expects accompanying boundary changes for the new school district.	GUPS	5.3.8		
Complex Dissolution	Occurs when a single school district dissolves its area between two or more existing school districts, with or without additional boundary changes. Complex dissolutions do not create new school districts, and the names and SDLEA ID numbers of the receiving school districts remain unchanged.	GUPS	5.3.9		
Federal SDLEA Number ID Changes	Occurs when correcting a SDLEA.	Submission Log	3.3		
Grade Range Change	Occurs when a school district changes the grades it covers; for example, changing from covering 9-12 to 7-12.	Submission Log	3.2		
Level Change	Occurs when a school district changes classification; for example, changing from elementary to unified.	Submission Log	3.4		
Name Change	Occurs when a school district changes its name; for example, changing from Oak Union Unified School District to Oak Union School District.	Submission Log	3.1		
New District	Occurs when transferring area from one or more existing school districts to form a completely new school district.	GUPS	5.3.10		
Pseudo School District	Occurs when one school district pays for the educational services for a set of grades in a different geographic area than its own.	Contact Census Bureau	Appendix A1		
Simple Consolidation	Occurs when two or more school districts merge to create a new school district with a new name and new SDLEA ID number, with no additional boundary changes.	Submission Log	3.5		
Simple Dissolution	Occurs when one or more existing school districts are entirely absorbed by one other existing school district. Note: simple dissolutions retain the name and SDLEA ID number of the receiving school district, and do not create a new school district.	Submission Log	3.6		

2023 School District Review Program Respondent Guide: Annotation Phase

Instructions for Using the Submission Log and the Geographic Update Partnership Software (GUPS)

September 2022



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INTRODUCTION

This guide is divided into five parts.

- Part 1 What is the School District Review Program (SDRP)
- Part 2 How to Use the TIGERweb
- Part 3 How to Use the Submission Log
- Part 4 How to Use the Geographic Update Partnership Software (GUPS)
- Part 5 How to Submit Files to the Census Bureau

In addition, it has five appendices that provide supplemental information.

IMPORTANT:

GUPS, the SDRP website, and other materials for the 2023 SDRP were in the final stages of development when this guide was created. Therefore, images used in this guide may differ in the finalized versions of software and materials. Regardless of any difference in images, the overall instruction, actions, and results that are illustrated within this document remain consistent with what is anticipated for the program.

A. School District Review Program

The School District Review Program (SDRP) is a U.S. Department of Education National Center for Education Statistics (NCES) sponsored program conducted annually by the U.S. Census Bureau. It is of vital importance for the state's allocation under Title I of the Elementary and Secondary Education Act (ESEA) as amended by Every Student Succeeds Act of 2015, Public Law 114-95. The updated school district boundary information submitted through this program, along with the Decennial Census population, Small Area Income and Poverty Estimates, and current population estimates, are used in forming the Census Bureau's estimates of the number of children aged 5 through 17 in families in poverty for each school district. These estimates are the basis of the Title I allocation for school districts in each state.

School districts are represented in the Census Bureau's data according to financial responsibility. This means that the spatial representation and grade range of each school district indicate the school district that pays for the education of the students. For more information and examples of financial responsibility, see **Appendix A**.

The SDRP consists of two phases—annotation and verification. In the Annotation Phase, the Census Bureau provides mapping coordinators with current school district boundaries and associated information for their state. The Annotation Phase materials the mapping coordinator receives for the 2023 SDRP reflect the school district names, Federal School District Local Education Agency (SDLEA) Identification (ID) numbers, and boundaries updated during the 2022 SDRP. Each state reviews their data and reports changes in the school district boundaries or attributes to the Census Bureau as they exist on January 1, 2023.

The review encompasses only Type 1, Type 2, and Type 3 school districts as defined by the NCES.

Type 1 is a local school district that is not a component of a supervisory union.

Type 2 is a local school district component of a supervisory union sharing a superintendent and administrative services with other local school districts.

Type 3 is an education agency that performs administrative services for more than one school district, providing a common superintendent for participating districts.

After the Census Bureau incorporates changes submitted through the Annotation Phase into the Master Address File (MAF)/Topologically Integrated Geographic Encoding and Referencing (TIGER) System, mapping coordinators will review these changes for accuracy and completeness during the Verification Phase.

B. Mapping Coordinator Responsibilities

Each year, the NCES sends a letter to each state and the District of Columbia requesting they designate a mapping coordinator to be the primary liaison for the SDRP. It is the responsibility of the mapping coordinator to initiate and maintain contact throughout the program with local school district officials. The mapping coordinator must ensure that reviews and submissions are completed within the time frame of the SDRP.

When the mapping coordinator receives updates from local school district officials, they must review them for accuracy and completeness before submitting them to the Census Bureau. This review includes all types of updates submitted. For boundary updates, it is the responsibility of the mapping coordinator to confirm that a change is valid and all affected school districts agree to the change.

Note: The state mapping coordinator for Florida, Hawaii, Maryland, Nevada, West Virginia, or the District of Columbia, may not have any changes to submit for the SDRP. School districts in these states are all unified and county based. Unless the geographic relationship of school districts has changed in the state or a school district's name was changed, the mapping coordinator does not have any changes to report for the 2023 SDRP. If the mapping coordinator has no changes to report, notify the SDRP team at <geo.school@census.gov>.

Once all the information is correct and in the proper format, submit this information to the Census Bureau to complete the Annotation Phase. After processing the Annotation Phase changes, the Census Bureau will create new materials for review. These new materials are reviewed as part of the Verification Phase. The mapping coordinator is responsible for reviewing and confirming the changes that appear in the verification materials and notifying the Census Bureau if there are any additional changes or corrections.

IMPORTANT: The Verification Phase is for reviewing changes submitted during the Annotation Phase and not for submitting new changes.

C. Types of School District Boundary Updates

There are eleven types of school district updates within the SDRP as noted below in **Table 1**. The table includes links to examples of the types of updates and the submission method used to report them to the Census Bureau.

Table 1: Types of School District Updates

Type of Update	Update Description	Link to Examples	Submission Method
Boundary Change	Occurs when a school district adds or removes area from the same school district level or across school district levels.	Figure 1. Refer to subsections 5.3.1 through 5.3.7 for details.	GUPS
Complex Consolidation	Occurs when two or more school districts merge to create a new school district with a new name and new Federal School District Local Education Agency (SDLEA) ID number, along with additional boundary changes. Note: The Census Bureau expects accompanying boundary changes for the new school district	Figure 2. Refer to subsection 5.3.8 for details	GUPS
Complex Dissolution	Occurs when a single school district dissolves its area between two or more existing school districts, with or without additional boundary changes. Complex dissolutions do not create new school districts, and the names and SDLEA ID numbers of the receiving school districts remain unchanged.	Figure 3. Refer to subsection 5.3.9 for details.	GUPS
Federal SDLEA Number ID Change	Occurs when correcting a SDLEA.	Refer to sub-section 3.3 for details.	Submission Log
Grade Range Change	Occurs when a school district changes the grades it covers; for example, changing from covering 9-12 to 7-12	Refer to sub-section 3.2 for details.	Submission Log
Level Change	Occurs when a school district changes classification; for example, changing from elementary to unified	Refer to sub-section 3.4 for details.	Submission Log
Name Change	Occurs when a school district changes its name; for example, changing from Oak Union Unified School District to Oak Union School District.	Refer to sub-section 3.1 for details.	Submission Log
New District	Occurs when transferring area from one or more existing school districts to form a completely new school district.	Figure 4. Refer to subsection 5.3.10 for details.	GUPS
Pseudo School District	Occurs when one school district pays for the educational services for a set of grades in a different geographic area than its own.	Refer to sub-appendix A1.	Contact Census Bureau
Simple Consolidation	Occurs when two or more school districts merge to create a new school district with a new name and new SDLEA ID number, with no additional boundary changes.	Figure 5. Refer to subsection 3.5 for details.	Submission Log

Type of Update	Update Description	Link to Examples	Submission Method
Simple Dissolution	Occurs when one or more existing school districts are entirely absorbed by one other existing school district. Note: Simple dissolutions retain the name and SDLEA ID number of the receiving school district, and do not create a new school district.	Figure 6. Refer to subsection 3.6 for details.	Submission Log

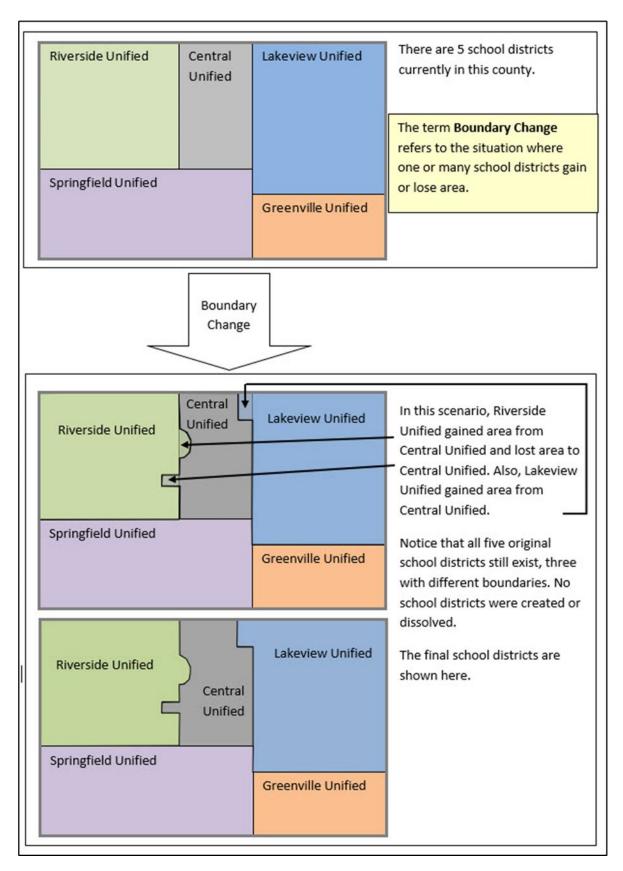


Figure 1: Boundary Change Example (Update Using GUPS)

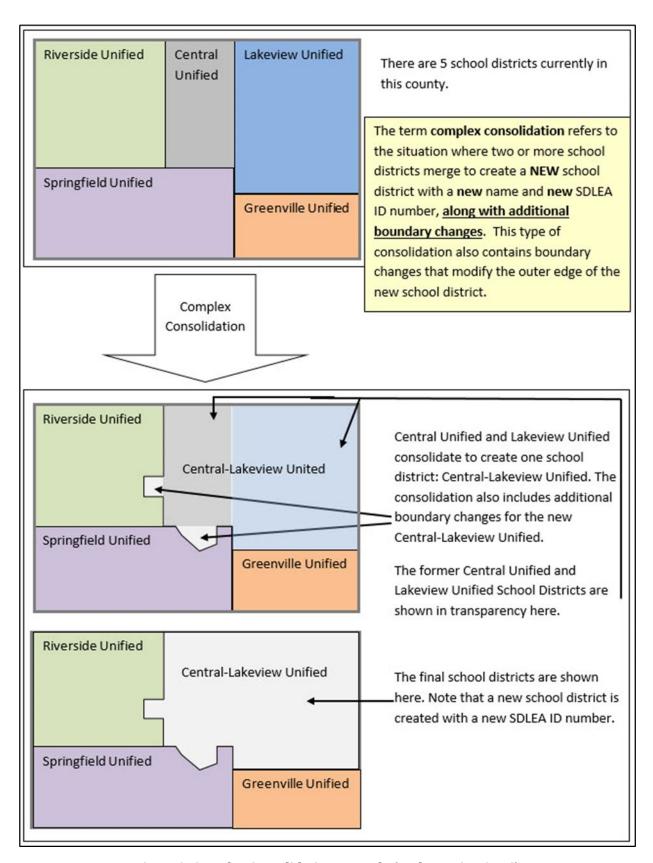


Figure 2: Complex Consolidation Example (Update Using GUPS)

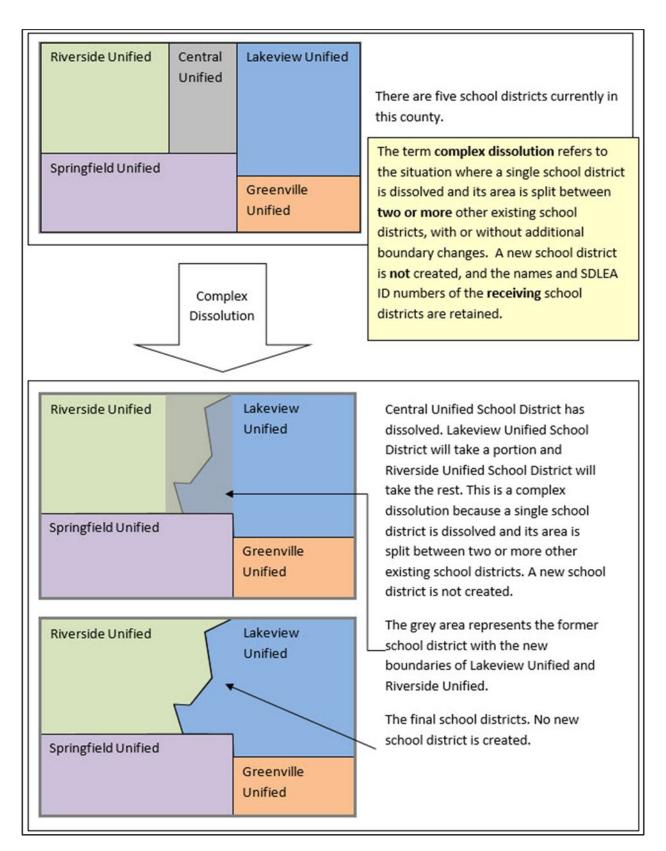


Figure 3: Complex Dissolution Example (Update Using GUPS)

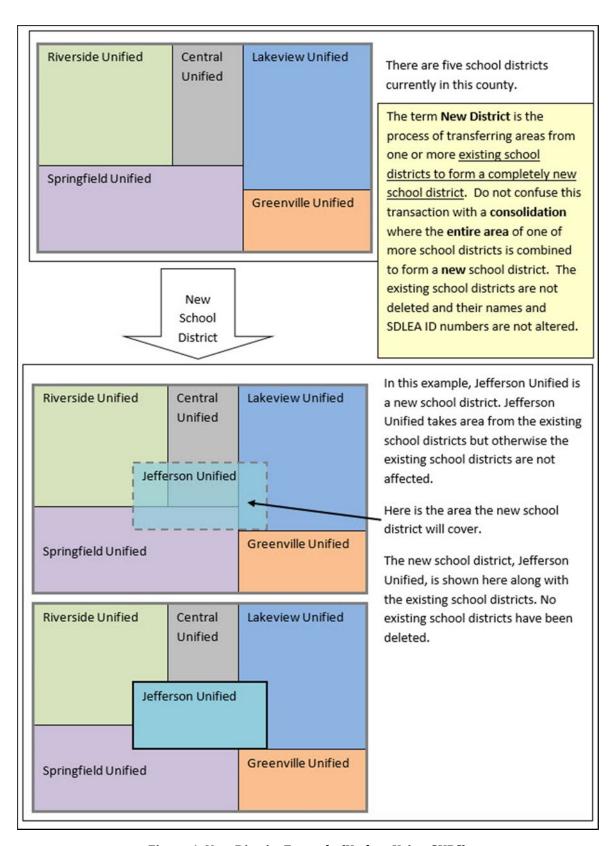


Figure 4: New District Example (Update Using GUPS)

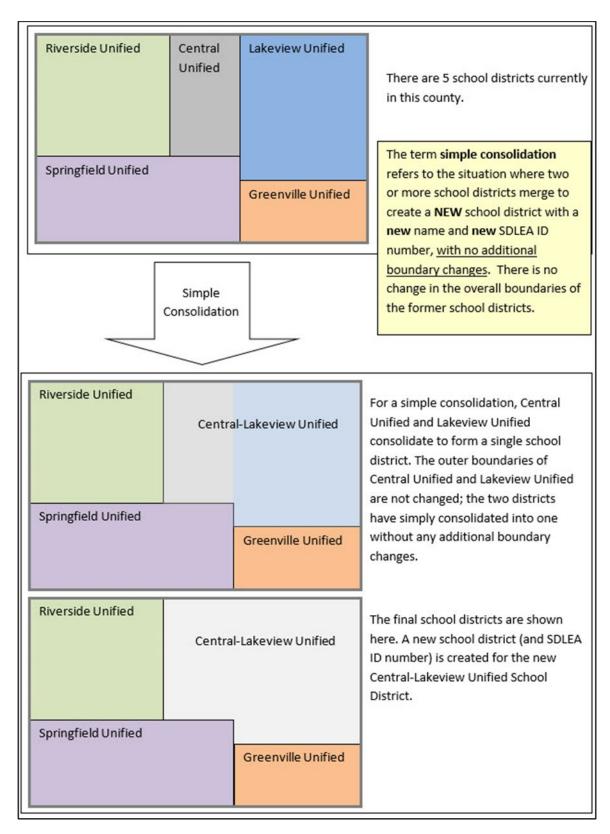


Figure 5: Simple Consolidation Example (Update Using the Submission Log)

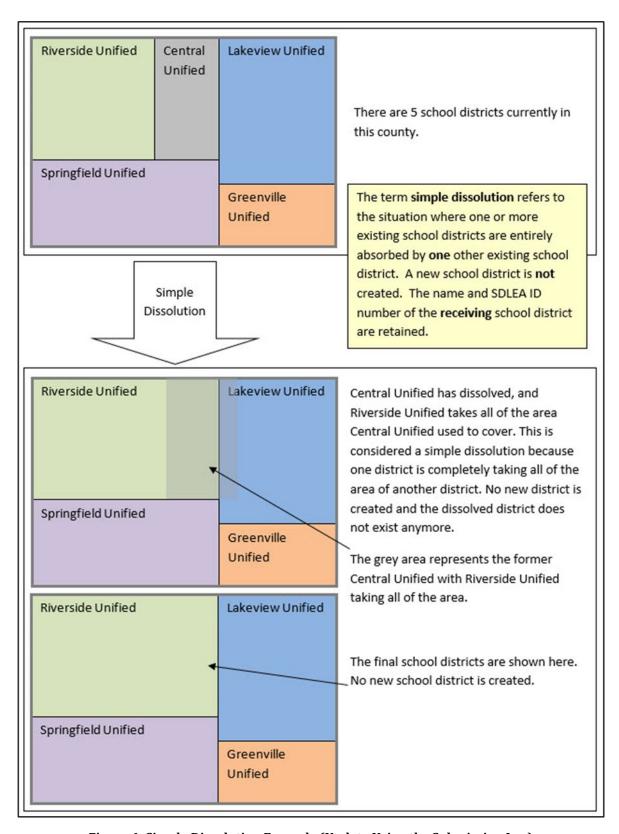


Figure 6: Simple Dissolution Example (Update Using the Submission Log)

D. Guidance for Boundary Changes

When reviewing school district boundaries, the Census Bureau encourages the mapping coordinator to focus on updating large changes that affect housing units and population first, and then move to smaller differences if there is time before the SDRP submission deadline. The goal of the SDRP is to obtain major changes that affect population rather than small spatial corrections of boundaries.

The Census Bureau generally does not accept boundary changes of less than 30 feet when the correction does not affect housing. In remote areas with sparse population, the Census Bureau considers a difference of 60-75 feet to not be significant if housing units are not present. When reviewing source boundaries against the Census Bureau's boundaries, if the source shows a school district boundary on a road, then use the road as it appears in the Census Bureau's shapefile, even if the road does not seem spatially accurate. Road realignments are not accepted as part of the SDRP.

If there are many spatial corrections of school district boundaries for the state, the Census Bureau may be able to make these updates outside of the SDRP cycle. Please contact the SDRP team by phone at 301-763-1099 or by email at <geo.school@census.gov>.

PART 1 WHAT IS THE SCHOOL DISTRICT REVIEW PROGRAM (SDRP)

CHAPTER 1 OVERVIEW

1.1 SDRP Schedule

- **September 2022** Notify the mapping coordinators by email that Annotation Phase materials are available to download and review.
- October 2022 Provide free training webinar on responding to the SDRP to mapping coordinators.
- December 31, 2022 Deadline for submission of updated school districts. The Census Bureau strongly encourages mapping coordinators to submit changes as soon as possible rather than waiting until this deadline.

IMPORTANT: To participate in the 2023 SDRP Verification Phase, the Census Bureau must receive all school district updates by December 31, 2022. Contact the SDRP team at <geo.school@census.gov> immediately if there are deadline concerns.

- April 2023 Review of Verification Phase materials by mapping coordinators.
- December 2023 Release of preliminary poverty estimates based on the updated school districts.

1.2 SDRP Annotation Phase Materials

All SDRP materials including GUPS, shapefiles, respondent guides, submission log, and school district listing files are available for download on the SDRP website:

www.census.gov/programs-surveys/sdrp/information/annotation.html. Review the Quick Start Guide and this guide before starting work. These guides explain the guidelines and reporting tools that apply to the state's updates.

1.3 SDRP and GUPS Help

The Census Bureau encourages mapping coordinators to contact the SDRP team by phone at 301-763-1099 or by email at <geo.school@census.gov> with any questions related to the program or GUPS. Additionally, valuable information is located on the SDRP website, <www.census.gov/programs-surveys/sdrp.html>.

1.4 Description and Use of Listing Files

The Census Bureau creates four listing files provided in a Microsoft Excel® (.xls) format.

- Inventory and Grade Range File (All States)
- County Coverage File (All States)
- Legal Entity Coextensive Coverage File (Limited States)
- School District to Geography (SD/GEO) Relationship File (Limited States)

Depending on the state's school district geography and how the state participates in the SDRP, some listing files may not be included. The following sub-sections describes each of these

listings in detail. **Appendix B** provides greater detail in the form of individual tables that provide a data dictionary for each of the listing files.

1.4.1 Inventory and Grade Range File (All States)

The Inventory and Grade Range listing file is named "<ST>_SD_Inventory_A.xls." This file lists the school districts reported to the Census Bureau as of the 2022 SDRP, including the school district name, SDLEA, level, type, and grade range. Details on this specific listing file are found in sub-appendix **B1**.

The official school district name is its legal name including any state-used descriptive wording, such as "Independent School District", "Consolidated School District", or "Supervisory Union." The grade ranges included in these files indicate the grade ranges for which each school district is financially responsible. Use this set of grades, based on financial responsibility, to assign the data for each child to exactly one school district. For information on financial responsibility see Appendix A.

Note: The Census Bureau requires complete school district coverage; therefore, the listings may contain school districts that are not Type 1, Type 2 or Type 3. These are flagged in the listings as follows: Pseudo (A), Department of Defense (B), Interstate (C), and Bureau of Indian Affairs [BIA] (D). These files also flag school districts within a state or county that have the same name but different SDLEA numbers with an (E). In these situations, the SDLEA numbers are the means to identify unique school districts that share the same name. See sub-appendix A1 for more information on pseudo school districts.

1.4.1.1 Submitting Updates to Information in the Inventory and Grade Range File

Carefully review the information contained in this file and provide the Census Bureau with updates and/or corrections. List the updates to the school district name, SDLEA, level, type, and grade range in the Submission Log.xls spreadsheet, as described in **Chapter 3**, and submit the file using the Secure Web Incoming Module (SWIM) as described in **Chapter 6**.

IMPORTANT: If the mapping coordinator plans to submit more than 25 updates, contact the SDRP team by phone at 301-763-1099 or by email at <geo.school@census.gov> before filling out the Submission Log.

1.4.2 County Coverage File (All States)

The County Coverage listing file is named "<ST>_County_Coverage_A.xls." This file lists school districts for each county, sorted by county. There is a separate record for each unique school district/county combination. Details on this specific listing file are found in sub-appendix B2.

The County Coverage file reflects the boundaries of the 2022 school districts as shown in the shapefiles and the TIGERweb map viewer. Use this file to locate each school district and to review the extent of the areas of each school district as they relate to counties.

Carefully review the information contained in this file and provide the Census Bureau with updates and/or corrections. Specifically review where a school district to county relationship

should no longer be maintained, or where a new relationship should be created and maintained.

1.4.3 Legal Entity Coextensive Coverage File (Limited States)

The Legal Entity Coextensive Coverage listing file is named "<ST>_Coextensive_Coverage_A.xls." It is available for Alabama, Alaska, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Utah, and Virginia because some of their school districts are coextensive with legal entities such as counties, county equivalents, or incorporated places. Details on this specific listing file are found in sub-appendix B3.

The Census Bureau maintains these coextensive relationships without the need for states to submit boundary changes for the listed school districts. All changes to counties, county equivalents, and incorporated places are obtained through the Census Bureau's Boundary and Annexation Survey. If the mapping coordinator believes that a legal boundary is incorrect, please notify the Census Bureau by email at <geo.bas@census.gov>.

Carefully review the information contained in this file and provide the Census Bureau with updates and/or corrections. Specifically review where a coextensive relationship should no longer be maintained, or where a new relationship should be created and maintained.

1.4.4 School District to Geography (SD/GEO) Relationship File (Limited States)

In Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, Pennsylvania, Rhode Island, and Vermont, school districts are commonly coextensive with one or more incorporated places and/or county subdivisions (towns, townships, boroughs, etc.). Review the relationships listed in the SD/GEO Relationship listing file, "<ST>_SD_GEO_Relationship_A.xls", to ensure that the state school districts are maintaining the correct relationships with the aforementioned legal governmental entities.

Like the County Coverage file, this file contains records for each school district/incorporated place and school district/county subdivision coextensive relationship. It is sorted by SDLEA for use in reviewing the geographic relationship between the local governments (towns, townships, boroughs, etc.) and each school district. Details on this specific listing file are found in subappendix **B4**.

The Census Bureau maintains these relationships without the need for states to submit boundary changes for the listed school districts. All changes to incorporated places and county subdivisions are obtained through the Census Bureau's Boundary and Annexation Survey. If the mapping coordinator believes that a legal boundary is incorrect, notify the Census Bureau by email at <geo.bas@census.gov>.

Carefully review the information contained in this file and provide the Census Bureau with updates and/or corrections. Specifically review where a relationship should no longer be maintained, or where a new relationship should be created and maintained.

Note: If the SD/GEO Relationship File and/or a Coextensive Coverage files are not available for download, and there are school districts in the state that are legally coextensive with local governments, contact the SDRP team by phone at 301-763-1099 or by email at <geo.school@census.gov> for resolution.

1.4.5 Submitting Updates to Information in the "County Coverage," "Legal Entity Coextensive Coverage", and/or "Relationship" Files

Update the individual listing files with all changes, additions, and deletions making clear what changed by highlighting, changing text color, text bolding, adding, or crossing out the changes. Zip all the updated listing files into one .zip file and submit it to the Census Bureau using the SWIM. For more information regarding SWIM, refer to **Chapter 6**.

PART 2 HOW TO USE THE TIGERWEB

CHAPTER 2 USING THE TIGERWEB MAP VIEWER FOR THE SDRP

The TIGERweb map viewer is < tigerweb.geo.census.gov/tigerwebmain/TIGERweb main.html > and is available for state and local education officials to review the Census Bureau's 2022 school district information. In addition to school districts, TIGERweb also offers the ability to view:

- Roads, highways, and railroads.
- Rivers, lakes, streams and other "single-line" drainage.
- Boundaries for legal and statistical geographic entities.
- Selected special land use areas such as military reservations and national parks.
- Satellite imagery.

IMPORTANT: The <u>TIGERweb User Guide</u> is available from the TIGERweb Applications tab. Please utilize it for comprehensive details that may not be mentioned in this program specific guide.

To summarize the process, the mapping coordinators and other local education officials use the application to locate each school district and compare their boundary and attribution to a local source for school districts to determine if there is a need to make any changes. The mapping coordinator can provide boundary changes to the SDRP if the Census Bureau data does not correctly depict the school district boundary in effect as of January 1, 2023.

Note: Mapping coordinators, please provide local education officials with these TIGERweb instructions, which can be downloaded from the 2023 SDRP website under the Annotation Phase Program Materials hyperlink.

To review the boundary of a school district, users need either the name of the school district or the seven-digit geographic identification code (i.e., GEOID) for the school district. The GEOID is in the Inventory and Grade Range File "<ST>_SD_Inventory_A.xls." It is comprised of the two-digit Federal Information Processing Series (FIPS) state code for the state in which the school district is located followed by the five-digit SDLEA ID assigned to the school district. TIGERweb uses the GEOID to zoom directly to the school district.

If a local education official determines that changes need to be reported for the 2023 SDRP, report the changes to a state SDRP mapping coordinator who will submit the changes to the Census Bureau. The mapping coordinator is the liaison between the state's Department of Education and the Census Bureau. Find contact information for mapping coordinators on the SDRP website: www.census.gov/programs-surveys/sdrp.html.

IMPORTANT: The Census Bureau will not accept school district boundary changes that are submitted by local education officials or that are annotated on maps printed from TIGERweb. The mapping coordinator must approve and submit all SDRP updates.

2.1 TIGERweb Basics

Navigate to the main TIGERweb website and select the TIGERweb Applications tab, shown as the orange tab in **Figure 7**. The direct link to TIGERweb Applications is <tigerweb.geo.census.gov/tigerwebmain/TIGERweb apps.html>.

On the left side of the screen under the heading TIGERweb Applications, select the first map service application option, TIGERweb. This option contains the geographic school district boundary updates for school districts submitted during the 2022 SDRP. Do not select the other options, TIGERweb Decennial or TIGERweb Economic Census.

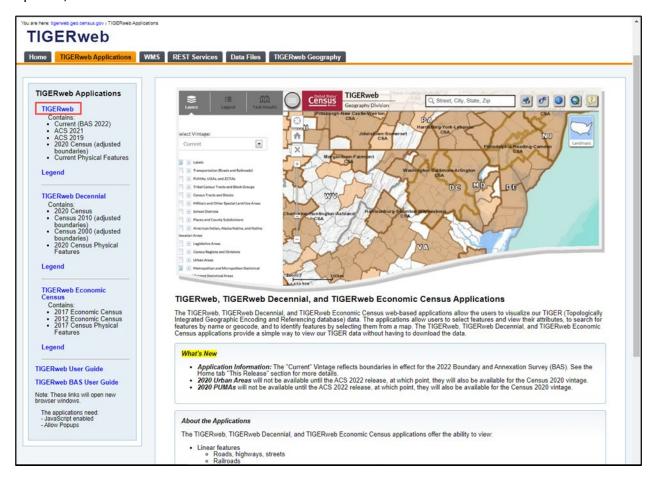


Figure 7: TIGERweb Applications Tab from the Main TIGERweb Page

After selecting the TIGERweb option, the application launches showing the default layout with the map, navigation tools, and other tools displayed (Figure 8).

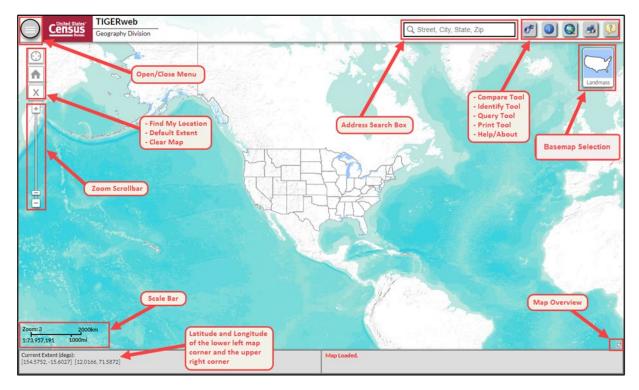


Figure 8: TIGERweb Applications - Map Display with Sections and Tools Labeled

2.1.1 Understanding the Main Display Tabs

Along the upper-left side of the window in the main display of the application are the tabs to select the Layers, Legend, or Task Results (Figure 9).



Figure 9: TIGERweb Applications - Main Display Tabs (Layers, Legend, and Task Results)

Table 2 includes a description for each of the three tabs.

Table 2: TIGERweb Main Display Tab Symbols and Their Function/Description

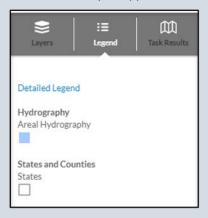
Symbol Function/Description The Layers tab is the default tab when TIGERweb starts. It a

The **Layers** tab is the default tab when TIGERweb starts. It allows the user to select the vintage of data and the data layers to view on the map screen and includes all Census geographies in separate map services.

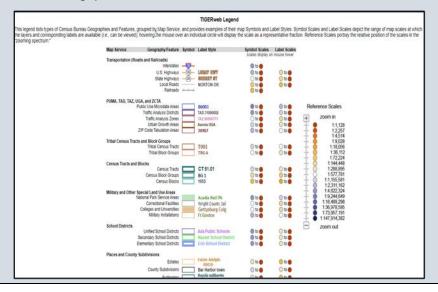
Use it to turn the map layers on and off, change the transparency of individual map layers, and view the symbology for each map layer. Users can view the relationship between different geographic areas by selecting the map layers. The number of selectable layers is unlimited, but each layer has a range of zoom levels in which it will display.

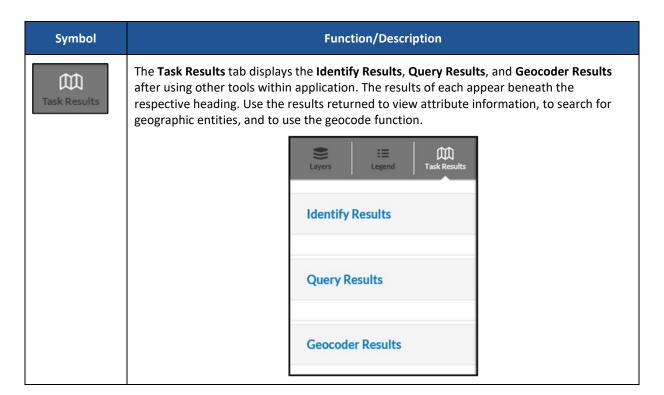


The **Legend** tab reveals the legend and the layers displayed within the application. At the national level, the default level that appears when opening TIGERweb Applications, only the **Hydrography** and **States and Counties** layers appear.



For more detail on map layer content, scaling, and symbology, choose the Detailed Legend link. A graphic of the detailed legend is included below. The Symbol Scales and Label Scales fields above depict the range of map scales at which the layers and corresponding labels are available (i.e., can be viewed), hovering the mouse over an individual circle will display the scale as a representation fraction. Reference Scales portray the relative position of the scales in the zooming spectrum.





2.1.1.1 Understanding the Layers Tab

The Select Vintage drop-down menu in the Layers tab shows the vintages of TIGERweb geography that are available for display in the application (**Figure 10**). Select Current to view the geographic updates for entities submitted during the 2022 SDRP. Select the '+' sign next to each map service in the Layers tab to expand the map service and view the layers within it. Activate the small boxes (check/uncheck) to choose the Transportation, Places and County Subdivisions, and School Districts map layers.

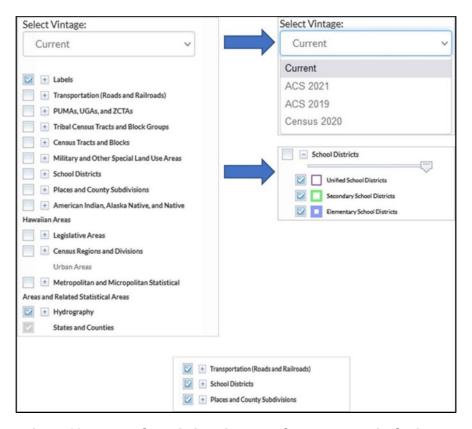


Figure 10: Layer Tab Depicting Vintage and Layers to Use in the SDRP

The Layers tab includes legal, administrative, and statistical boundaries as well as roads, railroads, and hydrography. TIGERweb organizes the layers into separate map services, or groupings, based on the geographic type. Grouping the layers into a map service instead of individual layers makes rendering the layers more efficient and reduces the layer drawing time. The Labels, Hydrography, States, and Counties groupings are enabled by default as shown in Figure 11.



Figure 11: Layers Tab - Map Services/Groupings and Defaults

Users expand each by choosing the '+' sign next to the grouping (Figure 12) to see the available layers beneath that grouping. To minimize the expanded groupings, choose the "-" sign that replaced the "+."

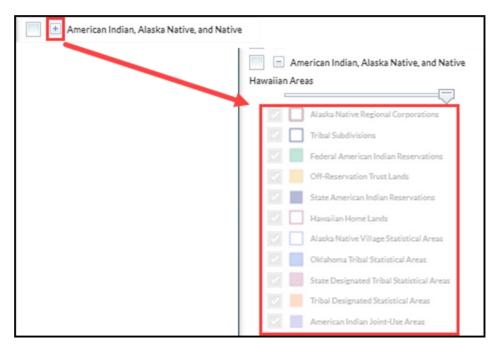


Figure 12: Expanding a Grouping to Reveal Map Layers

To enable, or turn on, a particular grouping or layer within a grouping, select the box next to the grouping heading (to the left) so that a checkmark appears in the box (Figure 13). Disable, or turn off, the grouping by removing the checkmark.

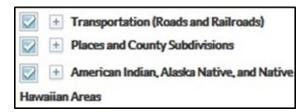


Figure 13: Enabled Groupings (Turned-On/Visible in Map Display)

Note: States are viewable for all zoom levels. Other layers are visible only at certain zoom levels. Additional data layer options, with a greater level of detail, are available when zoomed in closer on the map. If a specific layer does not appear in the legend, zoom in or out on the map for the feature to appear.

Users can limit the amount of data on the map by enabling only the desired layers. For example, to view boundaries representing Incorporated Places within the Places and County Subdivisions grouping, disable, or turn off, the other types for place geographies by unchecking the box to the left of the feature type. **Figure 14** shows only the Incorporated Places feature type checked. If TIGERweb has the layers enabled, the user must uncheck the layers if they do not want these layers to display.

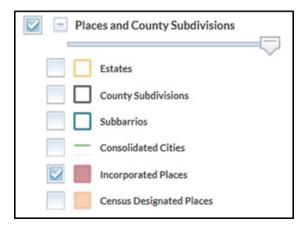


Figure 14: Expanded Grouping and Layers with Slider Tool

When multiple layers are displayed on a map simultaneously, one layer may obscure another. To allow one layer to be more prominent than another, the transparency of the layer can be adjusted by using the slider, which is available once the layer is expanded by selecting the plus sign [+] left of the layer name. Move the slide bar, shown just beneath the grouping name, to the left or right to adjust the transparency of the selected layer on the map.

2.2 TIGERweb Tools and Functions

This portion of the guide highlights the tools and functionality useful for the SDRP. For detailed content, refer to section 1.3 in the <u>TIGERweb User Guide</u>.

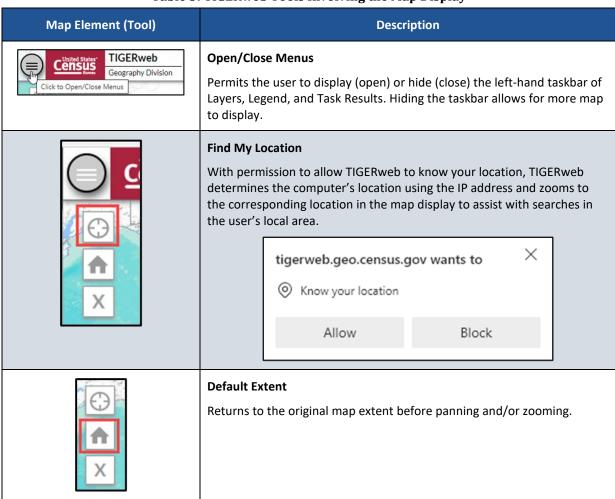
2.2.1 Navigating the Map Display

The features and geographic areas do not immediately appear because each layer has a range of zoom levels at which it will display. In other words, visibility is scale dependent. More details appear in the map display when zooming in on the map.

At Zoom level 6, counties appear; at Zoom level 7, school districts and primary roads with their labels begin to appear; at Zoom level 9, places, county subdivisions, and census tract boundaries appear; and at Zoom level 14 most of the features that would assist with conducting a school district review, i.e., local roads, railroads, etc. appear. The current Zoom level displays on the Scale bar in the lower left of the Map display.

Use the Zoom scrollbar tool located on the vertical Scale Bar, shown on the left of the map display, to see more detail on the map or to see less detail. Select the '+' to zoom in or select the '-' to zoom out. Also, zoom in or out by rolling the wheel on a computer mouse. All the tools involving the map display are described in **Table 3**.

Table 3: TIGERweb Tools Involving the Map Display



Map Element (Tool)	Description
⊕ • ×	Clear Map Clears all previous map selections.
	 Zoom Scrollbar Use to adjust the zoom level of the map display. Select the plus sign (+) to zoom in for more detail. Use the minus sign (-) to zoom out for less detail. Dragging the control up and down the slider will increase and decrease the amount of detail on the map in the same fashion as the + or - signs. Users may also zoom in or out using by the scroll wheel on their computer mouse.
Zoom: 4 1000km 1:36,978,595 600mi	Scale Bar Shows the scale of the current map display. Users monitor the current zoom level of the map display.
Zoom: 4 1000km 1:36,978,595 600mi Current Extent (degs): [-144.3408, 16.6143] [-48.8916, 58.0193] Lower Left Upper Right	Current Extent (degs) Provides the latitude and longitude coordinates in decimal degrees for the lower left map corner (solid black arrow) and the latitude and longitude of the upper right corner (striped arrow).

2.2.2 Changing the Map Display Background

The map background in TIGERweb is handled by the Basemap Selection button (Figure 15). There are three background options (landmass, satellite imagery, and terrain) programmed for the button. The map display defaults to Terrain.

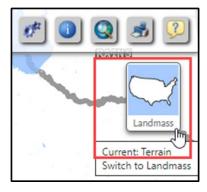


Figure 15: Basemap Selection Button

To switch the background option, continue to select the Basemap Selection button, observing the instruction while hovering the mouse over the button. The hover message informs the user of the current display and what the display will be upon switching to the next choice. After locating and zooming into an entity, select the Basemap Selection button (Figure 16) until the Satellite option appears and imagery overlays the entity. This dual view allows users to see the relationship between the location of a boundary in the Census Bureau's file to the location of real-world features such as roads. Additional information on this functionality is in section 1.3.2 of the TIGERweb User Guide.



Figure 16: Basemap Selection Button with Satellite Option

2.2.3 Identifying Features in the Map Display

The Identify tool allows the user to discover more information about a selected feature on the map The Identify tool shows attribute information only for enabled (turned on in the Layer tab) map services and visible layers. Use of this tool may be helpful to determine the feature that serves as a boundary of an existing school district or may be useful to confirm the attribution of a school district.

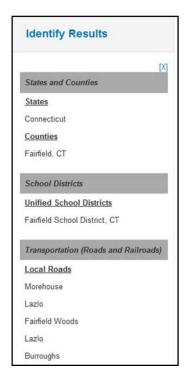
To use the tool, select the Identify tool at the top of right of the map display (**Figure 17**) and use the mouse to select an area on the map or feature to identify. When selecting, its area on the map highlights. The Identify Results section (left portion of Figure 18) shows all results for the selection. Select any of the results to get attribute information about the area or feature. Additional information on this functionality is in section 1.3.5 of the <u>TIGERweb User Guide</u>.



Figure 17: Identify Tool Button

For a SDRP example, follow the steps below to use the Identify tool to get attribute data for the Fairfield School District adjacent to the Bridgeport School District.

- 1. Choose the Identify tool. The mouse cursor changes from a pointer to the '+' (crosshair).
- 2. Use the left mouse button to select inside the boundary of Fairfield School District.
- 3. Choosing Fairfield School District, CT from the Identify Results section displays the attributes about the school district including grade range, land area, and water areas (right side of Figure 18).
- 4. Many other results appear in the Identify Results section because of the layers that are associated with the selection. For this example, the TIGERweb is returning results for the States and Counties, School Districts, and Transportation map services.



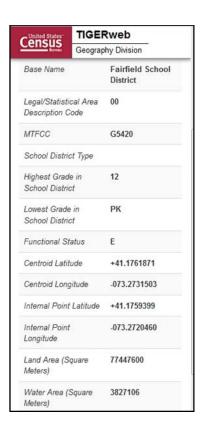


Figure 18: Identify Results and Attribute Information Windows

2.2.4 Locating a School District

TIGERweb allows users to quickly locate an entity visually using the Zoom scrollbar or by using the Query tool (**Figure 19**) to search for a school district by its name or unique GEOID. Additional details on the Query tool are found in section 1.3.6 of the TIGERweb User Guide.



Figure 19: Query Tool Button

Figure 20 shows the resulting Query tool window that appears after selecting the button.



Figure 20: Query Tool Window

Select the Query tool from the toolbar. Select the Attribute tab from the Query tool window. From the Select Map drop-down menu, choose one of the following map services:

- States and Counties to locate a county.
- Places and County Subdivisions to locate a city or town.
- School Districts to locate a unified, secondary, or elementary school district.

Key the GEOID, located in the Inventory and Grade Range Listing (SD_Inventory.xls), in the Enter GEOID of Feature box or type all or part of its name in the Enter Name of Feature box. Enter a GEOID or a Name, but not both. Searching by unique GEOID will take users directly to the entity. Searching by Name could produce a list of school districts with the same or similar name.

Follow the steps below to locate unified school district West Prairie Community Unit School District 103, Illinois with GEOID 1700314.

- 1. Select the Query tool and the Attribute tab.
- 2. From the Select Map drop-down menu, choose School Districts (Figure 21).
- 3. From the Select Layer(s) drop-down menu, choose Unified School Districts then enter 1700314 in the GEOID field (Figure 22).
- 4. Choose SUBMIT to search for the unified school district.

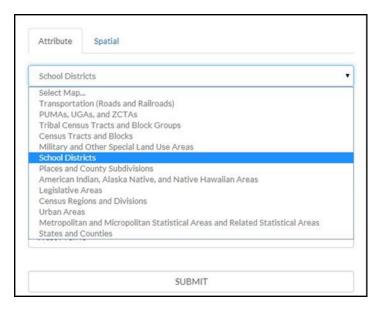


Figure 21: Query Tool - Attribute Tab - Select Map

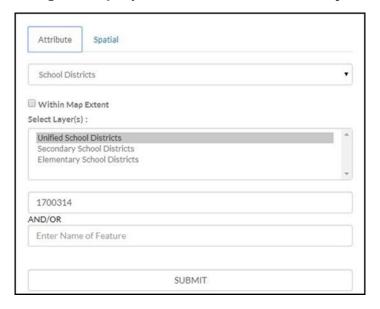


Figure 22: Query Tool - Query by GEOID

TIGERweb displays the query results under the Task Results tab to the left of the map (Figure 23).

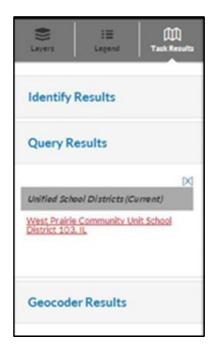


Figure 23: Task Results Tab with Query Results

TIGERweb also displays the Info panel containing attribute data for the entity (Figure 24) in a separate window. Minimize or close the Info panel by selecting the '-' or 'x' symbol in the top right of the Info panel.

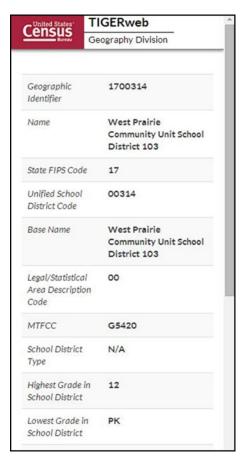


Figure 24: Query Results - Info Panel

Select the name of the result listed under the Unified School Districts heading of Query Results and TIGERweb will display the school district highlighted in the center of the map display (Figure 25). To start a new Query, select Clear Map (the 'X') above the Zoom scrollbar. The Query window reappears, and the located entity is no longer highlighted.

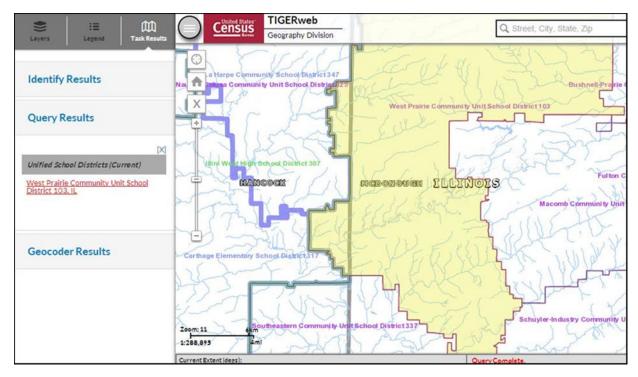


Figure 25: Map Display with Query Results

Follow the steps below to locate a school district named Bridgeport in Connecticut without knowing its school district level.

- 1. Select the Query tool.
- 2. From the Select Map drop-down menu, choose School Districts.
- 3. From the Select Layer(s) drop-down menu, hold down the Control or Shift Key and choose Unified, Secondary, and Elementary. All three will display as highlighted (Figure 26) then enter Bridgeport in the Enter Name of Feature box.
- 4. Choose SUBMIT to search.

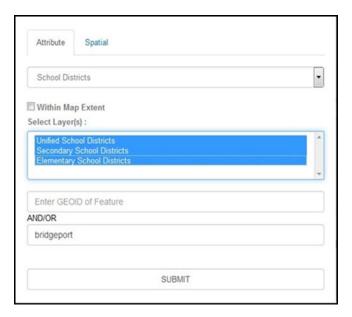


Figure 26: Query Tool - Query by Name

Searching by name could produce a list of school districts with the same or similar names, as shown in **Figure 27**; however, the results will include the state in which the entity is located to help choose the correct school district.



Figure 27: Query by Name Results

TIGERweb displays the selected entity highlighted in the center of the map display along with the Info panel containing attribute data for the entity. Minimize or close the Info panel to view the entire map and Query Results section (Figure 28).

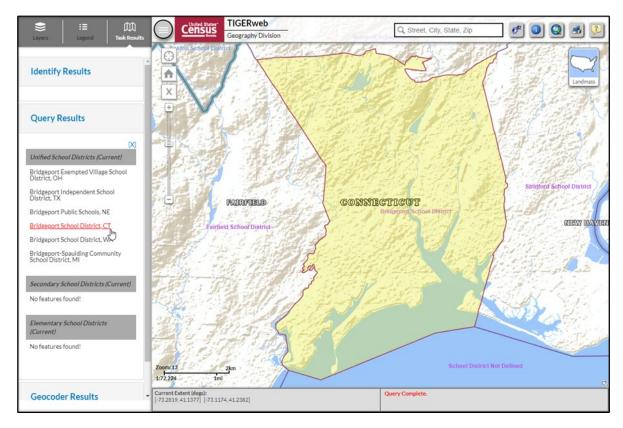


Figure 28: Map Display with Query Results

After using the Query tool to locate a school district, users can compare the TIGERweb map of the school district to a local source for the school district boundary. Provide boundary and/or attribute update information to the state mapping coordinator if the TIGERweb map does not correctly depict the school district boundary shown in a local source. Mapping coordinators prepare all school district updates for their respective states, following details in part 2 and/or 3 of this guide, and submit the updates to the Census Bureau as described in part 5.

2.2.5 Printing and Saving a Map

TIGERweb has the functionality to save maps, print paper maps, or capture screen images of the areas where the boundary requires an update or annotate changes. This functionality is useful for a local education official to indicate to the mapping coordinator where a school district boundary change is needed. The local official can capture a screen image and annotate the change for the mapping coordinator to approve and submit to the Census Bureau.

Using the Print tool button from the upper right of the map display (**Figure 29**) opens the Print window (**Figure 30**). A table with detailed instructions for the options available in this window is found in section 1.3.7 of the TIGERweb User Guide.



Figure 29: Print Tool Button

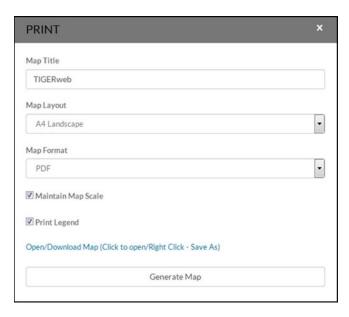


Figure 30: Print Tool Window

As a reminder, the Census Bureau will not accept boundary changes for the SDRP submitted directly to the Census Bureau annotated on maps printed using the TIGERweb map viewer.

PART 3 HOW TO USE THE SUBMISSION LOG

CHAPTER 3 USING THE SUBMISSION LOG FOR THE SDRP

The submission log is an Excel spreadsheet used to report nonspatial and simple school district updates. It is available for download on the SDRP website within the annotation section www.census.gov/programs-surveys/sdrp/information/annotation.html. Record each type of acceptable school district change as a separate record in the submission log.

The Census Bureau accepts the following changes using the submission log:

- School District Name.
- Grade Range.
- Federal SDLEA ID Number.
- Level.
- Simple Consolidations.
- Simple Dissolutions.
- Simple Spatial Update Using Whole MCDs or Incorporated Places.

The Census Bureau requires the use of the submission log for the change types listed in subchapters **3.1** to **3.7**. Not all fields are displayed in the examples shown below.

3.1 School District Name Change

A school district name change is usually a result of a misspelling or legal school district name change. **Figure 31** shows an example of the fields requiring information. They are Type of Change, County(s) FIPS code(s), SDLEA of Change, Old Name, and New Name. Contact the SDRP team at <geo.school@census.gov> if seeking to submit more than 25 name changes.

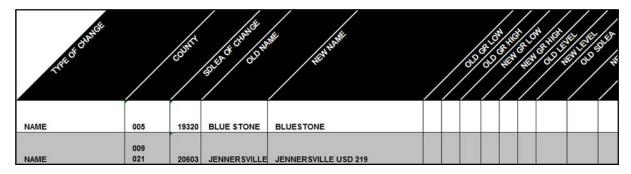


Figure 31: Example of a School District Name Change

3.2 Grade Range Change

A grade range change is the result of an incorrect grade range previously reported to the Census Bureau or a new change (e.g., changing from Kindergarten to Pre-Kindergarten). Gaps and overlaps in grade range coverage cannot exist. Grade range changes require information in the Type of Change, County(s) FIPS code(s), SDLEA of Change, Old Grade Range Low, Old Grade Range High, New Grade Range Low, and New Grade Range High fields (Figure 32). Contact the

SDRP team at <<u>geo.school@census.gov</u>> if seeking to submit more than 25 grade range changes.

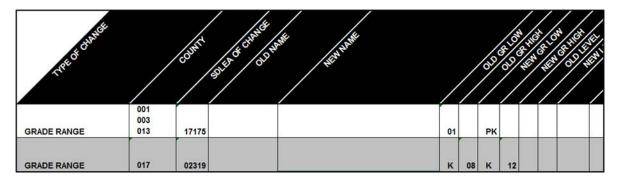


Figure 32: Example of a School District Grade Range Change

3.3 Federal SDLEA ID Number Change

Federal SDLEA changes include a correction to an SDLEA. SDLEA changes require information in the Type of Change, County(s) FIPS code(s), SDLEA of Change, Old SDLEA (same as SDLEA of Change), and New SDLEA fields (Figure 33).

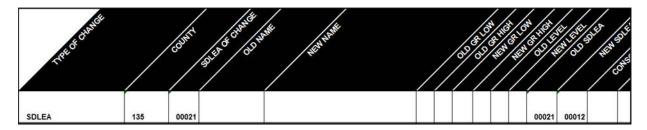


Figure 33: Example of a Federal SDLEA ID Number Change

3.4 Level Change

A level change occurs when a school district changes classification; for example, changing from elementary to unified. Level changes require information in the Type of Change, SDLEA of Change, Old Level, and New Level fields (Figure 34).

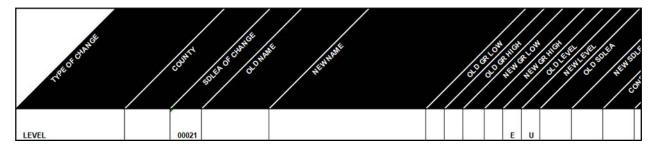


Figure 34: Example of a Level Change

3.5 Simple Consolidation

A simple consolidation occurs when two or more school districts merge, or consolidate, to create a new school district with a new name and new SDLEA. There are no additional boundary changes.

Simple consolidations require information in the Type of Change, County(s) FIPS code(s), New Name, New Grade Range Low, New Grade Range High, New Level, Consolidation 1 SDLEA (first school district being merged), Consolidation 2 SDLEA (other school district being merged), Consolidation New SDLEA (SDLEA of newly formed school district, if known; otherwise place "unknown" in this field), and Narrative/Description fields (Figure 35).

Note: The fields for Consolidation 3 SDLEA and Consolidation 4 SDLEA only require information if three or more school districts are consolidating (merging). If five or more school districts are consolidating, enter the remaining SDLEA ID numbers on the next row starting in the Consolidation SDLEA field.

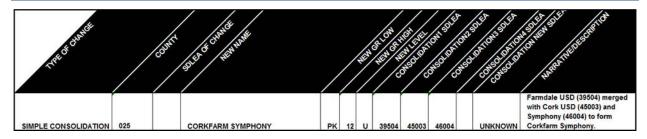


Figure 35: Example of a Simple Consolidation

3.6 Simple Dissolution

A simple dissolution occurs when one or more existing school districts entirely dissolve(s) into one other existing school district. A simple dissolution never results in the creation of a new school district. The receiving school district retains its name and SDLEA ID number.

Note: A separate entry is required for each school district that dissolves into the existing school district through this change.

Simple dissolutions require information in the Type of Change, County(s) FIPS code(s), SDLEA of Change (school district that is gaining area), Added Area SDLEA (same as SDLEA of Change), Deleted SDLEA(school district being dissolved), and Narrative/Description (include county/counties FIPS code(s)) and if applicable, the Old Grade Range Low, Old Grade Range High, New Grade Range Low, New Grade Range High, Old Level, and New Level fields (Figure 36).

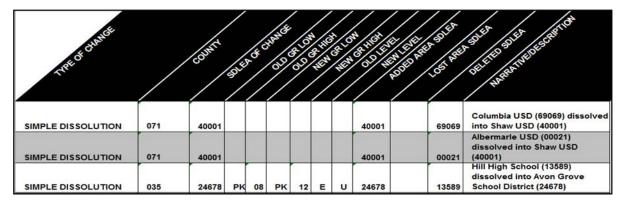


Figure 36: Example of a Simple Dissolution

Note: Complex consolidations, complex dissolutions, and boundary changes all require updates using GUPS. Review **Chapter 5** to learn how to complete these types of updates.

3.7 Simple Spatial Update Using Whole MCDs or Incorporated Places

A simple spatial update occurs when the area that is being added to a school district is also an existing minor civil division or incorporated place in the Census database. Simple spatial updates can include a change to the boundary of an existing school district or the creation of a new district. These updates may be submitted using the Submission Log since whole geographies are being moved to the school district. If preferred, these simple spatial updates may also be submitted in GUPS.

Simple spatial updates involving school district boundary changes, shown in **Figure 37**, require information in the Type of Change, County(s) FIPS code(s), Added Area SDLEA, Lost Area SDLEA, and Narrative/Description. The Narrative/Description field must contain the minor civil division(s) or incorporated place(s) that are being added to the school district.

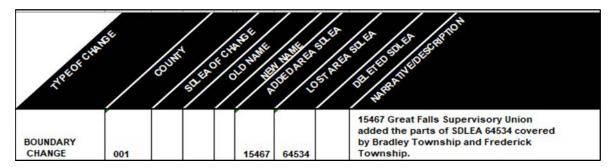


Figure 37: Example of a Simple Spatial Update - Boundary Change

Simple spatial updates involving the creating of a new school district, shown in Figure 38, require information in the Type of Change, County(s) FIPS code(s), New Name, New GR Low, New GR High, New Level, New SDLEA and Narrative/Description. The Narrative/Description field must contain the minor civil division(s) or incorporated place(s) that make up the new school district.

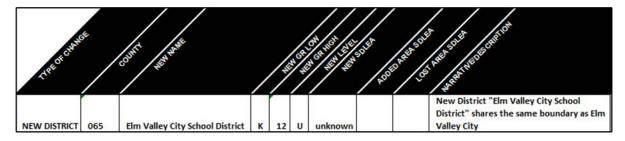


Figure 38: Example of a Simple Spatial Update - New District

Once all updates are complete in the submission log, zip the file and submit it to the Census Bureau following instructions outlined in **Chapter 6**. Proceed to the next part of the guide to learn more about using GUPS for the SDRP.

PART 4 HOW TO USE THE GEOGRAPHIC UPDATE PARTNERSHIP SOFTWARE (GUPS)

CHAPTER 4 GETTING STARTED

GUPS is available for download on the SDRP website within the annotation section < www.census.gov/programs-surveys/sdrp/information/annotation.html>. It operates using QGIS (formerly known as Quantum Geographic Information System (GIS)), a free and open-source desktop geographic information system application. To learn more about QGIS visit < www.qgis.org/en/site/>.

This part of the guide includes information needed to use GUPS. It offers a description of the software and gives specific instructions (in the form of Step-Action/Result tables) on using GUPS to make SDRP updates.

Chapter 4:

- Lists the hardware and software requirements for GUPS.
- Provides instructions for installation.

Chapter 5:

- Provides instructions to open GUPS and start a new SDRP project.
- Explains the GUPS interface.
- Gives instructions to make required and optional updates.
- Provides instructions to share and export zip files.

4.1 Hardware and Software Requirements

GUPS was developed for use on a desktop PC or a network environment. Before beginning the installation, ensure that the computer used meets the minimum hardware and operating system requirements listed in **Table 4**.

Table 4: GUPS Hardware and Operating System Requirements

Hardware/Operating System	Requirement
Hardware: Minimum Disk Space to Install and Run GUPS	4 GB
Hardware: Disk Space to Store Shapefiles	Varies by State
Hardware: Minimum Random-Access Memory (RAM) to Run GUPS	4 GB
Hardware: Recommended RAM to Run GUPS	8 GB or more for optimal performance
Operating System: Windows®	Windows 8 or Windows 10

Hardware/Operating System	Requirement
Operating System: Apple®	Mac OS X users must secure a license for Microsoft Windows and use a Windows bridge. The suggested bridge software is Boot Camp, which comes pre-installed on all Mac computers. See instructions for using Boot Camp at <support.apple.com boot-camp="">. Note: Since Boot Camp requires a restart of the computer to set up the bridge, be sure to print the instructions provided at the URL above before beginning installation.</support.apple.com>

Note: The windows that appear in GUPS may vary based on operating system. Screenshots in this guide were created using Windows 10. As a result, the screenshots that feature GUPS actions may differ slightly from what someone using Windows 8 or Boot Camp would see.

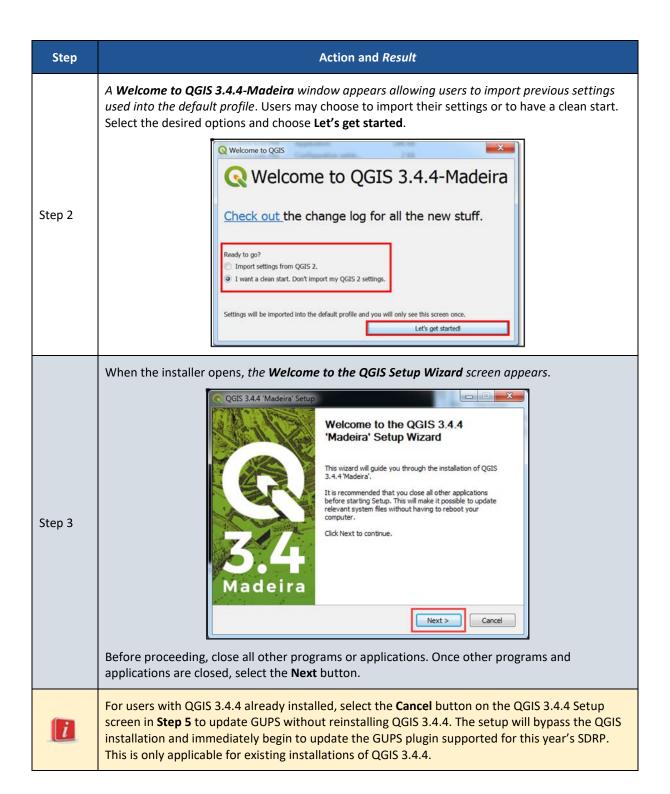
4.2 Download and Install GUPS

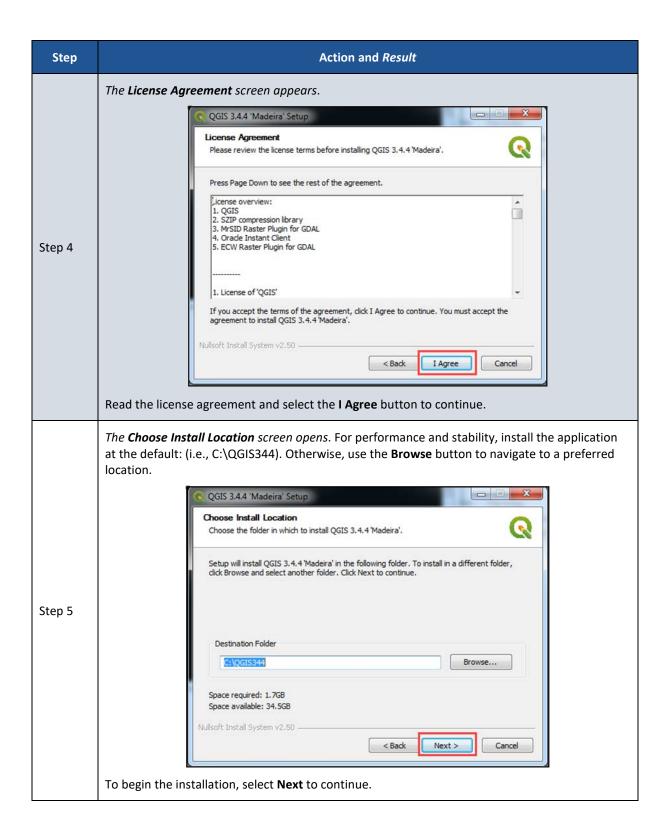
To complete the installation, follow the steps in **Table 5**.

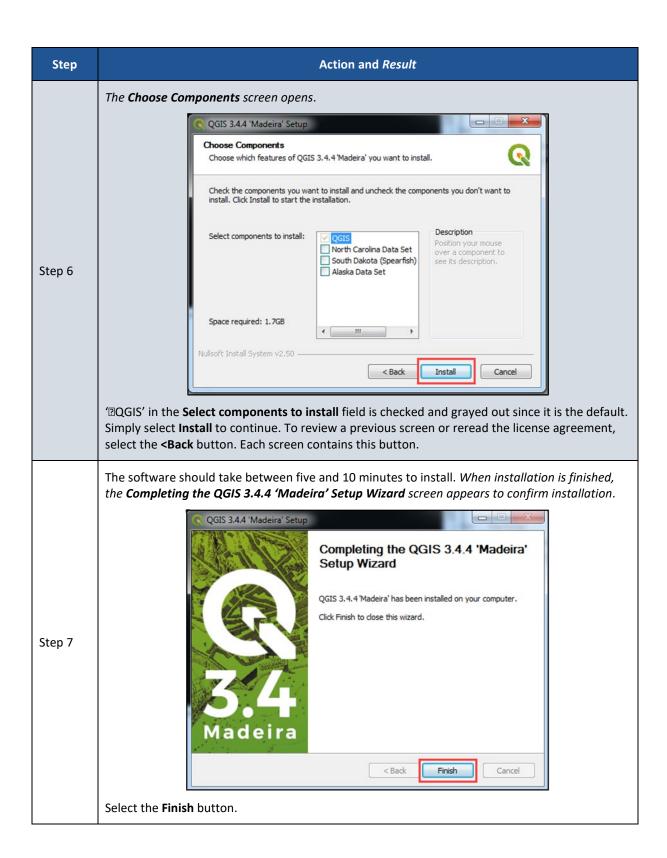
Note: If an older version of GUPS exists on the computer, the installer will automatically remove the old version before it installs the latest version.

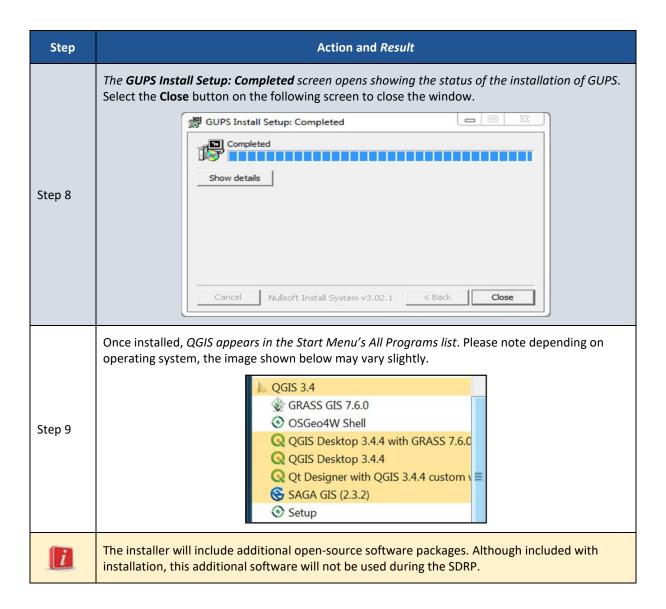
Table 5: Steps to Download and Install GUPS

Step	Action and Result
i	Many agencies/organizations require certain security privileges to download and install external software. Work with the local Information Technology (IT) staff person to acquire those privileges or ask they assist with GUPS installation. Please note that GUPS users with different security privileges than the IT staff person that installed the software will encounter problems accessing the directories and plugins needed to operate GUPS if the software is not installed under the user's profile. To correct this, have the IT staff person reinstall GUPS under the user's profile using the user's credentials. If installation problems remain, contact the SDRP team at <geo.school@census.gov> for installation assistance.</geo.school@census.gov>
Step 1	Download GUPS from the Annotation Phase Program Materials (census.gov) page on the SDRP website and unzip the downloaded .zip file. Double-click the left mouse button on the file named SETUP- <version>.bat. Note: Regardless of the version number, there will be only one SETUP.bat file to choose.</version>









CHAPTER 5 USING GUPS FOR THE SDRP

With GUPS installed, the SDRP updates can begin. There are three options to retrieve shapefiles when starting a new project:

- CD/DVD (not applicable for the SDRP).
- My Computer (if the shapefiles exist on an internal or external hard drive).
- Census Web (loads shapefiles directly into GUPS from a Census Bureau website).

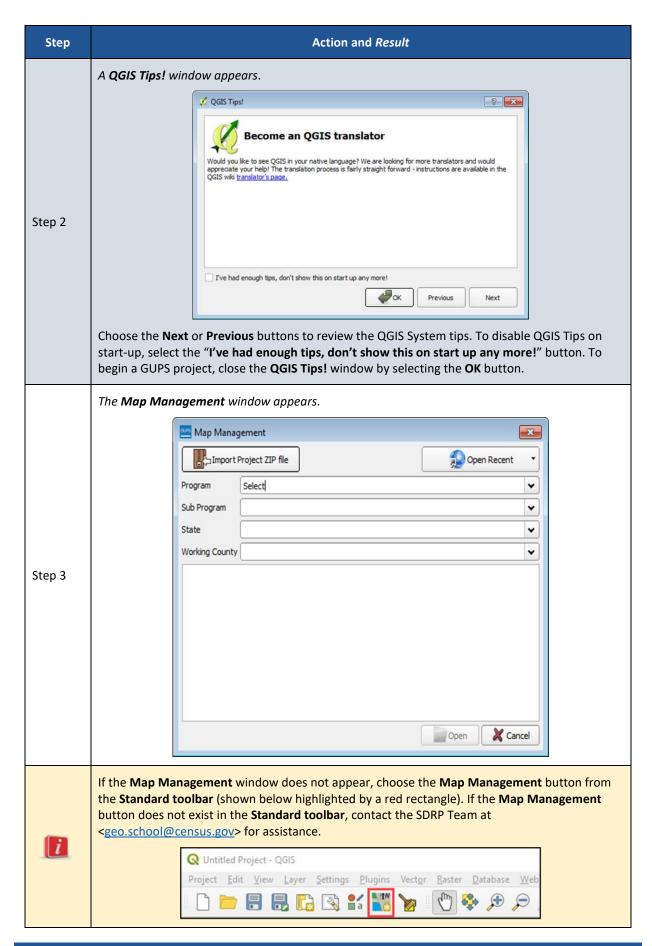
Table 6 shows the steps to open GUPS and start a new project using the Census Web option. The other two options are not covered in this material. For more information on the shapefiles used for the SDRP see **Appendix C** and **Appendix D**.

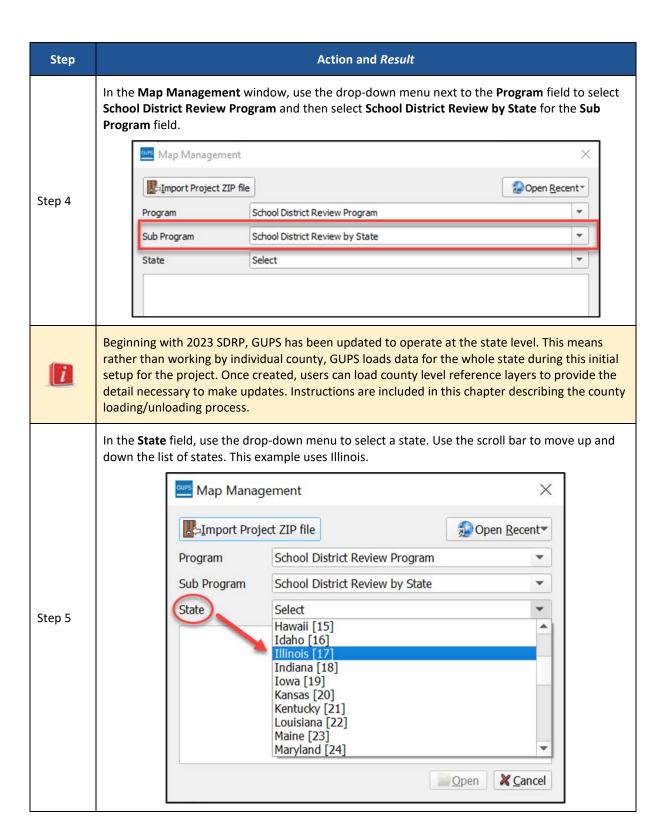
5.1 Start a New Project Using Census Web

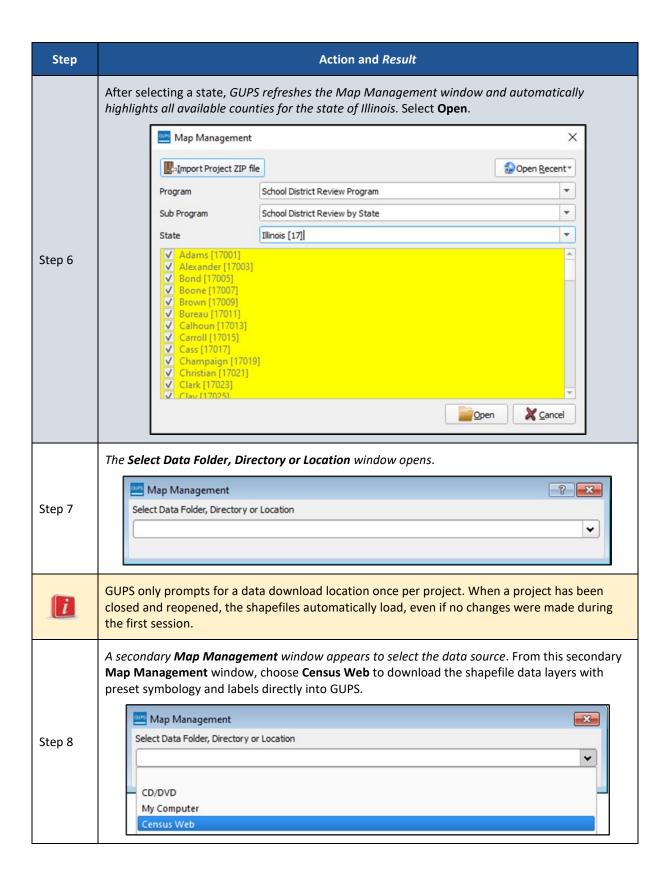
To open GUPS and start a new project using the Census Web option, follow the steps below.

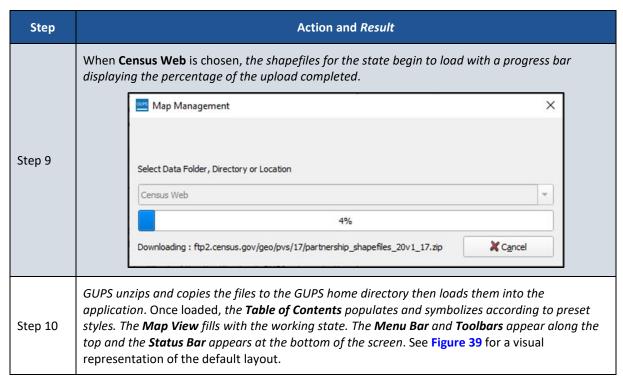
Table 6: Steps to Open GUPS and Start a New Project Using Census Web

Step	Action and Result	
	Select QGIS3 or QGIS Desktop 3.4.4 from the Start Menu. <i>The QGIS splash screen appears</i> . Depending on the age of the computer and the amount of RAM, the application may require a few moments to load and open.	
Step 1	Madeira Madeira	



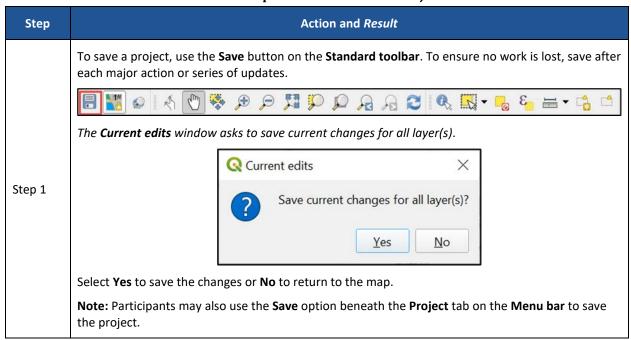






Follow the steps in **Table 7** to properly save and close a project.

Table 7: Steps to Save and Close a Project



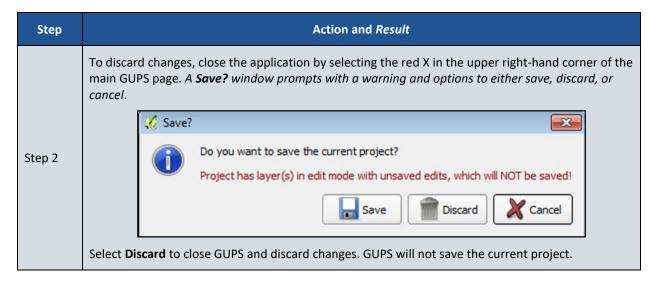
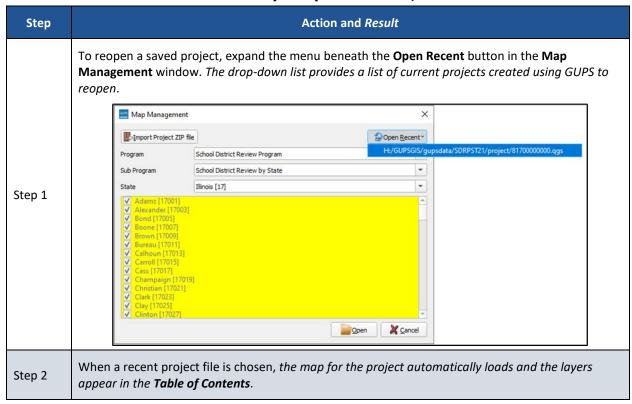


Table 8 details how to open a previously saved project.

Table 8: Steps to Open a Saved Project



5.2 GUPS Menus and Toolbars

Figure 39 shows the layout of the main page for GUPS. This page contains all the tools needed for making updates in the SDRP. Shown in the figure are the main page elements.

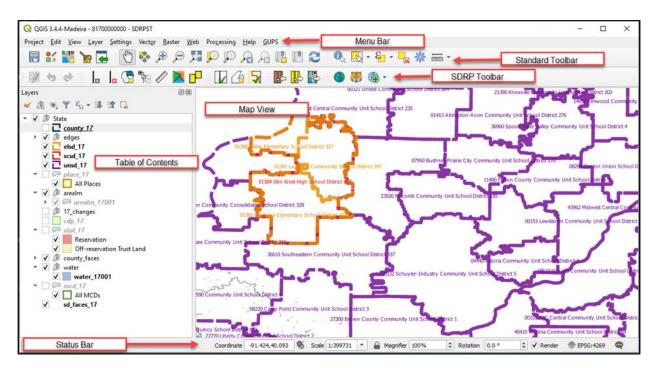


Figure 39: GUPS Main Page Elements and Default Layout

Refer to **Table 9** for high-level information about the elements that comprise the main page once GUPS is opened. Detailed descriptions and functions of menus, sub-menus, and toolbars is in **Appendix E**.

Table 9: GUPS Main Page Elements and Their Function/Description

Page Element	Function/Description
Menu Bar	Permits access to QGIS and GUPS features using a standard hierarchical menu. Offers basic features such as Settings and Help; tools to manage the Map View. Almost all functions available in Menu bar are available in toolbars. Refer to sub-appendix E1 for more details.
Standard Toolbar	Provides navigation functions and other tools needed to interact with the Map View and layers. Refer to sub-appendix E2 for more details.
SDRP Toolbar	Provides tools specific to the SDRP. See sub-section 5.2.1 below for descriptions of the buttons.
Map View	Displays the default data layers for the SDRP. Reflects the colors and symbology of layers in the Table of Contents.
Table of Contents	Depicts the layers in the Map View. Layers have been pre-styled and arranged for optimal use as part of the Census Web option. However, layers can be managed by manipulating the visibility (i.e., check/uncheck the layer) or reorganized using tools from the Table of Contents toolbar that appears at the top of the Table of Contents. Refer to sub-appendix E3 for more details.
Status Bar	Displays information on the coordinates, map scale, magnification, rotation, and projection. Allows for adjustment of the display. Refer to sub-appendix E4 for more details.

5.2.1 Introducing the SDRP Toolbar

The SDRP toolbar, shown in **Figure 40**, provides the program-specific functions needed to complete the SDRP review and update activities, as well as to import and export zipped shapefiles.



Figure 40: SDRP Toolbar

Each toolbar button function is described in Table 10.

Table 10: SDRP Toolbar Buttons and Their Function/Description

Button	Name	Function/Description
l _a	Add Linear Feature	Add a new linear feature to denote a new school district boundary. See sub-section 5.3.5 for an example of adding a linear feature.
	Delete Linear Feature	Delete a linear feature. In SDRP GUPS, only user-added features are eligible for deletion. See sub-section 5.3.6 for examples of deleting a linear feature.
	Modify Area Feature	Make updates to school districts (Boundary Change, Complex Consolidations, Complex Dissolutions and New District etc.). See sub-section 5.2.2 for more information.
## <u>#</u>	Show/Hide Legend	Shows or hides the legend (e.g., Table of Contents). It may be helpful to close the legend to make more screen space for the Map View.
	Scale Bar Tool	Permits the selection of units of measure to display in the scale bar as well as the color of the scale bar to display in the Map View.
	Load/Unload County Reference Layer	Permits loading and unloading of county-level reference layers into the SDRP project for any county within the state. This button permits loading of census spatial layers for the selected county(s). Reference layers (e.g., roads, railroads, area landmarks, water, etc.) are required to be loaded before most school district updates may be made. When using Unload County Reference Layer, the data is removed from the project but not the computer. See subsections 5.3.2 and 5.3.3 for detailed instructions.
	Remove County Reference Layer	Removes a loaded county reference layer from the project and deletes the data from the computer. Participants use this button when they determine they no longer need to reference the county level data. Once a county is removed, users would use the Load/Unload County Reference Layer button to load the county-reference layers back into the project.

Button	Name	Function/Description
	Geography Review Tool	Review the attribute table for layers that exist in the Table of Contents. Refer to sub-section 5.4.2 for details.
<u></u>	Review Change Polygons	Review change polygons in a layer and make corrections. Refer to sub-section 5.4.3 for details.
5	SDRP Criteria Review Tool	Review potential criteria data errors and informational warnings. Refer to sub-section 5.4.1 for details.
	Import State Zip	Imports another user's "DataDirectory" output .zip file for review or editing by another person. GUPS generates this .zip file as part of the Export to Zip — Share with Another Participant option. This file is the whole state's SDRP project and cannot be used if the same project is open in GUPS. This button will not work if the same project is open. As an alternative, use the Import Project ZIP file button on the Map Management window prior to opening any project.
	Export to ZIP	Includes two export options: Export for Census and Share with Another Participant. Refer to sub-section 5.5 for details on both options. Select Output Type Export for Census Share with Another Participant Use Export for Census option to create the .zip file of the SDRP project that contains all required data for submission to the Census Bureau. Use Share with Another Participant option to share work with others.
	Export Map to Print	Export a printable map in .pdf, .png, .tif, or jpeg format.
	Internet Map Service	Opens a GIS map service from the internet (i.e., Google Maps® or Bing Maps®) after selecting a point in the Map View. The intent of this tool is to provide visual assistance from an external source. An internet connection is required for this button to function.

Button	Name	Function/Description
	TIGERweb Map Service	Permits loading of census spatial data from Census Bureau's TIGERweb Web Map Service (WMS). The selected data layers load into the Table of Contents of the project. To remove the loaded layers, relaunch the button and uncheck the selected layers.
		Areal Hydrography Primary Roads Secondary Roads Railroads Areal Hydrography Cancel
		Because of the Load/Unload County Reference Layer button, users may not find this button necessary.
Add Esri Imagery	Add Imagery/Remove Imagery	Adds imagery to the SDRP project. The imagery loads near the bottom of the Table of Contents, so it underlies other layers. The button adds ESRI imagery. Remove imagery by using the same button. It will change to include a red negative symbol, or users can remove imagery by using the mouse to right-click on the imagery layer in the Table of Contents.

5.2.2 Describing the SDRP Toolbar's Modify Area Feature Tool

The Modify Area Feature tool (Figure 41) contains the functionality used to make most geographic and attribute updates during the SDRP. Once open, the Modify Area Feature tool becomes active upon selecting a Geography (a school district level including Elementary, Secondary, or Unified) and an Action (Boundary Change, Complex Consolidation, Complex Dissolution, or New District). The Modify Area Feature tool displays all school districts for the selected school district geography in the target layer list. The target layer list consists of the state, SDLEA, and school district name located under the State and Info columns. School districts can be identified in the Map View from the info list in one of two ways:

- A single left-click of the mouse on a school district highlights the district on the map but does not zoom to that school district.
- A double left-click of the mouse both highlights and zooms to the full geographic extent of the selected school district in the Map View.

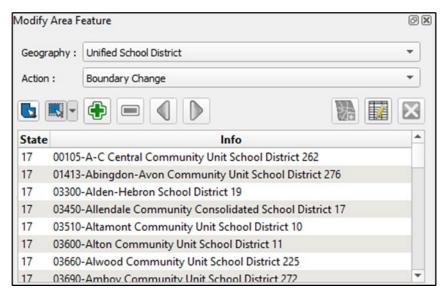


Figure 41: Modify Area Feature Tool

Table 11 describes each button in the Modify Area Feature tool and their function or description.

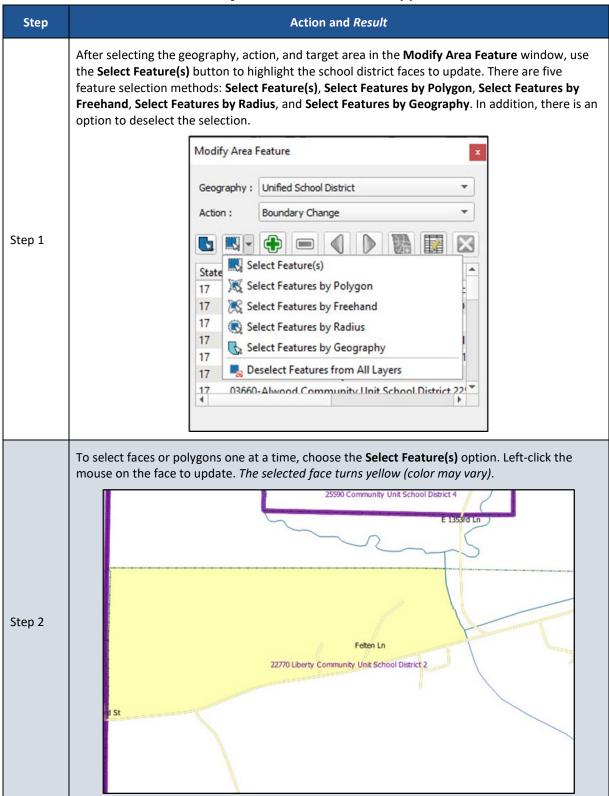
Table 11: Modify Area Feature Tool Buttons and Their Function/Description

Button	Name	Function/Description
	Select Target Layer	Selects a target area (school district) by left-clicking the mouse on the map rather than selecting from the Modify Area Feature tool info list.
	Select Feature(s)	Selects faces (polygons). This button allows the selection of individual faces and multiple faces by polygon, freehand, radius, and by geography. This button is vital to making corrections or updates, so review sub-section 5.2.2.1 for more details and examples of its use.
	Add Area	Adds selected area to the chosen geography based on the desired action.
	Remove Area	Removes selected area from the chosen geography. Note: This action is only available if completing a boundary change for secondary school district geography.
	Previous/Next Non- Contiguous Area	Cycles through non-contiguous areas.
	Add New District	Creates a new school district based on chosen geography.
	Change Attributes	Opens editable attributes dialog window for selected target layer.
×	Remove Area Feature	This tool is disabled and not used during the SDRP.

5.2.2.1 Using the Select Feature(s) Button in the Modify Area Feature Tool

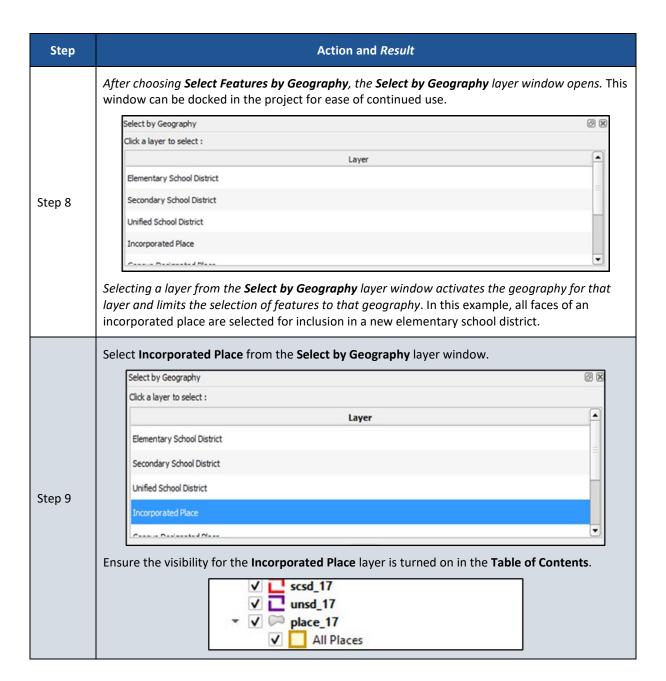
The Select Feature(s) button provides several methods to select faces to make changes to school districts. **Table 12** describes each of the feature selection methods.

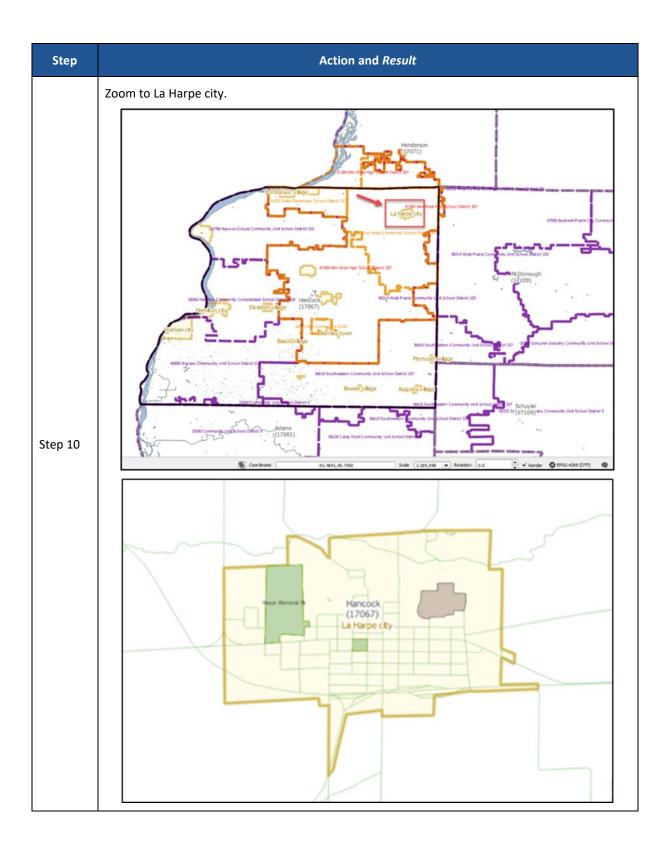
Table 12: Steps to Use the Select Feature(s) Button

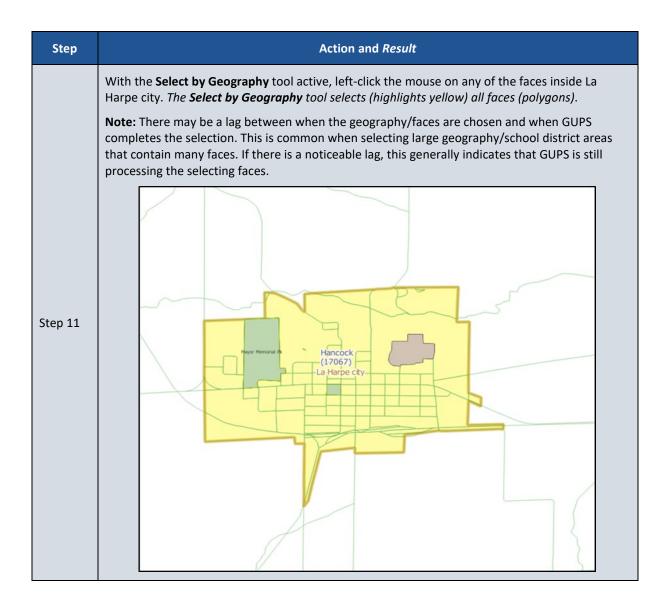


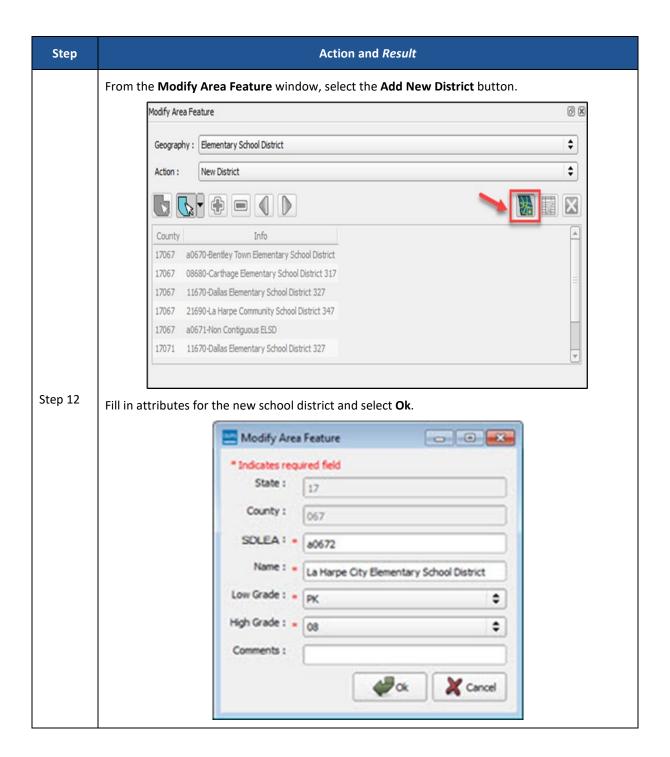
Step	Action and Result
Step 3	To select more than one face hold down the CTRL key on the keyboard while left-clicking the mouse on the additional face. This method is useful when selecting noncontiguous faces, as shown below. E 1373rd Ln R 1253rd Ln N Lakeshore Dr Gimoor Dr Burton Crk
i	To select multiple features, select the Select Feature(s) button, then drag the cursor over the features on the map. This method is useful when selecting a large number of contiguous faces.
Step 4	The second option, Select Features by Polygon, selects features through a polygon drawn around the features on the map. To use this feature, select it in the drop-down menu then follow the steps below. Select Feature(s) Select Features by Polygon Select Features by Radius Select Features by Geography Deselect Features from All Layers To use this option, left-click the mouse on the map to begin drawing the polygon. Drag the cursor to extend the line, left-click the mouse again to extend the line in a new direction. To complete the selection, right-click the mouse. Faces that either cross or are contained within the selection polygon will be highlighted in yellow.

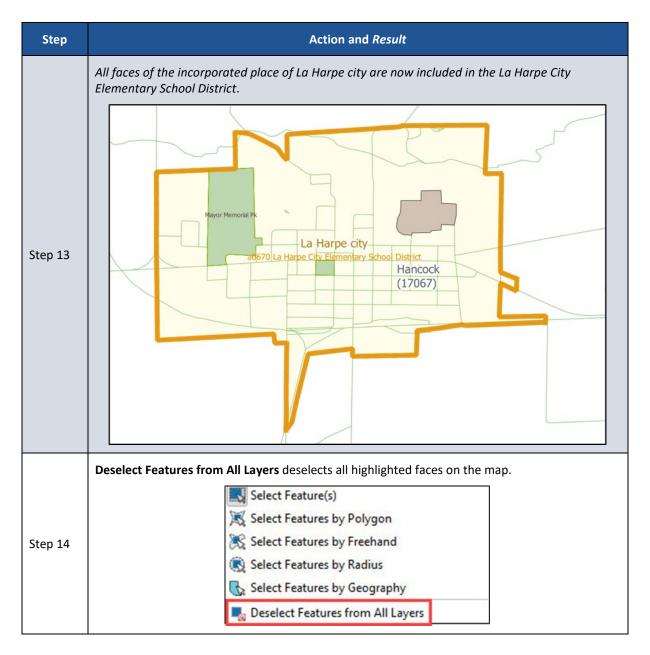
Step	Action and Result
Step 5	Select Features by Freehand selects features based on user-defined shapes drawn on the map.
	Select Feature(s)
	💢 Select Features by Polygon
	🔀 Select Features by Freehand
	Select Features by Radius
	Select Features by Geography
	Deselect Features from All Layers
	To use this option, choose a spot on the map and use the cursor to draw any shape (polygon, triangle, circle, etc.). Features that either cross or are contained within the selection area will be highlighted in yellow.
	Select Features by Radius selects features by defining a circle around the features to select.
	Select Feature(s)
	💢 Select Features by Polygon
	Select Features by Freehand
Step 6	Select Features by Radius
,	Select Features by Geography
	Deselect Features from All Layers
	To use this tool, left-click the mouse on the map, then hold down the mouse and drag the cursor outward to expand the circle. Release the mouse when done. The feature(s) selected is (are) highlighted in yellow.
	Select Features by Geography selects all the faces contained in a geographic entity. It is possible that changes to school districts will be made based on existing census geography. For example, creating a new school district based on an incorporated place. For that example, instead of selecting each face, use of the Select by Geography tool will select all the faces of the chosen geography at once.
Cton 7	Select Feature(s)
Step 7	Select Features by Polygon
	Select Features by Freehand
	Select Features by Radius
	Select Features by Geography
	Deselect Features from All Layers











5.3 SDRP Updates Using GUPS

The tables in this sub-chapter provide instructions for making SDRP updates using GUPS. The examples in this section begin with a new project for the state of Illinois. While the examples use real data, all changes are fictitious. They are for illustration only and do not indicate any actual geographic changes.

5.3.1 Boundary Change Basics

Boundary changes can include whole faces or split faces if the whole area of a selected face is not needed in the boundary change.

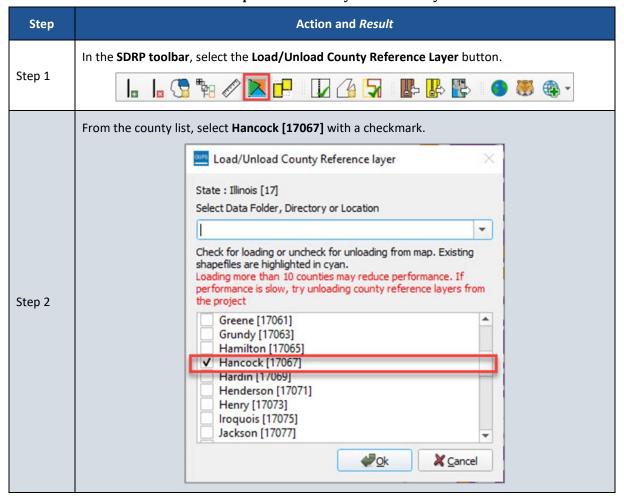
When making boundary changes using GUPS, keep the following in mind:

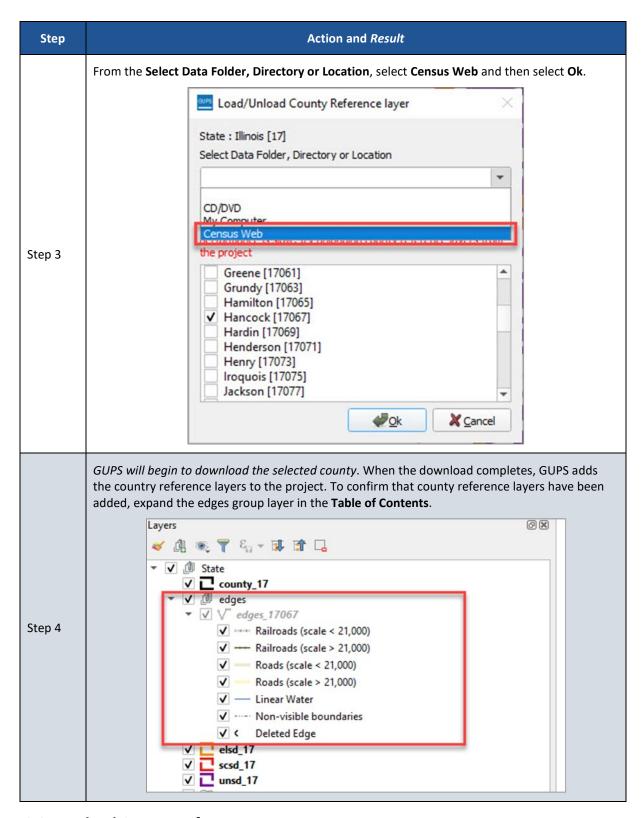
- Load the county reference layers first.
- Which school district is the target district (i.e., the one adding area), and if it is a(n) elementary, secondary, or unified school district?
- Which school is losing area, and if it is a(n) elementary, secondary, or unified district?
- Do faces need to be split to support boundary changes?

5.3.2 Load County Reference Layers

Follow the steps in Table 13 to load county reference layers to support new boundary changes.

Table 13: Steps to Load County Reference Layers





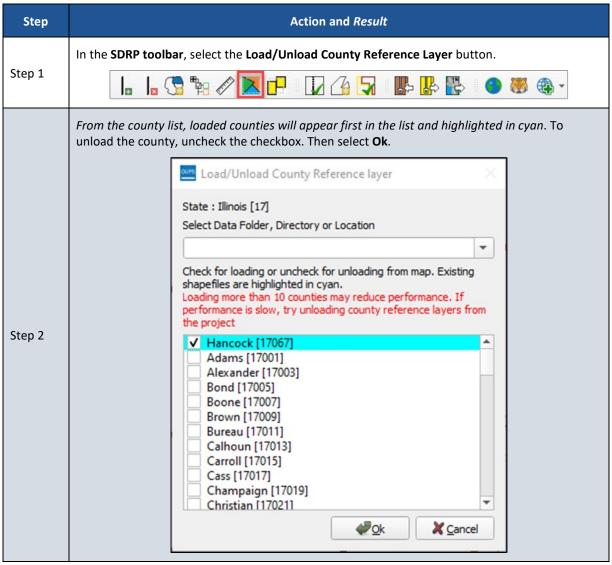
5.3.3 Unload County Reference Layers

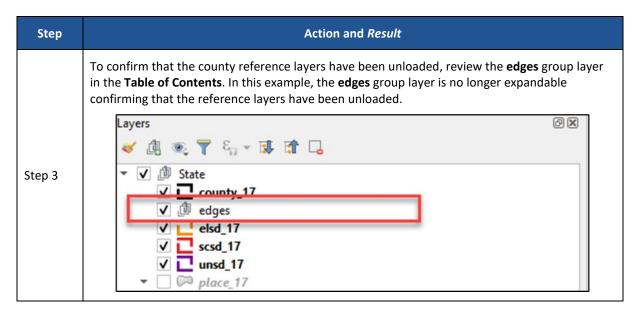
County reference layers in a project can be unloaded using the Unload County Reference Layers tool. This tool can be used if the number of loaded counties is starting to affect GUPS performance, or for counties that are no longer needed.

Note: Unloading county reference layers does not delete data from the computer. The county reference layer shapefiles still exist in the GUPSGIS home directory and can be reloaded, if needed.

Follow steps in **Table 14** to unload county reference layers.

Table 14: Steps to Unload County Reference Layers

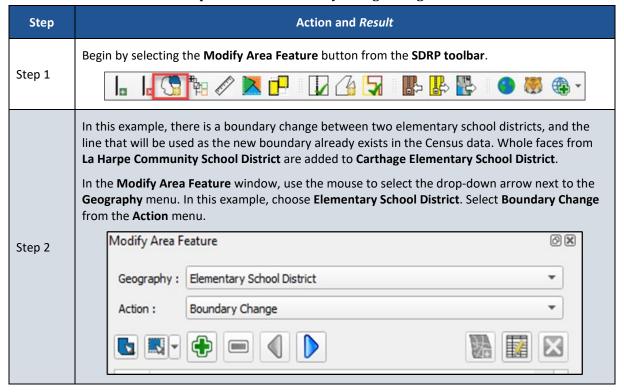


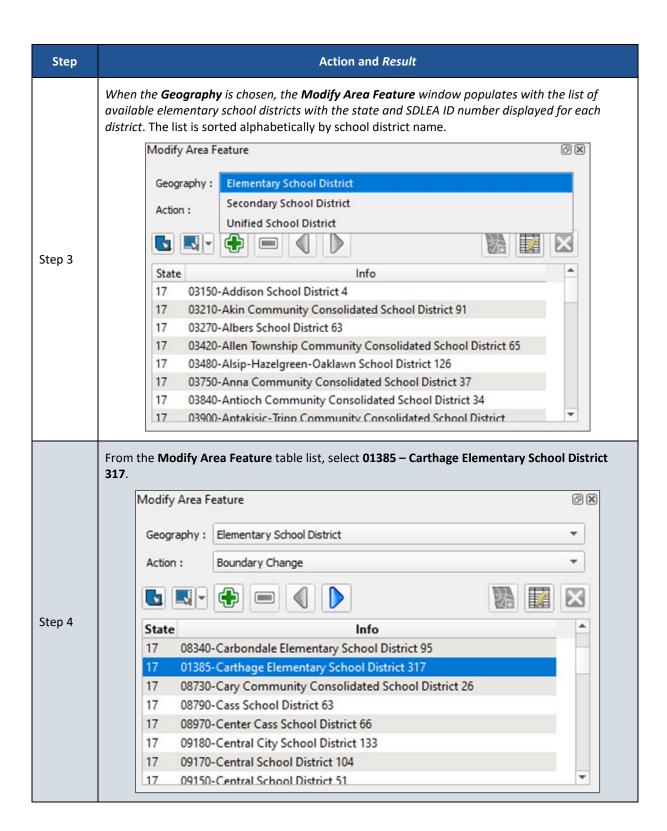


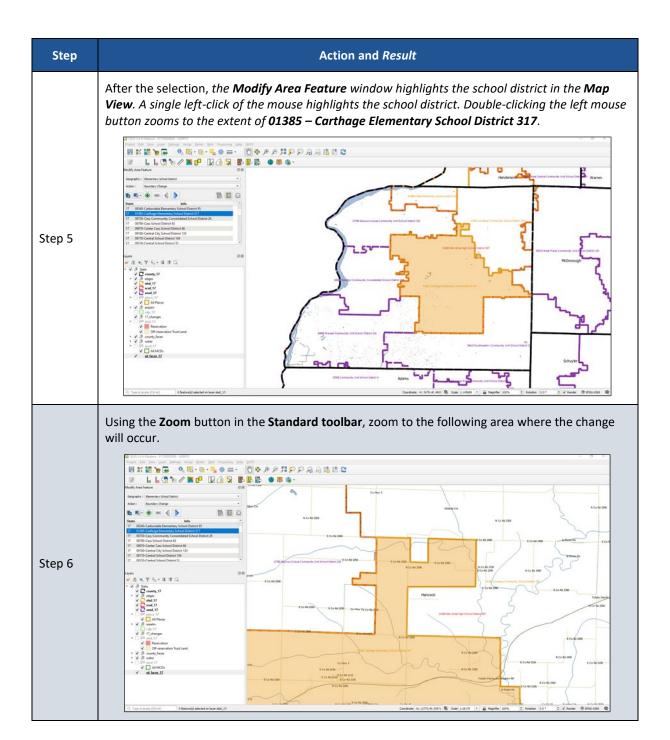
5.3.4 Boundary Change Using Whole Faces

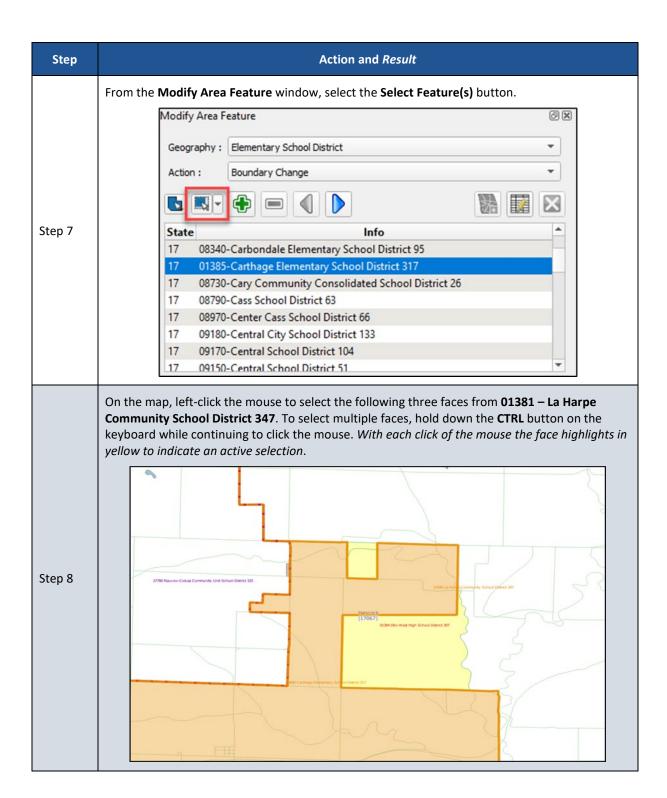
Follow the steps in **Table 15** to add whole faces to an existing school district to complete a boundary change.

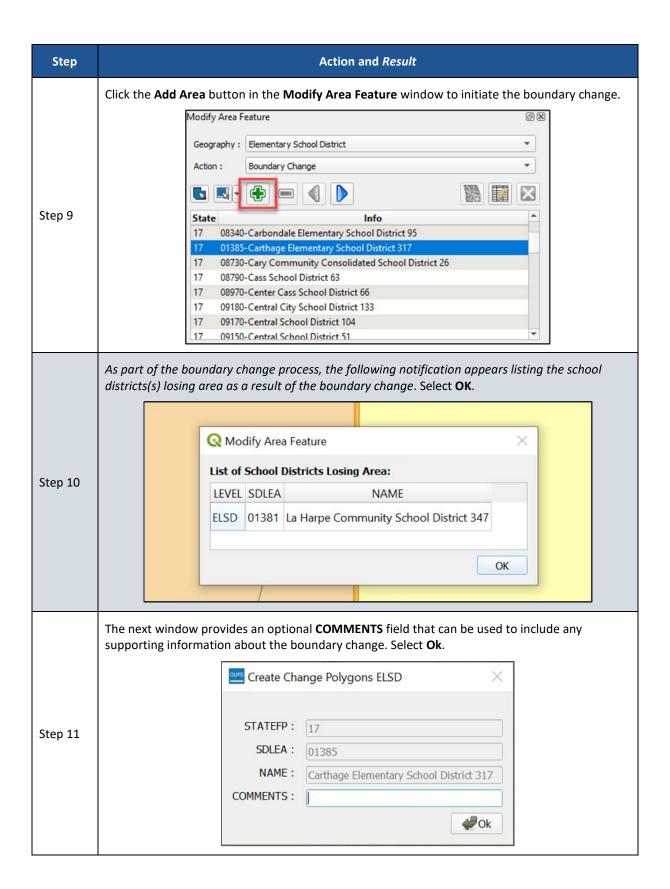
Table 15: Steps to Make a Boundary Change Using Whole Faces

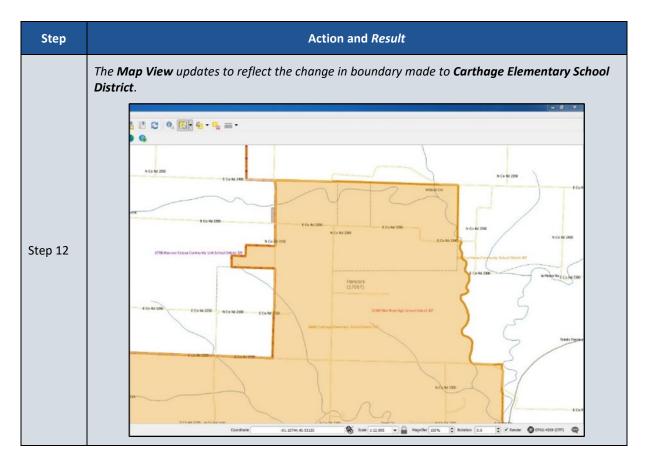








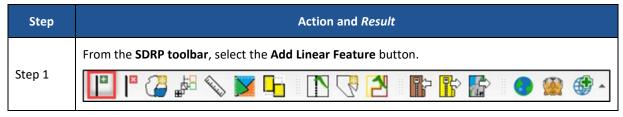




5.3.5 Add a Linear Feature to Split a Face

Table 16 describes the steps to add a linear feature to split a face if the whole area of a selected face (polygon) is not to be included in the boundary change. After splitting the face, refer to **Table 15** to complete the boundary change.

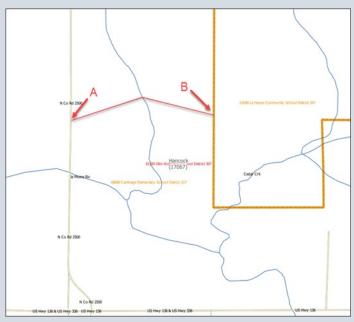
Table 16: Steps to Add a Linear Feature to Split a Face



Step Action and Result

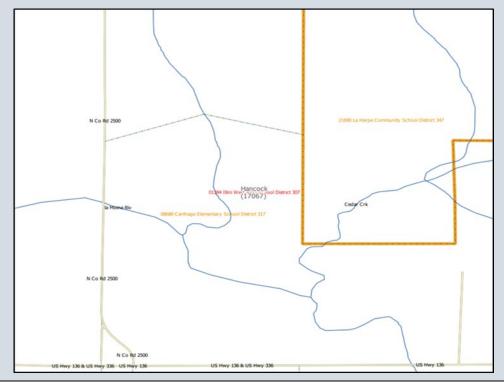
In this example, the new boundary does not exist in the Census data and a new linear feature must be added before the boundary change may be made.

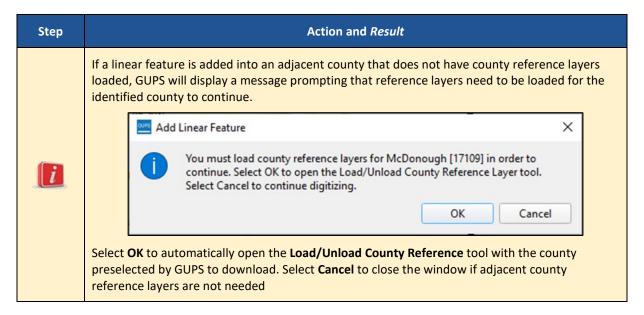
In the **Map View**, navigate and zoom to the area to split. Left-click the mouse at the starting point of the line (A) and continue to left-click the mouse at each vertex along the path of the line to be drawn. When the line is complete, right-click the mouse to finish drawing (B).



Step 2

GUPS adds the linear feature to the map while also splitting faces. These split faces can be individually selected to include in a boundary change.

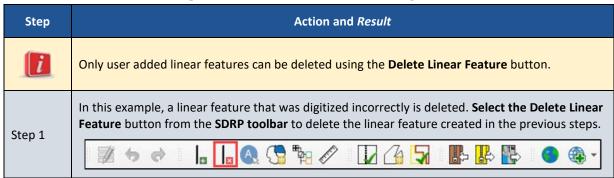




5.3.6 Delete a Linear Feature

Linear features can be deleted one segment at a time, as described in **Table 17**, or multiple segments at a time as described in **Table 18**.

Table 17: Steps to Delete a Linear Feature One Segment at a Time



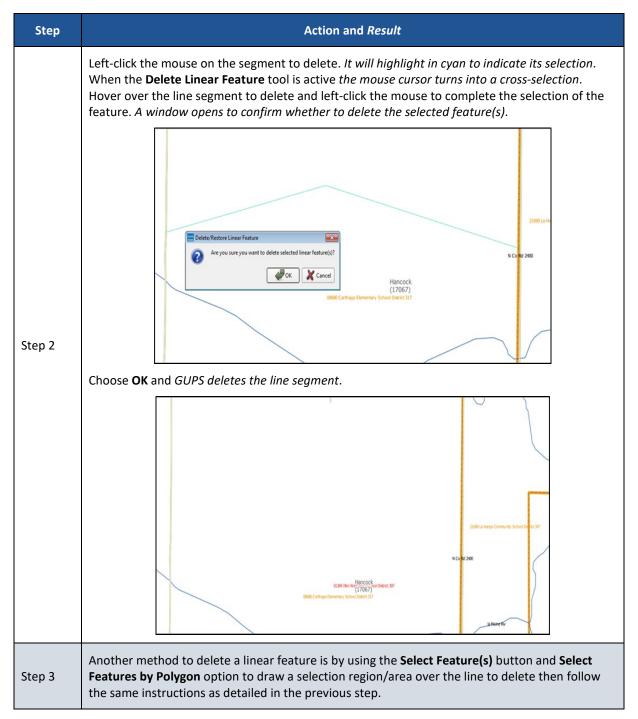
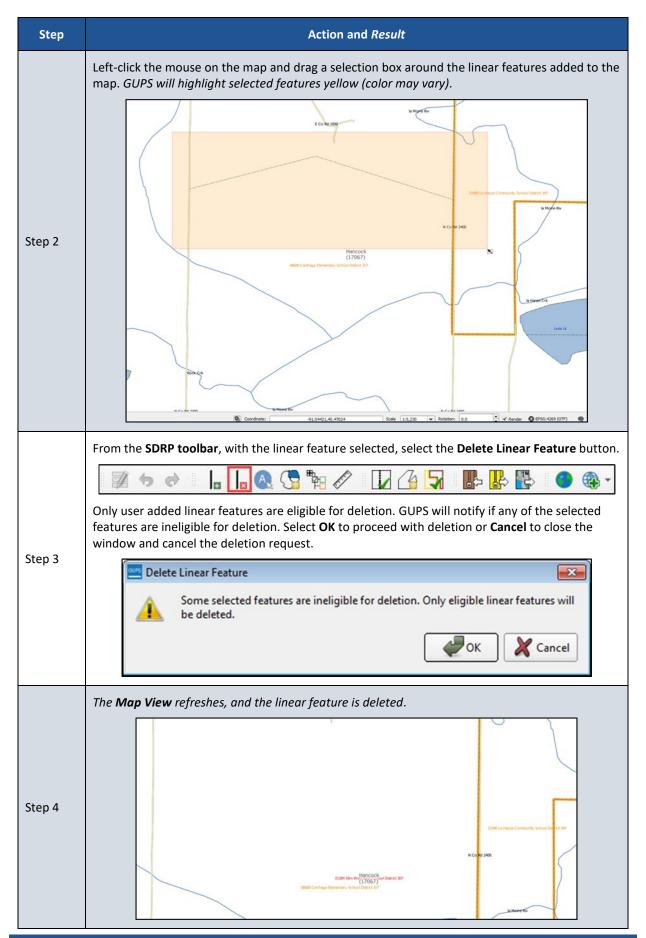


Table 18: Steps to Delete Multiple Segments of a Linear Feature

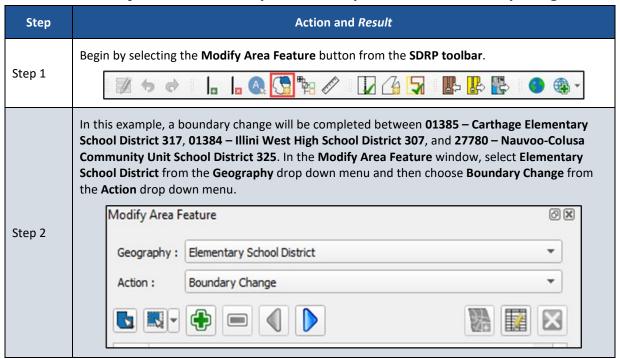
Step	Action and Result
	Choose the Select Feature(s) button from the Standard toolbar . Please note, the image below shows only a portion of the Standard toolbar .
Step 1	€ □ □ □ □ □
	Details on the Standard toolbar are found in sub-appendix E2 .

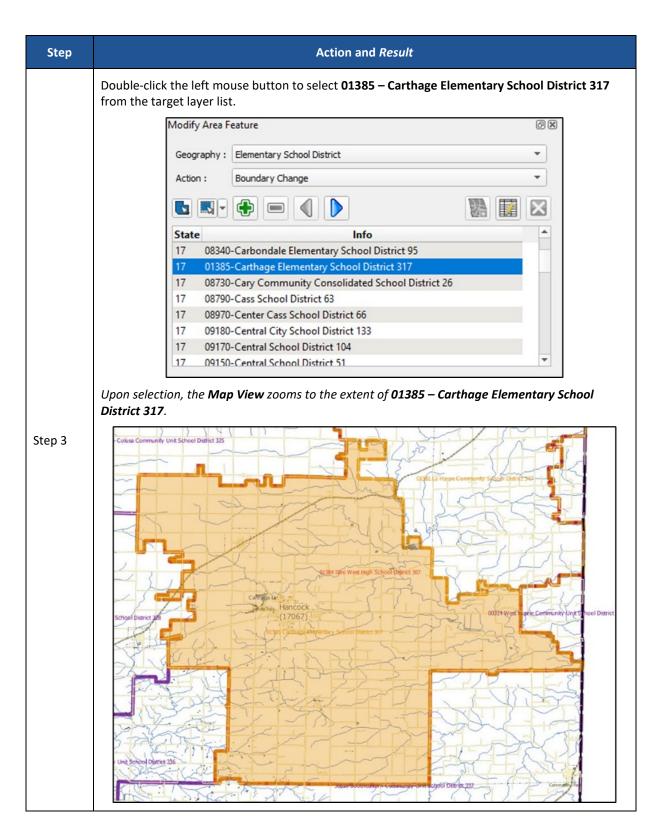


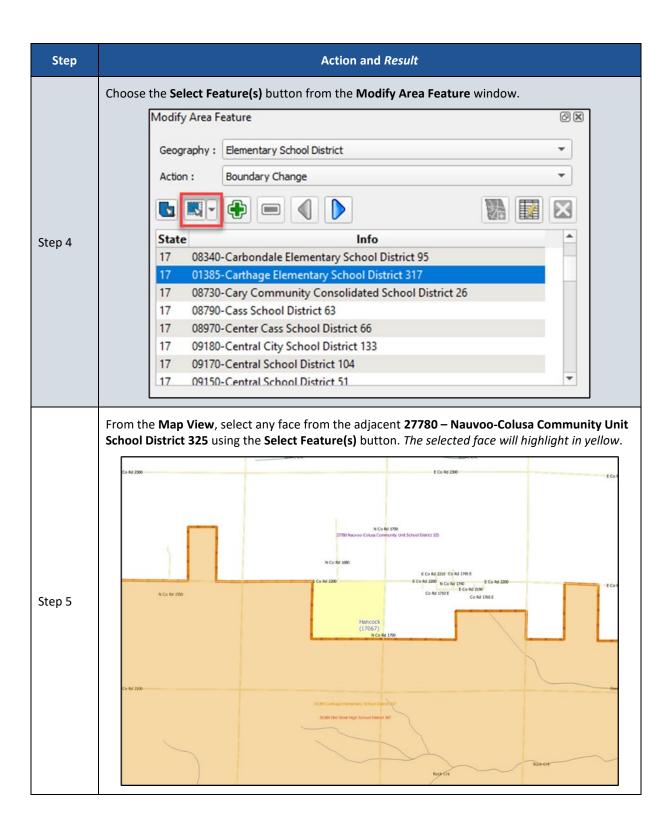
5.3.7 Making Elementary and Secondary School District Boundary Changes Simultaneously

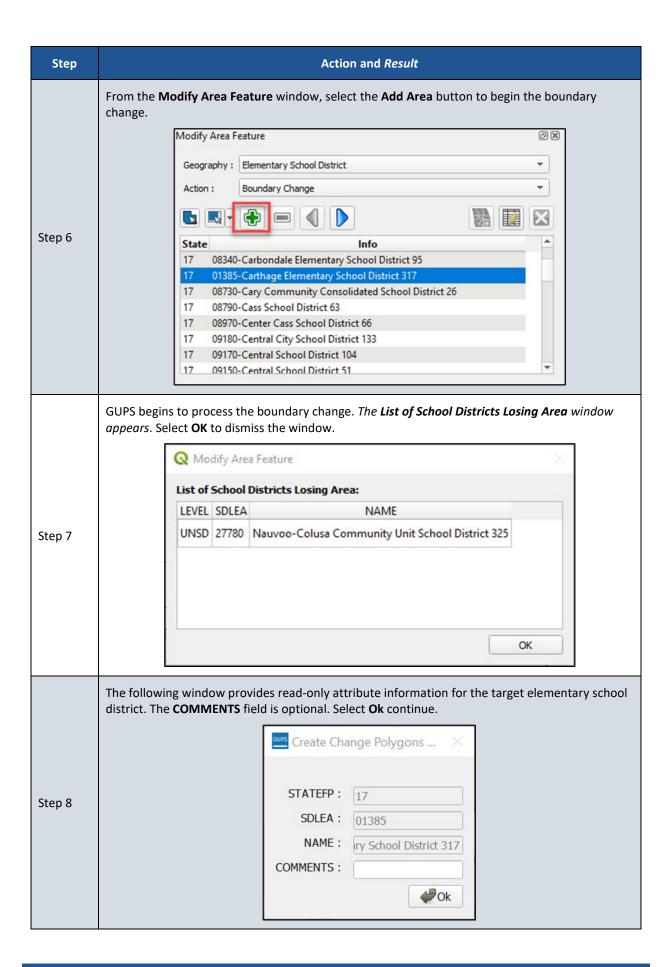
If GUPS detects that an elementary school district boundary change may require a corresponding secondary school district boundary change, GUPS will offer the user the option to proceed with the secondary boundary change once the elementary change is complete. The user may choose to use the same face selection from the elementary school district boundary change to update the secondary school district, or the user can decline if the secondary update is not appropriate. Follow the steps in **Table 19** to complete this action.

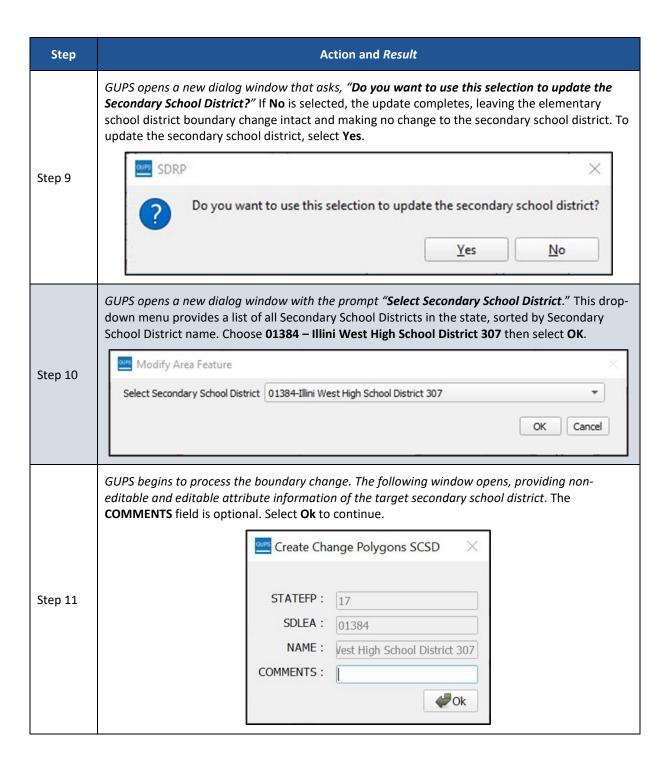
Table 19: Steps to Make Elementary and Secondary School District Boundary Changes

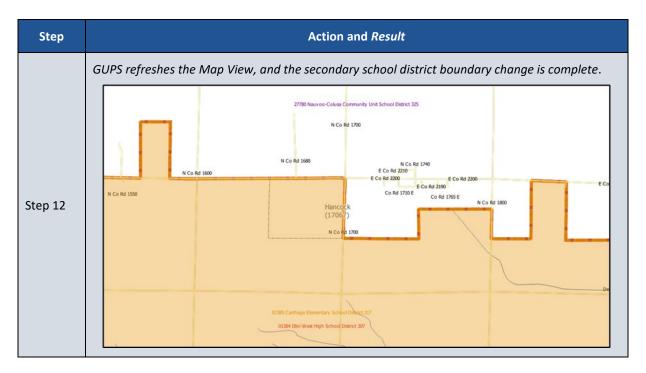








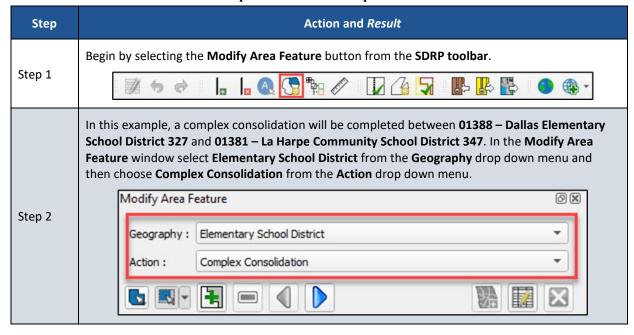


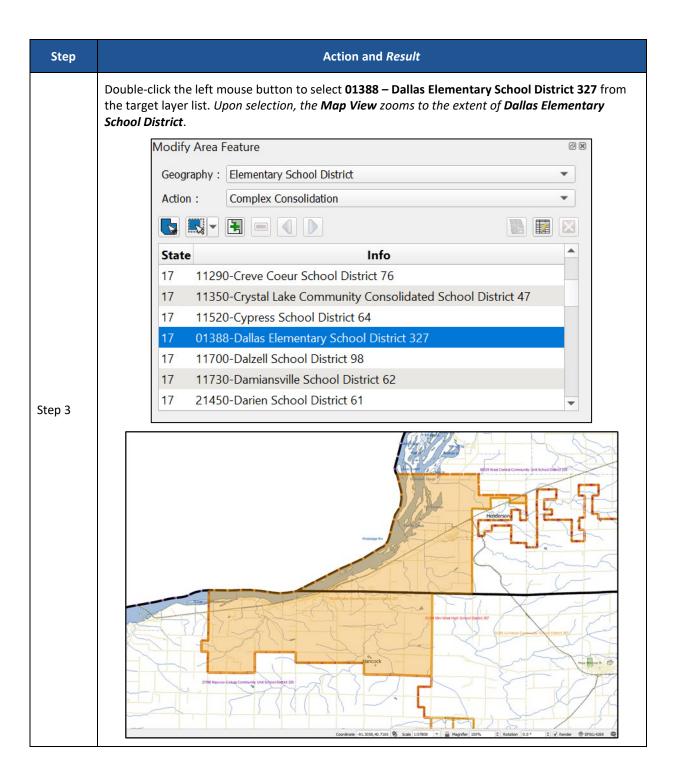


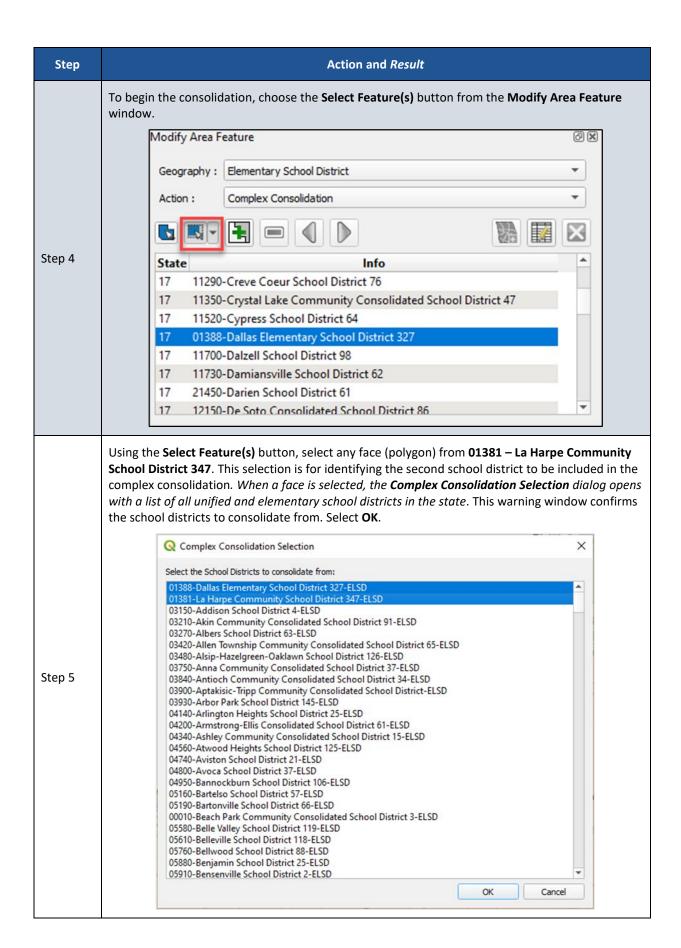
5.3.8 Complex Consolidation

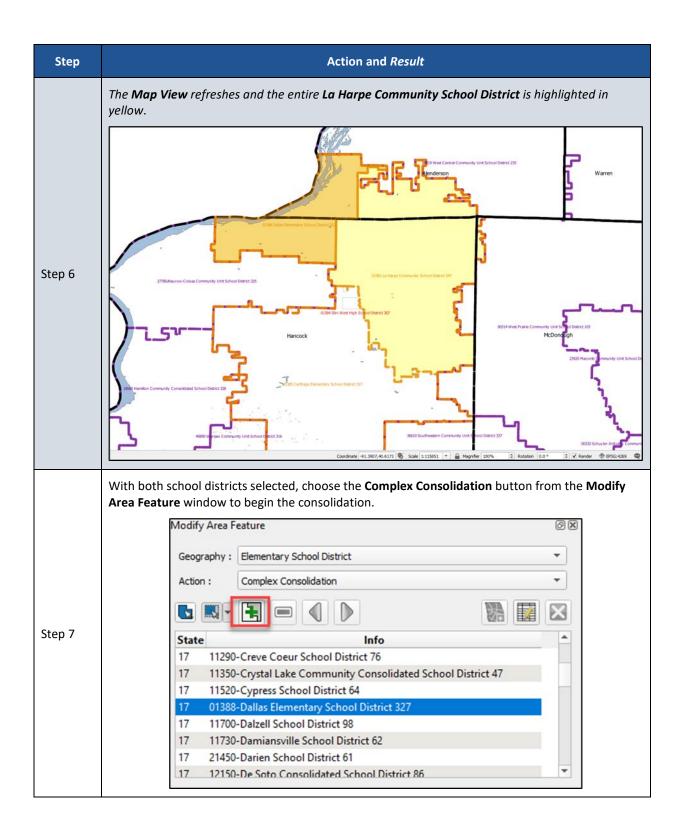
A complex consolidation change refers to the situation where two or more school districts merge to create a new school district with a new name and new SDLEA ID number along with additional boundary changes. Follow the steps in **Table 20** to perform a complex consolidation.

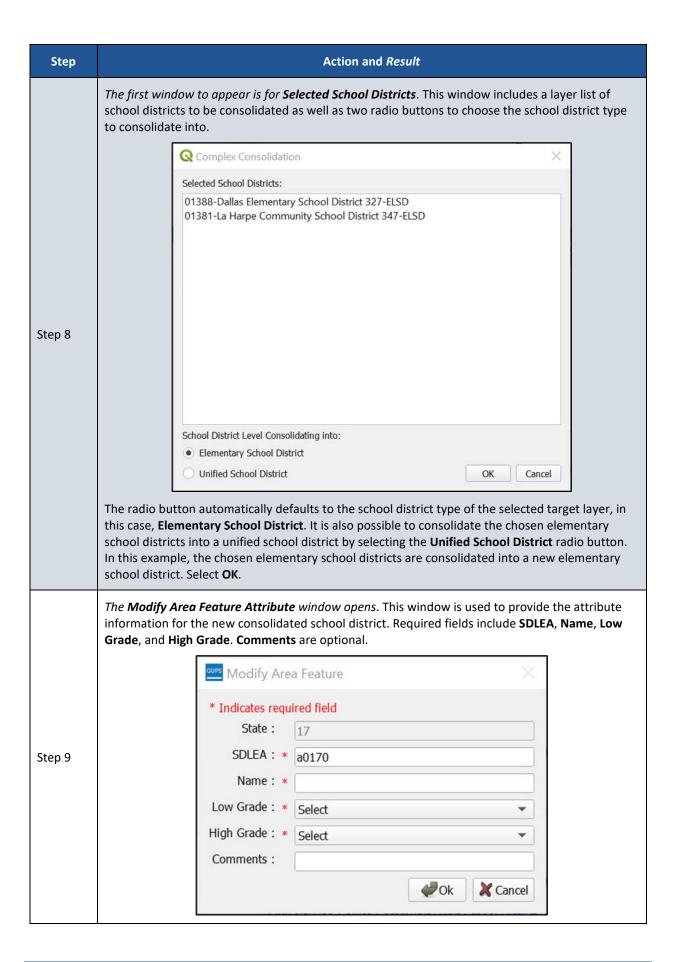
Table 20: Steps to Perform a Complex Consolidation

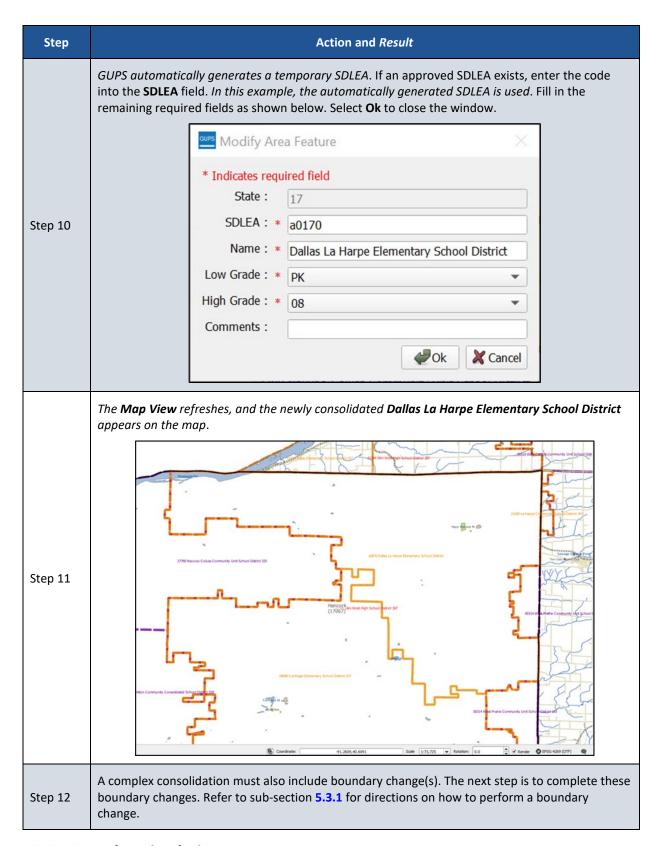










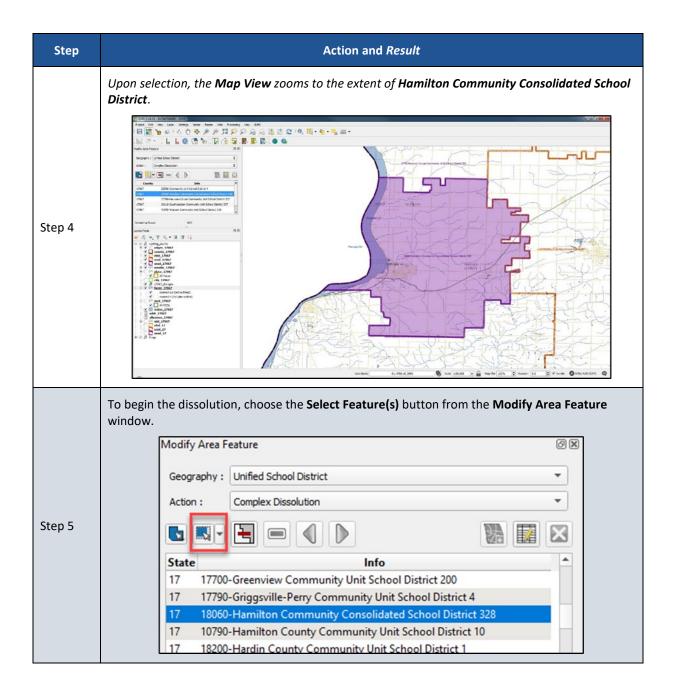


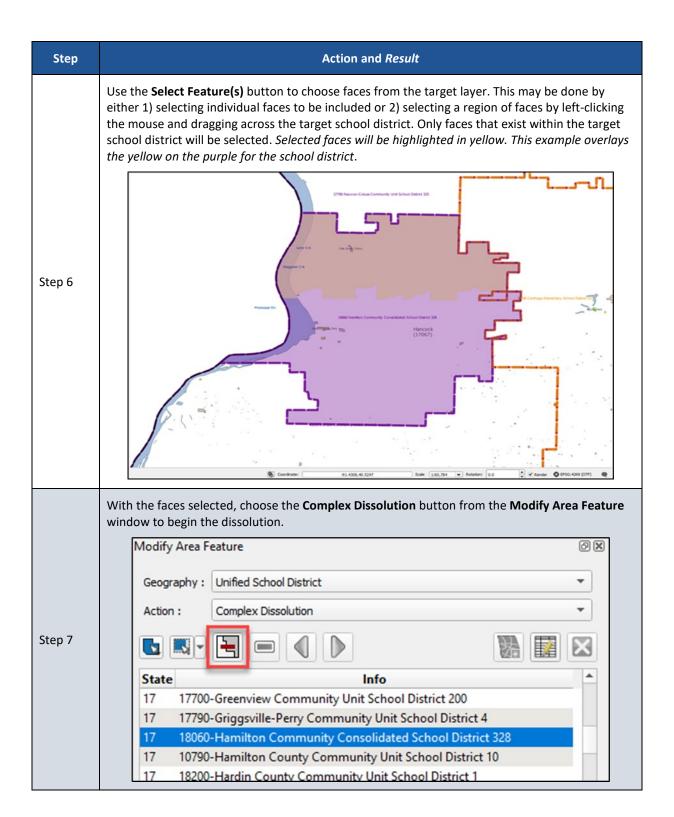
5.3.9 Complex Dissolution

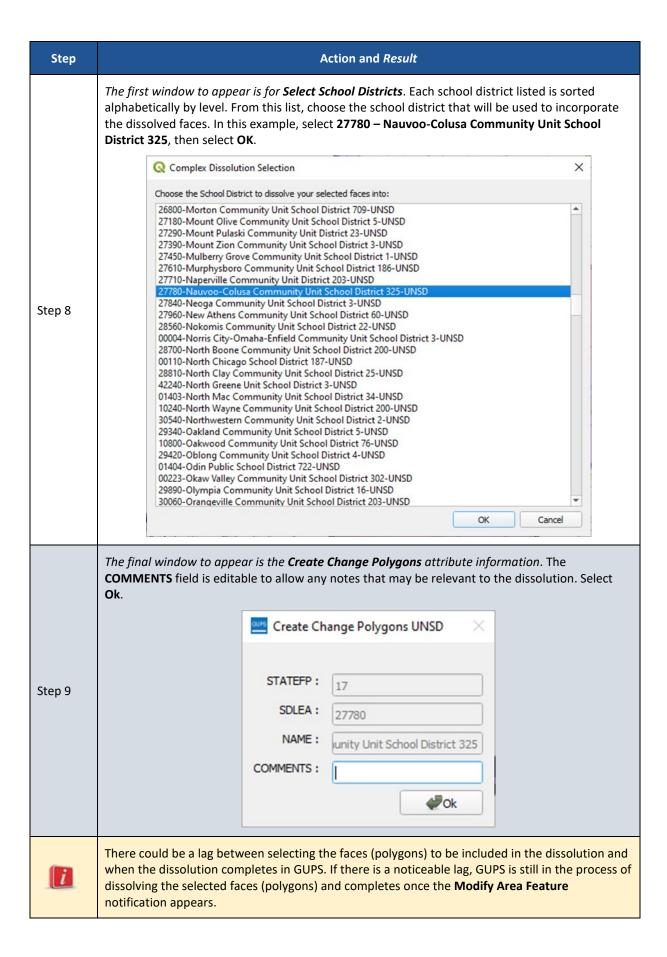
A complex dissolution change occurs when a single school district is dissolved and its area split between two or more other existing school districts, with or without additional boundary changes. Follow the steps in **Table 21** to perform a complex dissolution.

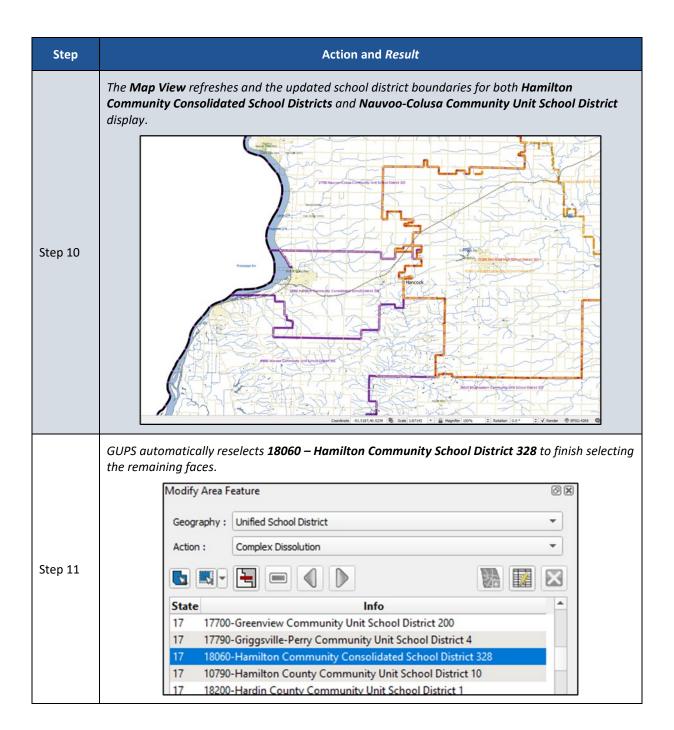
Table 21: Steps to Perform a Complex Dissolution

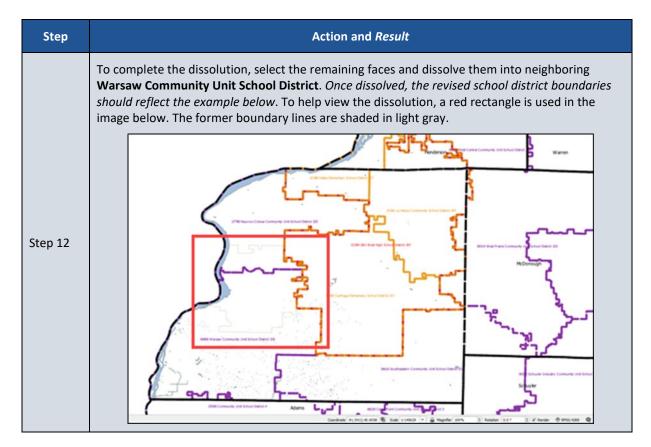
Step	Action and Result
i	Complex dissolutions require county reference layers to be loaded into the SDRP project. For the affected school districts, confirm that county reference layers have been loaded for all applicable counties. Use the Load/Unload County Reference Layer tool described in Table 13 to load county reference layers.
Step 1	Begin by selecting the Modify Area Feature button from the SDRP toolbar .
Step 2	In this example, a complex dissolution is completed using a unified school district, 18060 – Hamilton Community Consolidated School District 328. In the Modify Area Feature window, select Unified School District from the Geography drop down menu and then choose Complex Dissolution from the Action drop down menu. Modify Area Feature Geography: Unified School District Action: Complex Dissolution
Step 3	Select 18060 – Hamilton Community Consolidated School District 328 from the target layer list. Modify Area Feature Geography: Unified School District Action: Complex Dissolution State Info 17 17700-Greenview Community Unit School District 200 17 17790-Griggsville-Perry Community Unit School District 4 17 18060-Hamilton Community Consolidated School District 328 17 10790-Hamilton County Community Unit School District 10 17 18200-Hardin County Community Unit School District 1







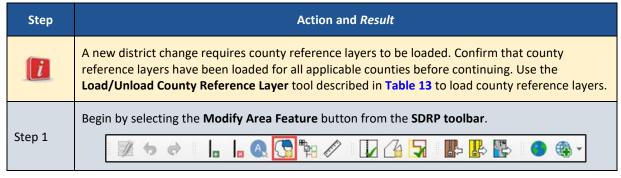


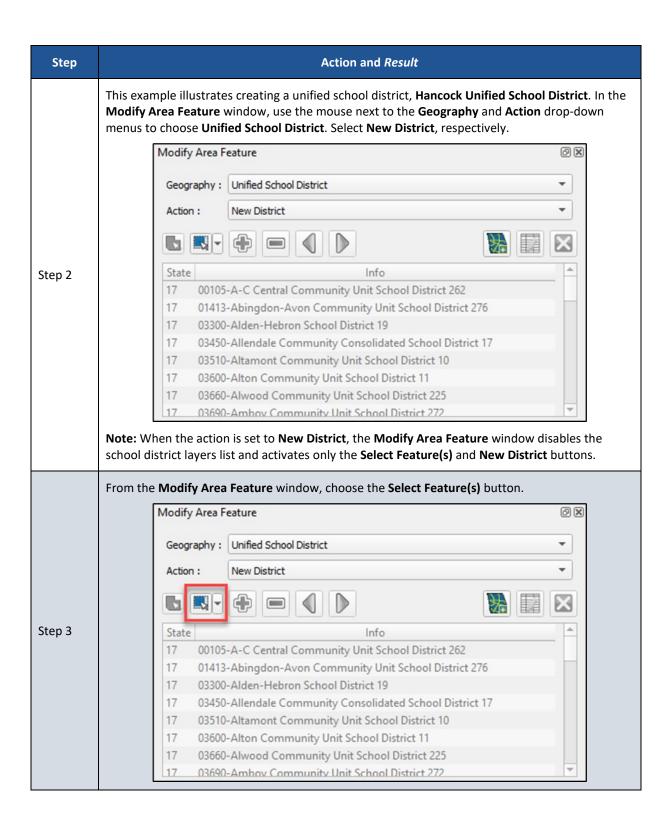


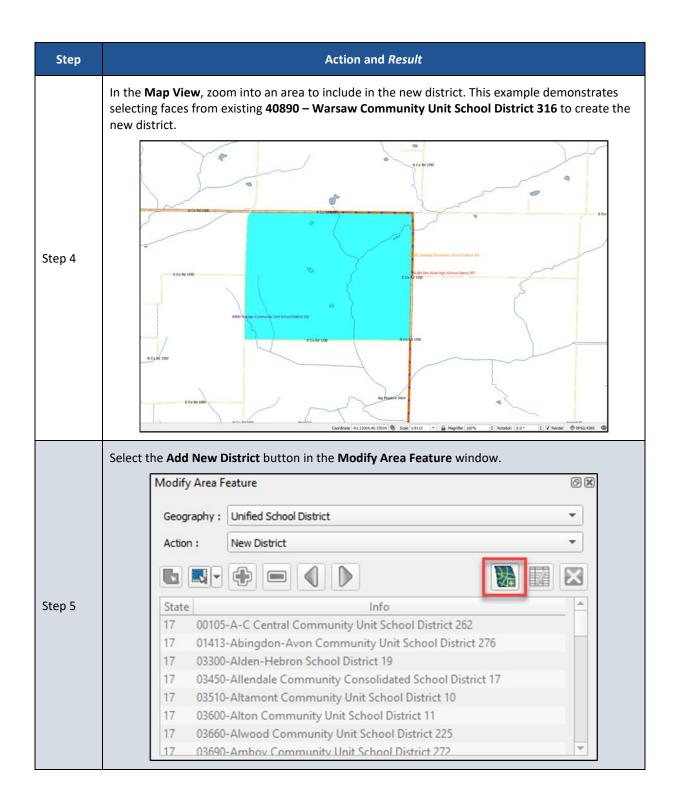
5.3.10 New District

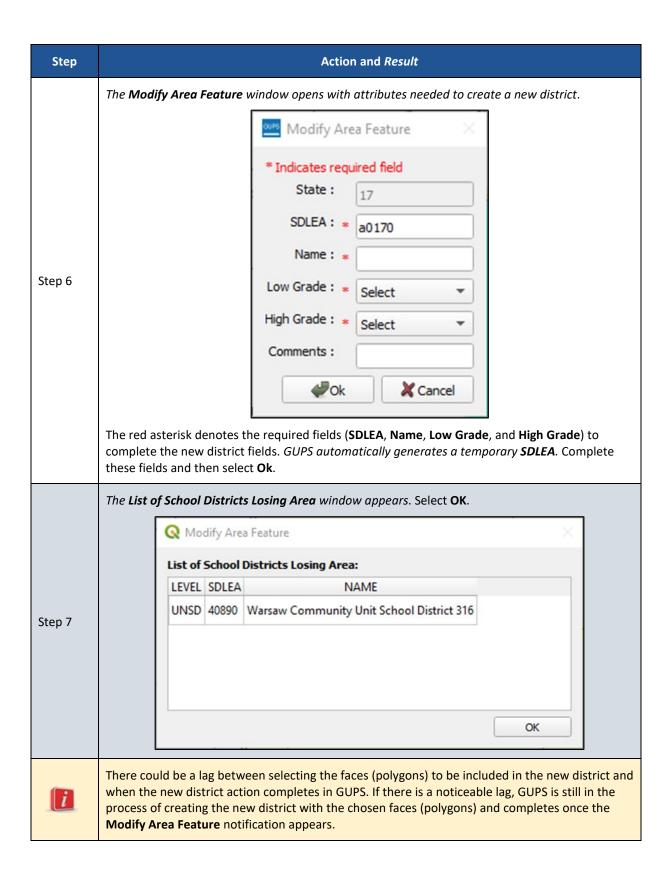
A new district change occurs when transferring area from one or more existing school districts to form a completely new school district. Do not confuse this transaction with a consolidation where the entire area of one or more school districts consolidates to form a new school district. Follow the steps in Table 22 to create a new school district.

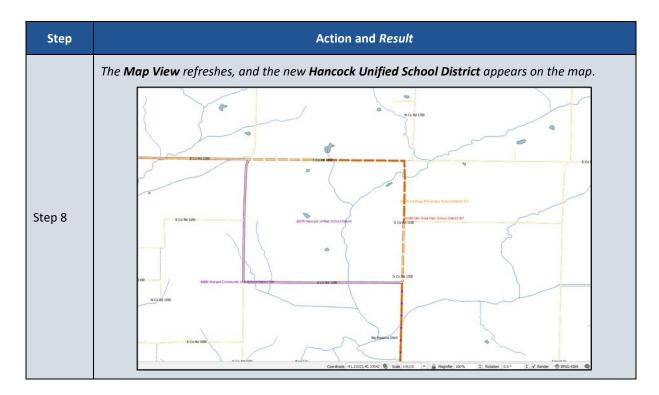
Table 22: Steps to Create a New District











5.4 Review and Validate Updates

GUPS provides three tools—the SDRP Criteria Review tool, the Geography Review tool, and the Review Change Polygons tool to help review and validate the updates made during the SDRP. The contents of this sub-section detail using each of these three tools and provide examples of errors or warnings that may result.

5.4.1 SDRP Criteria Review Tool

The SDRP Criteria Review tool is a validation tool that reviews spatial and attribute changes made during the SDRP. The SDRP Criteria Review tool is a mandatory tool that must be run before the export of the file to the Census Bureau. This tool ensures that all changes correctly follow Census Bureau data submission guidelines, and it allows corrections on any item that is flagged for review by the SDRP Criteria Review tool.

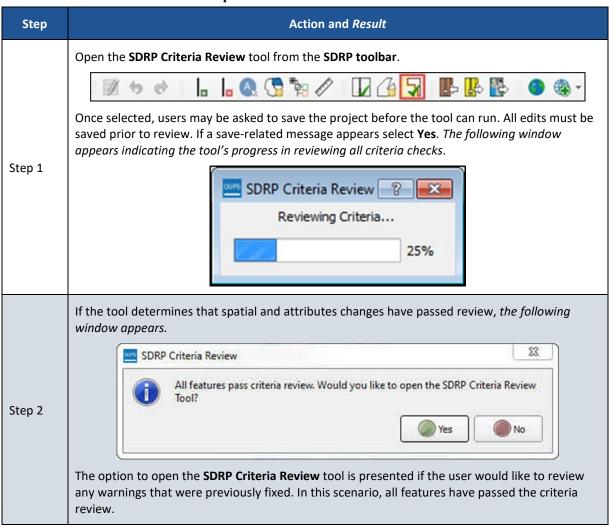
The tool reports two problem types: errors and informational warnings. Errors are critical data issues that must be fixed before exporting data to the Census Bureau. Warnings are issues that the Census Bureau would like the mapping coordinator to review. This tool reviews five primary criteria as listed in Table 23.

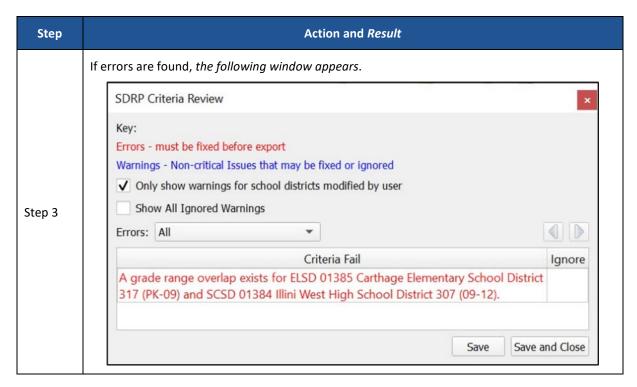
Table 23: SDRP Criteria Review Tool Error and Warning Messages

Criteria	Error/Warning	Fix/Ignore
Grade Range Overlap (sub-section 5.4.1.1)	Error	Must Fix
Grade Range Coverage Gap (sub-sections 5.4.1.2 and 5.4.1.3)	Error	Must Fix
Partially Dissolved School District (sub-section 5.4.1.4)	Error	Must Fix
Non-contiguous Entities (sub-section 5.4.1.5)	Warning	Fix or Ignore
Multiple Secondary School Districts (SCSDs) to a single Elementary School District (ELSD) (sub-section 5.4.1.6)	Warning	Fix or Ignore

Table 24 covers the steps to use the SDRP Criteria Review tool.

Table 24: Steps to Use the SDRP Criteria Review Tool





Follow the detailed instructions on correcting the various error types that can occur during the SDRP Criteria Review located in the subsequent sub-sections.

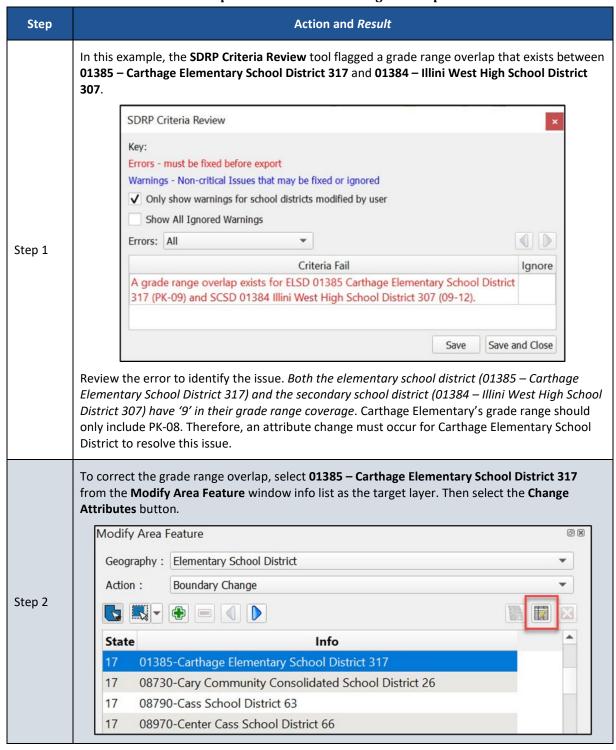
5.4.1.1 Grade Range Overlap Error

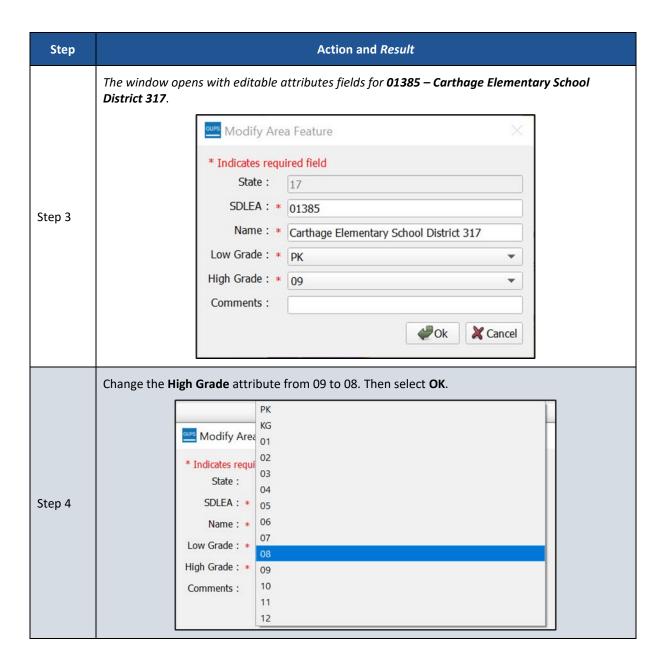
Note: The scenarios provided are intended to be an introduction on how to resolve criteria errors in GUPS and not a comprehensive list of all possible scenarios and solutions that can occur. The steps taken to resolve real-world criteria errors largely depend on the type of edits completed and the local, specialized school district knowledge the mapping coordinator has when making updates during the SDRP

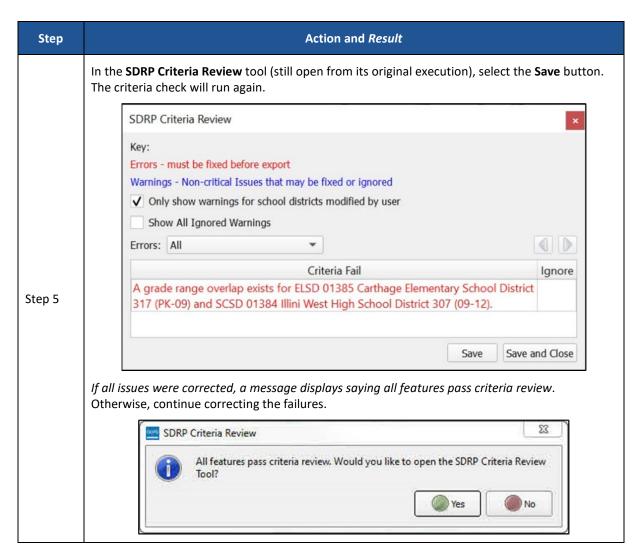
Grade Range Overlaps occur when one school district contains grade ranges that also exist in another school district occupying the same area. For example, an elementary school district has a grade range of pre-k (PK)-9 while the underlying secondary school district has a grade range of 9-12. This is considered a grade range overlap since both the elementary school district and the secondary school district have '9th grade' in their respective grade ranges. Grade range adjustments need to occur for either the elementary school district or secondary school district to correct this error.

Table 25 illustrates an example where the SDRP Criteria Review tool flagged a grade range overlap that exists between 01385 – Carthage Elementary School District 317 and 01384 – Illini West High School District 307.

Table 25: Steps to Correct a Grade Range Overlap Error







5.4.1.2 Grade Range Coverage Gap Error – Incorrect Attributes

Grade Range Gaps can occur when one, or more, school district geographies have missing grade ranges. In this example a grade range gap (Figure 42) has been identified between 01381 – La Harpe Community School District 347 and 01384 – Illini West High School District 307. A grade range attribute change could be made to either the elementary school district or the secondary school district. Changing the grade range for La Harpe Community School District from 'PK-07' to 'PK-08', as described above in Table 25, would resolve the grade range gap error.

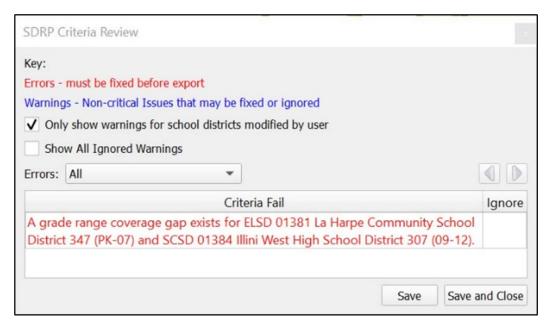


Figure 42: Example of a Grade Range Gap Error - Incorrect Attributes

5.4.1.3 Grade Range Coverage Gap Error – Missing School District Geography Coverage

It is possible that a grade range coverage gap exists because school district geography coverage is missing entirely. For example, during a Complex Consolidation or Boundary Change, faces (polygons) from a unified school district are added to an elementary school district. The unified school district faces that now belong to the elementary school district are missing secondary school district coverage because GUPS does not automatically apply secondary coverage. Instead of an attribute change, the grade range gap is resolved by adding the secondary school district coverage to those new elementary school district faces through the boundary change action. Refer to **Table 15** for steps to make a boundary change using whole faces.

5.4.1.4 Partially Dissolved School District Error

If, during a complex dissolution action, a school district has not been completely dissolved into the target school district(s), the SDRP Criteria Review tool flags this partially dissolved school district as an error (Figure 43). In the example below, 18060 – Hamilton Community School District 328 has been flagged as being partially dissolved.

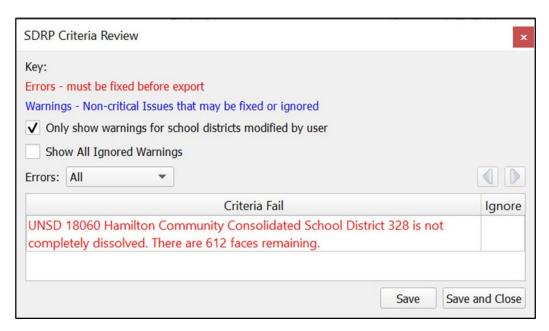


Figure 43: Example of a Partially Dissolved School District Error

The description states how many faces remain to dissolve. In this example, Hamilton Community Consolidated School District 328 has 612 faces that need to be dissolved to complete the dissolution. Open the Modify Area Feature tool and complete the complex dissolution for Hamilton Community Consolidated School District 328. Refer to Table 21 if questions remain on performing this update.

When all faces have been dissolved, select Save in the SDRP Criteria Review tool to rerun the tool to confirm that the error has been resolved. If all faces have been dissolved and no other informational warnings or errors exist, the SDRP Criteria Review tool will indicate that all criteria have passed review.

5.4.1.5 Informational Warning – Non-contiguous Entities

A noncontiguous entity is a type of informational warning that GUPS provides as a means of data review. Unlike errors, which must be corrected, informational warnings do not require fixing before exporting the file to the Census Bureau. They can either be ignored or fixed. The purpose of these informational warnings is to alert users of any potential data issues created during the SDRP editing phase. The noncontiguous entity warning can be useful if, for example, during the creation of a new school district, some faces (polygons) were missed.

It is possible to ignore a noncontiguous warning. If modifying or creating a school district has resulted in a noncontiguous school district with legitimate data changes, the criteria review gives the option to ignore the warning.

5.4.1.6 Informational Warning – Multiple Secondary School District (SCSD) Assigned to Single Elementary School District (ELSD)

The second type of informational warning involves the assignment of multiple secondary school districts to a single elementary school district.

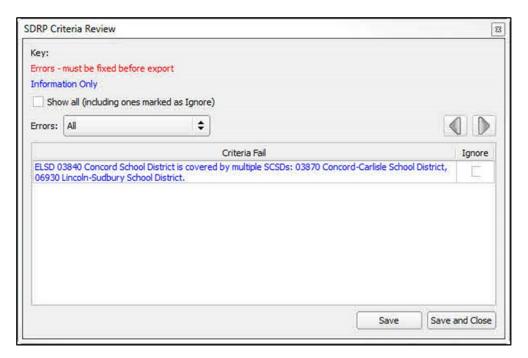


Figure 44: Informational Warning (Multiple Secondary School Districts → Single School District)

In this example, illustrated in Figure 44, the SDRP Criteria Review tool found that ELSD 03840 Concord School District is covered by multiple SCSDs (03870 and 06930). Upon review, a boundary correction to ELSD Concord resulted in a single face being covered by SCSD Lincoln-Sudbury while the balance of Concord is covered by SCSD Concord-Carlisle. Resolving these types of warnings will largely depend on the local, specialized knowledge regarding the behavior of school district geography.

For this example, the following three solutions could be used to resolve this warning.

- Ignore The change in geography is correct and should be left as is.
- Boundary Change The face (polygon) should belong to ELSD Lincoln-Sudbury School District and not ELSD Concord School District.
- New SCSD Include this face (polygon) in a new secondary school district.

5.4.1.7 Informational Warnings – Options for Viewing

By default, the SDRP Criteria Review tool will only display warnings for school districts that have been modified by a user as indicated by the checkmark next to the "Only show warnings for school district modified by user" option. Unchecking this option may display warnings for other school districts in the state that were not included as updates during the SDRP. If time allows the mapping coordinator can review these warnings, but the priority should be warnings identified for school districts modified by a user first.

The second option is the checkbox for 'Show All Ignored Warnings." When informational warnings have been ignored, the SDRP Criteria Review tool removes these items from the Criteria Fail list. To review any previously ignored informational warnings, select the show all check box. Unchecking the Show All Ignored Warnings check box hides these items from the Criteria Fail list (Figure 45).



Figure 45: Information Warning Check Boxes

Note: When the Show All checkbox is selected, the Ignore checkbox for previously ignored informational warnings is disabled. Informational warnings marked as ignore cannot be unchecked once changes are saved in the SDRP Criteria Review tool.

5.4.2 Geography Review Tool

The Geography Review tool filters the map layers based on various fields in the attribute table. Use this tool to check the updates made to linear features and school districts. This tool may also be used to view the attributes of entities, features, and boundaries that were not changed. Steps for using the Geography Review tool information appear in **Table 26**.

Select the Geography Review tool from the SDRP toolbar.

The Geography Review Tool window opens.

Geography Review Tool

Layer Name: Select

Previous Zoom

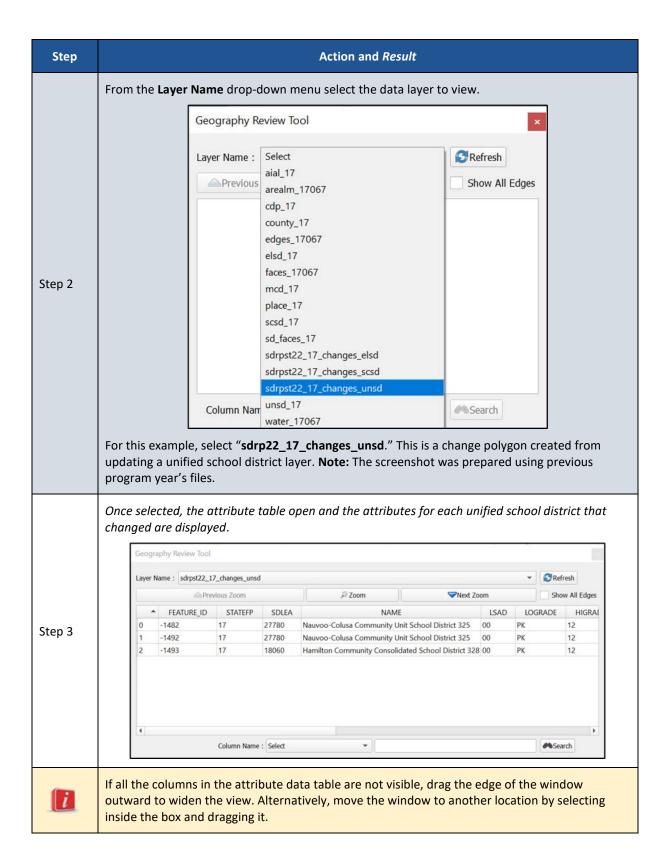
Next Zoom

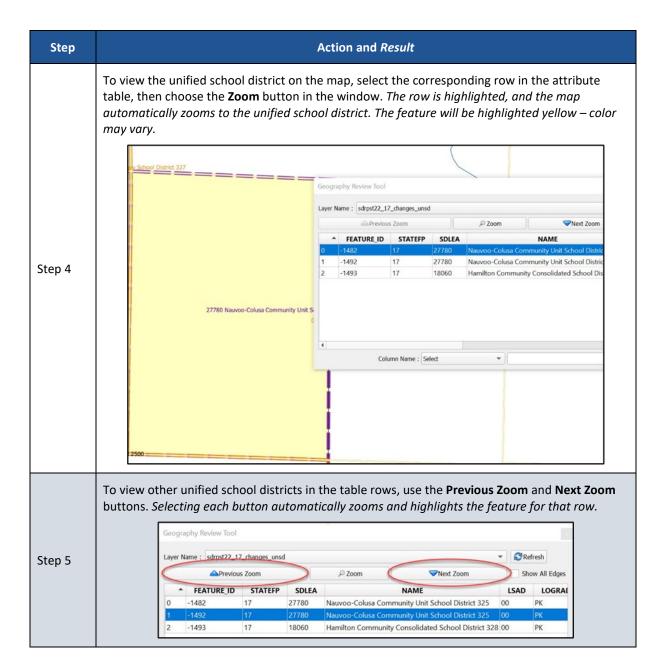
Show All Edges

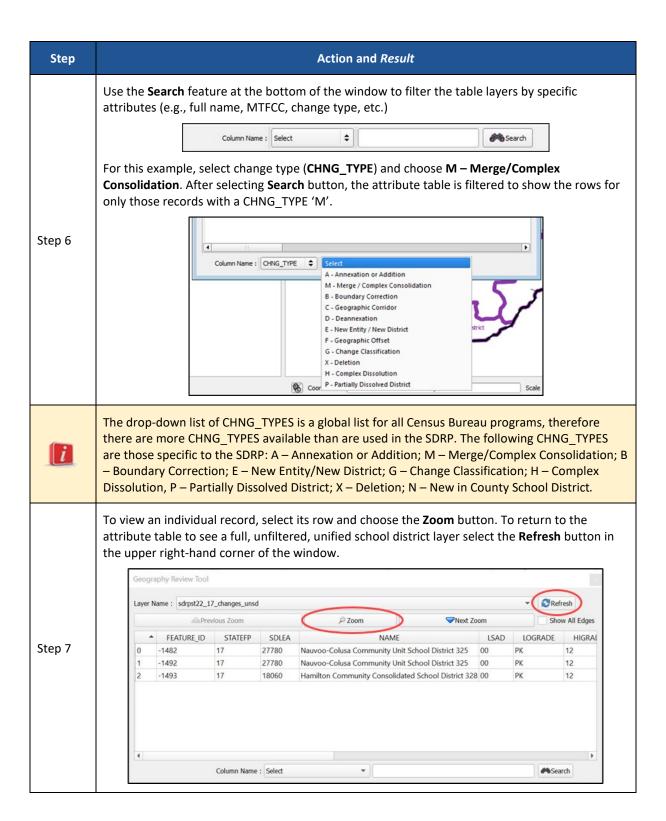
Column Name:

Column Name:

Table 26: Steps to Use the Geography Review Tool



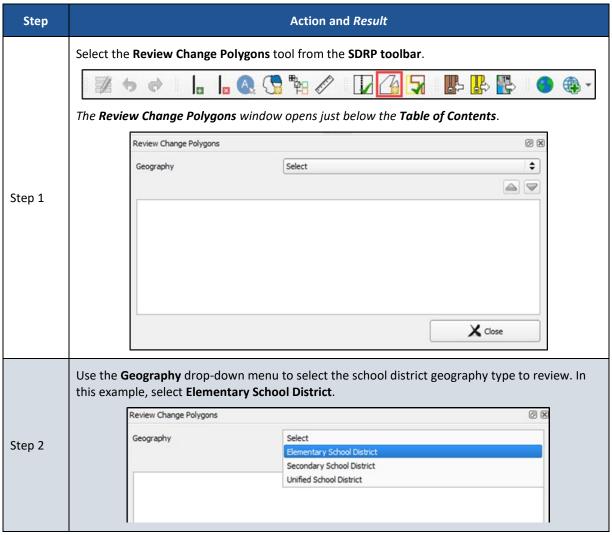


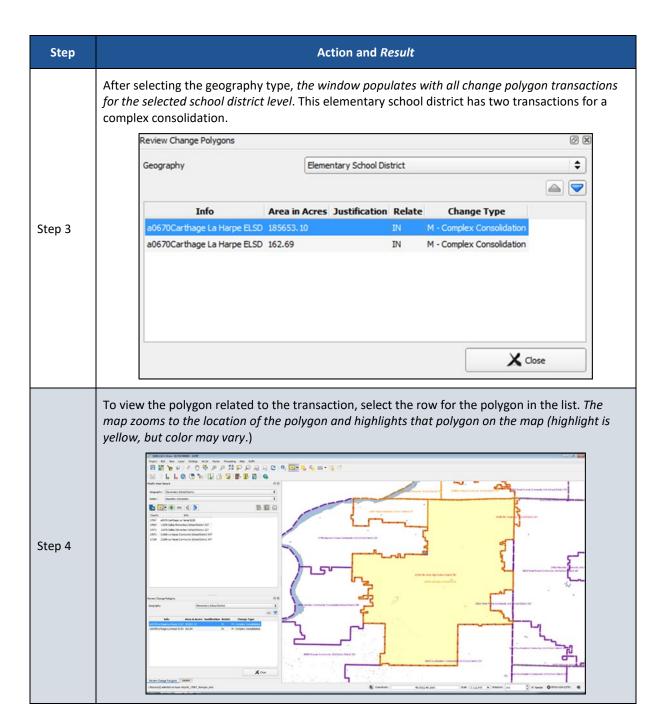


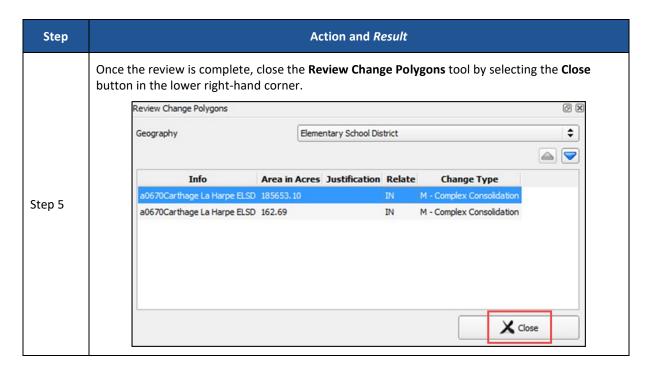
5.4.3 Review Change Polygons Tool

The Review Change Polygons tool, described in **Table 27**, allows the user to view the transactions created from school district boundary edits.

Table 27: Steps to Use the Review Change Polygons Tool







5.5 Export Zip Files to Share and Submit

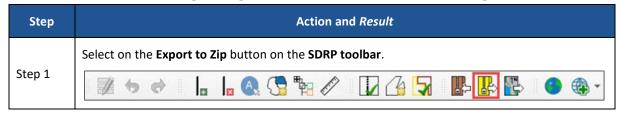
There are two options for creating export zip files: export a file to share with another participant and export a file for submission to the Census Bureau. Exporting a file to share with another participant does not require all errors to be resolved and exports the whole project, including all reference files. It may be useful to use this option if a school district or county completes their updates, and they want to send the results to the mapping coordinator for review.

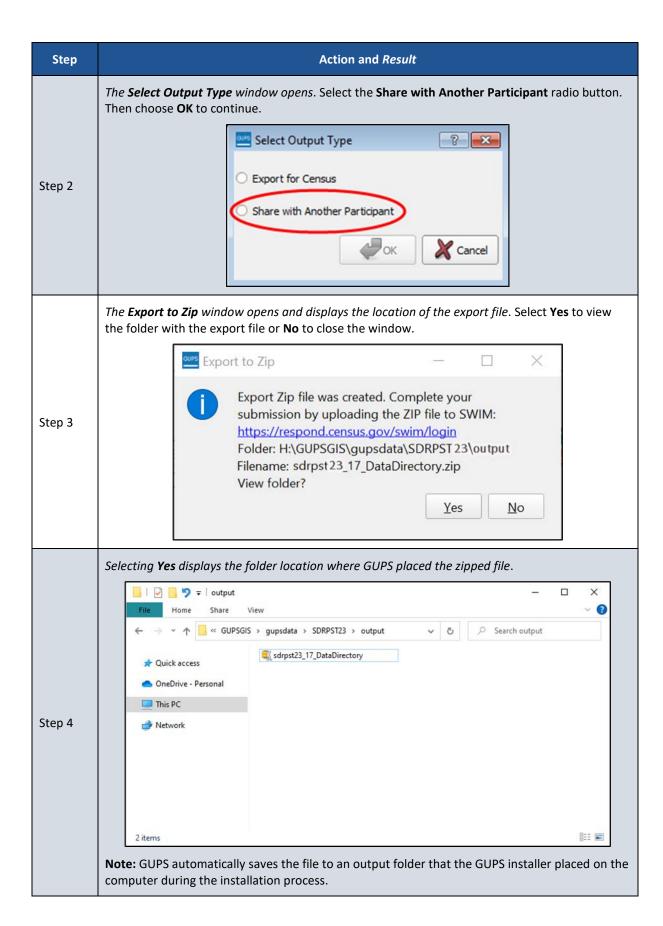
Exporting a file for submission to the Census Bureau requires all SDRP criteria review errors to be resolved. The Census Bureau will only accept this file export for submission. In either case, GUPS automatically names the output zip file. It packages all files required by the Census Bureau into the zip file and saves it in the default GUPS project directory.

5.5.1 Export a File to Share with Another Participant

To export a file to share with another participant, follow the steps in Table 28.

Table 28: Steps to Export a File to Share with Another Participant

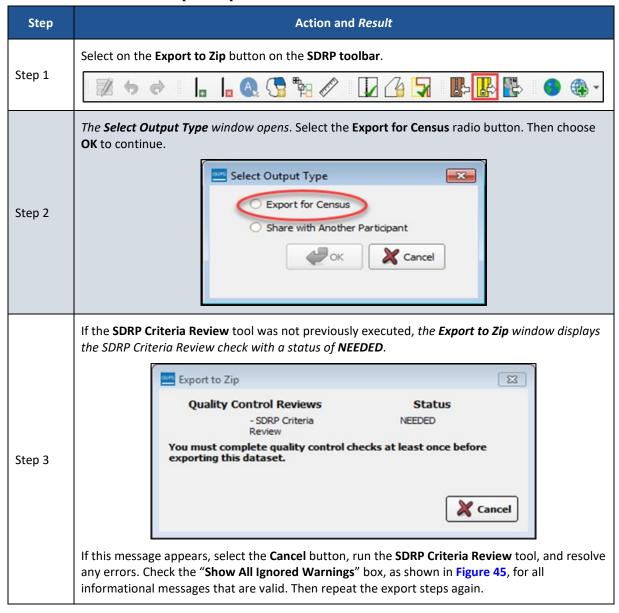


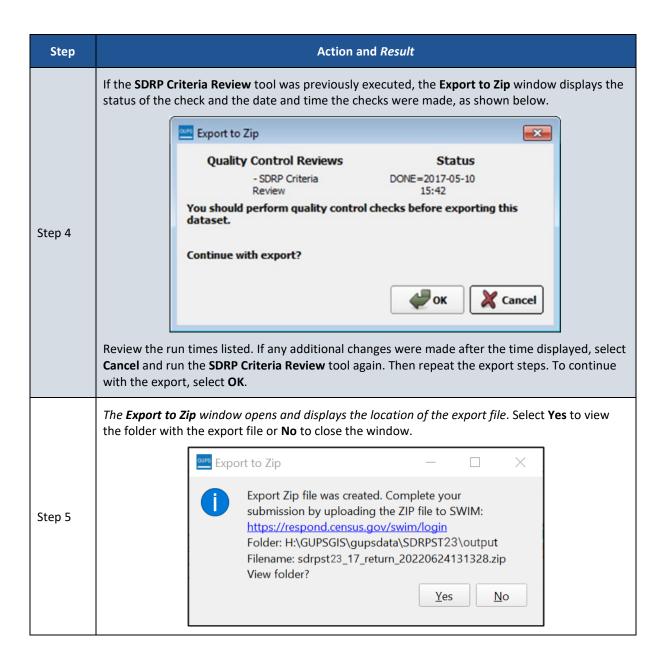


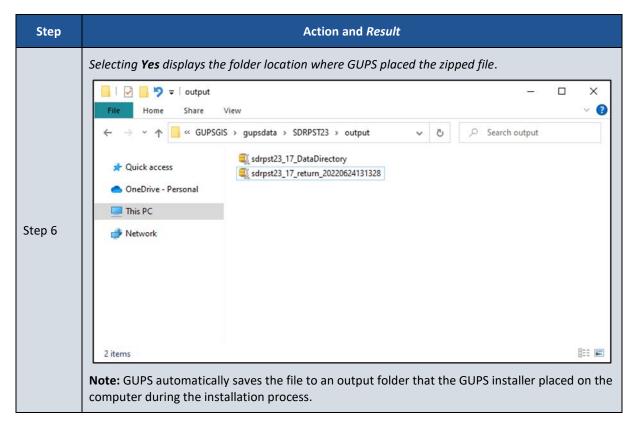
5.5.2 Export a File for Submission to the Census Bureau

To export a file for submission to the Census Bureau follow the steps in Table 29.

Table 29: Steps to Export a File for Submission to the Census Bureau







Proceed to the final part of the guide to learn about submitting files to the Census Bureau.

PART 5 HOW TO SUBMIT FILES TO THE CENSUS BUREAU

CHAPTER 6 USING THE SECURE WEB INCOMING MODULE (SWIM)

All submissions for the SDRP must be sent to the Census Bureau using the SWIM. Use the instructions in this chapter to establish or access a SWIM account and submit the state's SDRP zipped GUPS export file, zipped updated listing files, and/or zipped submission log.

Some mapping coordinators may have an existing SWIM account. If so, submit the state's SDRP submission using that existing account. For mapping coordinators without an established account, contact the Census Bureau by email at <geo.school@census.gov> to request a registration token. Once a SWIM token has been assigned, create a SWIM account.

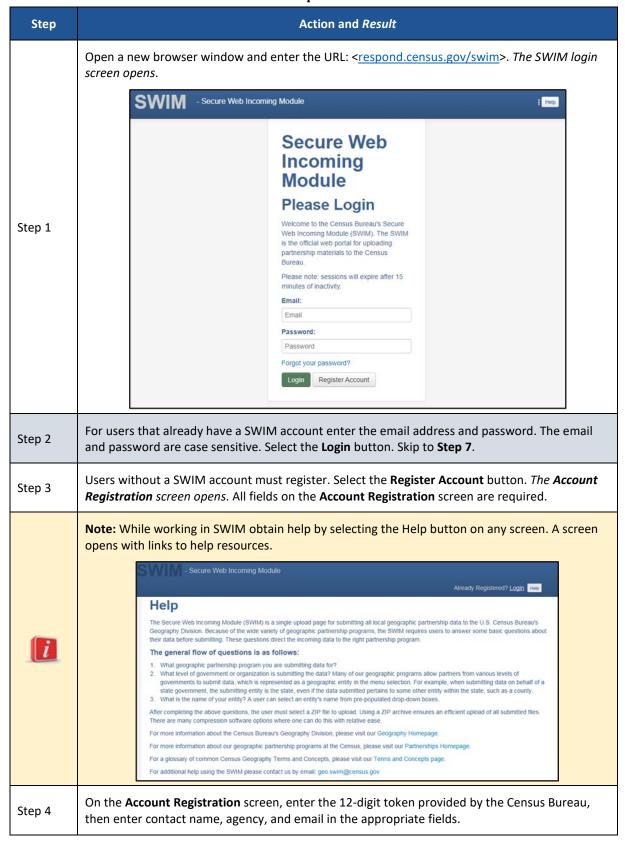
To check for the existence of a SWIM account or to reset a password on an established account, choose "Forgot your password?" on the main SWIM page and enter the email address in question to check for the existence of an account. If SWIM locates an account, it asks the established security question for the account, for which the answer is not case-sensitive, and sends an email to reset the forgotten password. If SWIM does not locate an account associated with the email address, it returns the following message, "No account registered for this email address. The email address associated with the account is case sensitive. Try again with the proper case or go to Account Registration to register for a SWIM account." Choosing the Account Registration link opens another window to establish a SWIM account; however, the person must have a registration token to proceed.

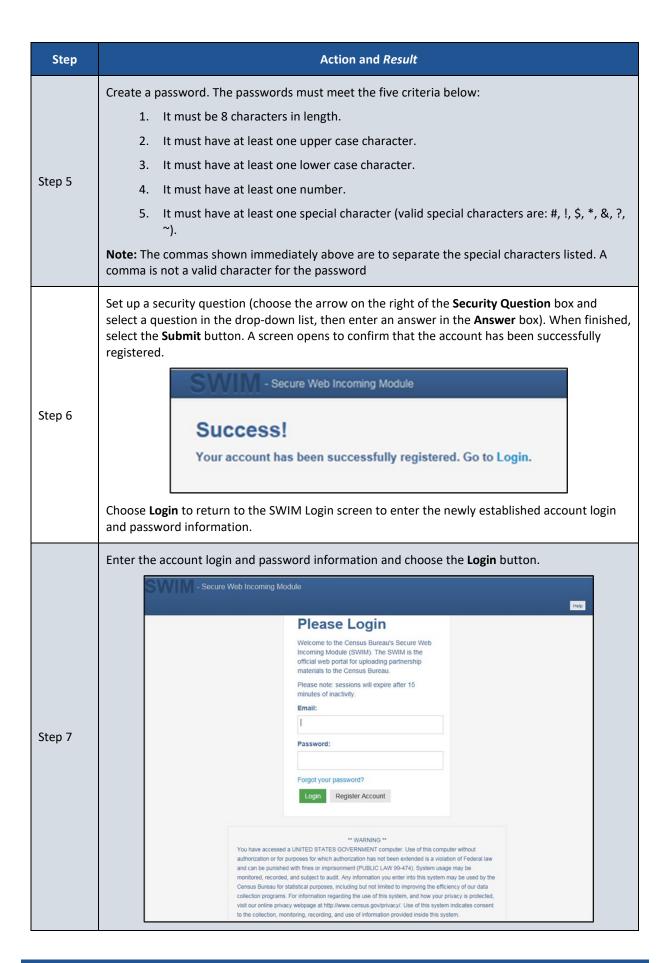
Note: The components of both the email address and the password of SWIM accounts are casesensitive. Make note of the format used when establishing the SWIM account (e.g., jane@anytown.org or Jane@anytown.org or JANE@ANYTOWN.ORG.)

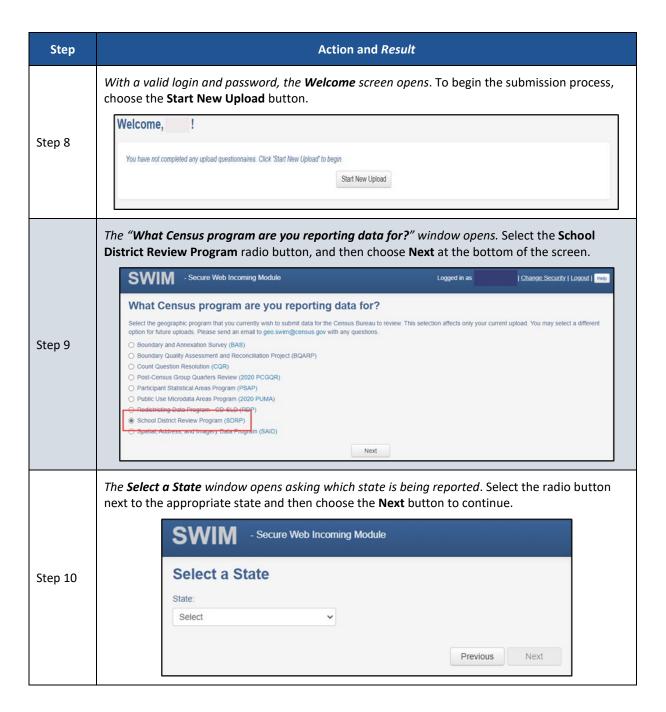
SWIM allows four attempts to login before it temporarily locks the account for 15 minutes. After the lock expires, try to login again or reset the password using the aforementioned "Forgot your password?" link on the login page. Once reset and logged into SWIM, account holders may modify their password and security answer by selecting "Change Security" link along the top, right side of the window.

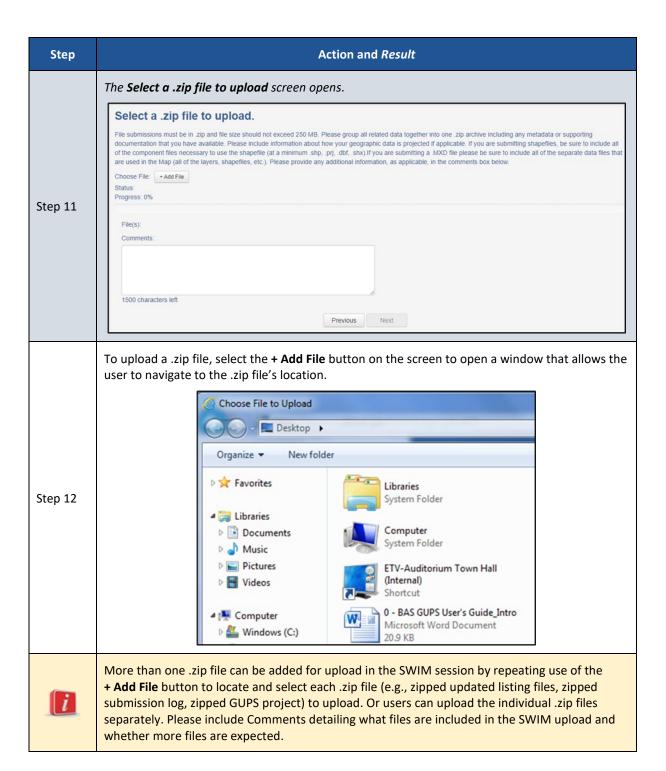
SWIM file requirements include submission of .zip file format. The .zip file may not include another .zip file as a component and it must not be larger than 250 megabytes. To send Annotation Phase changes to the Census Bureau, follow the instructions in **Table 30**. If problems still occur with SWIM, contact the Census Bureau because it may be necessary to create a new SWIM account.

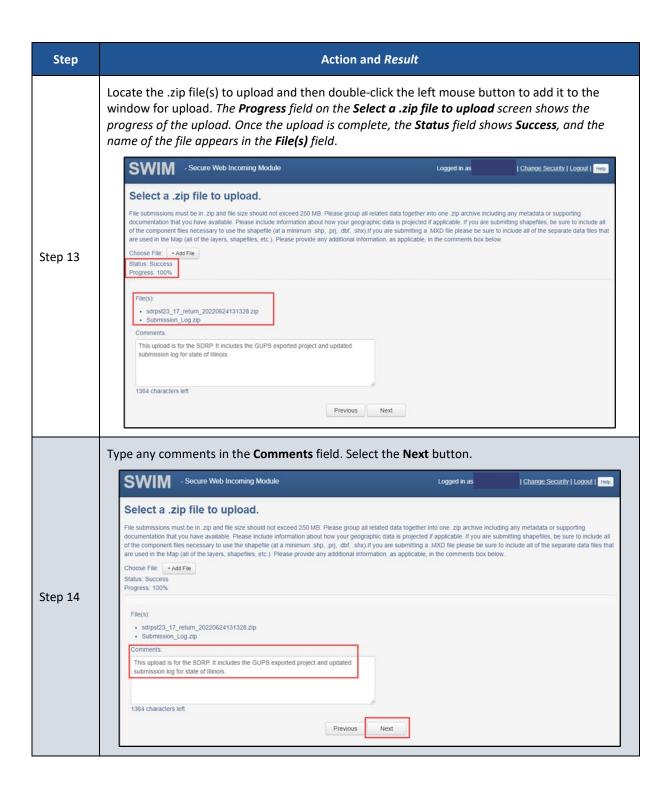
Table 30: Steps to Use SWIM

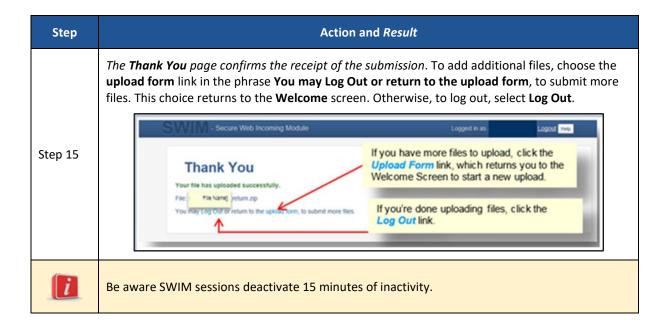












APPENDICES

APPENDIX A FINANCIAL RESPONSIBILITY

The Census Bureau categorizes school districts based on the grade ranges for which the school district is financially responsible. These may or may not be the same as the grade ranges that a school district operates. The grade range that reflects financial responsibility is important for the allocation of Title I funds. Following are examples of how the Census Bureau represents financial responsibility.

A1 Pseudo School Districts

When a school district is financially responsible for providing education for one set of grades in one geographic area and financially responsible for a different set of grades in a different geographic area, the Census Bureau may create a pseudo school district to properly allocate Title I funds. For example, a school district that is financially responsible for grades K-12 in one geographic area is also financially responsible to educate students in grades 9-12 from a neighboring district covering a different geographic area. The Census Bureau creates a pseudo school district to identify the financially responsible district for grades 9-12 covering the geographic area of the neighboring district. The pseudo district is associated with the regular district so that the regular district is given "credit" for the additional financial responsibility. Consider the example of Science Hill Independent School District.

The Science Hill Independent School District has very few children in grades 9-12, so those children attend school in the Pulaski County School District (Figure 46). Pulaski County School District is financially responsible for educating children in grades 9-12 who live in the Science Hill Independent School District and Pulaski County School District is financially responsible for educating children in grade ranges K-12 within Pulaski County, outside of the Science Hill Independent School District. Therefore, the Census Bureau created the pseudo district "Pulaski County School District for Science Hill" using the same boundaries as the Science Hill Independent School District and assigned grades 9-12 to "Pulaski County School District for Science Hill Independent School District is assigned grades K-8 while the Pulaski County School District maintains its grades K-12.

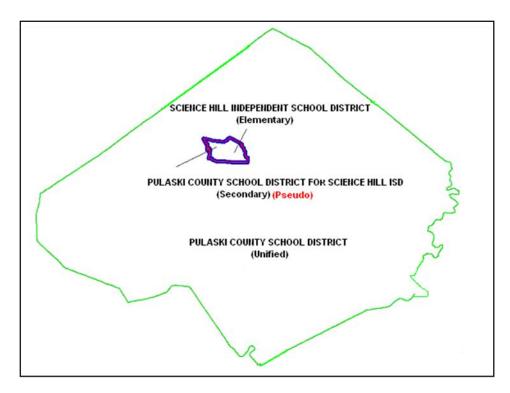


Figure 46: Example of a Pseudo School District - Pulaski County, KY

These pseudo districts are identified in the Inventory and Grade Range file by a flag with a value of "A." In the School District Boundary shapefiles, pseudo districts are identified by an SDTYPE of "A."

Additionally, the Census Bureau assigns them a pseudo Federal School District LEA ID number and a school district name that is slightly different from the official name of the school district. They appear in the Inventory and Grade Range Listing¹ as shown in **Table 31**.

Table 31: Pseudo School Districts in the Inventory and Grade Range Listing File

STATE CODE	SDLEA	LOGRADE	HIGRADE	SDLEVEL	SDTYPE	NAME
21	04950	PK	12	U		Pulaski County School District
21	21002	09	12	S	А	Pulaski County School District for Science Hill ISD
21	05220	PK	08	Е		Science Hill Independent School District

¹ Refer to **Appendix B** for additional information.

When submitting a pseudo school district, provide the following information:

- Official School District Name and Federal School District LEA ID number.
- Alternate Grade Range.
- Service area of Alternate Grade Range.

Currently, the Census Bureau has defined pseudo school districts in California, Georgia, Illinois, Kentucky, Massachusetts, Minnesota, New Jersey, South Carolina, Tennessee, Texas, and Vermont. To discuss school districts that fit the above description, contact the SDRP team at <geo.school@census.gov>.

A2 Elementary PK/KG-12 School District

When a school district is financially responsible for all grades, but only operates schools with elementary grades, the Census Bureau classifies this as a PK/KG-12 Elementary School District. For example, a school district operates schools for children in grades Kindergarten (KG)-8 and pays a neighboring school district to educate children in grades 9–12. The first school district is operationally responsible for grades KG-8, but financially responsible for grades KG-12. If an elementary school district is financially responsible for grades KG-12 or Pre-Kindergarten (PK)–12, there will be no secondary school district represented for that area. In cases where an elementary school district is financially responsible for only lower grades, there is generally a secondary school district that is financially responsible for providing educational services for the upper grades.

APPENDIX B DATA DICTIONARY FOR THE LISTING FILES

The Census Bureau produces Excel files for the Annotation Phase. The listing file names will be followed by "_A"; e.g., <ST>_SD_Inventory_A.xls where <ST> = two-digit State FIPS code. Use the information in the sub-appendices to learn about the attributes contained in each listing.

B1 Data Dictionary for the Inventory and Grade Range File

These files follow the naming convention of <ST>_SD_Inventory_A.xls. Table 32 describes the fields in the file, their length, data type, a brief description of the field, and the valid value ranges.

Table 32: Data Dictionary for the Inventory and Grade Range File

Attribute Field	Length	Туре	Description	Value/Range
STATE CODE	2	VARCHAR	State FIPS (Federal Information Processing Standards) code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
SDLEA	5	VARCHAR	Federal School District Local Education Agency (SDLEA) identification number	00001-99998
LOGRADE	2	VARCHAR	School district low grade	PK, KG, 01-11
HIGRADE	2	VARCHAR	School district high grade	PK, KG, 01-12
SDLEVEL	1	VARCHAR	School district level	E=Elementary; S=Secondary; U=Unified; A=Administrative Area
SDTYPE	1	VARCHAR	School district type	A=Pseudo; B=Dept. of Defense; C=Interstate; D=Bureau of Indian Affairs; E=Same Name
NAME	100	VARCHAR	School district name	Not Blank

B2 Data Dictionary for the County Coverage File

These files follow the naming convention <ST>_County_Coverage_A.xls. **Table 33** describes the fields in the file, their length, data type, a brief description of the field, and the valid value ranges.

Table 33: Data Dictionary for the County Coverage File

Attribute Field	Length	Туре	Description	Value/Range
STATE CODE	2	VARCHAR	State FIPS (Federal Information Processing Standards) code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
COUNTY CODE	3	VARCHAR	County FIPS code	001-840
COUNTY NAME	100	VARCHAR	County name	Not Blank
SDLEA	5	VARCHAR	Federal School District Local Education Agency (SDLEA) identification number	00001-99998
NAME	100	VARCHAR	School district name	Not Blank

B3 Data Dictionary for the Legal Entity Coextensive Coverage File

These files follow the naming convention <ST>_Coextensive_Coverage_A.xls. Table 34 describes the fields in the file, their length, data type, a brief description of the field, and the valid value ranges.

Table 34: Data Dictionary for the Legal Entity Coextensive Coverage File

Attribute Field	Length	Туре	Description	Value/Range
STATE CODE	2	VARCHAR	State FIPS (Federal Information Processing Standards) code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
COUNTY CODE	3	VARCHAR	County FIPS code	001-840
COUNTY NAME	100	VARCHAR	County name	Not Blank
SDLEA	5	VARCHAR	Federal School District Local Education Agency (SDLEA) identification number	00001-99998
SDLEVEL	1	VARCHAR	School district level	E=Elementary; S=Secondary; U=Unified; A=Administrative Area
SDNAME	100	VARCHAR	School district name	Not Blank
COEXTWITH	100	VARCHAR	Name of entity the school district is coextensive with	Not Blank
FIPS55 CODE	5	VARCHAR	FIPS code of the entity the school district is coextensive with	001-840, 00000-98999, 99001-99840

B4 Data Dictionary for the School District to Geography Relationship File

These files follow the naming convention <ST>_SD_GE) _Relationship_A.xls. **Table 35** describes the fields in the file, their length, data type, a brief description of the field, and the valid value ranges.

Table 35: Data Dictionary for the School District to Geography Relationship File

Attribute Field	Length	Туре	Description	Value/Range
SDLEA	5	VARCHAR	Federal School District Local Education Agency (SDLEA) identification number	00001-99998
SDLEVEL	1	VARCHAR	School district level	E=Elementary; S=Secondary; U=Unified; A=Administrative Area
SDNAME	100	VARCHAR	School district name	Not Blank
COUNTY SUBDIVISION 'PART' FLAG	1	VARCHAR	School district partially covers county subdivision part flag	Р
STATE CODE	2	VARCHAR	State FIPS (Federal Information Processing Standards) code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
COUNTY CODE	3	VARCHAR	County FIPS code	001-840
COUNTY SUBDIVISION CODE	5	VARCHAR	County subdivision FIPS code	00000-98999
COUNTY SUBDIVISION NAME	100	VARCHAR	County subdivision name	Not Blank
COUNTY SUBDIVISION NAME SUFFIX	50	VARCHAR	County subdivision name suffix	Barrio, borough, CCD, census subarea, census subdistrict, city, county, district, precinct, gore, grant, location, municipality, plantation, barriopueblo, purchase, town, township, UT, village, charter township, reservation, no suffix exists

Attribute Field	Length	Туре	Description	Value/Range
PLACE 'PART' FLAG	1	VARCHAR	School district partially covers incorporated place part flag	Р
PLACE CODE	5	VARCHAR	Place FIPS code	00001-89999
PLACE NAME	100	VARCHAR	Place name	Not Blank
PLACE SUFFIX	50	VARCHAR	Incorporated place name suffix	Borough, city, metro township, municipality, town, village, city and borough, consolidated government, corporation, metropolitan government, urban county, unified government, no suffix exists

APPENDIX C SHAPEFILE NAMES

There are two series of shapefiles, one set for the state level files and one set for county level files, described in this appendix. The tables included below list the types of data included in each series. Additional details for each of the shapefiles listed in this appendix are in **Appendix D**.

State Shapefile Names – PVS_<yy>_v1_<layername>_<SS>.shp, where <yy> is the year, <layername> is the abbreviated shapefile name, and <SS> is the state FIPS code. Descriptions for abbreviated state shapefile names are provided in **Table 36**.

Table 36: Abbreviated State Shapefile Names

<layername></layername>	Description
aial	American Indian Areas - Legal
cdp	Census Designated Places
county	Counties and Equivalent Areas
mcd	Minor Civil Division (County Subdivisions)
place	Incorporated Places
elsd	Elementary School Districts
scsd	Secondary School Districts
sdadm	School District Administrative Areas (Vermont only)
unsd	Unified School Districts

County Shapefile Names – PVS_<yy>_v1_<layername>_<STCOU>.shp, where <yy> is the year, <layername> is the abbreviated shapefile name, and <STCOU> is the 4-digit state and county FIPS number. Descriptions for abbreviated county shapefile names are provided in **Table 37**.

Table 37: Abbreviated County Shapefile Names

<layername></layername>	Description
arealm	Area Landmark
edges	All Lines
faces	Topological Faces
water	Hydrography – Area

APPENDIX D SHAPEFILE LAYOUTS AND DATA DICTIONARY

The tables included in this appendix detail each shapefile by defining the layout of each file. They describe the fields, their length and type. Refer to these tables for more information about the shapefiles that appears in GUPS. Tables 38-46 correspond to the state-based shapefiles while tables 47-50 correspond to the county-based shapefiles.

Table 38: American Indian Areas (aial) - Legal

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
AIANNHCE	4	String	Census American Indian, Alaska Native, or Native Hawaiian (AIANNH) code
СОМРТҮР	1	String	Indicates if reservation (or equivalent) or off-reservation trust land is present
AIANNHFSR	1	String	Flag indicating level of recognition of an AIANNH tribe or group
NAMELSAD	100	String	Name with translated Local/Statistical Area Definition (LSAD)
AIANNHNS	8	String	American National Standards Institute (ANSI) numeric identifier for AIANNH areas
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	FIPS 55 class code describing an entity
PARTFLG	1	String	Part flag indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
AUTHTYPE	1	String	Authorization type for legal area updates
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for boundary update
AREA	10	Number	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage

Table 39: Census Designated Places (cdp)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
PLACEFP	5	String	FIPS 55 place code
PLACENS	8	String	American National Standards Institute (ANSI) feature code for the place
NAMELSAD	100	String	Name with translated Legal/Statistical Area Description (LSAD)
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional status
CLASSFP	2	String	FIPS 55 class code describing an entity
PARTFLG	1	String	Part flag indicator

Table 40: County and Equivalent Areas (county)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
COUNTYFP	3	String	County FIPS code
COUNTYNS	8	String	American National Standards Institute (ANSI) feature code for the county or equivalent area
NAMELSAD	100	String	Name with translated Local/Statistical Area Definition (LSAD)
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	FIPS 55 class code describing an entity
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
AUTHTYPE	1	String	Authorization type for legal area updates
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for boundary update
AREA	10	Number	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage

Table 41: County Subdivisions (mcd)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
COUNTYFP	3	String	County FIPS code
COUSUBFP	5	String	County Subdivision FIPS code
NAMELSAD	100	String	Name with translated Local/Statistical Area Definition (LSAD)
COUSUBNS	8	String	American National Standards Institute (ANSI) feature code for the county subdivision
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	FIPS 55 class code describing an entity
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
AUTHTYPE	1	String	Authorization type for legal area updates
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for boundary update
AREA	10	Number	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage

Table 42: Incorporated Places (place)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
PLACEFP	5	String	Place FIPS code
NAMELSAD	100	String	Name with translated Local/Statistical Area Definition (LSAD)
PLACENS	8	String	American National Standards Institute (ANSI) feature code for the incorporated place
LSAD	2	String	Legal/Statistical Area Description
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	FIPS 55 class code describing an entity
PARTFLG	1	String	Part flag indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
AUTHTYPE	1	String	Authorization type for legal area updates
DOCU	120	String	Supporting documentation
FORM_ID	4	String	Record ID for boundary update
AREA	10	Number	Acreage of area update
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
NAME	100	String	Name
VINTAGE	2	String	Vintage

Table 43: Elementary School Districts (elsd)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
SDLEA	5	String	Federal School District Local Education Agency number
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census school district type
POLYID	4	String	Record ID for each ELSD update
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
FUNCSTAT	1	String	Functional status
VINTAGE	2	String	Vintage

Table 44: Secondary School Districts (scsd)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
SDLEA	5	String	Federal School District Local Education Agency number
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census school district type
POLYID	4	String	Record ID for each SCSD update
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
FUNCSTAT	1	String	Functional status
VINTAGE	2	String	Vintage

Table 45: School District Administrative Areas (sdadm) - Vermont only

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
SDLEA	5	String	Federal School District Local Education Agency number
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census school district type
POLYID	4	String	Record ID for each SDADM update
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
FUNCSTAT	1	String	Functional status
VINTAGE	2	String	Vintage

Table 46: Unified School Districts (unsd)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
SDLEA	5	String	Federal School District Local Education Agency number
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census school district type
POLYID	4	String	Record ID for each UNSD update
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
FUNCSTAT	1	String	Functional status
VINTAGE	2	String	Vintage

Table 47: Area Landmark (arealm)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
COUNTYFP	3	String	County FIPS code
MTFCC	5	String	MAF/TIGER Feature Class Code
FULLNAME	120	String	Complete name associated with the area landmark
AREAID	22	String	Landmark identification number, or Object ID
ANSICODE	8	String	American National Standards Institute (ANSI) feature code for the area landmark
PARTFLG	1	String	Part flag indicator
CHNG_TYPE	2	String	Type of area update
EFF_DATE	10	Date	Effective date or vintage
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification
BAG	3	String	Block area grouping

Table 48: All Lines (edges)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
COUNTYFP	3	String	County FIPS code
TLID	10	Number	Permanent Edge ID
TFIDL	10	Number	Permanent Face ID on the left
TFIDR	10	Number	Permanent Face ID on the right
MTFCC	5	String	MAF/TIGER Feature Class Code
FIDELITY	1	String	Flag indicating to user whether boundary edge has changed through spatial enhancement
FULLNAME	40	String	Complete name associated with the edge
SMID	22	Number	Spatial metadata ID
SMIDTYPE	1	String	Source attribution for boundary edge: PLSS, Parcel, Surveyed, etc.
RTTYPE	1	String	Route type code
BBSPFLG	1	String	Indicates Redistricting Data Project participant's request to flag an edge for selection to hold as boundary for a tabulation block
CBBFLG	1	String	Indicates the status of an edge for selection as tabulation block boundary
BBSP_2020	1	String	New BBSP flag
CHNG_TYPE	4	String	Type of area update
JUSTIFY	150	String	Justification
LTOADD	10	String	Left to address
RTOADD	10	String	Right to address
LFROMADD	10	String	Left from address
RFROMADD	10	String	Right from address
ZIPL	5	String	Left from ZIP Code
ZIPR	5	String	Right from ZIP Code
EXTTYP	1	String	Extension type
MTUPDATE	10	Date	Date of the last update to the edge

Table 49: Faces (faces)

Attribute Field	Length	Туре	Description
TFID	20	Number	Permanent Face ID
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
COUNTYFP	3	String	County FIPS code
TRIBSUBCE	3	String	Census tribal subdivision code
TTRACTCE	6	String	Tribal census tract code
TBLKGRPCE	1	String	Tribal census block group code
AIANNHCE	4	String	Census American Indian, Alaska Native, or Native Hawaiian (AIANNH) code
AIANNHCE20	4	String	2020 Census AIANNH code
СОМРТҮР	1	String	Indicates if reservation (or equivalent) or off- reservation trust land is present, or both
ANRCFP	5	String	Alaska Native Regional Corporation (ANRC) FIPS code
SLDUST	3	String	State Legislative District (SLD) upper chamber code
SLDLST	3	String	SLD lower chamber code
ELSD	5	String	Current elementary school district local education agency code
SCSD	5	String	Current secondary school district local education agency code
UNSD	5	String	Current unified school district local education agency code
SDADM	5	String	Current school district administrative area code
CDFP	2	String	Congressional district code
TRACTCE	6	String	Census tract code
UACE	5	String	Census urban area code
CBSAFP	5	String	FIPS County-based metropolitan-micropolitan code
NECTAFP	5	String	FIPS New England city and town area code
BLKGRPCE	1	String	Census block group code
BLOCKCE	4	String	Tabulation block number
SUFFIX1CE	2	String	Census block suffix 1
SUFFIX2CE	2	String	Census block suffix 2

Attribute Field	Length	Туре	Description
BAGCE	3	String	Block area grouping
PUMACE20	5	String	Public Use Microdata Area code from 2020
SUBMCDFP	5	String	FIPS 55 sub-minor civil division code
UGACE	5	String	Urban growth area code
STATEFP20	2	String	State FIPS code from 2020
COUNTYFP20	3	String	County FIPS code from 2020
TRACTCE20	6	String	Census tract code from 2020
PLACEFP	5	String	FIPS 55 place code
COUSUBFP	5	String	FIPS 55 county subdivision code
CONCITYFP	5	String	FIPS 55 consolidated city code
CDSESSN	3	String	Congressional district session code
LWFLG	1	String	Land/water flag

Table 50: Hydrography - Area (water)

Attribute Field	Length	Туре	Description
STATEFP	2	String	State FIPS (Federal Information Processing Standards) code
COUNTYFP	5	String	County FIPS code
ANSICODE	100	String	American National Standards Institute (ANSI) code for hydrography area
MTFCC	8	String	MAF/TIGER Feature Class Code
FULLNAME	2	String	Complete name associated with the water feature
CHNG_TYPE	2	String	Type of area update
HYDROID	22	String	Object ID
RELATE	120	String	Relationship description
JUSTIFY	150	String	Justification

APPENDIX E ADDITIONAL GUPS DOCUMENTATION

The Census Bureau recommends the use of the QGIS documentation to supplement information provided within this appendix. Refer to the QGIS documentation guide on-screen or download an Adobe Acrobat PDF of the QGIS 3.4 documentation from the following link www.qgis.org/en/docs/index.html.

Note: The QGIS 3.4 documentation is in the "Archived" section at the bottom of the previously listed link.

The Menu bar, the Standard toolbar, and the SDRP toolbar (Figure 47) are located at the top of the GUPS page. These toolbars offer general GIS and system tools used to make SDRP updates. Chapter 5 covers the SDRP toolbar and its functionality.



Figure 47: Menu Bar, Standard Toolbar, and SDRP Toolbar

Note: Although the Menu bar is always located at the top of the page and cannot be moved, the Standard and SDRP toolbars can be moved to different positions and resized depending on user preferences.

Hovering over a toolbar button will display a tooltip that provides a name for that tool. The sub-appendices describe the Menu bar, the Standard toolbar, Table of Contents and its toolbar, and the Status bar.

E1 Menu Bar

The Menu bar includes top-level, drop-down menus and allows navigation through GUPS using a standard hierarchical menu. Most relate to QGIS functionality and not GUPS functionality. The Menu bar, shown in **Figure 48** offers basic features to manage the Map View. Almost all the functions available from the Menu bar are also available in the various toolbars.

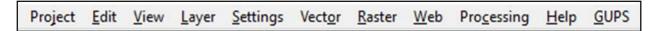


Figure 48: Menu Bar

Table 51 defines each of the tabs on the Menu bar, provides an image of the drop-down options for each, and describes each tab's function.

Table 51: Menu Bar Tabs and Their Function/Description

Menu	Menu Option(s)	Function/Description
Project	Project Edit View Layer Settings Vector Save Ctrl+S Properties Ctrl+Shift+P Snapping Options Import/Export Exit QGIS Ctrl+Q	Provides access and exit points of the project file.
Edit	Edit View Layer Settings Vector Raster Web Processing Undo Ctrl+Z Redo Ctrl+Shift+Z Add Circular String Modify Attributes of Selected Features Offset Point Symbol	Provides most of the native tools to edit layer attributes or geometry. From the Edit tab, select Undo to undo the last action or Redo the action. Note: The correct layer must be selected first from the Table of Contents for the edit to work properly. For example, if a linear feature is added to the Edges layer, then that layer is deselected by selecting the faces layer, Undo will not delete the linear feature. The Edges layer must be selected to undo the added linear feature. Note: Multiple actions can be undone on a single layer (e.g., the addition of several linear features) if the project has not been saved. If the project is saved, the Undo option is disabled.

Menu	Menu Option(s)	Function/Description
View	View Layer Settings Vector Raster Web Processing Pan Map Pan Map Pan Map to Selection Pan Map to Selection Pan Map to Selection Ctrl+Alt++ Coom Out Ctrl+Alt+- Identify Features Ctrl+Shift+I Zoom Full Ctrl+Shift+F Zoom to Layer Ctrl+Shift+F Zoom Last Ctrl+J New Bookmark Ctrl+B New Bookmarks Ctrl+Shift+B Refresh F5 Show All Layers Ctrl+Shift+U Show Selected Layers Panels Toggle Full Screen Mode F11	Provides options for navigating the map, identifying feature attributes, and creating spatial bookmarks.
Layer	Layer Settings Vector Raster Web Processing Help Add Layer Add from Layer Definition File Paste Style Remove Layer/Group Set Scale Visibility of Layer(s) Set CRS of Layer(s) Set Project CRS from Layer	Provides large set of tools to create new data sources, add them to a project, or save modifications to them.
Settings	Settings Vector Raster Web Process User Profiles ↑ Custom Projections Interface Customization Options	Provides tools and options to manage profiles, styles, projections, and interfaces of the project.

Menu	Menu Option(s)	Function/Description
Vector	Vector Raster Web Processi Geoprocessing Tools ▶	Provides access to QGIS Geoprocessing Tools. These tools include buffers, area overlay operations such as intersection, union, or symmetrical difference, as well as other common geoprocessing actions.
Raster	Raster Web Processing Help Raster Calculator Align Rasters	Provides common raster-based GIS tasks from different providers.
Web	Web Processing Help GUPS MetaSearch MetaSearch Help	Provides access to tools that are QGIS based.
Processing	Processing Help GUPS	Provides access to other non-GUPS functionality such as model creation, viewing the results of models executed, and history.
Help	Help GUPS Report an issue QGIS Home Page Ctrl+H ✓ Check QGIS Version Q About QGIS Sponsors	Provides common help functions for understanding QGIS.
GUPS	GUPS Map Management Geographic Review QC Import / Export Imagery	Provides information about GUPS version (About GUPS) and shortcuts to other common GUPS related toolbars. The About GUPS submenu provides the GUPS version number. Callers to technical support need to provide the version number with their question.

E2 Standard Toolbar Buttons

The Standard toolbar, shown in **Figure 49** provides the navigation tools to interact with the map and layers attribute tables.



Figure 49: Standard Toolbar

The Standard toolbar includes three sub-toolbars, identified by the grouping bars or markers on the toolbar. See Figure 50 for a visual of the markers.



Figure 50: Sub-Toolbar Markers

The first sub-toolbar, the Project toolbar, contains buttons for saving projects, changing map projects, and managing map projects. The second sub-toolbar, the Map Navigation toolbar, contains buttons to navigate the Map View. The last sub-toolbar, the Attributes toolbar, contains buttons to identify, select, and measure elements within the map. To rearrange the toolbars, press the left mouse button and hold the sub-toolbar marker then drag it to the desired location within the project. Release the mouse button to set the toolbar in the new location.

Table 52 provides a visual of each button, the corresponding name, and each button's function/description.

Table 52: Standard Toolbar Buttons and Their Function/Description

Button	Name	Function/Description
	Save	Saves the current GUPS project, including any changes to layer properties, projection, last viewed extent, and layers added.
● / ■ a	Style Manager	Opens interface that manages symbols, color ramps, texts formats or label settings.
TW S	Map Management	Provides access to the geographic partnership programs in GUPS. Map management automatically loads default map display layers based on the program chosen.
	GUPS Data Settings	Opens window to change the GUPS working directory should problems occur when loading data. Also allows for deletion of a program or a project. Warning! This tool deletes files and folders permanently! Contact the SDRP team if any doubts exist prior to executing this tool. For more information see the subappendices E2.1 and E2.2 .

Button	Name	Function/Description
	Import Custom Shapefiles	Imports user provided shapefiles to existing project and converts the shapefile(s) to match the project spatial reference, if needed. See sub-appendix E2.3 .
	Pan Map	Shifts the map in the Map View without changing the map scale. Select the button and then choose a location on the map to recenter the map to the location.
	Pan Map to Selection	Shifts the map in the Map View to the rows selected in the attribute table for a selected feature. After selecting a feature(s), select the button to re-center the map based on the selected feature(s).
P	Zoom In	Increases the map scale after selecting the Map View and displays the Map View at a larger scale. Select the button and then choose a location on the map to zoom into.
P	Zoom Out	Decreases the map scale after selecting the Map View and displays the Map View at a smaller scale. Select the button and then choose a location on the map to zoom out from.
F	Zoom Full	Displays the map in the Map View at a smaller scale and zooms to the full extent of the project.
9	Zoom to Selection	Zooms to the scale of the feature selected in the Map View or attribute table.
	Zoom to Layer	Zooms the Map View to the layer selected in the Table of Contents. After selecting the layer, select the button to zoom to the layer's extent.
P	Zoom Last	Zooms the Map View to the previous map extent.
P	Zoom Next	Zooms the Map View forward to the next map extent (only if a previous extent is available.)
	New Bookmark	Creates a spatial bookmark for the given area to ease navigation. Allows for the naming and saving of the geographic location for future reference.
	Show Bookmarks	Views and manages spatial bookmarks. Use the mouse to double-click bookmark name in the Spatial Bookmark window to zoom to the bookmark.
	Refresh	Refreshes Map View at the current extent.

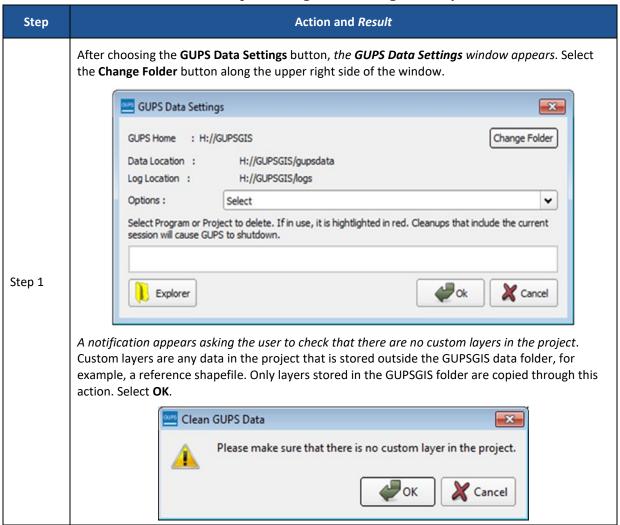
Button	Name	Function/Description
	Identify Features	Identifies geographic features in the Map View. Left-click on a feature to identify attributes for a selected layer in the Table of Contents. Right-click on the map to identify attributes for all visible layers at that selection point.
Select Features by Value Select Features by Expression Select All Features Invert Feature Selection	Select Features by Area or Single Click	Provides options to select layer features in the map window with a single click, by dragging the cursor, or by drawing graphics on the screen.
Select Features by Value Select Features by Expression Select All Features Invert Feature Selection	Select Features by Value	Provides options to select features by value or expression, as well as select all features or invert existing feature selection.
-	Deselect Features from All Layers	Deselects selected features from all layers in a single action.
*	Toolbox	Reveals a Processing Toolbox window with numerous QGIS processing tasks.
	Measure	Provides options to measure linear distance, area, and angles on the map.

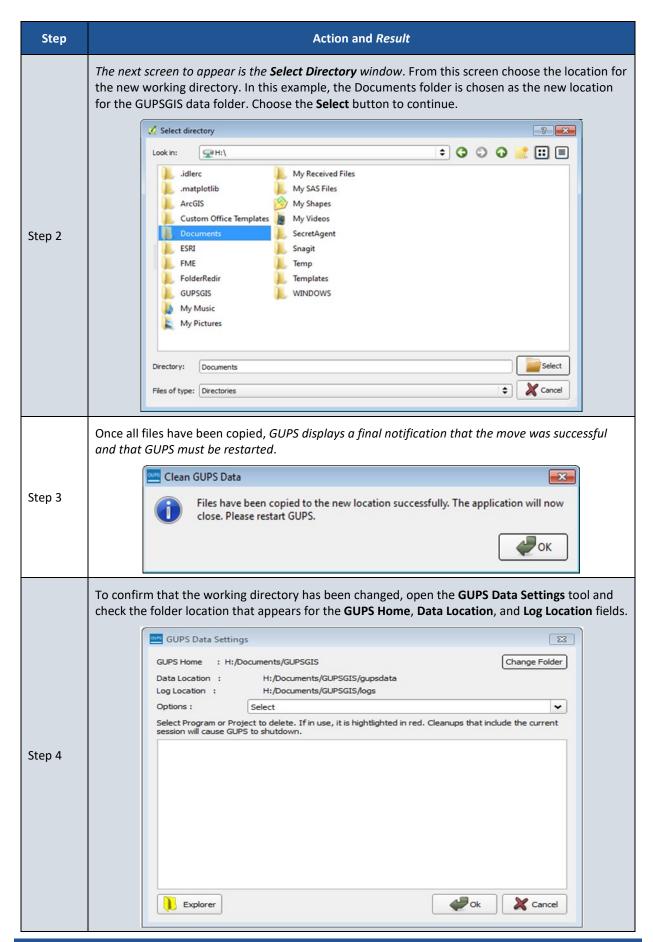
E2.1 Change the Working Directory

When installing GUPS, the working directory, or GUPSGIS folder, is saved by default in the home directory (typically this is the My Documents folder) unless the user specifies a different path. To change the location of the working directory after GUPS has been installed, use the Change Folder button in the GUPS Data Settings tool as described in **Table 53**.

Note: All projects must be closed to change the working directory. If a project is open in GUPS, the Change Folder button is not active.

Table 53: Steps to Change the Working Directory





E2.2 Clean GUPS Data

The GUPS Data Settings tool (Figure 51) offers three clean data options: Clean by Project, Clean by Program, and Clean All GUPS Data.

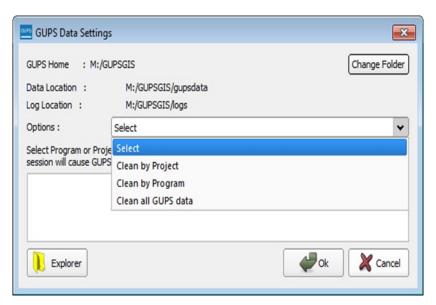


Figure 51: GUPS Data Settings Window

The Clean by Project (Figure 52) option allows the user to delete data/files per project. This can be useful if there is a single project that is no longer needed, or the user would like to restart the project with the original Census Bureau data. The red dotted highlighted item indicates a project that is currently in use in GUPS. To delete a project, select the checkbox next to the project then select Ok. To ensure that all data and files have been deleted, restart QGIS/GUPS by closing the program and reopening it again.

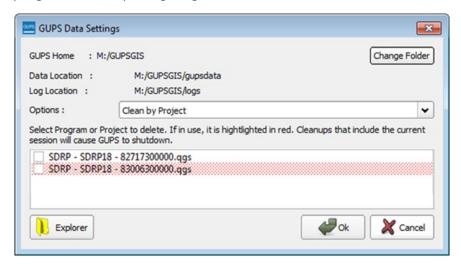


Figure 52: GUPS Data Settings - Clean by Project

In order to delete all projects associated with a certain program, use the Clean by Program option (Figure 53). To ensure that all data and files associated with a program are removed, restart QGIS/GUPS by closing the program and reopening it again.

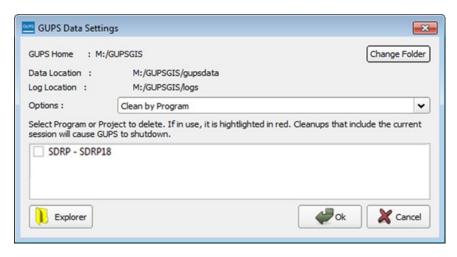


Figure 53: GUPS Data Settings - Clean by Program

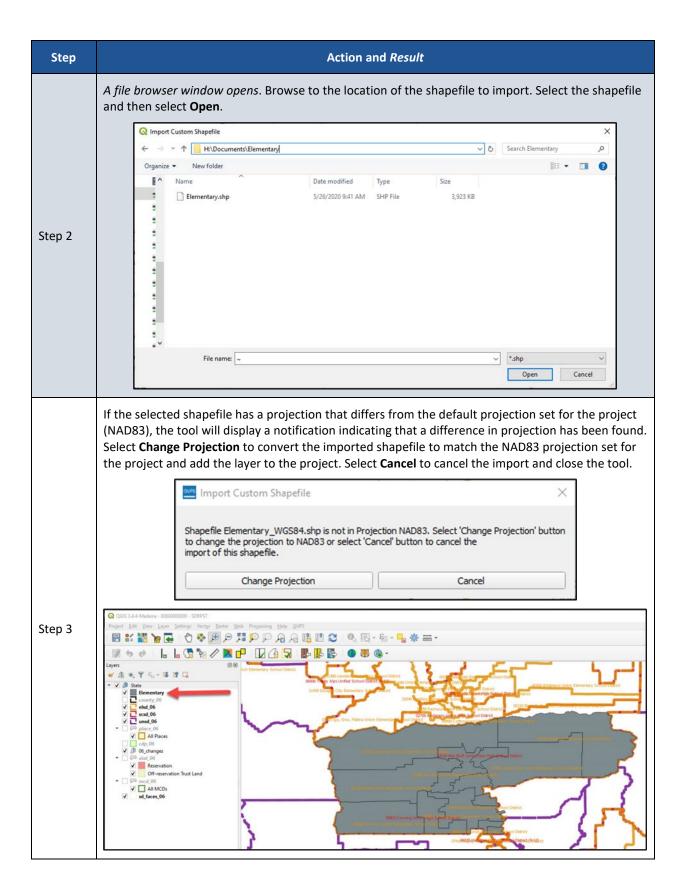
The final option is to Clean All GUPS Data. As the name implies, this deletes all GUPS data located in the GUPSGIS data folder in the home directory. This permanently deletes all files and folders, so once the tool has finished, files and folders cannot be recovered. GUPS should automatically restart once this clean completes. If GUPS does not automatically restart, manually restart GUPS to ensure that all data has been deleted. No figure is included to illustrate this action.

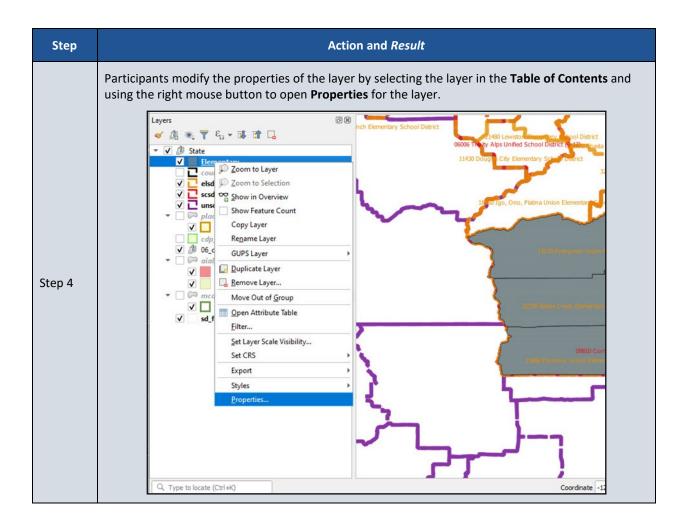
E2.3 Import Custom Shapefiles

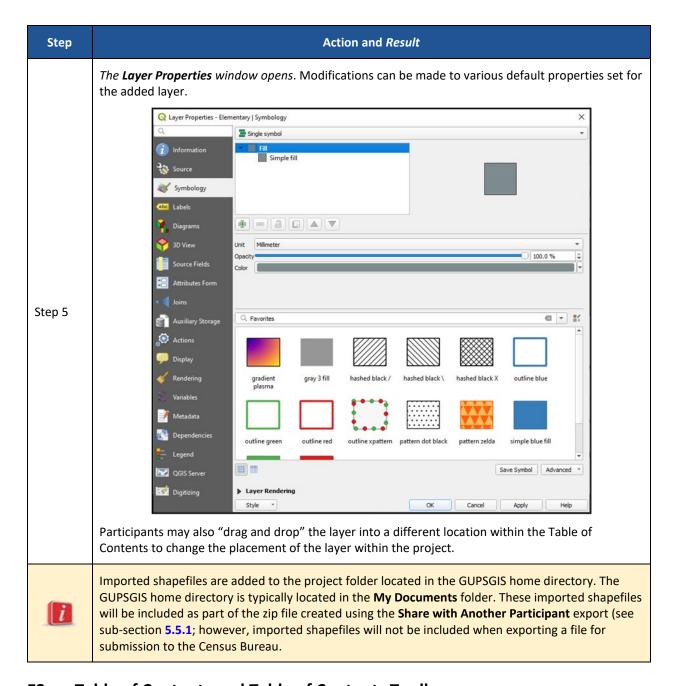
GUPS is a full GIS software. It provides all the standard GIS software capabilities including importing user data. To access the full list of possible user files to import, select Layer from the Menu bar, then select the sub-menu Add Layer. GUPS also provides a custom tool to import shapefiles and convert the spatial reference if necessary. Follow the steps in **Table 54** to add a shapefile using the Import Custom Shapefile button on the Standard toolbar.

Table 54: Steps to Import Custom Shapefiles









E3 Table of Contents and Table of Contents Toolbar

GUPS automatically loads a set of default data layers (and default layer groups) defined by the Census Bureau for the SDRP. As the map opens in Map View, the list of the preset, grouped layers appears in the Table of Contents. Participants may use the Table of Contents and Table of Contents toolbar to manage the Map View. See **Figure 54** for a visual of the Table of Contents toolbar.

Using the Table of Contents toolbar, users can add and remove layers or groups, manage map themes, filter the legend by map content or by expression, expand or collapse all sections of the Table of Contents list at once and may remove layers/groups. Users may manipulate layers and symbology in GUPS using basic selection/deselection techniques in the Table of Contents, like with other GIS software. Manipulation of layers within the Table of Contents may assist with

viewing information more appropriately in the Map View. Changes made in the Table of Contents reflect immediately in the Map View.



Figure 54: Table of Contents Toolbar

Table 55 provides a visual of each button, the corresponding name, and each button's function/description.

Table 55: Table of Contents Toolbar Buttons and Their Function/Description

Button	Name	Function/Description
*	Open Layer Styling Panel	Toggles layer styling panel on/off.
(4)	Add Group	Organizes layers in the Table of Contents into groups.
	Manage Map Themes	Offers modification of views based on layers in the Table of Contents.
7	Filter Legend by Map Content	Removes layers not currently in the Map View extent.
$\left[\mathcal{E}_{\Omega} \right] $	Filter Legend by Expression	Removes features from the selected layer tree style that have no features satisfying a condition/expression.
	Expand All	Expands the Table of Contents menus to display all layers under each group's menu.
	Collapse All	Collapses the Table of Contents menus to only show groups (not the layers beneath.)
G	Remove Layer/Group	Removes a layer or group from the Table of Contents.

To manage visibility of individual groups or layers, check the checkbox next to a layer to make the layer visible (e.g., turn the layer on) in the Map View. Uncheck the checkbox (e.g., turn the layer off) next to a layer to make the layer invisible in the Map View. This may prove beneficial if the Map View is cluttered with too many data layers.

To expand the menu for a layer or grouped layer, select the * symbol and the sub-menu opens. Select the * symbol to collapse the sub-menu. See Figure 55 for an example of the checkmark and arrow symbology.

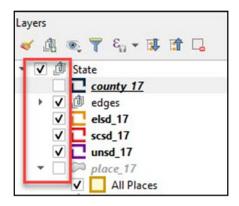


Figure 55: Table of Contents with Layer Checkmarks and Arrows

The order in which the layers appear in the Table of Contents determines the order that the layers display in the Map View. The layers at the top of the Table of Contents display on top of the layers that appear below them. While SDRP GUPS is programmed to display data layers in an order that works for most users, adding imagery or other data layers may require a reordering of layers for the map elements to appear properly within GUPS. To manage the order of layers, use the mouse and follow these steps:

- 1. Select the layer name in the Table of Contents.
- 2. Hold down the mouse button and drag the layer to the desired position in the Table of Contents.
- 3. Release the mouse button to place the layer in its new position. The Map View will reflect the new layer order in the Table of Contents.

IMPORTANT: Map labels appear at varying scales dependent on the map layer.

E4 Status Bar

The Status bar (Figure 56) at the bottom of the GUPS main page displays information about the map from the current map scale to mouse cursor coordinates.



Figure 56: Status Bar

Table 56 describes each element of the Status bar.

Table 56: Status Bar Elements and Their Function/Description

Element	Function/Description
Q Type to locate (Ctrl+K)	This locator bar, a quick search widget, helps find and run any feature or option in QGIS.
Coordinate	Shows the current position in map coordinates as the mouse moves across the Map View. The default unit shown is decimal degrees.
8	Toggles between the coordinate position of the mouse cursor or the Map View extents as the map is panned and zoomed.

Element	Function/Description
Scale	Shows the ratio between the distance on the map and distance on the ground based on current map units.
	Lock the scale to use the magnifier to zoom in and out.
Magnifier	Defines current magnification level for the Map View. Allows user to zoom without changing the scale in the Map View, making it easier to tweak label positions and symbols. Magnification is as percentage. If 100%, then magnification is not applied to the view.
Rotation	Defines the clockwise rotation for the Map View in degrees.
√ Render	Temporarily prevent layers from drawing. Enable by selecting the checkbox immediately to the left of "Render".
⊕ EPSG:4269	Shows the current coordinate reference system used in the Map View.
	Shows the logs for the GUPS session. The logs include information about underlying processes related to QGIS startup, plugins loading, processing tools, etc.