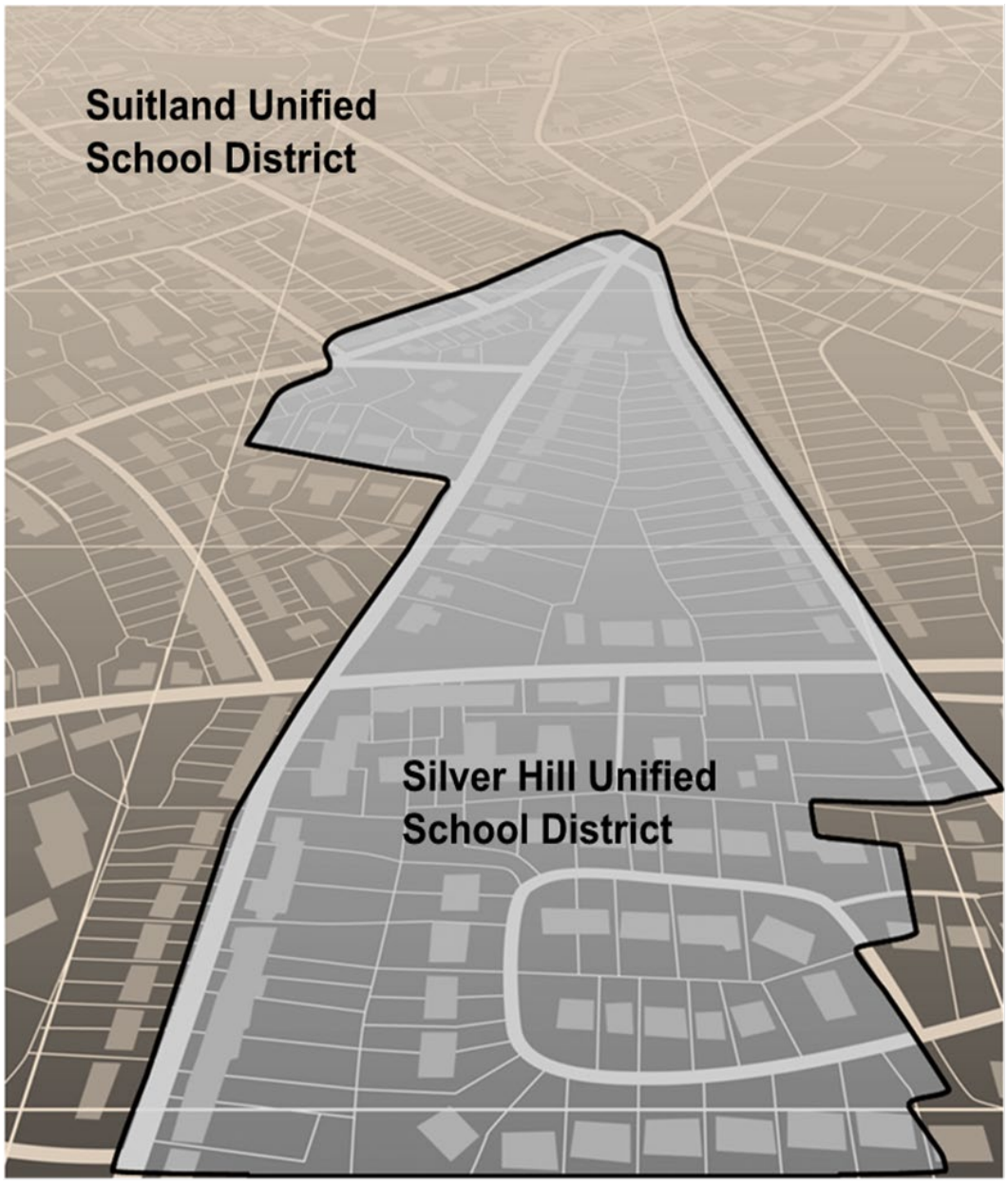
2025 School District Review Program Respondent Guide: Annotation Phase

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

September 2024



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INTRODUCTION

This guide is divided into five parts.

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- **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: Images used in this guide may differ slightly from 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 of federal funding 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 (SAIPE), 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 2025 SDRP reflect the school district names, federally assigned School District Local Education Agency (SDLEA) codes, and boundaries updated during the 2024 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, 2025.

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/Topologically Integrated Geographic Encoding and Referencing (MAF/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 coordinators 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 2025 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 sub-sections **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 SDLEA code, along with additional boundary changes. Note: The Census Bureau expects accompanying boundary changes for the new school district	**Figure 2**. Refer to sub-section **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 code of the receiving school districts remain unchanged.	**Figure 3**. Refer to sub-section **5.3.9** for details.	GUPS
SDLEA Code Change	Occurs when correcting an SDLEA code.	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 sub-section **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

Type of Update	Update Description	Link to Examples	Submission Method
Simple Consolidation	Occurs when two or more school districts merge to create a new school district with a new name and new SDLEA code, with no additional boundary changes.	**Figure 5**. Refer to sub-section **3.5** for details.	Submission Log
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 code of the receiving school district, and do not create a new school district.	**Figure 6**. Refer to sub-section **3.6** for details.	Submission Log

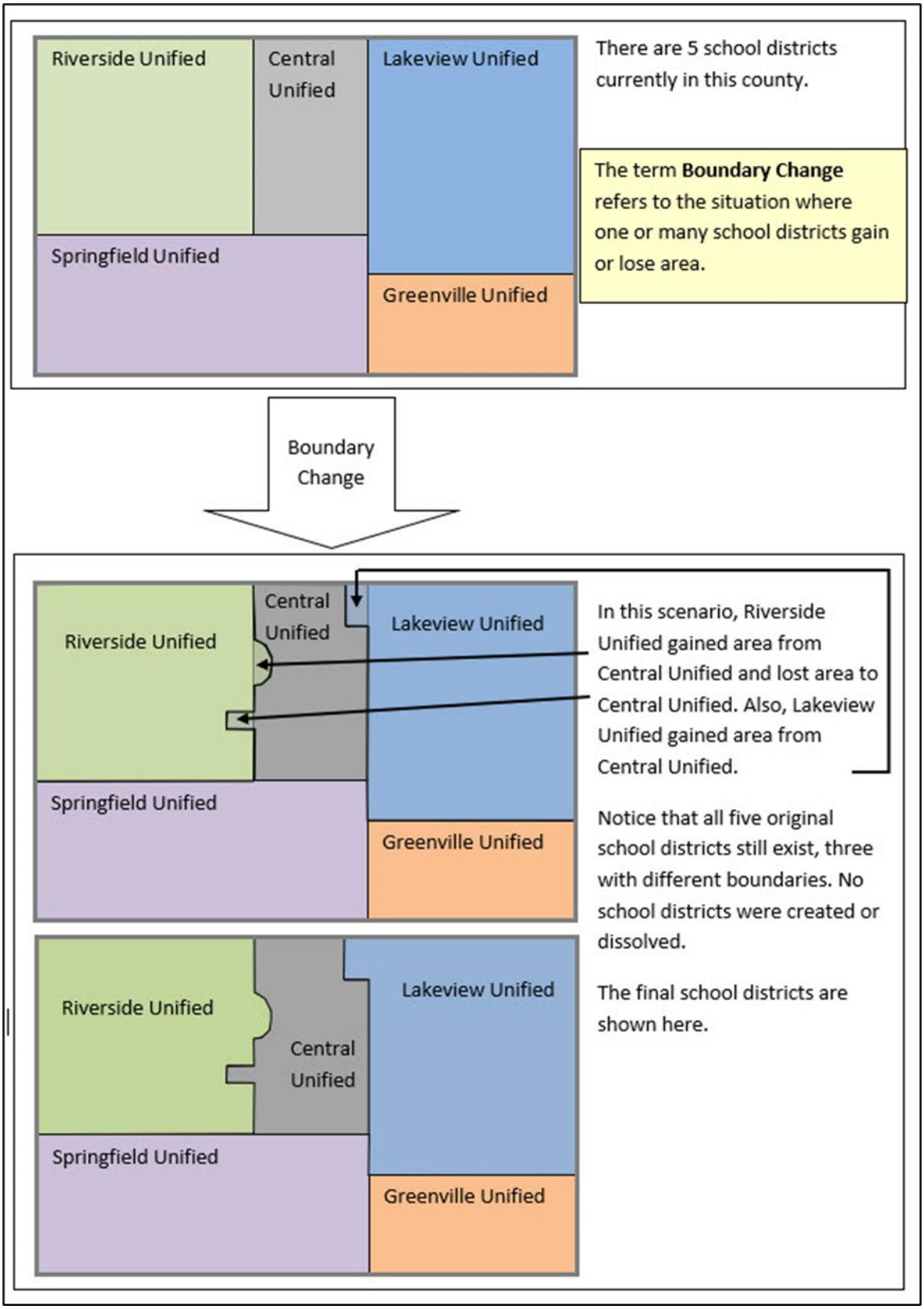


Figure 1: Boundary Change Example (Update Using GUPS)

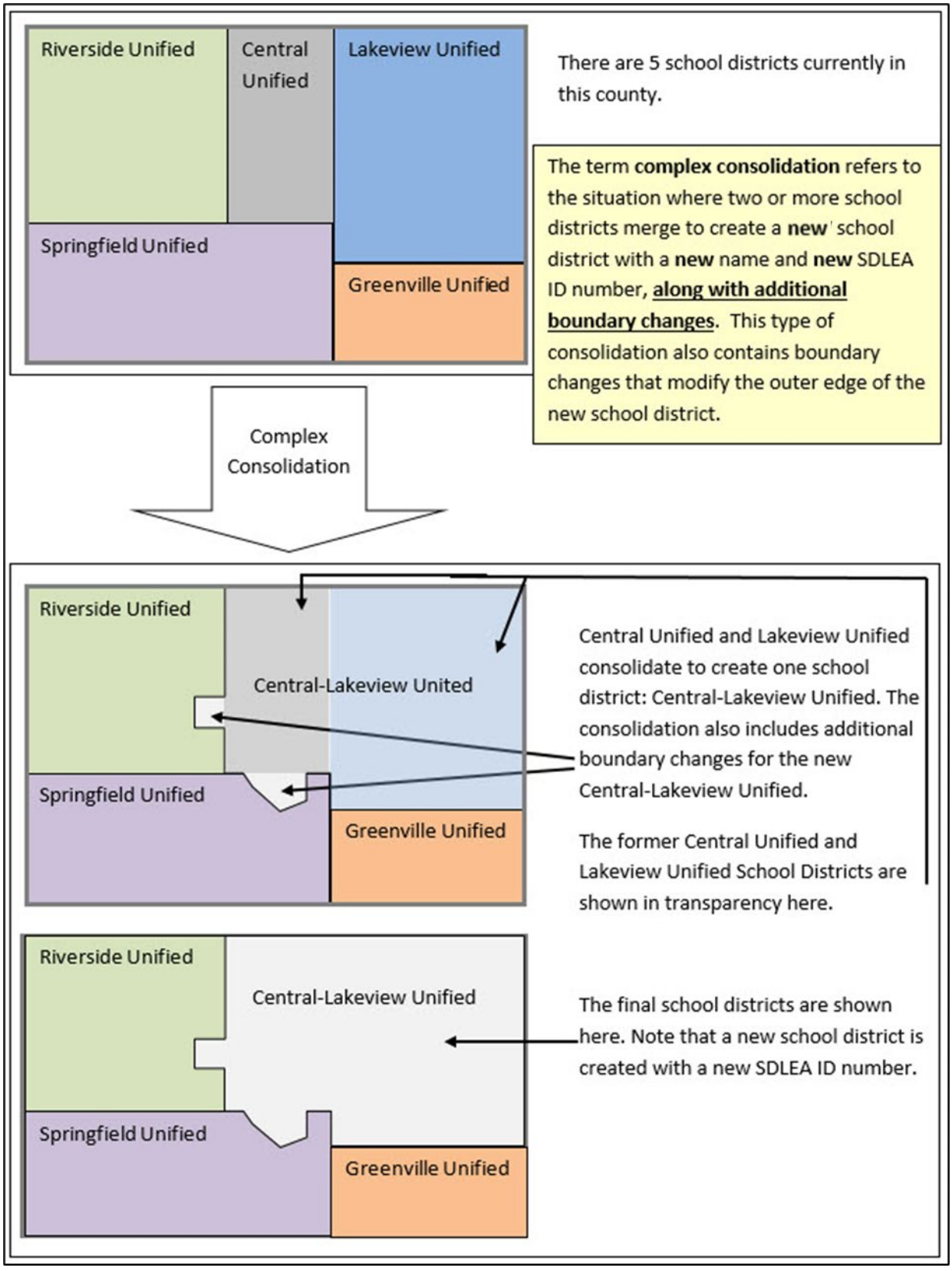


Figure 2: Complex Consolidation Example (Update Using GUPS)

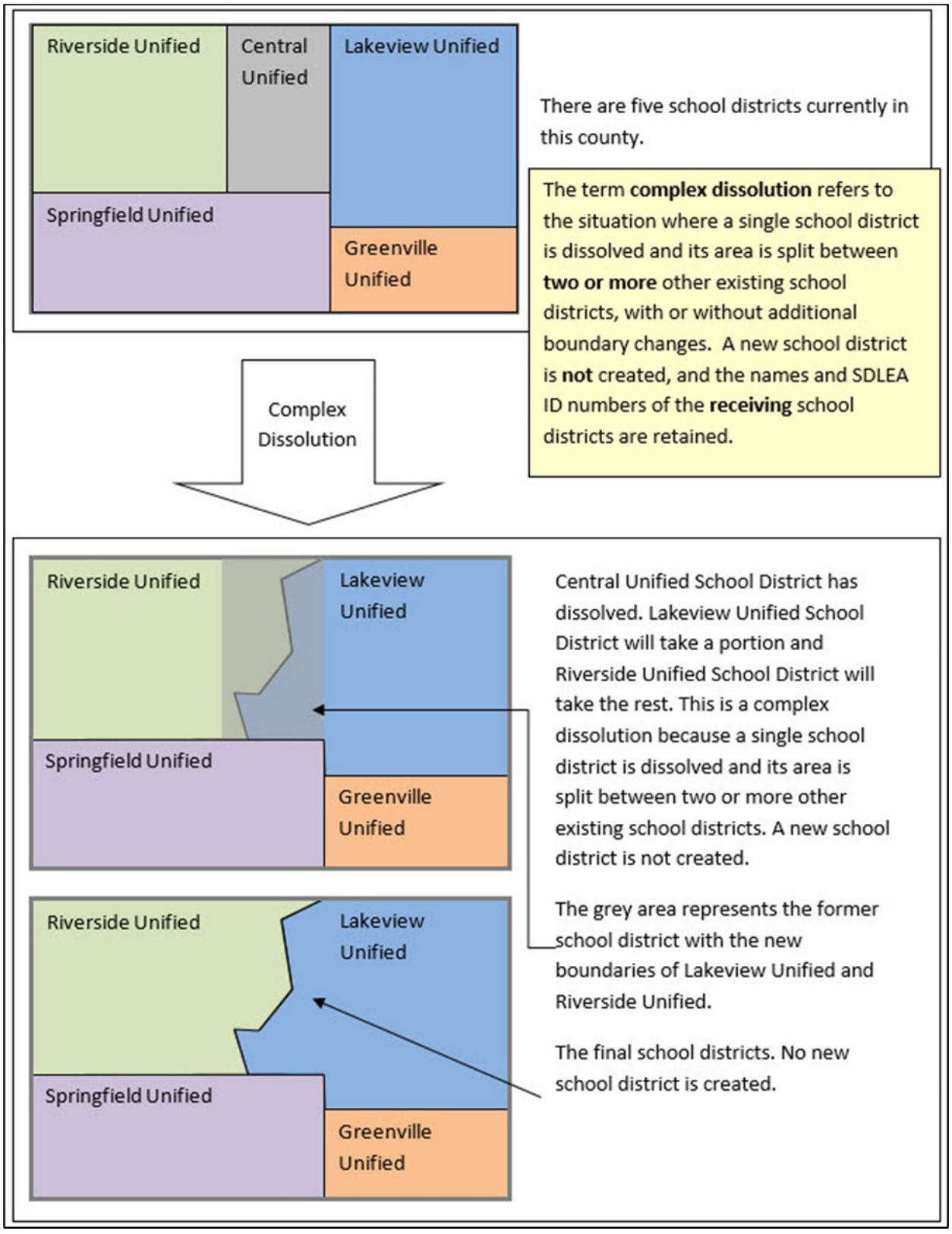


Figure 3: Complex Dissolution Example (Update Using GUPS)

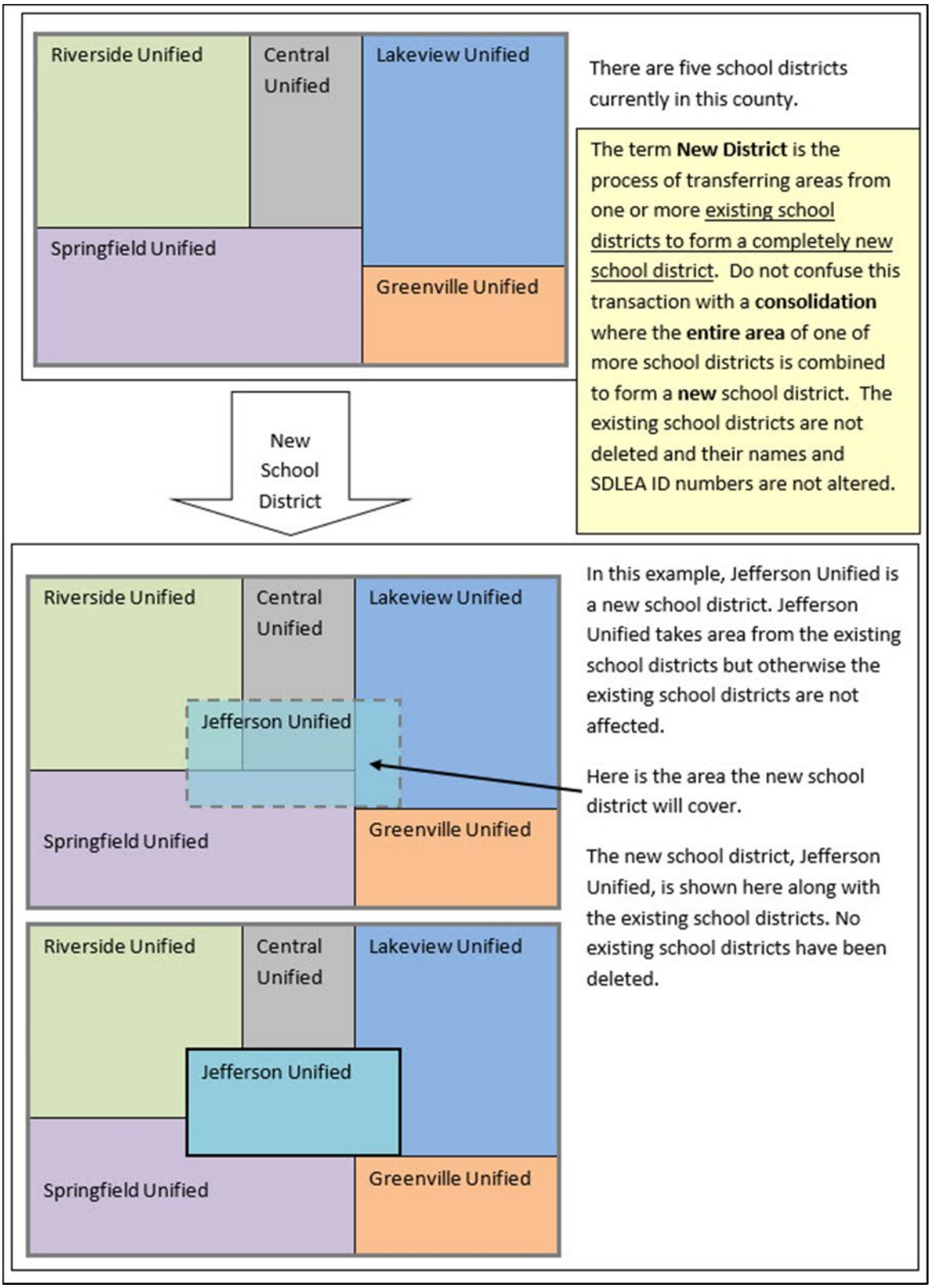


Figure 4: New District Example (Update Using GUPS)

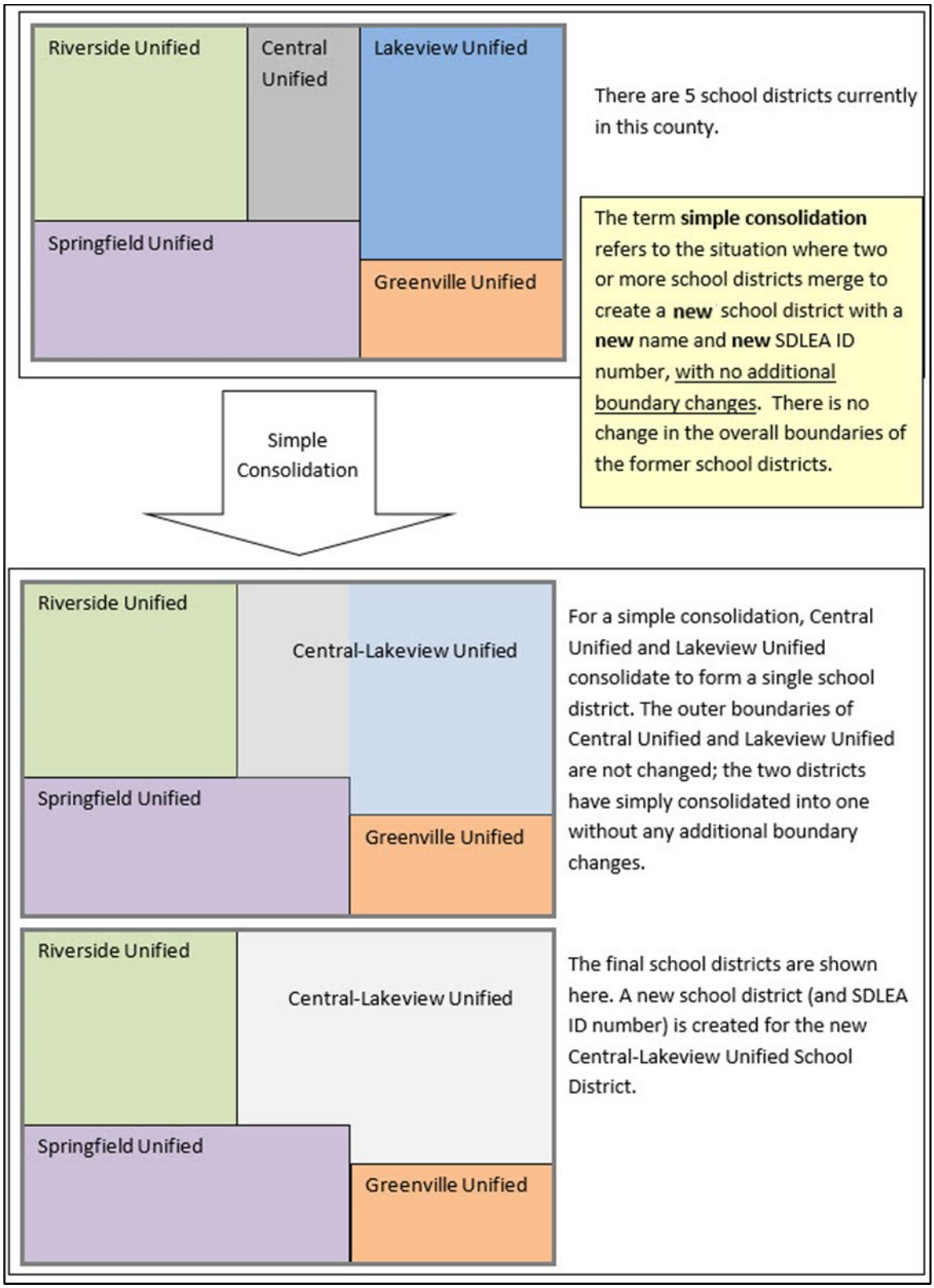


Figure 5: Simple Consolidation Example (Update Using the Submission Log)

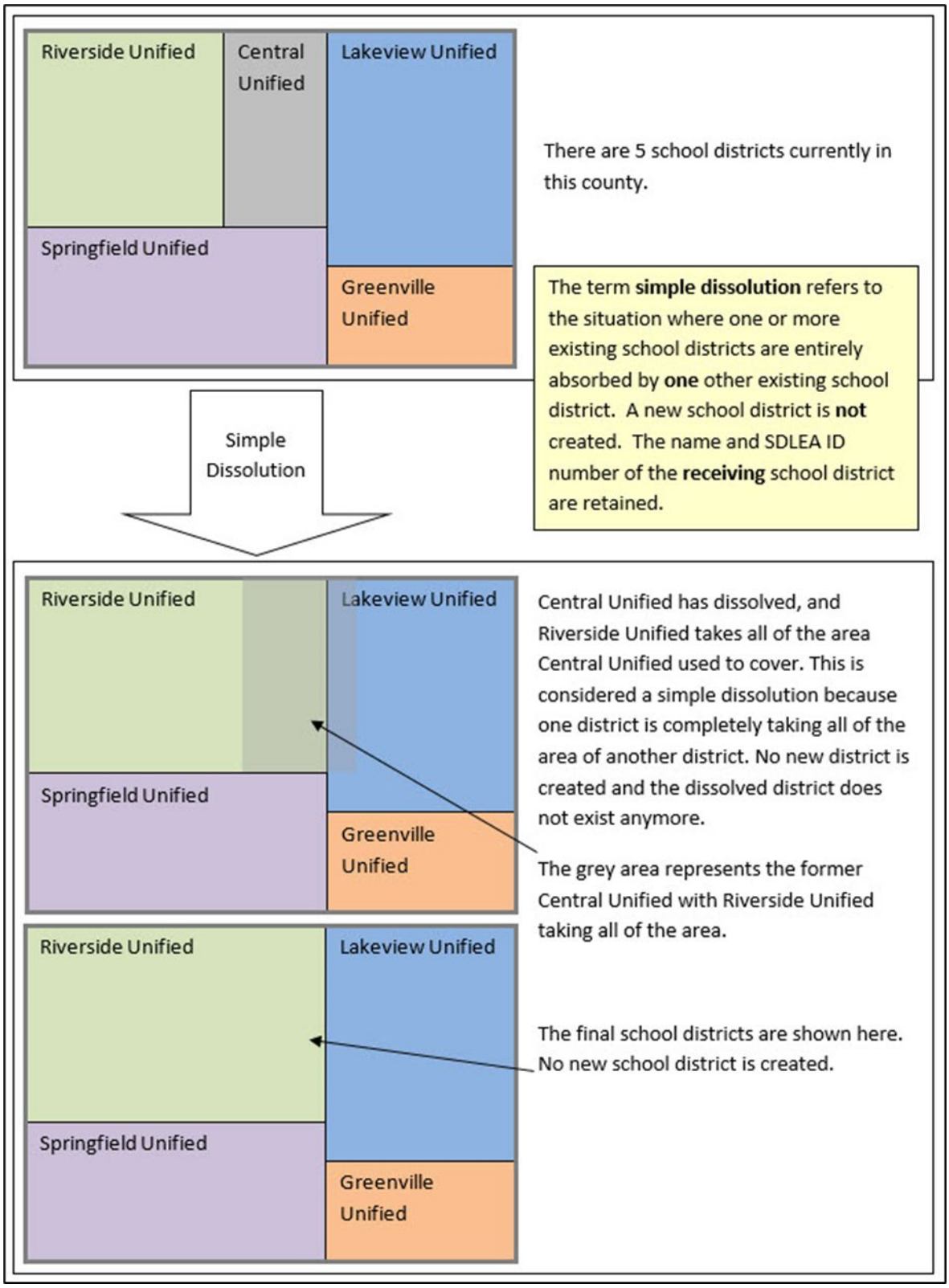


Figure 6: Simple Dissolution Example (Update Using the Submission Log)

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 fully 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 at <geo.school@census.gov> or 301-763-1099.

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

CHAPTER 1 OVERVIEW

1.1 SDRP Schedule

- **September 2024**—Notify the mapping coordinators by email that Annotation Phase materials are available to download and review.
- **October 2024**—Provide free training webinar on responding to the SDRP to mapping coordinators.
- **December 31, 2024**—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 2025 SDRP Verification Phase, the Census Bureau must receive all school district updates by December 31, 2024. Contact the SDRP team at <geo.school@census.gov> or 301-763-1099 immediately if there are deadline concerns.

- **April 2025**—Review of Verification Phase materials by mapping coordinators.
- **December 2025**—Release of preliminary poverty estimates based on the updated school districts.

1.2 SDRP Annotation Phase Materials

All SDRP Annotation Phase materials including GUPS, shapefiles, respondent guides, submission log, and school district listing files are available for download from Annotation Phase Program Materials. 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 at <geo.school@census.gov> or 301-763-1099 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® (.xlsx) format.

- Inventory and Grade Range File (All States)
- County Coverage File (All States)
- Legal Government 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.xlsx." This file lists the school districts reported to the Census Bureau as of the 2024 SDRP, including the school district name, SDLEA code, 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 codes with an (E). In these situations, the SDLEA codes 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 code, level, type, and grade range in the submission log, 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 at <geo.school@census.gov> or 301-763-1099 before completing the submission log.

1.4.2 County Coverage File (All States)

The County Coverage listing file is named "<ST>_County_Coverage_A.xlsx." 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 2024 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 Government Coextensive Coverage File (Limited States)

The Legal Government Coextensive Coverage listing file is named "<ST>_Coextensive_Coverage_A.xlsx." 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 general-purpose local governments 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 (BAS). If the mapping coordinator believes that a legal boundary is incorrect, please notify the Census Bureau 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.xlsx”, to ensure that the state school districts are maintaining the correct relationships with the aforementioned general-purpose local governments.

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 code for use in reviewing the geographic relationship between the general-purpose local governments (towns, townships, boroughs, etc.) and each school district. Details on this specific listing file are found in sub-appendix **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 BAS. If the mapping coordinator believes that a legal boundary is incorrect, notify the Census Bureau 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 general-purpose local governments, contact the SDRP team at <geo.school@census.gov> or 301-763-1099 for resolution.

1.4.5 Submitting Updates to Information in the "County Coverage," "Legal Government 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 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, reached by selecting the "TIGERweb Applications" tab once on the site, is available for state and local education officials to review the Census Bureau's school district information current as of January 1, 2024. 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 geographies.
- Selected special land use areas such as military reservations and national parks.
- Satellite imagery.

IMPORTANT: The TIGERweb User Guide 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, 2025.

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

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.xlsx." It is comprised of a two-digit state code for the state in which the school district is located followed by the five-digit SDLEA code 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 2025 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.

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 Locating a School District

TIGERweb allows users to quickly locate an entity visually using the Zoom scrollbar or by using the Query tool (**Figure 7**) 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 7: Query Tool Button

Figure 8 shows the resulting Query tool window that appears after selecting the button.

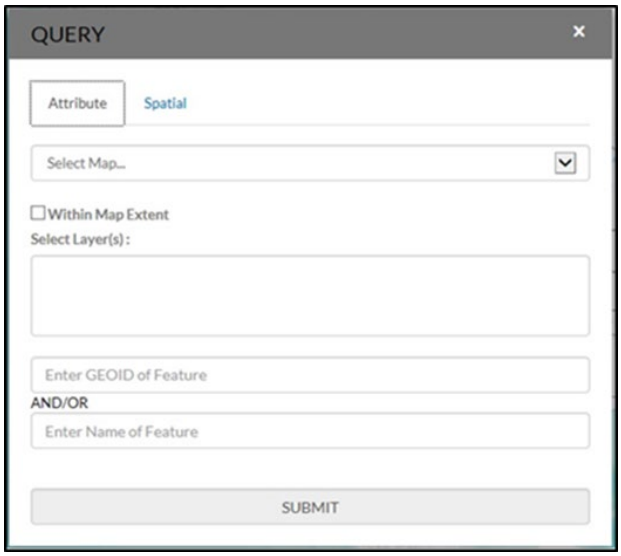


Figure 8: Query Tool Window

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, town, or township.
- School Districts to locate a unified, secondary, or elementary school district.

Key the GEOID, located in the Inventory and Grade Range Listing (SD_Inventory.xlsx), 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 9**).
3. From the Select Layer(s) drop-down menu, choose Unified School Districts then enter 1700314 in the GEOID field (**Figure 10**).

4. Choose SUBMIT to search for the unified school district.

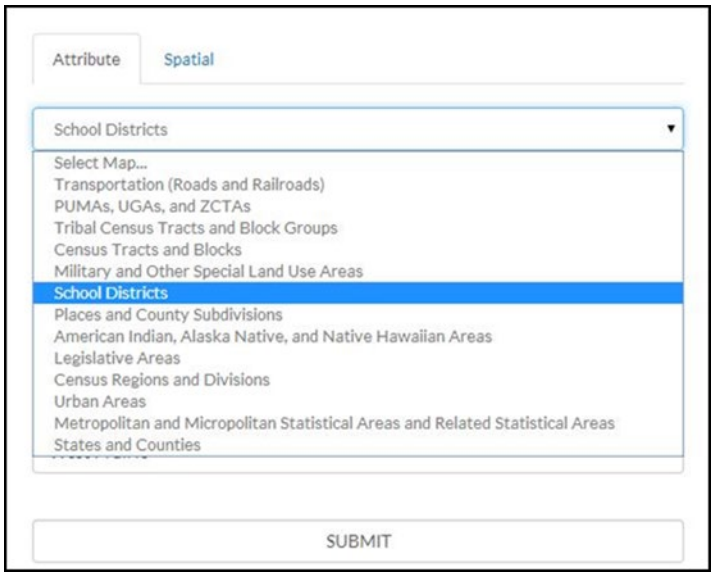


Figure 9: Query Tool–Attribute Tab–Select Map

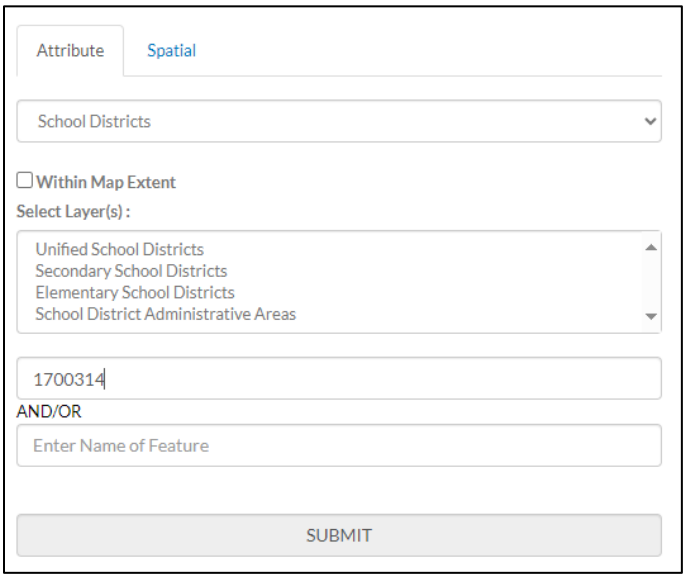


Figure 10: Query Tool–Query by GEOID

TIGERweb displays the query results under the Task Results tab to the left of the map (**Figure 11**).

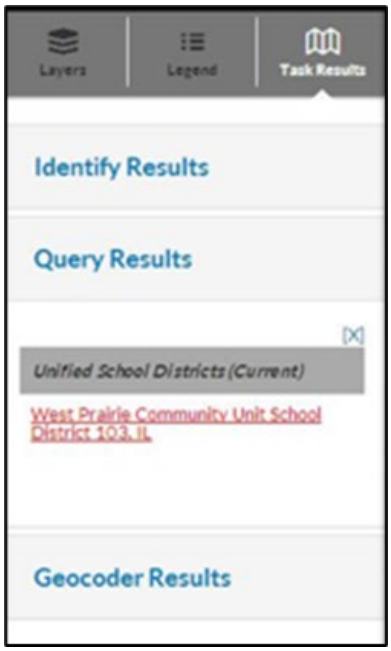


Figure 11: Task Results Tab with Query Results

TIGERweb also displays the Info panel containing attribute data for the entity (**Figure 12**) in a separate window. Minimize or close the Info panel by selecting the '-' or 'x' symbol in the top right of the Info panel.

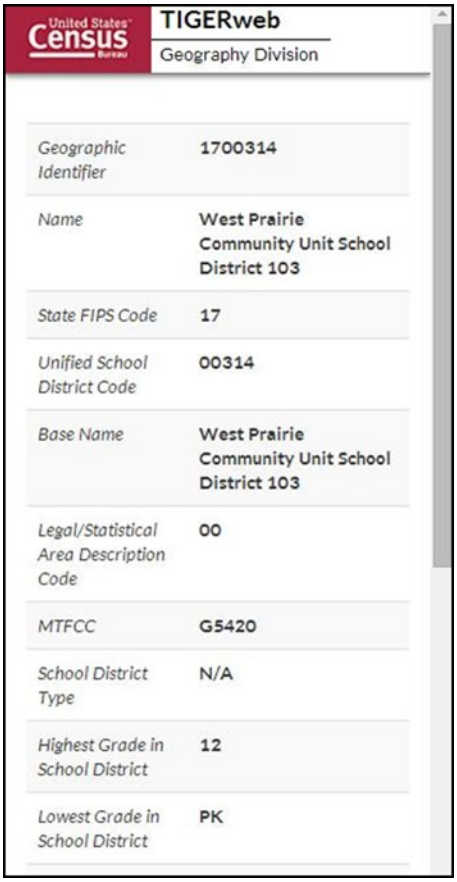


Figure 12: Query Results–Info Panel

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 13**). 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.

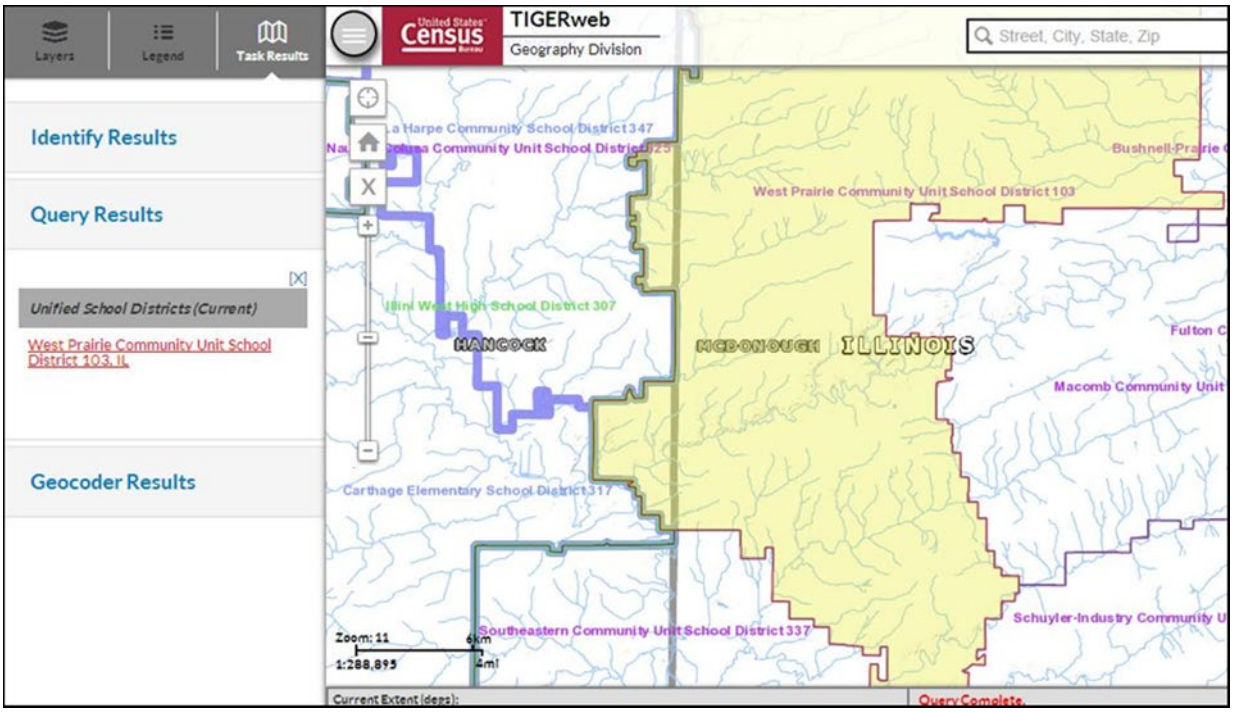


Figure 13: Map Display with Query Results

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 14**) then enter Bridgeport in the Enter Name of Feature box.
4. Choose SUBMIT to search.

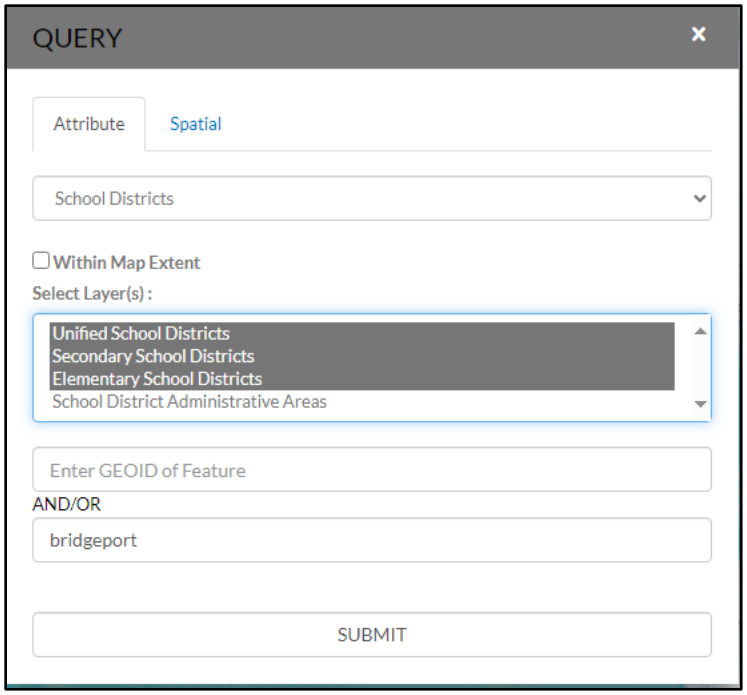


Figure 14: Query Tool–Query by Name

Searching by name could produce a list of school districts with the same or similar names, as shown in **Figure 15**; however, the results will include the state in which the entity is located to help choose the correct school district.

Figure 15: 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 16**).

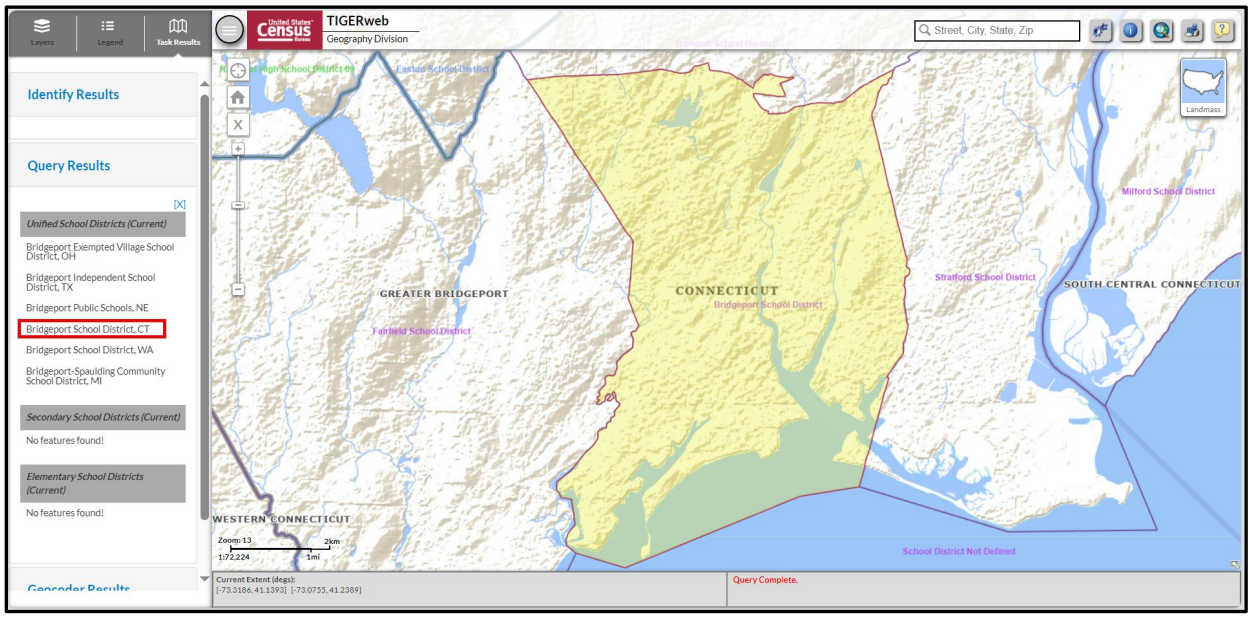


Figure 16: Map Display with Query Results

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 respondent guide, and submit the updates to the Census Bureau as described in part 5.

2.2 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 17**) opens the Print window (**Figure 18**). 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 17: Print Tool Button

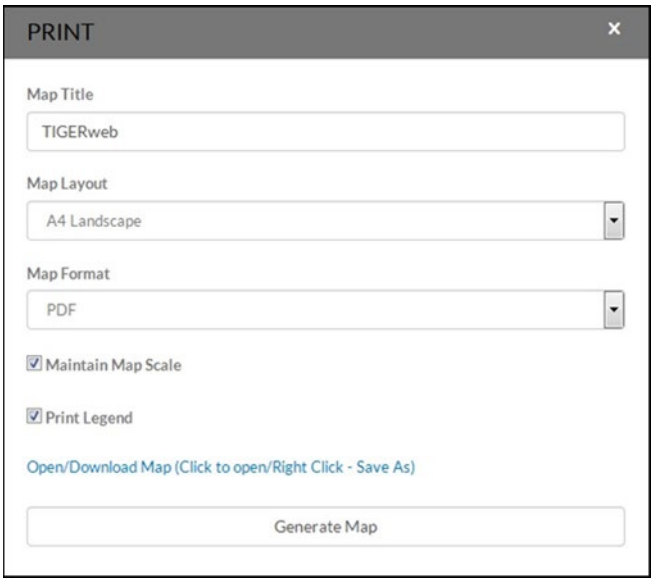


Figure 18: Print Tool Window

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 from Annotation Phase Program Materials. Record each type of acceptable school district change as a separate record in this file.

The Census Bureau requires the use of the submission log for the following seven change types:

- School district name.
- Grade range.
- SDLEA code.
- Level.
- Simple consolidations.
- Simple dissolutions.
- Simple spatial update using whole MCDs or incorporated places.

Note: Not all fields in the submission log are displayed in the examples in this chapter.

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 19** shows an example of the fields requiring information. They are the Type of Change, County code(s), SDLEA of Change, Old Name, and New Name fields. Contact the SDRP team at <geo.school@census.gov> or 301-763-1099 if seeking to submit more than 25 name changes.

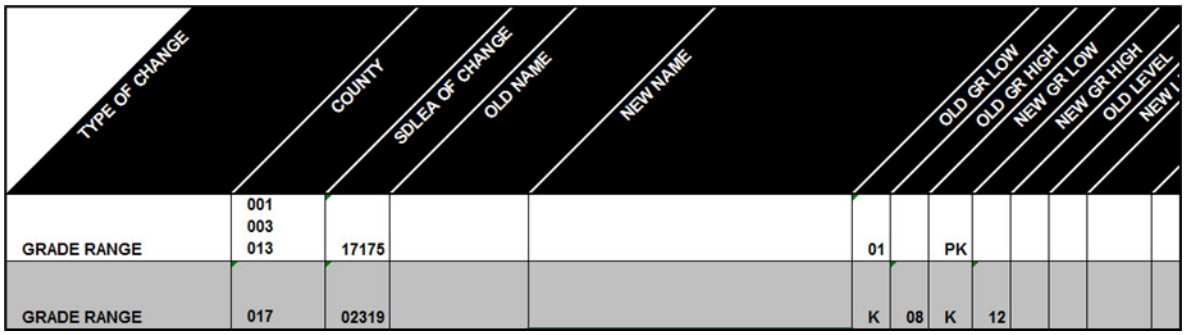
TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	OLD NAME	NEW NAME	OLD GR LOW	OLD GR HIGH	NEW GR LOW	NEW GR HIGH	OLD LEVEL	NEW LEVEL	OLD SDLEA	NE
NAME	005	19320	BLUE STONE	BLUESTONE								
NAME	009 021	20603	JENNERSVILLE	JENNERSVILLE USD 219								

Figure 19: 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 code(s), SDLEA of Change, Old Grade Range Low, Old Grade Range High, New Grade Range Low, and New Grade Range High fields (**Figure 20**). Contact the SDRP

team at <geo.school@census.gov> or 301-763-1099 if seeking to submit more than 25 grade range changes.



TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	OLD NAME	NEW NAME	OLD GR LOW	OLD GR HIGH	NEW GR LOW	NEW GR HIGH	OLD LEVEL	NEW LEVEL	OLD SDLEA	NEW SDLEA
GRADE RANGE	001 003 013	17175			01		PK					
GRADE RANGE	017	02319			K	08	K	12				

Figure 20: Example of a School District Grade Range Change

3.3 SDLEA Code Change

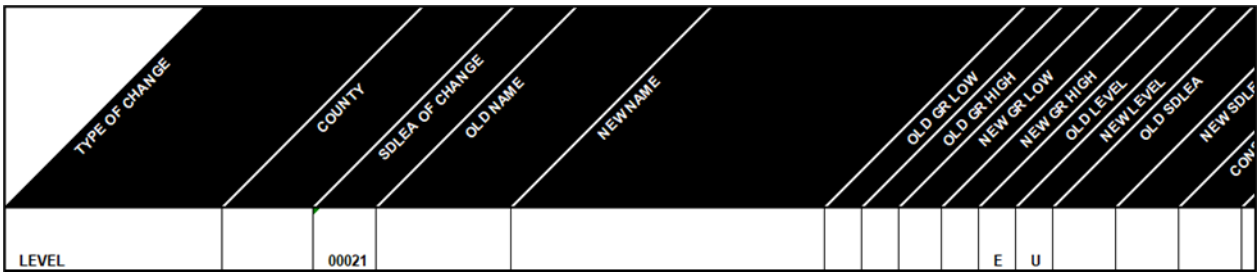
SDLEA code changes include a correction to the SDLEA code. SDLEA code changes require information in the Type of Change, County code(s), SDLEA of Change, Old SDLEA (same as SDLEA of Change), and New SDLEA fields (**Figure 21**).

TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	OLD NAME	NEW NAME	OLD GR LOW	OLD GR HIGH	NEW GR LOW	NEW GR HIGH	OLD LEVEL	NEW LEVEL	OLD SDLEA	NEW SDLEA	CONS
SDLEA	135	00021								00021	00012		

Figure 21: Example of a SDLEA Code 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 22**).



TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	OLD NAME	NEW NAME	OLD GR LOW	OLD GR HIGH	NEW GR LOW	NEW GR HIGH	OLD LEVEL	NEW LEVEL	OLD SDLEA	NEW SDLEA	CONS
LEVEL		00021							E	U			

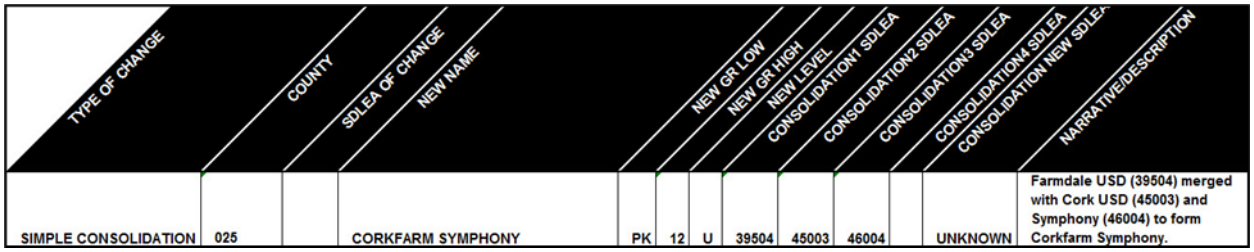
Figure 22: Example of a Level Change

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 code. There are no additional boundary changes.

Simple consolidations require information in the Type of Change, County code(s), New Name, New Grade Range Low, New Grade Range High, New Level, Consolidation 1 SDLEA (SDLEA code of first school district being merged), Consolidation 2 SDLEA (SDLEA code of other school district being merged), Consolidation New SDLEA (SDLEA code of newly formed school district, if known; otherwise place "unknown" in this field), and Narrative/Description fields (**Figure 23**).

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 codes on the next row starting in the Consolidation SDLEA field.



TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	NEW NAME	NEW GR LOW	NEW GR HIGH	NEW LEVEL	CONSOLIDATION1 SDLEA	CONSOLIDATION2 SDLEA	CONSOLIDATION3 SDLEA	CONSOLIDATION4 SDLEA	CONSOLIDATION NEW SDLEA	NARRATIVE/DESCRIPTION
SIMPLE CONSOLIDATION	025		CORKFARM SYMPHONY	PK	12	U	39504	45003	46004		UNKNOWN	Farmdale USD (39504) merged with Cork USD (45003) and Symphony (46004) to form Corkfarm Symphony.

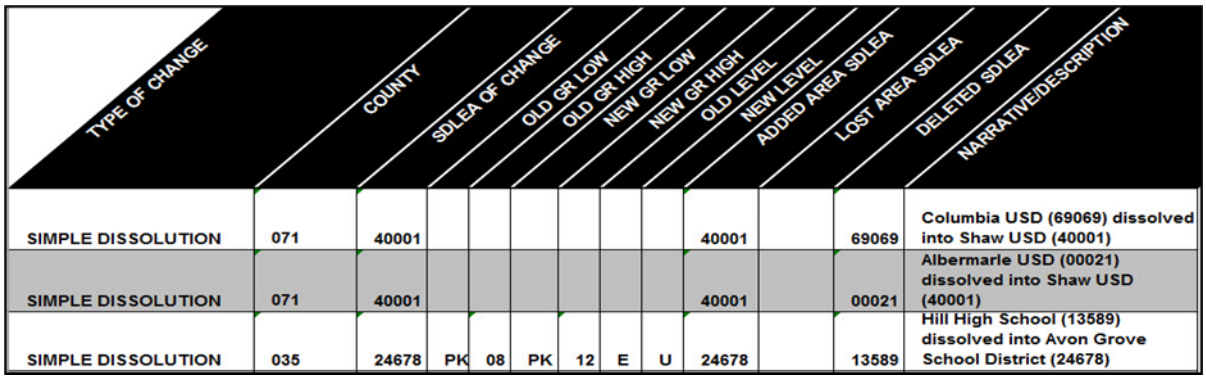
Figure 23: Example of a Simple Consolidation

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 code.

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 code(s), SDLEA of Change (SDLEA code of school district that is gaining area), Added Area SDLEA (same as SDLEA of Change), Deleted SDLEA (SLDEA code of school district being dissolved), and Narrative/Description (include county 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 24**).



TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	OLD GR LOW	OLD GR HIGH	NEW GR LOW	NEW GR HIGH	OLD LEVEL	NEW LEVEL	ADDED AREA SDLEA	LOST AREA SDLEA	DELETED SDLEA	NARRATIVE/DESCRIPTION
SIMPLE DISSOLUTION	071	40001							40001		69069	Columbia USD (69069) dissolved into Shaw USD (40001)
SIMPLE DISSOLUTION	071	40001							40001		00021	Albermarle USD (00021) dissolved into Shaw USD (40001)
SIMPLE DISSOLUTION	035	24678	PK	08	PK	12	E	U	24678		13589	Hill High School (13589) dissolved into Avon Grove School District (24678)

Figure 24: 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 (MCD) or incorporated place in the Census Bureau's data. 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 25**, require information in the Type of Change, County code(s), Added Area SDLEA, Lost Area SDLEA, and Narrative/Description fields. The Narrative/Description field must contain the MCD(s) or incorporated place(s) that are being added to the school district.

TYPE OF CHANGE	COUNTY	SDLEA OF CHANGE	OLD NAME	NEW NAME	ADDED AREA SDLEA	LOST AREA SDLEA	DELETED SDLEA	NARRATIVE/DESCRIPTION
BOUNDARY CHANGE	001				15467	64534		15467 Great Falls Supervisory Union added the parts of SDLEA 64534 covered by Bradley Township and Frederick Township.

Figure 25: Example of a Simple Spatial Update–Boundary Change

Simple spatial updates involving the creating of a new school district, shown in **Figure 26**, require information in the Type of Change, County code(s), New Name, New GR Low, New GR High, New Level, New SDLEA and Narrative/Description. The Narrative/Description field must contain the MCD(s) or incorporated place(s) that make up the new school district.

TYPE OF CHANGE	COUNTY	NEW NAME	NEW GR LOW	NEW GR HIGH	NEW LEVEL	NEW SDLEA	ADDED AREA SDLEA	LOST AREA SDLEA	NARRATIVE/DESCRIPTION
NEW DISTRICT	065	Elm Valley City School District	K	12	U	unknown			New District "Elm Valley City School District" shares the same boundary as Elm Valley City

Figure 26: Example of a Simple Spatial Update–New District

Once all updates are complete, zip the submission log 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 from Annotation Phase Program Materials (census.gov). 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 2**.

Table 2: 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 10 or 11

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.

4.2 Download and Install GUPS

To complete the installation, follow the steps in **Table 3**.

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. For users with QGIS 3.34.3 already installed, select the **Cancel** button on the QGIS 3.34.3 Setup screen (part of **Step 1** below) to update GUPS without reinstalling QGIS 3.34.3. The setup will bypass the QGIS installation and immediately begin to update the GUPS plugin supported for this year's SDRP. This is only applicable for existing installations of QGIS 3.34.3.

Table 3: Steps to Download and Install GUPS

Step	Action and *Result*
	To successfully install QGIS and GUPS, the software **must** be installed under the user profile of the person that will be using QGIS/GUPS. Otherwise, the user will encounter errors accessing folder directories and plugins required for GUPS to function. If a user does not have the ability to install software using their login credentials, temporary administrative privileges will need to be granted for that user to install QGIS/GUPS. Coordinate with local Information Technology (IT) staff to acquire administrator privileges and for any further assistance with installation. If installation problems remain, contact the SDRP team at <geo.school@census.gov> or 301-763-1099.
Step 1	Download GUPS from Annotation Phase Program Materials on the SDRP website and unzip the downloaded .zip file. Double-click the left mouse button on the file named **SETUP-<version>.bat**. *Follow the on-screen installation instructions.* Note: Regardless of the version number, there will be only one SETUP.bat file to choose.

Step	Action and *Result*
Step 2	Once installed, *QGIS appears in the Start Menu's All Programs list*. Please note depending on operating system, the image shown below may vary slightly. 
	The installer will include additional open-source software packages. This additional software will not be used during the SDRP.

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 the Census Bureau website).

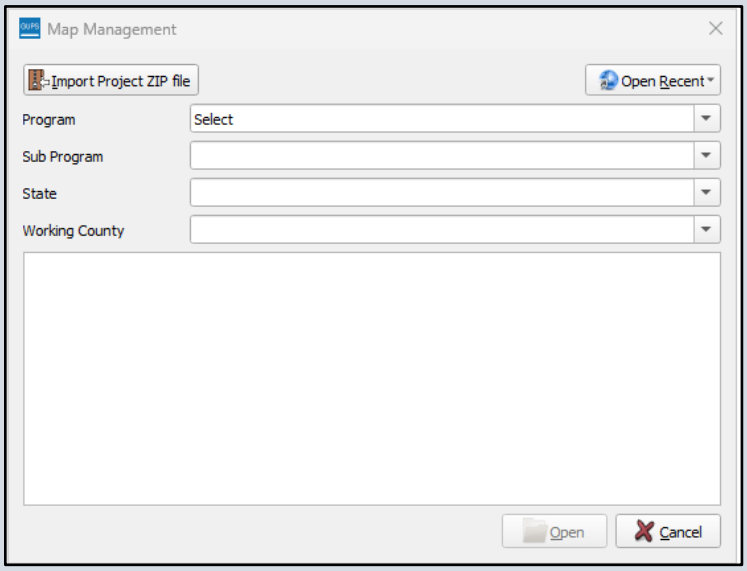
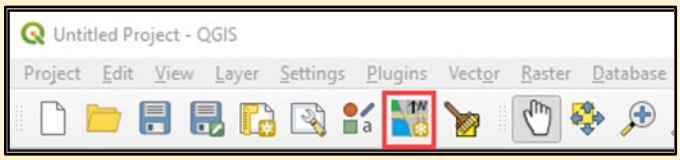
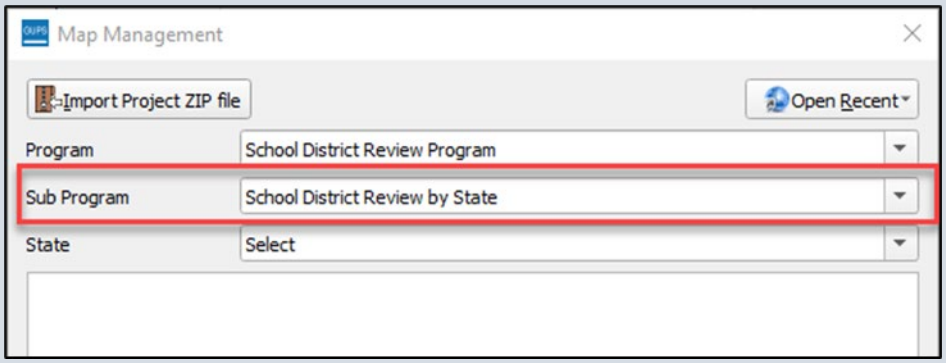
Table 4 shows the steps to open GUPS and start a new project using the Census Web option. The other two options are not covered in this material. For more information on the shapefiles used for the SDRP see **Appendix C** and **Appendix D**.

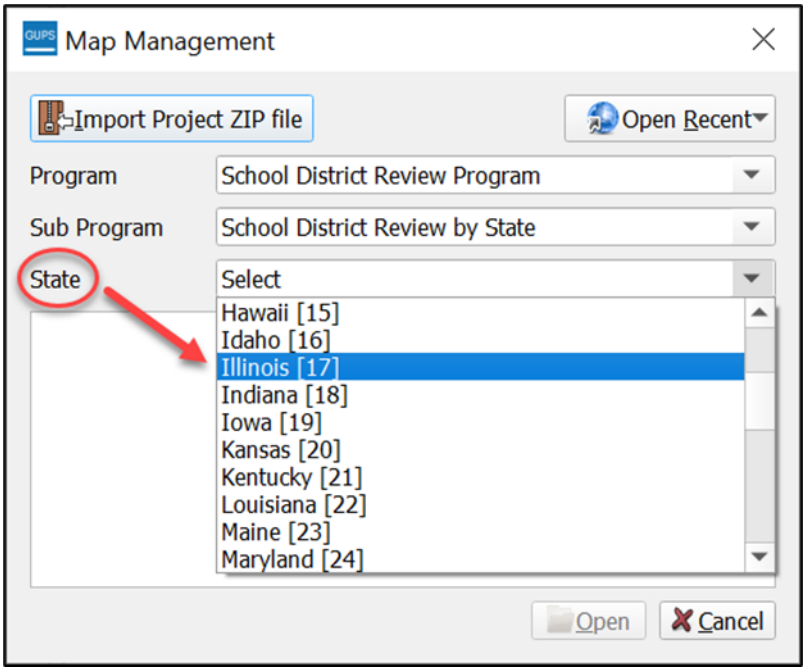
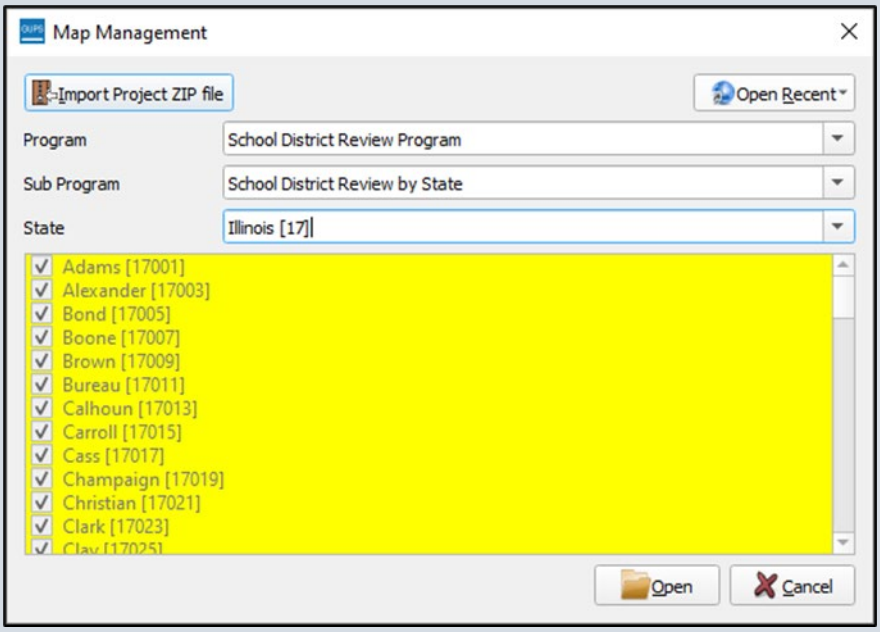
5.1 Start a New Project Using Census Web

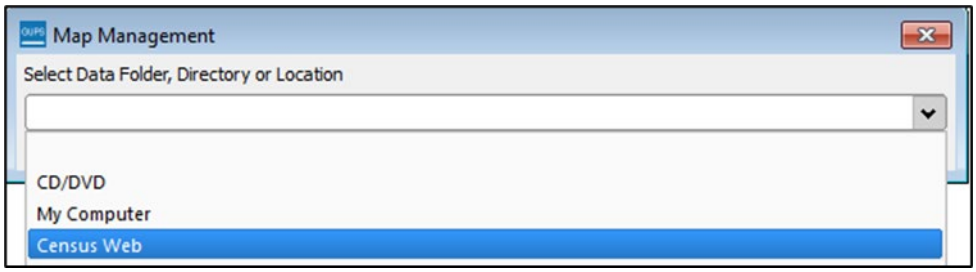
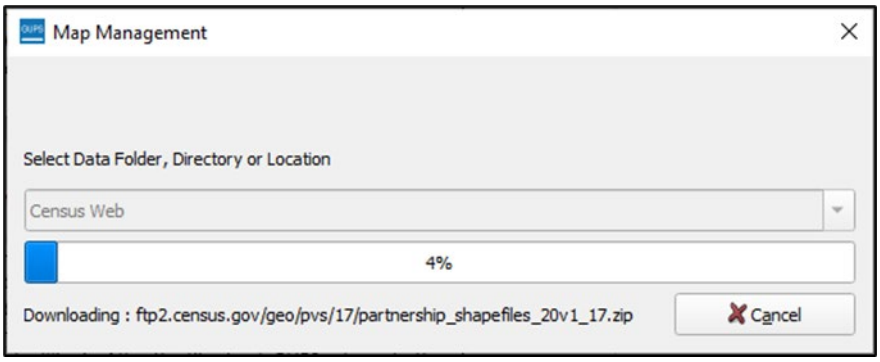
To open GUPS and start a new project using the Census Web option, follow the steps below.

Table 4: Steps to Open GUPS and Start a New Project Using Census Web

Step	Action and *Result*
Step 1	Select **QGIS Desktop 3.34.3** from the Start Menu. *The QGIS splash screen appears*. Depending on the age of the computer and the amount of RAM, the application may require a few moments to load and open. 

Step	Action and *Result*
Step 2	*The **Map Management** window appears.* 
	If the **Map Management** window does not appear, choose the **Map Management** button from the **Standard toolbar** (shown below highlighted by a red rectangle). If the **Map Management** button does not exist in the **Standard toolbar**, contact the SDRP team at <geo.school@census.gov> or 301-763-1099 for assistance. 
Step 3	In the **Map Management** window, use the drop-down menu next to the **Program** field to select **School District Review Program** and then select **School District Review by State** for the **Sub Program** field. 

Step	Action and *Result*
Step 4	In the **State** field, use the drop-down menu to select a state. Use the scroll bar to move up and down the list of states. This example uses Illinois. 
Step 5	After selecting a state, *GUPS refreshes the Map Management window and automatically highlights all available counties for the state of Illinois*. Select **Open**. 

Step	Action and *Result*
Step 6	*A secondary **Map Management** window appears to select the data source*. From this secondary **Map Management** window, choose **Census Web** to download the shapefile data layers with preset symbology and labels directly into GUPS. 
	GUPS only prompts for a data download location once per project. When a project has been closed and reopened, the shapefiles automatically load, even if no changes were made during the first session.
Step 7	When **Census Web** is chosen, *the shapefiles for the state begin to load with a progress bar displaying the percentage of the upload completed*. 
Step 8	*GUPS unzips and copies the files to the GUPS home directory then loads them into the application*. Once loaded, *the **Table of Contents** populates and symbolizes according to preset styles. The **Map View** fills with the working state. The **Menu Bar** and **Toolbars** appear along the top and the **Status Bar** appears at the bottom of the screen*. See **Figure 27** for a visual representation of the default layout.

Follow the steps in **Table 5** to properly save and close a project.

Table 5: Steps to Save and Close a Project

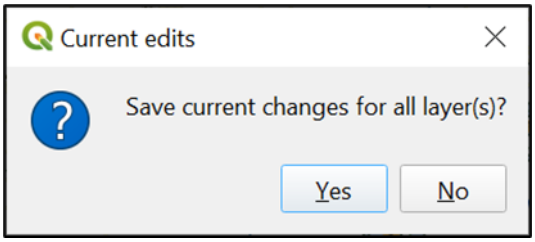
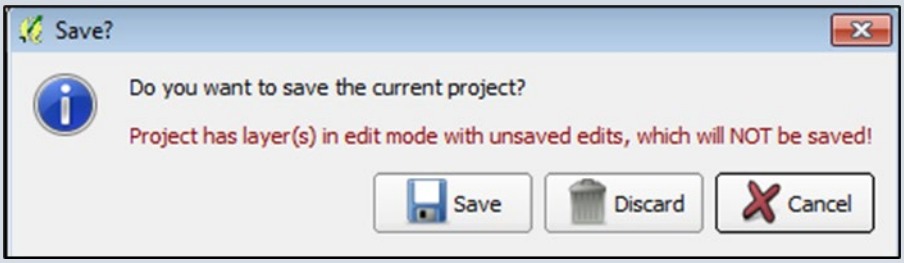
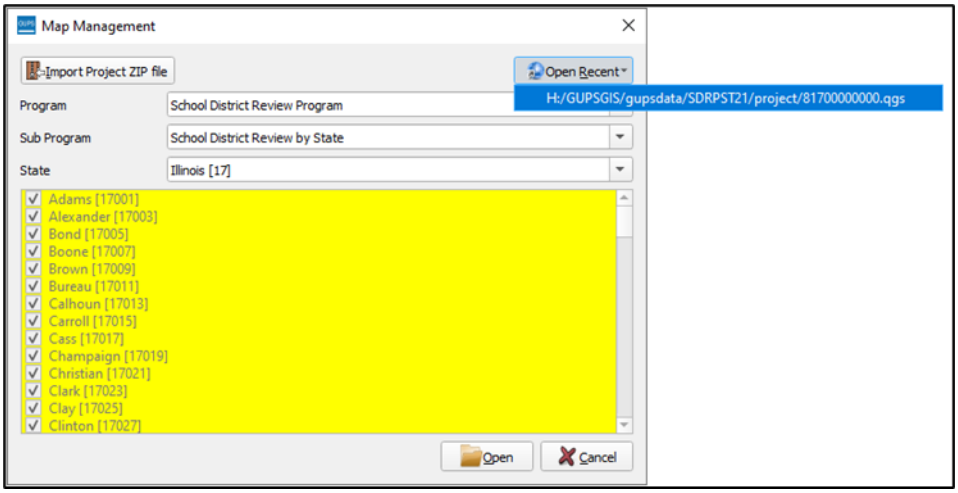
Step	Action and *Result*
Step 1	To save a project, use the **Save** button on the **Standard toolbar**. To ensure no work is lost, save after each major action or series of updates.  *The **Current edits** window asks to save current changes for all layer(s).*  Select **Yes** to save the changes or **No** to return to the map. Note: Participants may also use the **Save** option beneath the **Project** tab on the **Menu bar** to save the project.
Step 2	To discard changes, close the application by selecting the red X in the upper right-hand corner of the main GUPS page. *A **Save?** window prompts with a warning and options to either save, discard, or cancel.*  Select **Discard** to close GUPS and discard changes. GUPS will not save the current project.

Table 6 details how to open a previously saved project.

Table 6: Steps to Open a Saved Project

Step	Action and *Result*
Step 1	To reopen a saved project, expand the menu beneath the **Open Recent** button in the **Map Management** window. *The drop-down list provides a list of current projects created using GUPS to reopen*. 
Step 2	When a recent project file is chosen, *the map for the project automatically loads and the layers appear in the **Table of Contents***.

5.2 GUPS Menus and Toolbars

Figure 27 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.

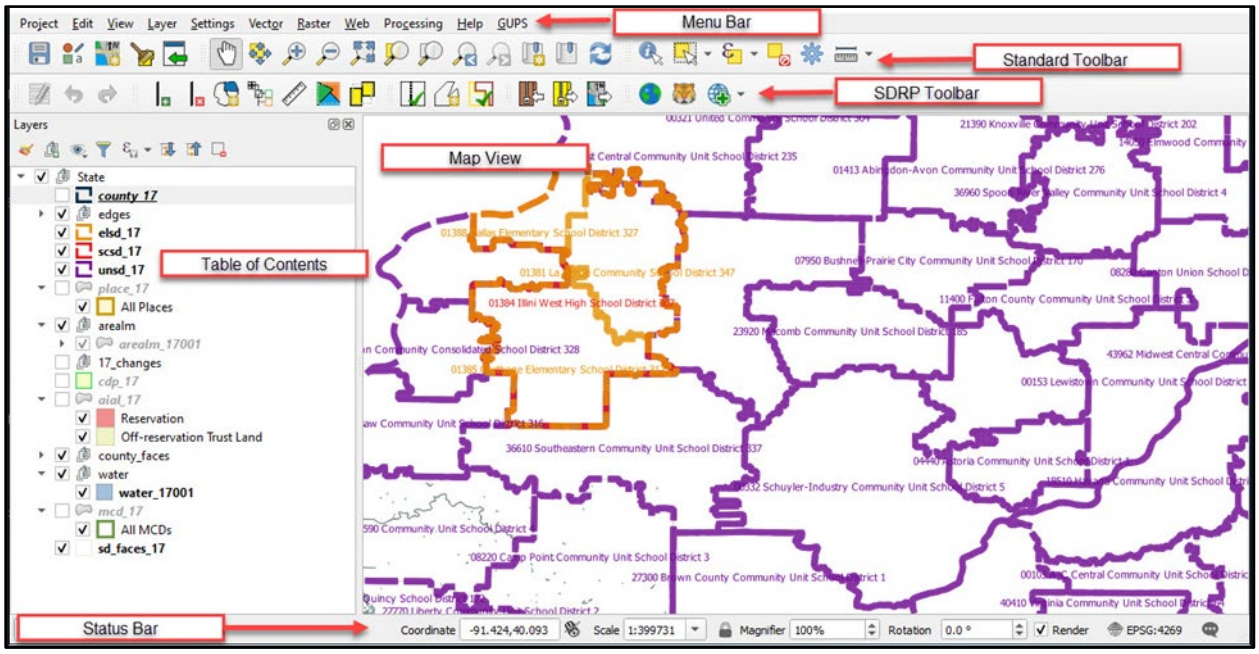


Figure 27: GUPS Main Page Elements and Default Layout

Refer to **Table 7** 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 7: 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 28**, provides the program-specific functions needed to complete the SDRP review and update activities, as well as to import and export zipped shapefiles.

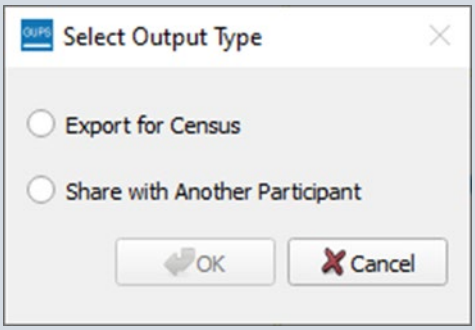
Figure 28: SDRP Toolbar

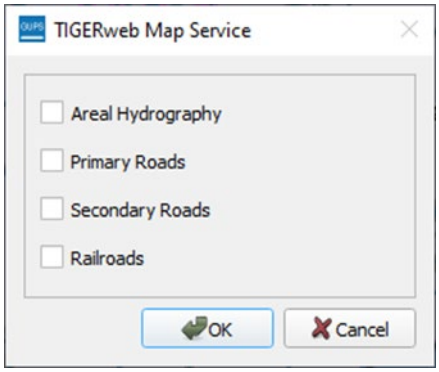
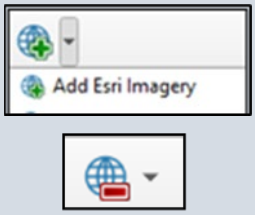
Each toolbar button function is described in **Table 8**.

Table 8: SDRP Toolbar Buttons and Their Function/Description

Button	Name	Function/Description
	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.

Button	Name	Function/Description
	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.
	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 Bureau 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 sub-sections **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.
	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.
	Review Change Polygons	Review change polygons in a layer and make corrections. Refer to sub-section **5.4.3** for details.
	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.

Button	Name	Function/Description
	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.  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 Bureau spatial data from the 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.  Because of the Load/Unload County Reference Layer button, users may not find this button necessary.
	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 29**) 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 code, 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.

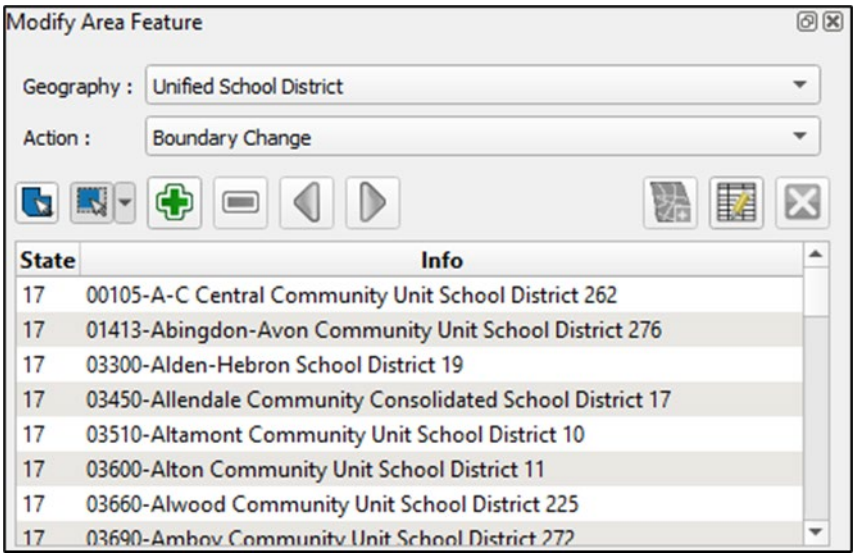


Figure 29: Modify Area Feature Tool

Table 9 describes each button in the Modify Area Feature tool and their function or description.

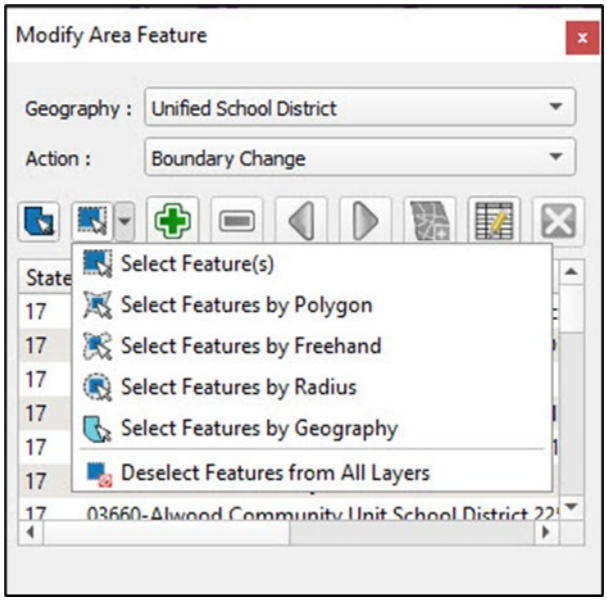
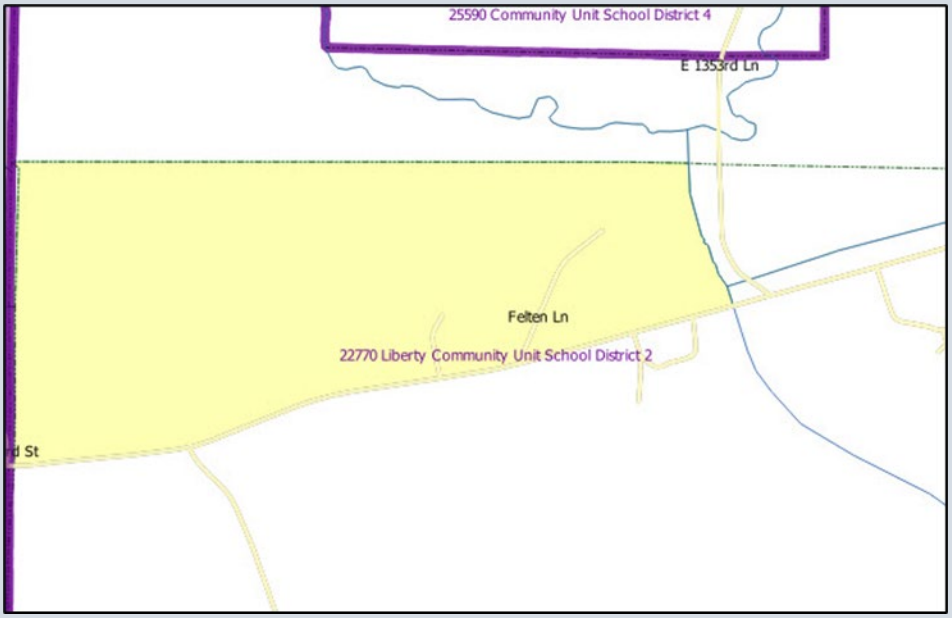
Table 9: Modify Area Feature Tool Buttons and Their Function/Description

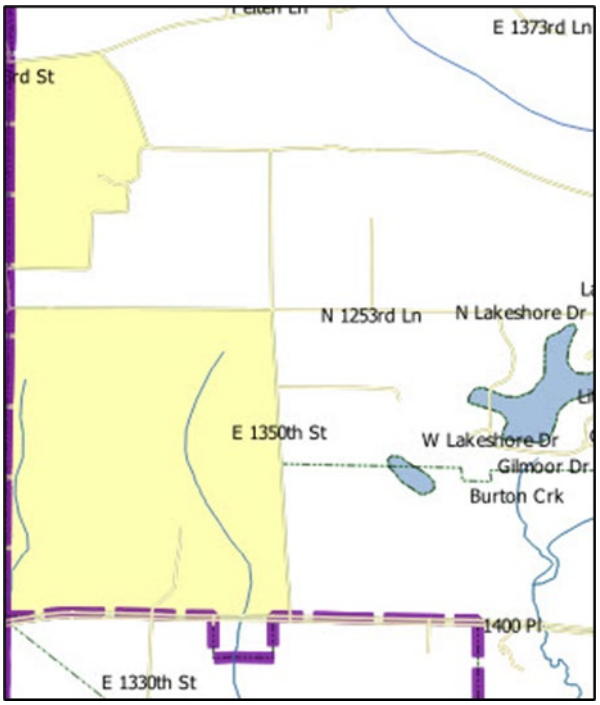
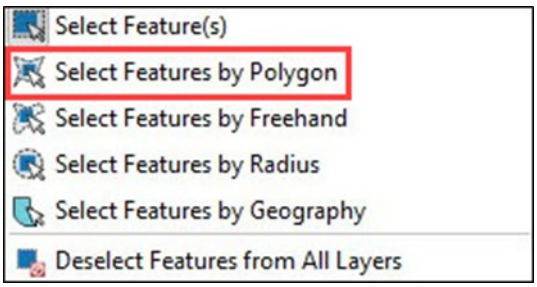
Button	Name	Function/Description
	Select Target Layer	Selects a target area (school district) by left-clicking the mouse on the map rather than selecting from the Modify Area Feature tool info list.
	Select Feature(s)	Selects faces. This button allows the selection of individual faces and multiple faces 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.

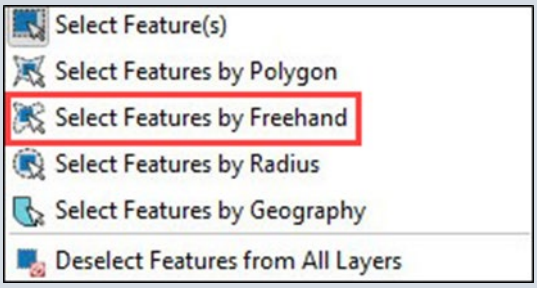
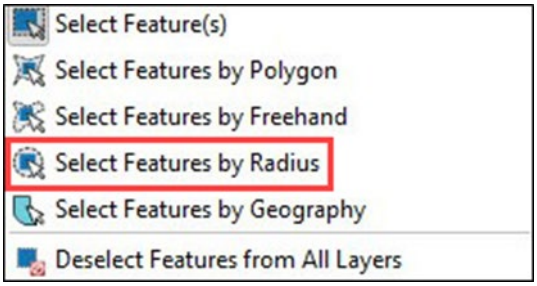
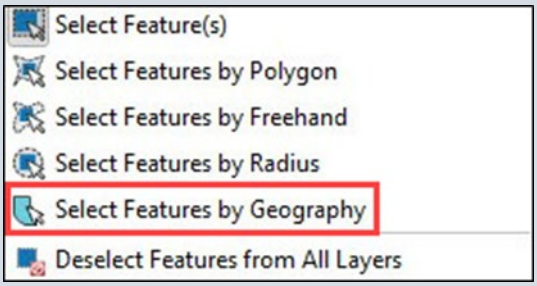
5.2.2.1 Using the Select Feature(s) Button in the Modify Area Feature Tool

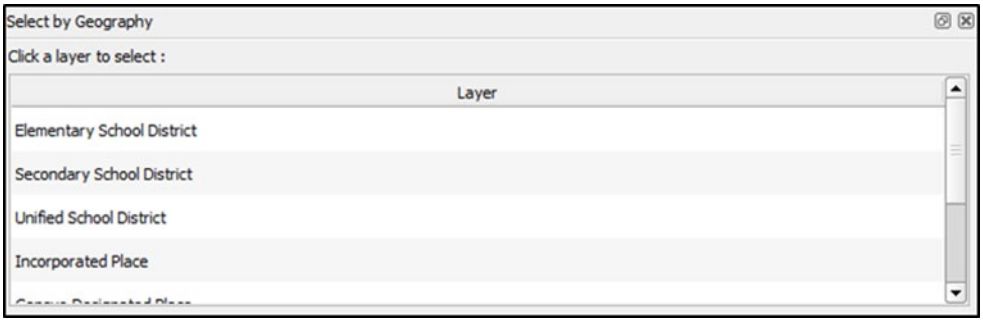
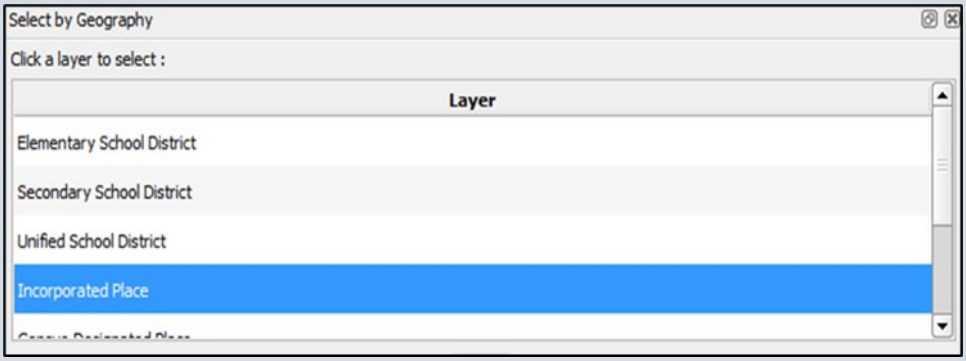
The Select Feature(s) button provides several methods to select faces to make changes to school districts. **Table 10** describes each of the feature selection methods.

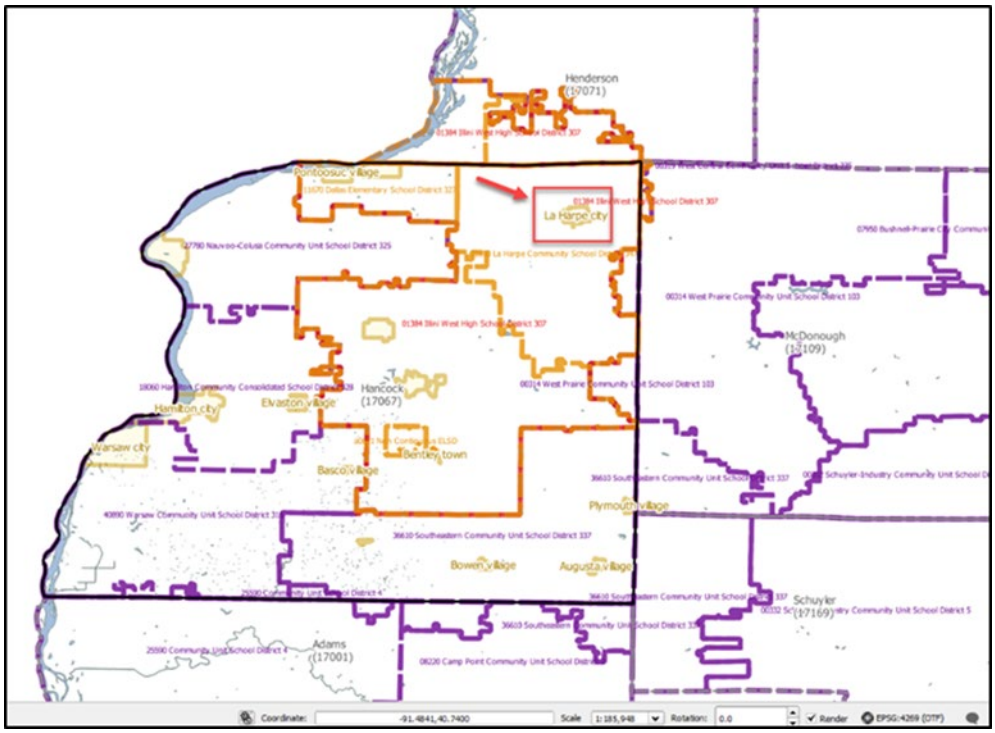
Table 10: Steps to Use the Select Feature(s) Button

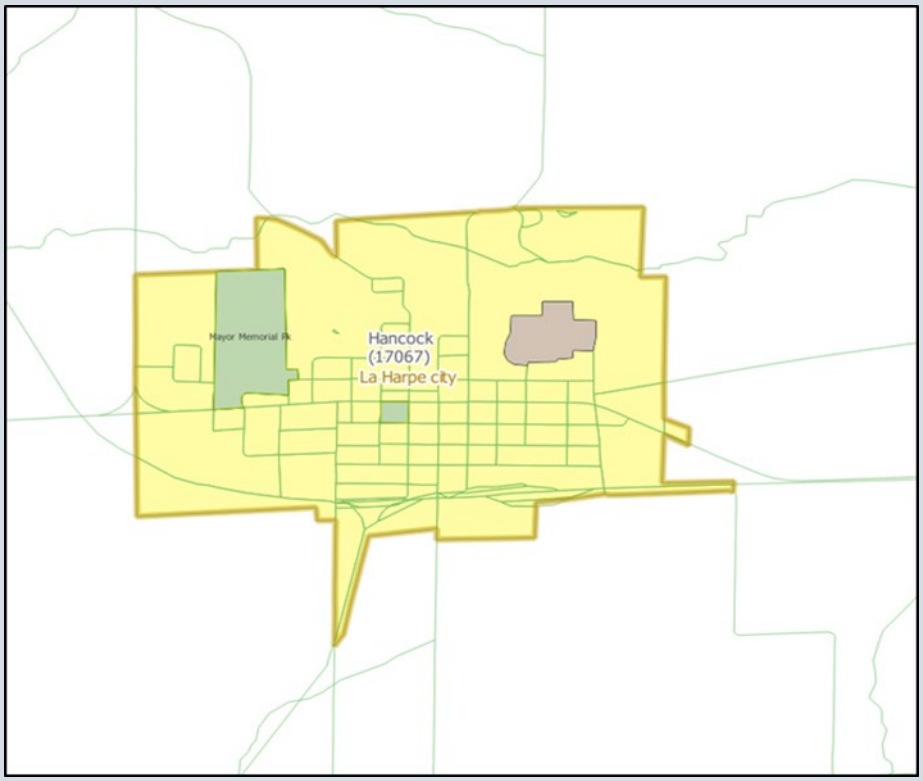
Step	Action and *Result*
Step 1	After selecting the geography, action, and target area in the **Modify Area Feature** window, use the **Select Feature(s)** button to highlight the school district faces to update. There are five feature selection methods: **Select Feature(s)**, **Select Features by Polygon**, **Select Features by Freehand**, **Select Features by Radius**, and **Select Features by Geography**. In addition, there is an option to deselect the selection. 
Step 2	To select faces or polygons one at a time, choose the **Select Feature(s)** option. Left-click the mouse on the face to update. *The selected face turns yellow (color may vary).* 

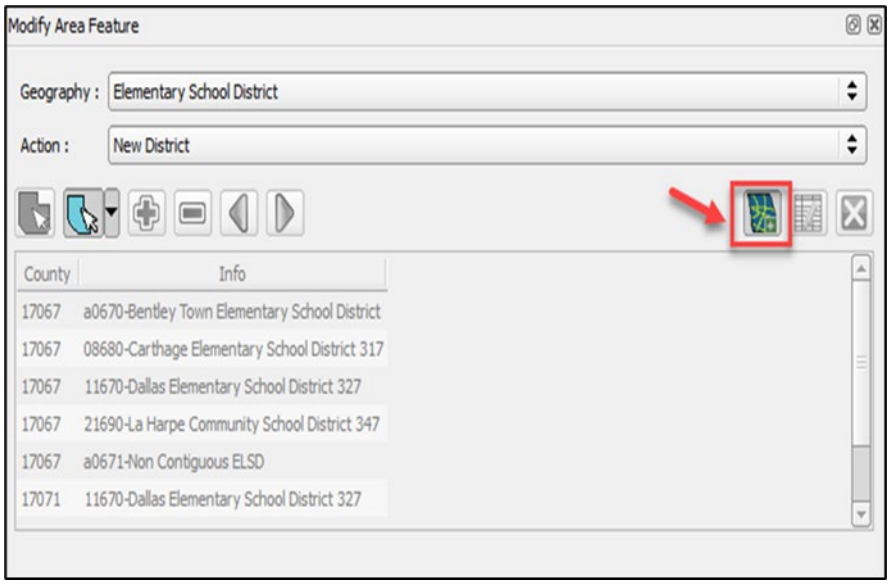
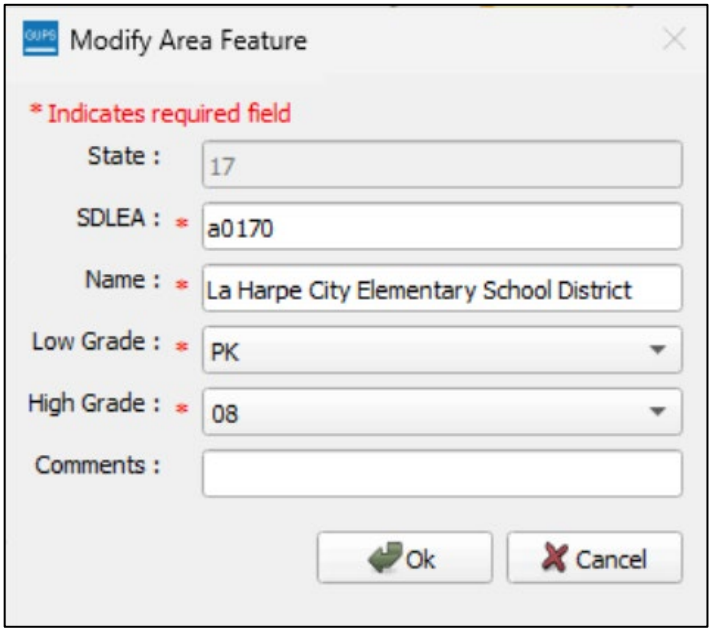
Step	Action and *Result*
Step 3	To select more than one face hold down the **CTRL** key on the keyboard while left-clicking the mouse on the additional face. This method is useful when selecting noncontiguous faces, as shown below. 
	To select multiple features, select the **Select Feature(s)** button, 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.  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*.

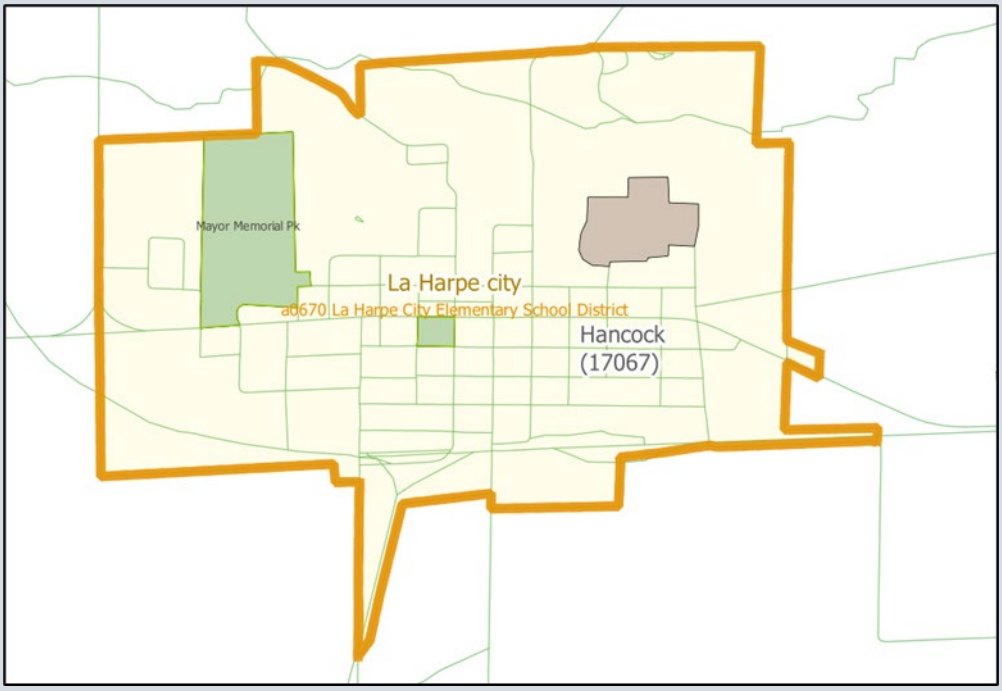
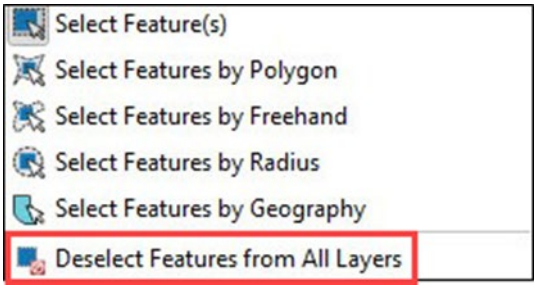
Step	Action and *Result*
Step 5	**Select Features by Freehand** selects features based on user-defined shapes drawn on the map.  To use this option, choose a spot on the map and use the cursor to draw any shape (polygon, triangle, circle, etc.). *Features that either cross or are contained within the selection area will be highlighted in yellow*.
Step 6	**Select Features by Radius** selects features by defining a circle around the features to select.  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*.
Step 7	**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 Bureau 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. 

Step	Action and *Result*
Step 8	*After choosing* ***Select Features by Geography****, the* ***Select by Geography*** *layer window opens.* This window can be docked in the project for ease of continued use.  *Selecting a layer from the* ***Select by Geography*** *layer window activates the geography for that layer and limits the selection of features to that geography*. In this example, all faces of an incorporated place are selected for inclusion in a new elementary school district.
Step 9	Select **Incorporated Place** from the **Select by Geography** layer window.  Ensure the visibility for the **Incorporated Place** layer is turned on in the **Table of Contents**. 

Step	Action and *Result*
Step 10	Zoom to La Harpe city.  

Step	Action and *Result*
Step 11	With the **Select by Geography** tool active, left-click the mouse on any of the faces inside La Harpe city. *The **Select by Geography** tool selects (highlights yellow) all faces*. Note: There may be a lag between when the geography/faces are chosen and when GUPS completes the selection. This is common when selecting large geography/school district areas that contain many faces. If there is a noticeable lag, this generally indicates that GUPS is still processing the selecting faces. 

Step	Action and *Result*
	From the **Modify Area Feature** window, select the **Add New District** button. 
Step 12	Fill in attributes for the new school district and select **Ok**. 

Step	Action and *Result*
Step 13	*All faces of the incorporated place of La Harpe city are now included in the La Harpe City Elementary School District*. 
Step 14	**Deselect Features from All Layers** deselects all highlighted faces on the map. 

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.

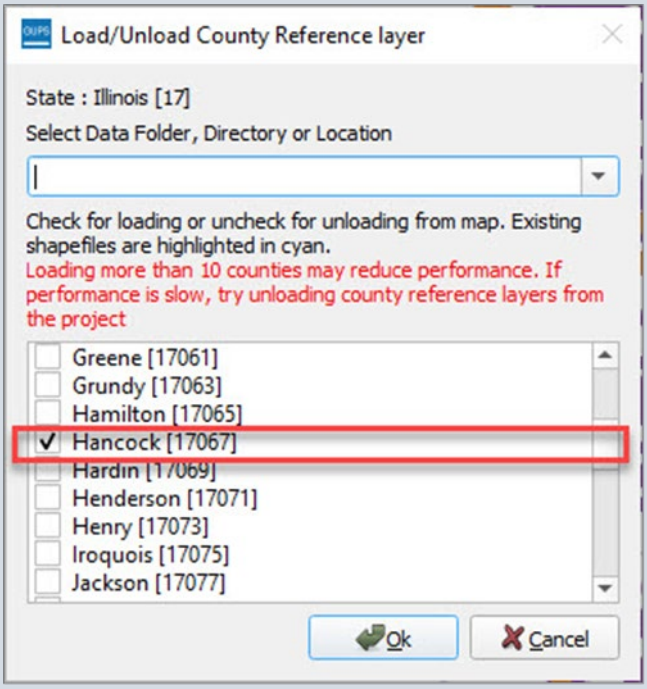
When making boundary changes using GUPS, keep the following in mind:

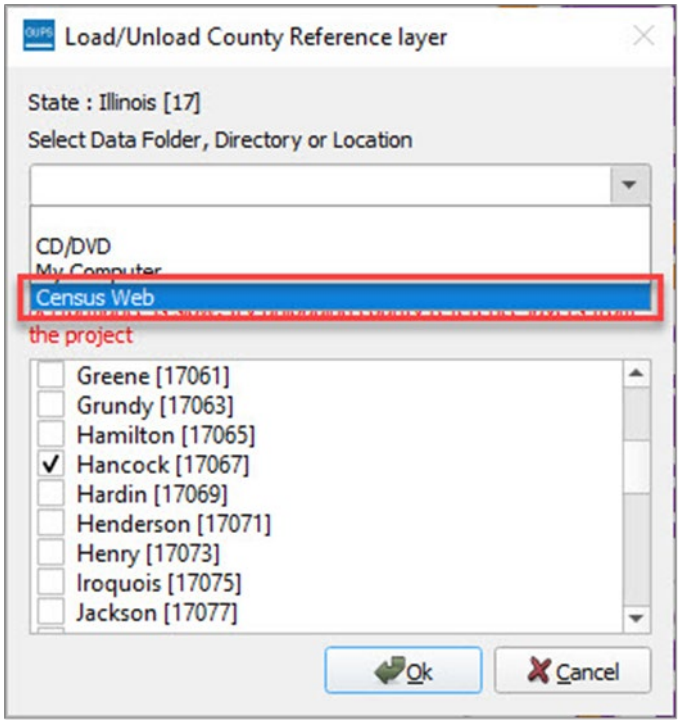
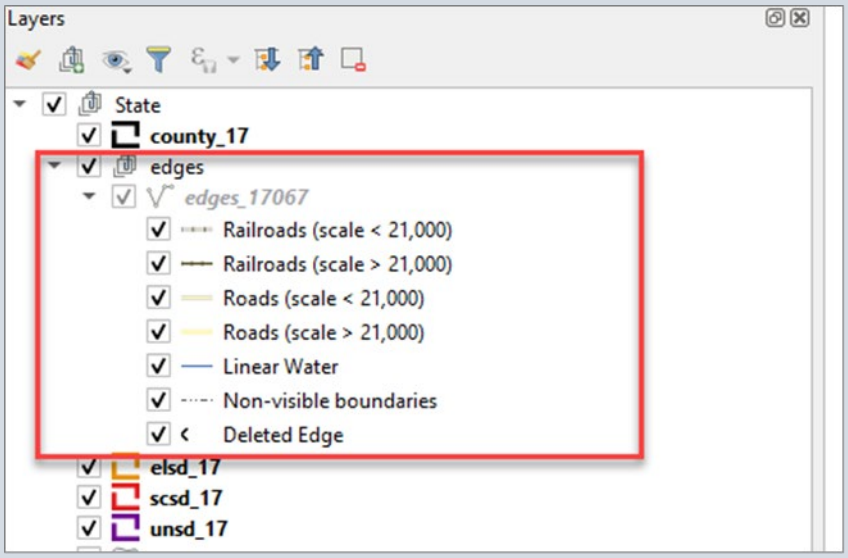
- Load the county reference layers first.
- Which school district is the target district (i.e., the one adding area), and if it is a(n) elementary, secondary, or unified school district?
- Which school is losing area, and if it is a(n) elementary, secondary, or unified district?
- Do faces need to be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

5.3.2 Load County Reference Layers

Follow the steps in **Table 11** to load county reference layers to support new boundary changes.

Table 11: Steps to Load County Reference Layers

Step	Action and *Result*
Step 1	In the **SDRP toolbar**, select the **Load/Unload County Reference Layer** button. 
Step 2	From the county list, select **Hancock [17067]** with a checkmark. 

Step	Action and *Result*
Step 3	From the **Select Data Folder, Directory or Location**, select **Census Web** and then select **Ok**. 
Step 4	*GUPS will begin to download the selected county*. When the download completes, GUPS adds the country reference layers to the project. To confirm that county reference layers have been added, expand the edges group layer in the **Table of Contents**. 

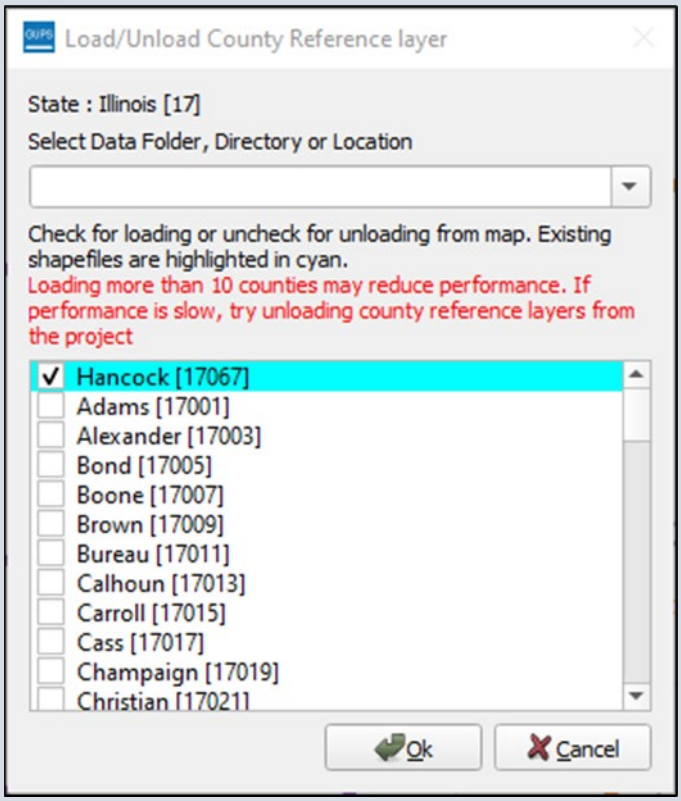
5.3.3 Unload County Reference Layers

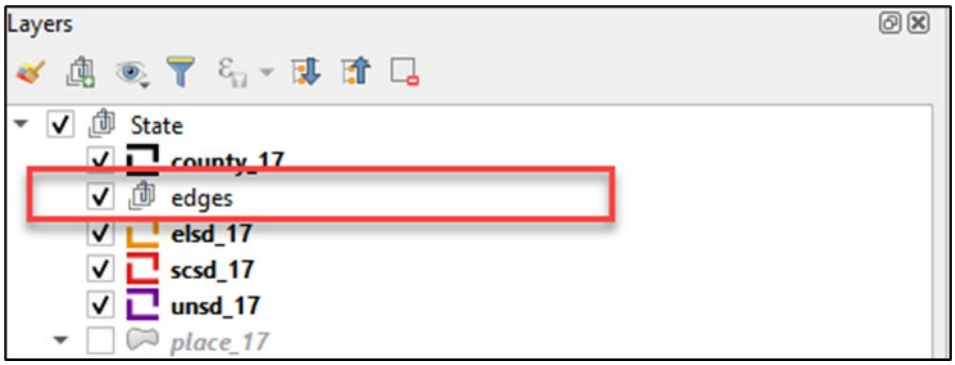
County reference layers in a project can be unloaded using the Unload County Reference Layers tool. This tool can be used if the number of loaded counties is starting to affect GUPS performance, or for counties that are no longer needed.

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 12** to unload county reference layers.

Table 12: Steps to Unload County Reference Layers

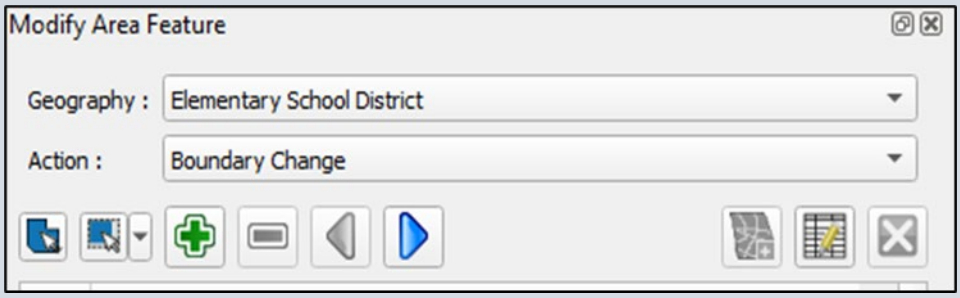
Step	Action and *Result*
Step 1	In the **SDRP toolbar**, select the **Load/Unload County Reference Layer** button. 
Step 2	*From the county list, loaded counties will appear first in the list and highlighted in cyan*. To unload the county, uncheck the checkbox. Then select **Ok**. 

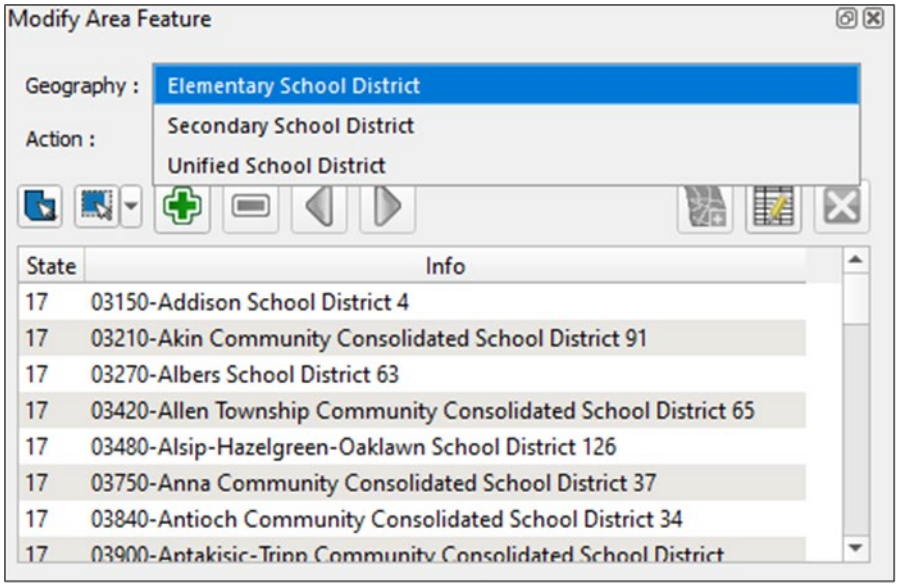
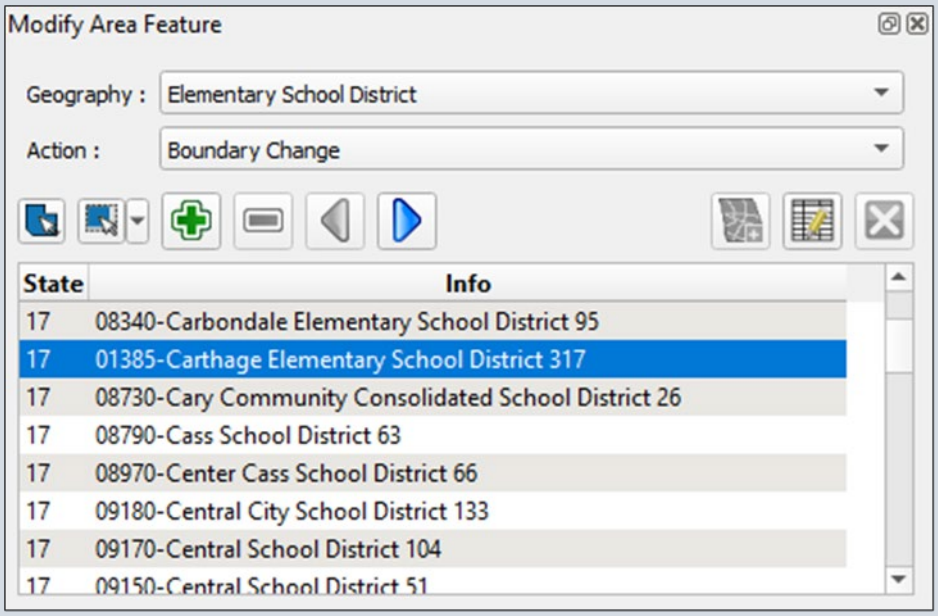
Step	Action and *Result*
Step 3	To confirm that the county reference layers have been unloaded, review the **edges** group layer in the **Table of Contents**. In this example, the **edges** group layer is no longer expandable confirming that the reference layers have been unloaded. 

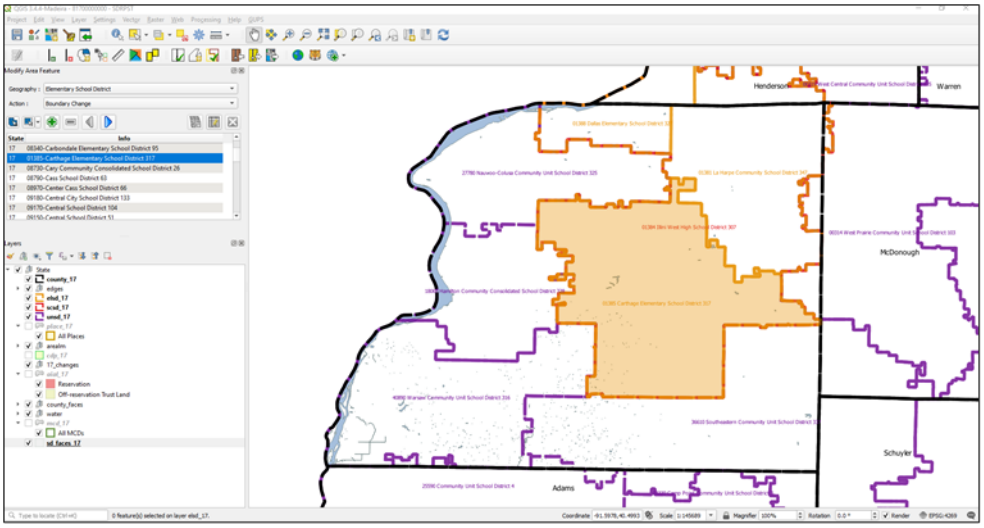
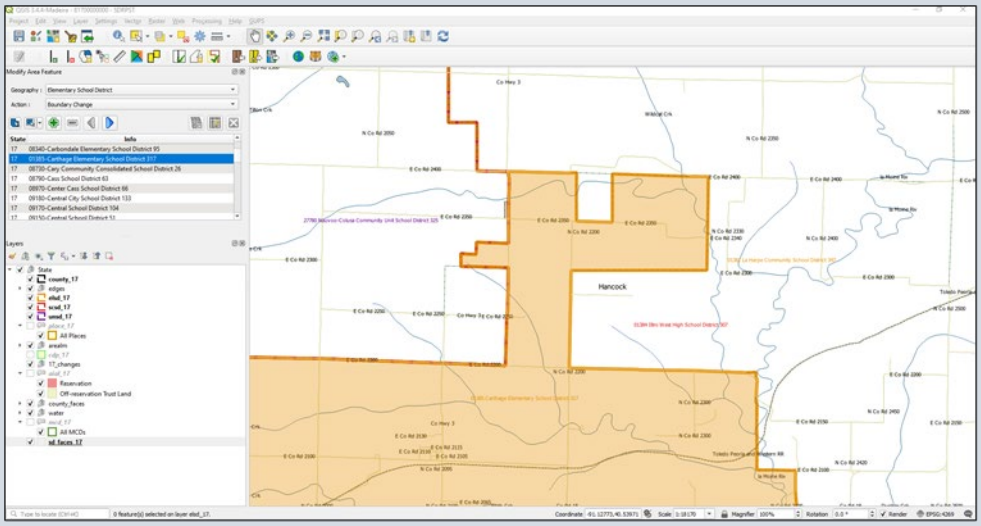
5.3.4 Boundary Change Using Whole Faces

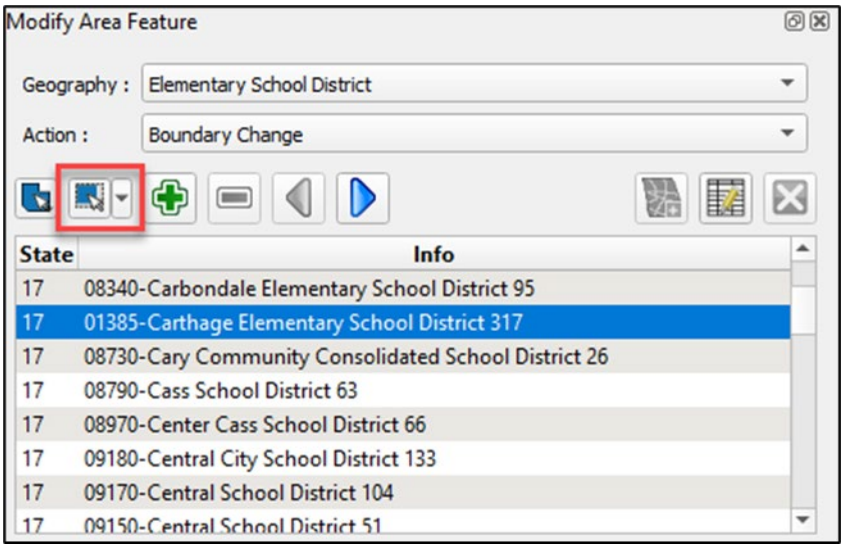
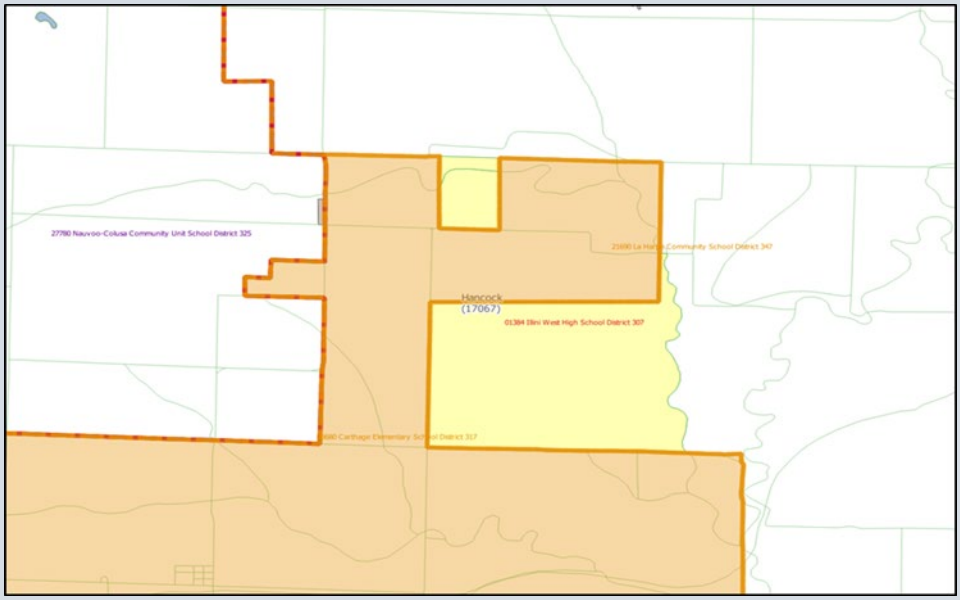
Follow the steps in **Table 13** to add whole faces to an existing school district to complete a boundary change.

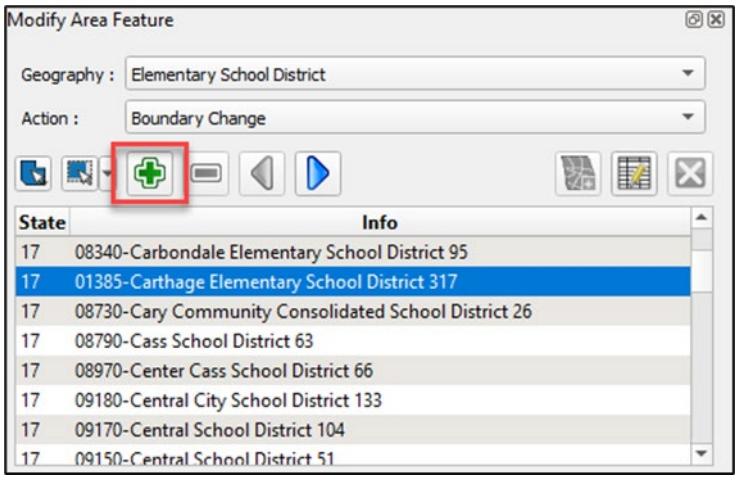
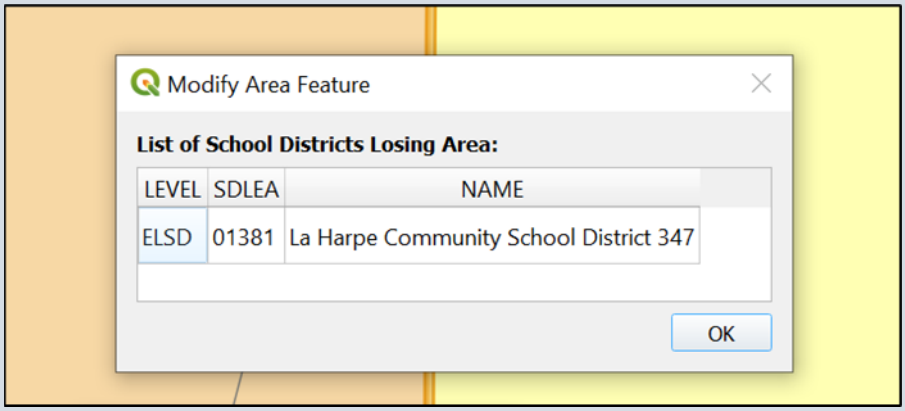
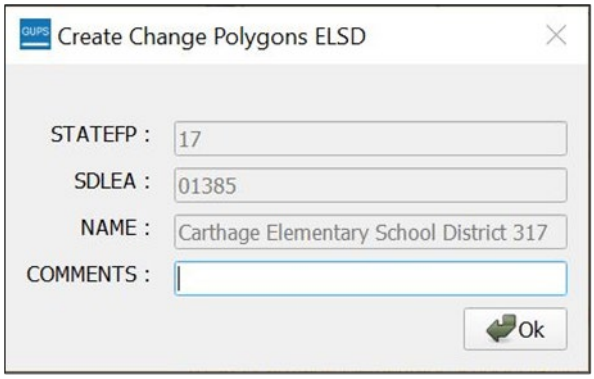
Table 13: Steps to Make a Boundary Change Using Whole Faces

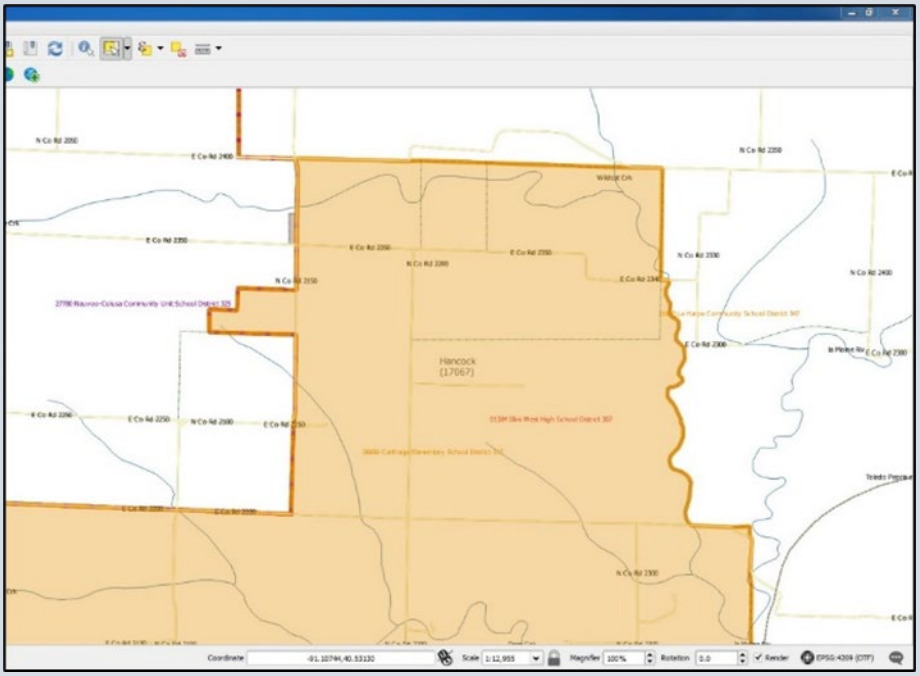
Step	Action and *Result*
Step 1	Begin by selecting the **Modify Area Feature** button from the **SDRP toolbar**. 
Step 2	In this example, there is a boundary change between two elementary school districts, and the line that will be used as the new boundary already exists in the Census Bureau data. Whole faces from **La Harpe Community School District** are added to **Carthage Elementary School District**. In the **Modify Area Feature** window, use the mouse to select the drop-down arrow next to the **Geography** menu. In this example, choose **Elementary School District**. Select **Boundary Change** from the **Action** menu. 

Step	Action and *Result*
Step 3	*When the **Geography** is chosen, the **Modify Area Feature** window populates with the list of available elementary school districts with the state and SDLEA code displayed for each district*. The list is sorted alphabetically by school district name. 
Step 4	From the **Modify Area Feature** table list, select **01385–Carthage Elementary School District 317**. 

Step	Action and *Result*
Step 5	After the selection, *the **Modify Area Feature** window highlights the school district in the **Map View**. A single left-click of the mouse highlights the school district. Double-clicking the left mouse button zooms to the extent of **01385–Carthage Elementary School District 317**.* 
Step 6	Using the **Zoom** button in the **Standard toolbar**, zoom to the following area where the change will occur. 

Step	Action and *Result*
Step 7	From the **Modify Area Feature** window, select the **Select Feature(s)** button. 
Step 8	On the map, left-click the mouse to select the following three faces from **01381–La Harpe Community School District 347**. To select multiple faces, hold down the **CTRL** button on the keyboard while continuing to click the mouse. *With each click of the mouse the face highlights in yellow to indicate an active selection*. 

Step	Action and *Result*
Step 9	Click the **Add Area** button in the **Modify Area Feature** window to initiate the boundary change. 
Step 10	*As part of the boundary change process, the following notification appears listing the school districts(s) losing area as a result of the boundary change*. Select **OK**. 
Step 11	The next window provides an optional **COMMENTS** field that can be used to include any supporting information about the boundary change. Select **Ok**. 

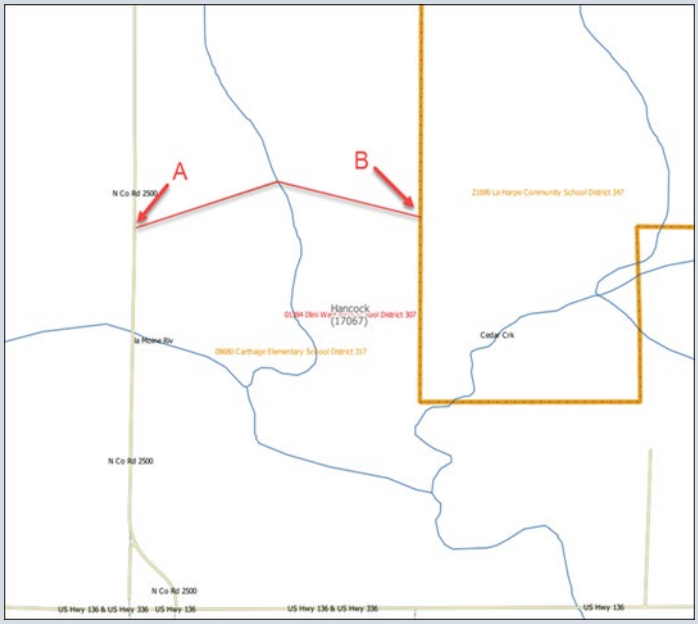
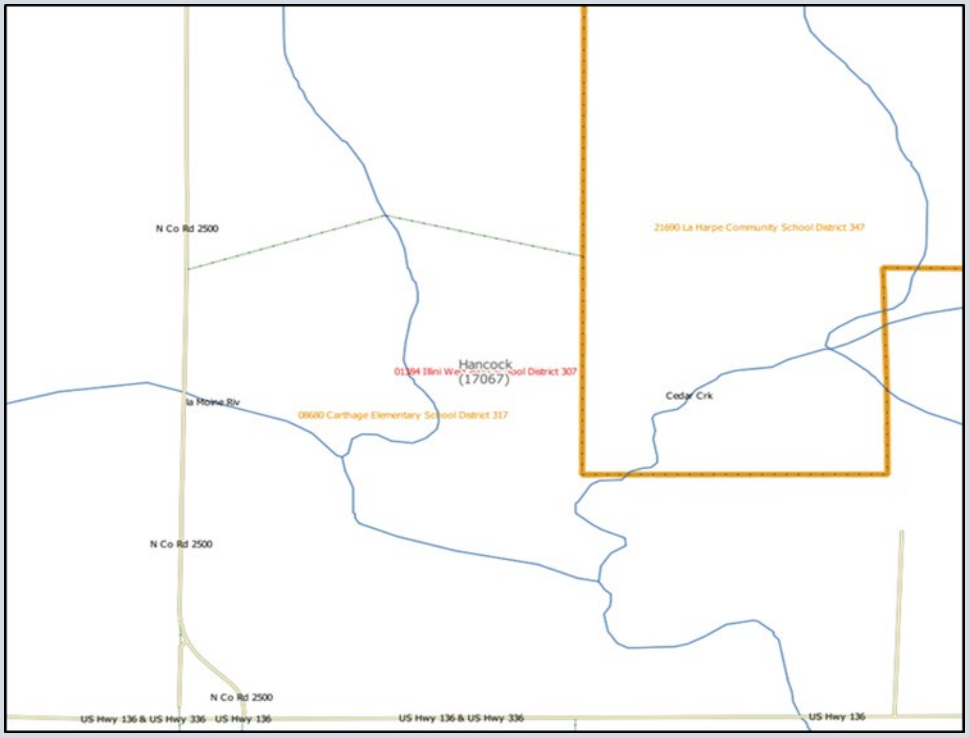
Step	Action and *Result*
Step 12	*The **Map View** updates to reflect the change in boundary made to **Carthage Elementary School District**.* 

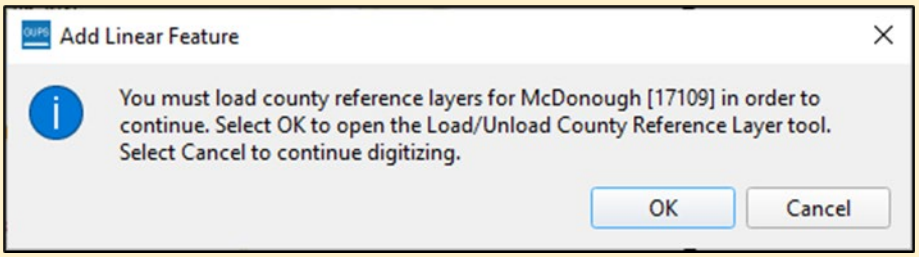
5.3.5 Add a Linear Feature to Split a Face

Table 14 describes the steps to add a linear feature to split a face if the whole area of a selected face is not to be included in the boundary change. After splitting the face, refer to Table 13 to complete the boundary change.

Table 14: Steps to Add a Linear Feature to Split a Face

Step	Action and *Result*
Step 1	From the **SDRP toolbar**, select the **Add Linear Feature** button. 

Step	Action and *Result*
Step 2	In this example, the new boundary does not exist in the Census Bureau 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).  *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. 

Step	Action and *Result*
	If a linear feature is added into an adjacent county that does not have county reference layers loaded, GUPS will display a message prompting that reference layers need to be loaded for the identified county to continue.  Select **OK** to automatically open the **Load/Unload County Reference** tool with the county preselected by GUPS to download. Select **Cancel** to close the window if adjacent county reference layers are not needed

5.3.6 Delete a Linear Feature

Linear features can be deleted one segment at a time, as described in **Table 15**, or multiple segments at a time as described in **Table 16**.

Table 15: Steps to Delete a Linear Feature One Segment at a Time

Step	Action and *Result*
	Only user added linear features can be deleted using the **Delete Linear Feature** button.
Step 1	In this example, a linear feature that was digitized incorrectly is deleted. **Select the Delete Linear Feature** button from the **SDRP toolbar** to delete the linear feature created in the previous steps. 

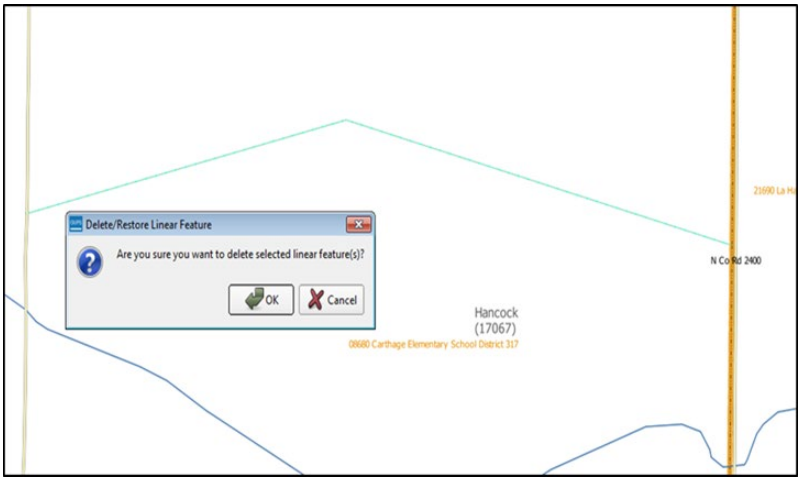
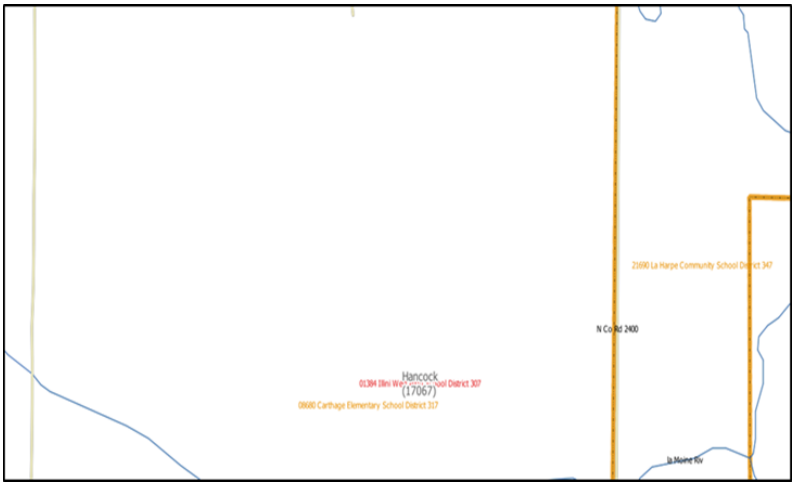
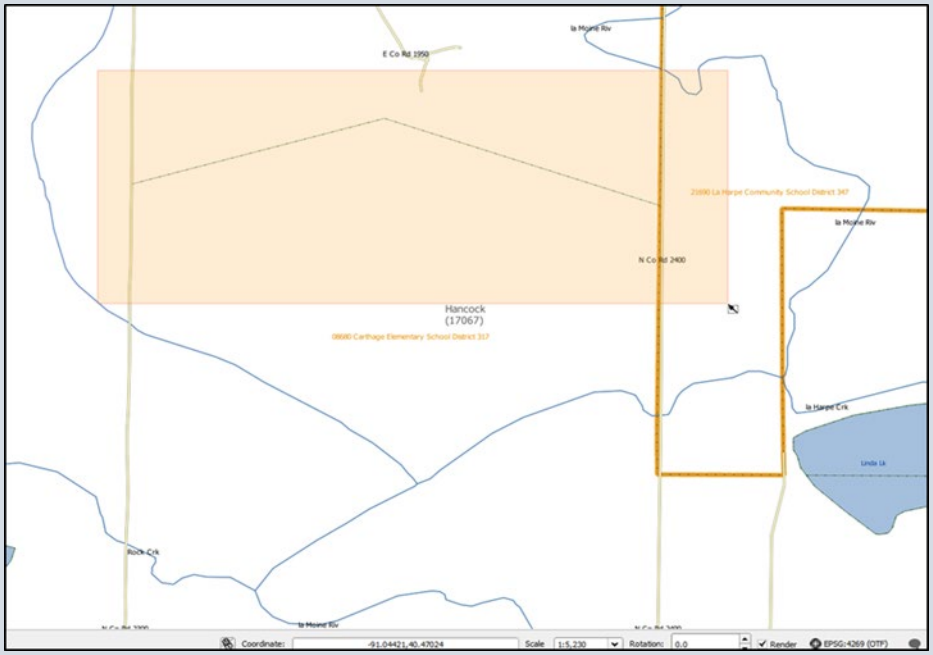
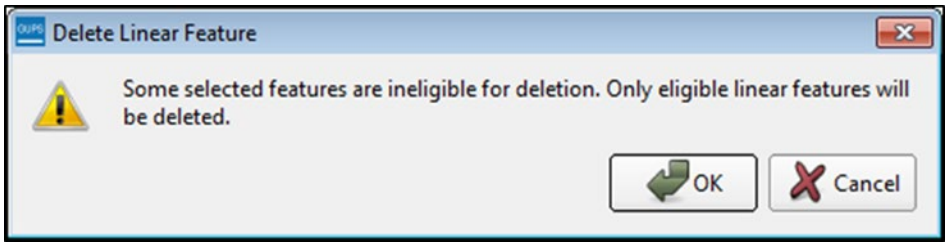
Step	Action and *Result*
Step 2	Left-click the mouse on the segment to delete. *It will highlight in cyan to indicate its selection*. When the **Delete Linear Feature** tool is active *the mouse cursor turns into a cross-selection*. Hover over the line segment to delete and left-click the mouse to complete the selection of the feature. *A window opens to confirm whether to delete the selected feature(s)*.  Choose **OK** and *GUPS deletes the line segment*. 
Step 3	Another method to delete a linear feature is by using the **Select Feature(s)** button and **Select Features by Polygon** option to draw a selection region/area over the line to delete then follow the same instructions as detailed in the previous step.

Table 16: Steps to Delete Multiple Segments of a Linear Feature

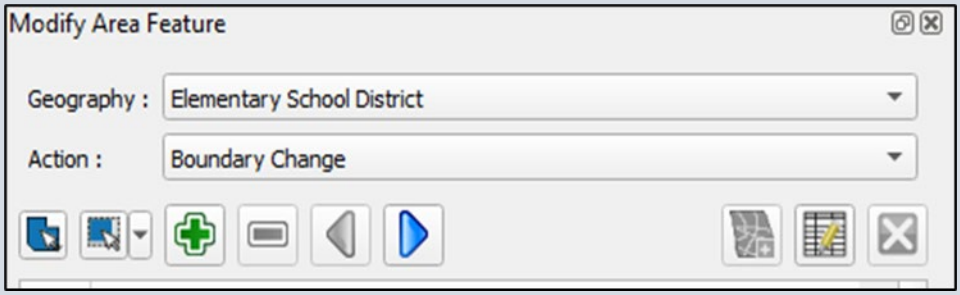
Step	Action and *Result*
Step 1	Choose the **Select Feature(s)** button from the **Standard toolbar**. Please note, the image below shows only a portion of the **Standard toolbar**.  Details on the **Standard toolbar** are found in sub-appendix **E2**.

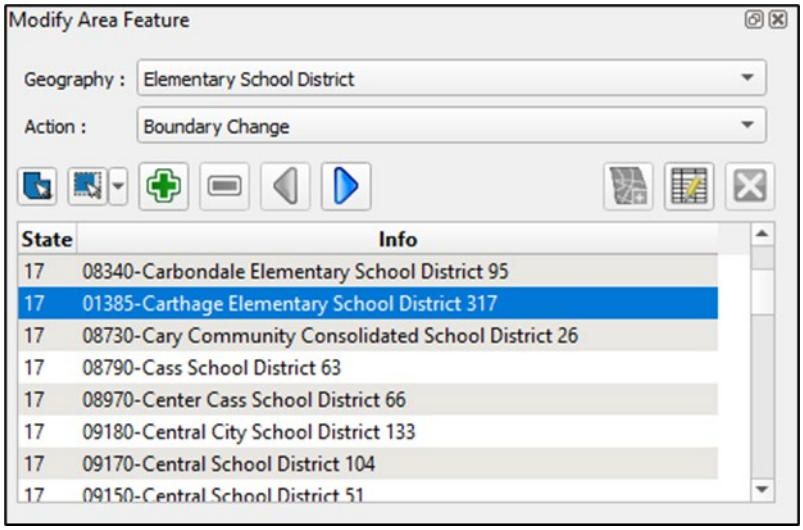
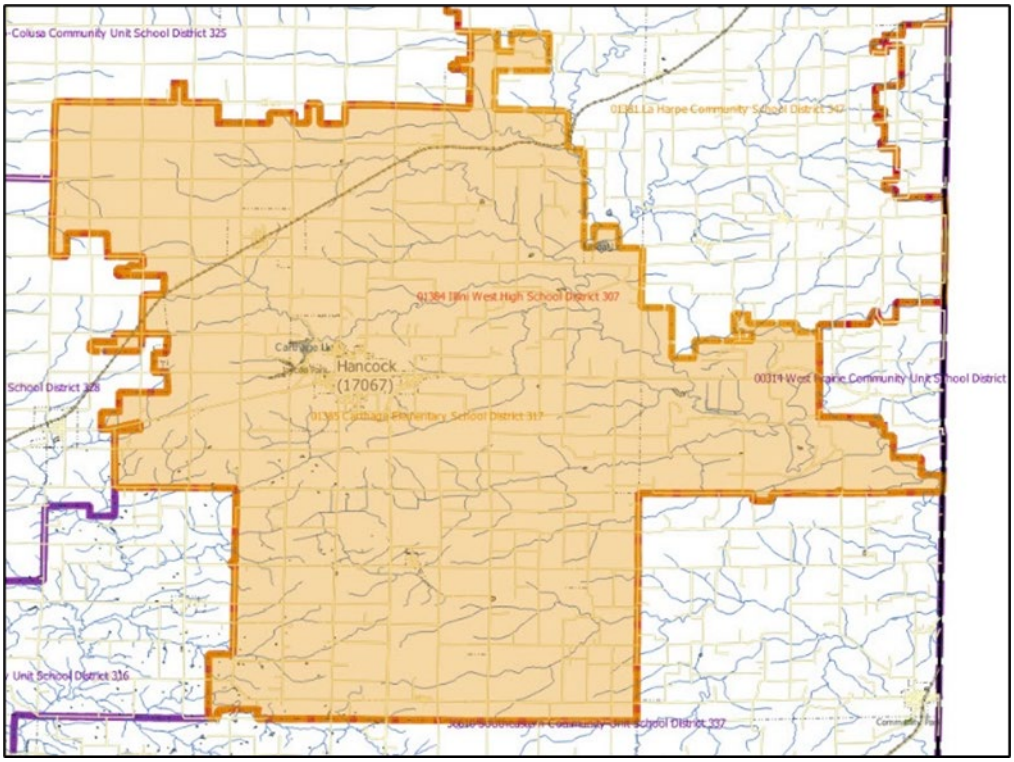
Step	Action and *Result*
Step 2	Left-click the mouse on the map and drag a selection box around the linear features added to the map. *GUPS will highlight selected features yellow (color may vary).* 
Step 3	From the **SDRP toolbar**, with the linear feature selected, select the **Delete Linear Feature** button.  Only user added linear features are eligible for deletion. GUPS will notify if any of the selected features are ineligible for deletion. Select **OK** to proceed with deletion or **Cancel** to close the window and cancel the deletion request. 
Step 4	*The **Map View** refreshes, and the linear feature is deleted.* 

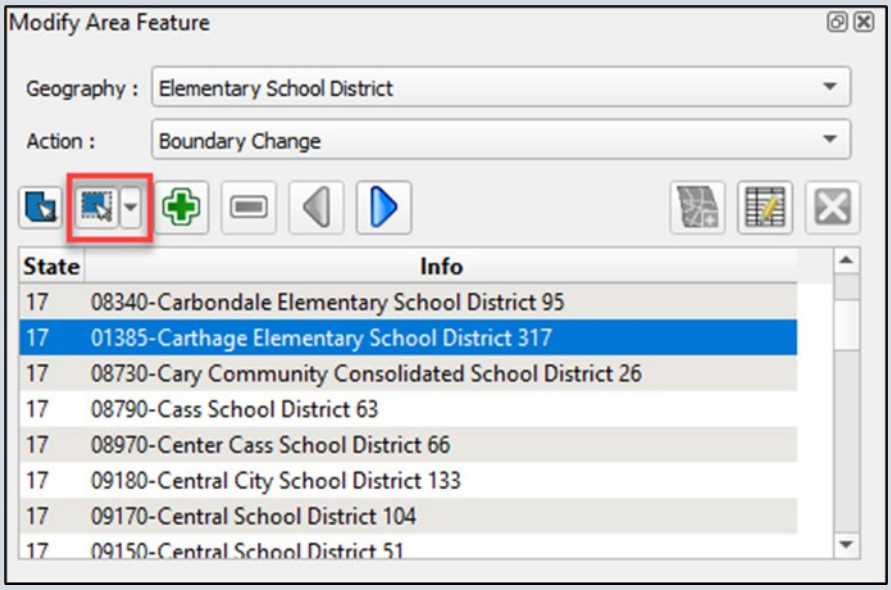
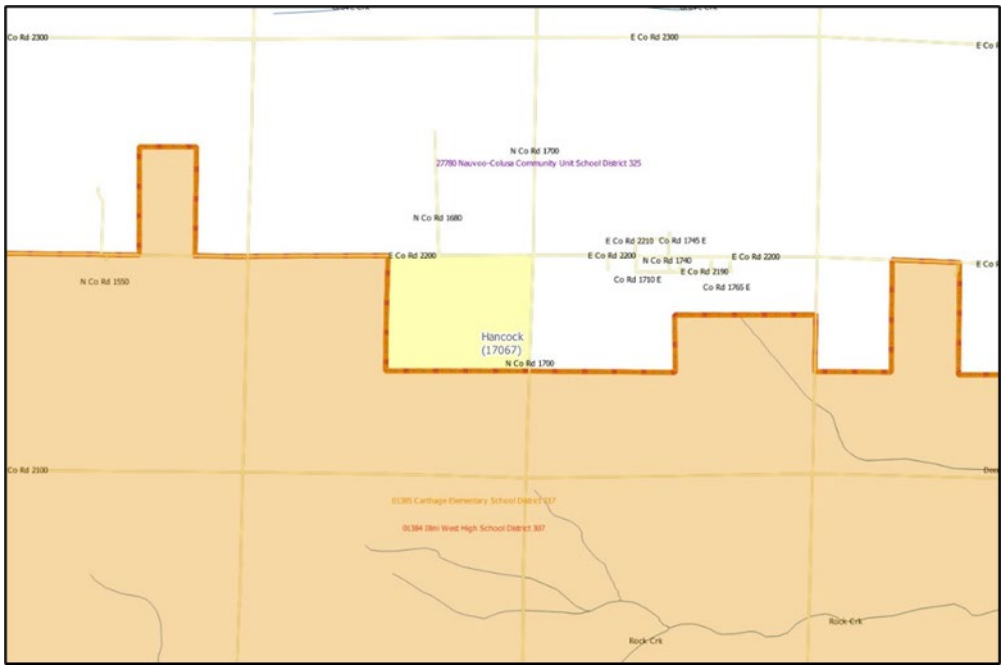
5.3.7 Making Elementary and Secondary School District Boundary Changes Simultaneously

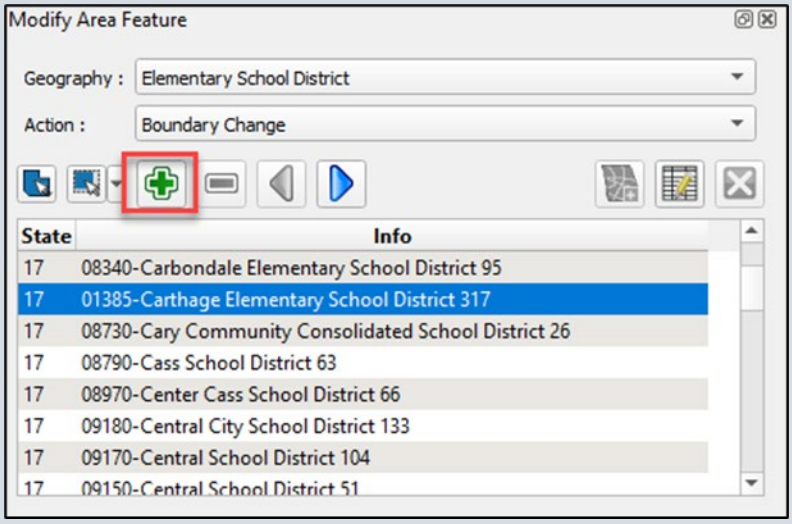
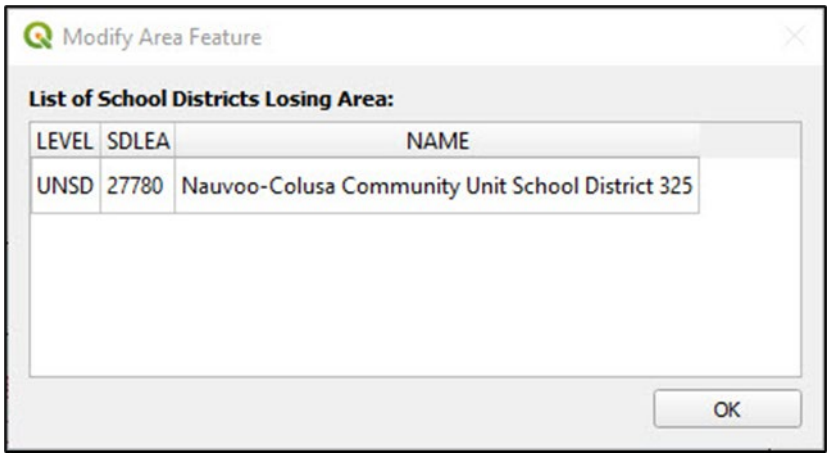
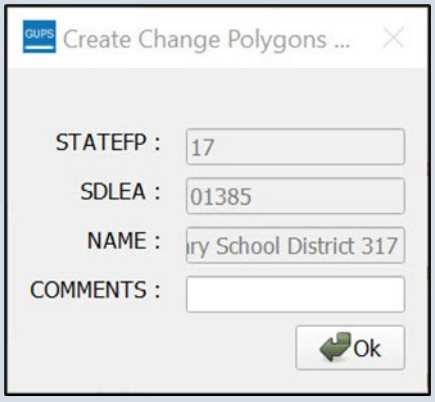
If GUPS detects that an elementary school district boundary change may require a corresponding secondary school district boundary change, GUPS will offer the user the option to proceed with the secondary boundary change once the elementary change is complete. The user may choose to use the same face 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 17** to complete this action.

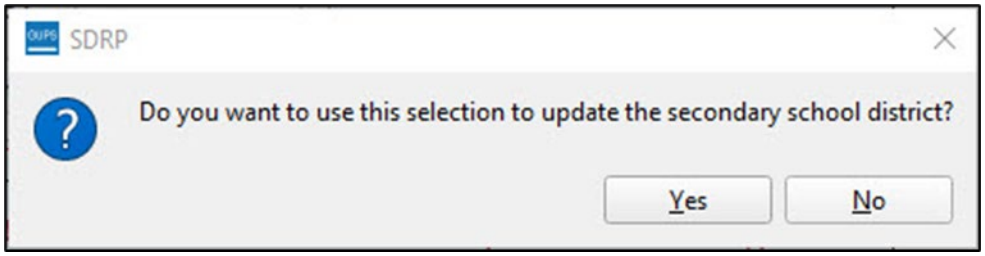
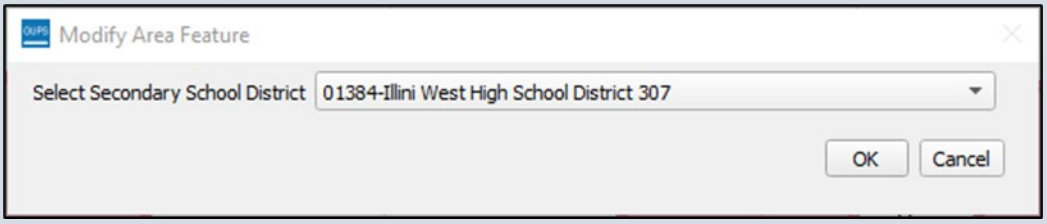
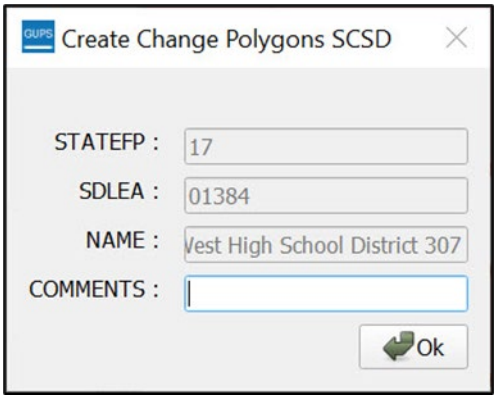
Table 17: Steps to Make Elementary and Secondary School District Boundary Changes

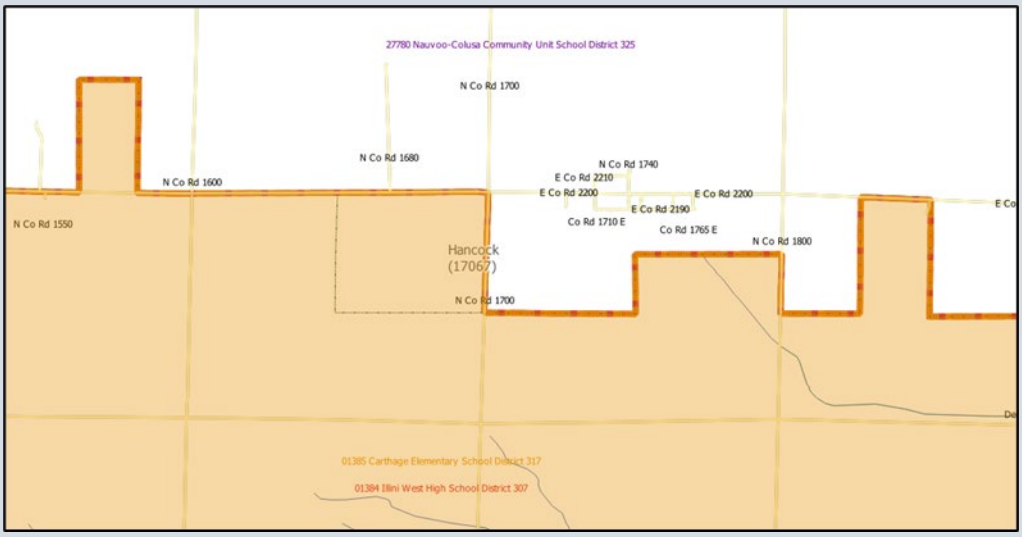
Step	Action and *Result*
Step 1	Begin by selecting the **Modify Area Feature** button from the **SDRP toolbar**. 
Step 2	In this example, a boundary change will be completed between **01385–Carthage Elementary School District 317**, **01384–Illini West High School District 307**, and **27780–Nauvoo-Colusa Community Unit School District 325**. In the **Modify Area Feature** window, select **Elementary School District** from the **Geography** drop down menu and then choose **Boundary Change** from the **Action** drop down menu. 

Step	Action and *Result*
Step 3	Double-click the left mouse button to select **01385–Carthage Elementary School District 317** from the target layer list.  *Upon selection, the **Map View** zooms to the extent of **01385–Carthage Elementary School District 317**.* 

Step	Action and *Result*
Step 4	Choose the **Select Feature(s)** button from the **Modify Area Feature** window. 
Step 5	From the **Map View**, select any face from the adjacent **27780–Nauvoo-Colusa Community Unit School District 325** using the **Select Feature(s)** button. *The selected face will highlight in yellow*. 

Step	Action and *Result*
Step 6	From the **Modify Area Feature** window, select the **Add Area** button to begin the boundary change. 
Step 7	GUPS begins to process the boundary change. *The **List of School Districts Losing Area** window appears*. Select **OK** to dismiss the window. 
Step 8	The following window provides read-only attribute information for the target elementary school district. The **COMMENTS** field is optional. Select **Ok** continue. 

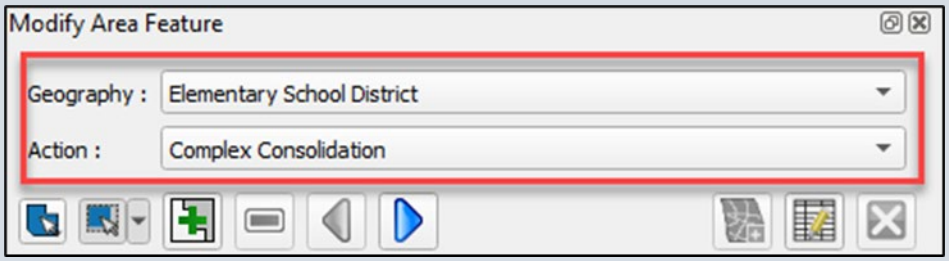
Step	Action and *Result*
Step 9	*GUPS opens a new dialog window that asks, "**Do you want to use this selection to update the Secondary School District?**"* If **No** is selected, the update completes, leaving the elementary school district boundary change intact and making no change to the secondary school district. To update the secondary school district, select **Yes**. 
Step 10	*GUPS opens a new dialog window with the prompt "**Select Secondary School District**."* This drop-down menu provides a list of all Secondary School Districts in the state, sorted by Secondary School District name. Choose **01384–Illini West High School District 307** then select **OK**. 
Step 11	*GUPS begins to process the boundary change. The following window opens, providing non-editable and editable attribute information of the target secondary school district*. The **COMMENTS** field is optional. Select **Ok** to continue. 

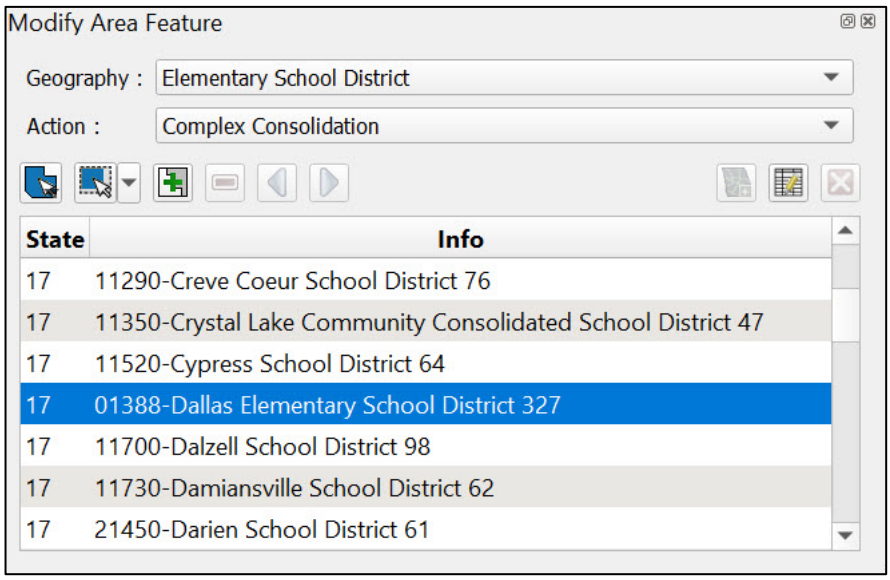
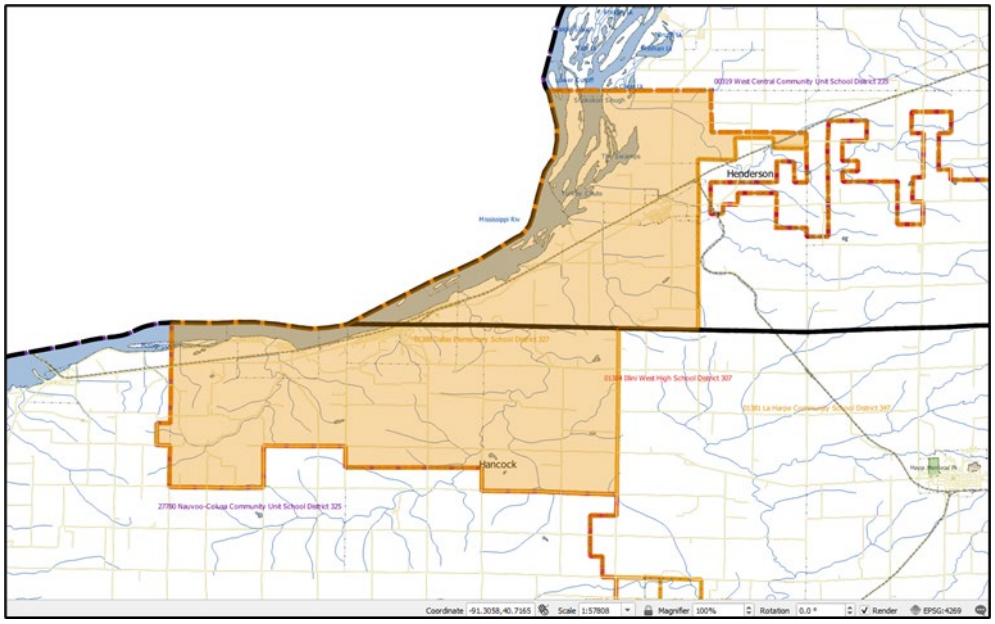
Step	Action and *Result*
Step 12	*GUPS refreshes the Map View, and the secondary school district boundary change is complete.* 

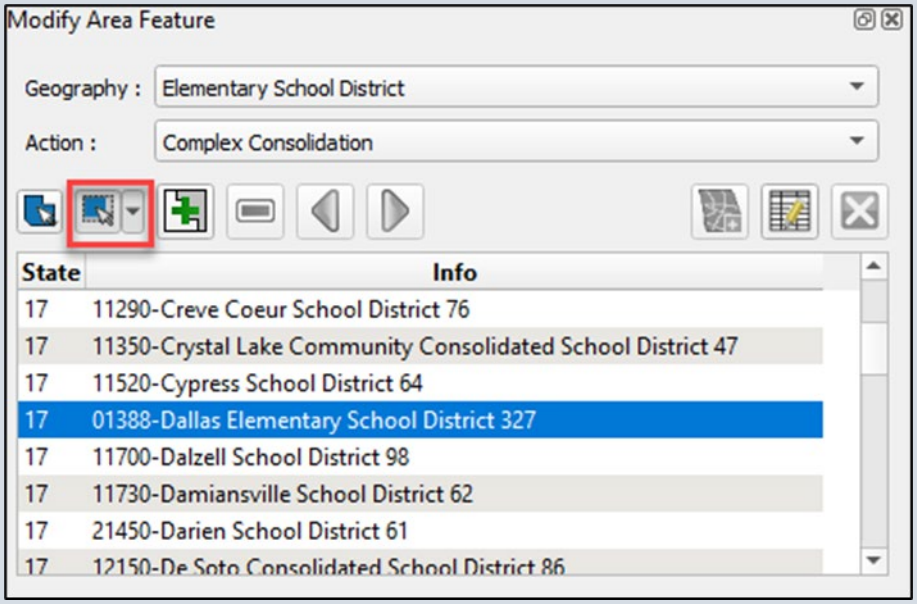
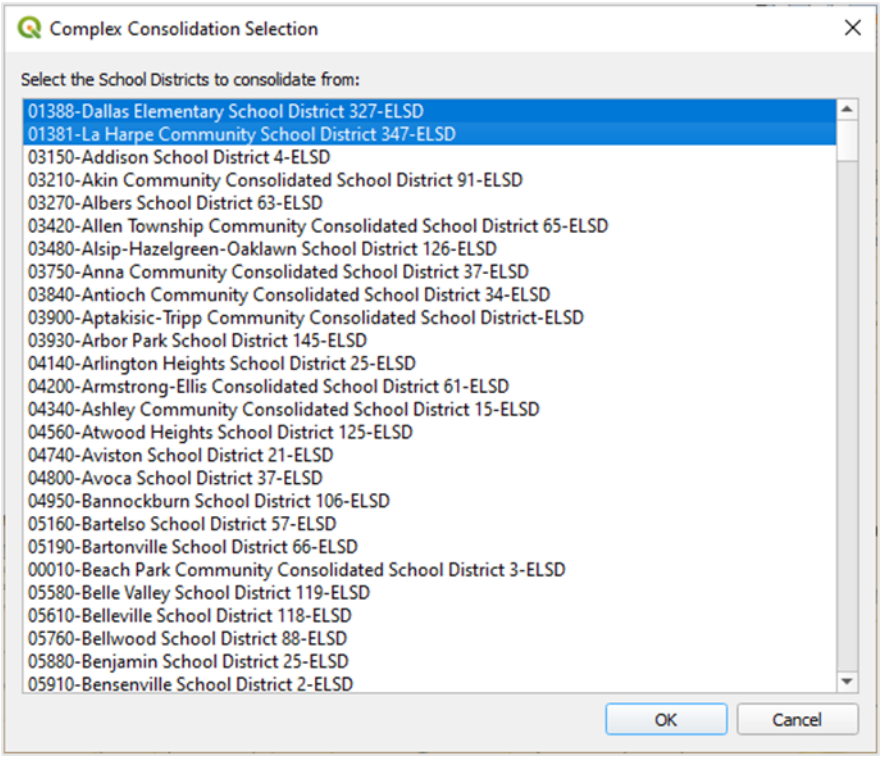
5.3.8 Complex Consolidation

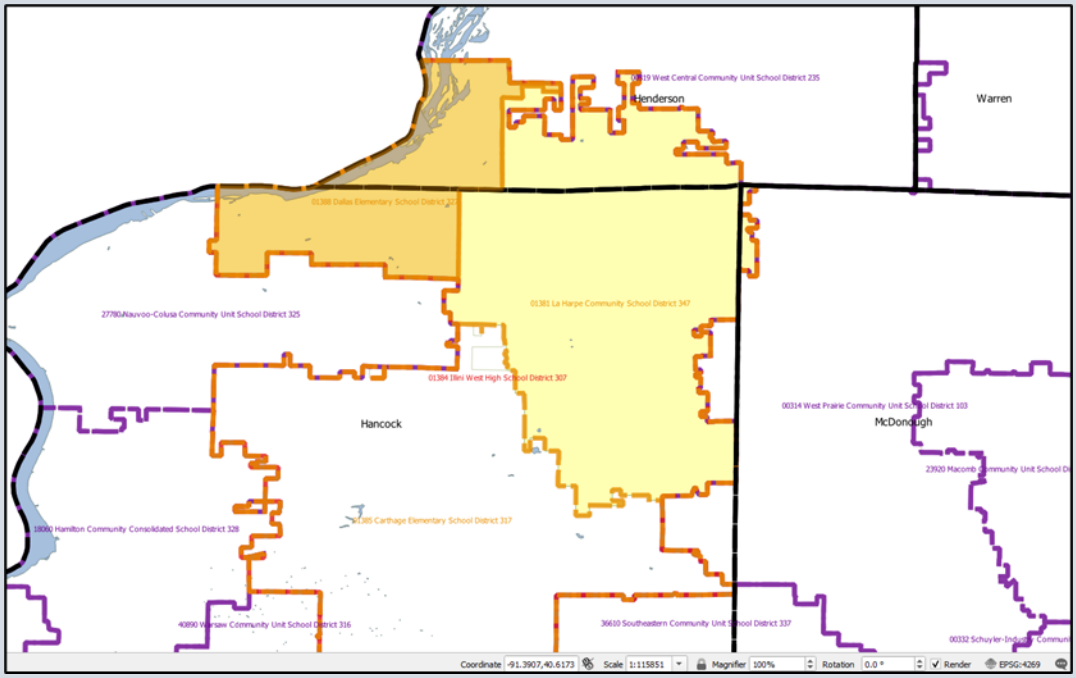
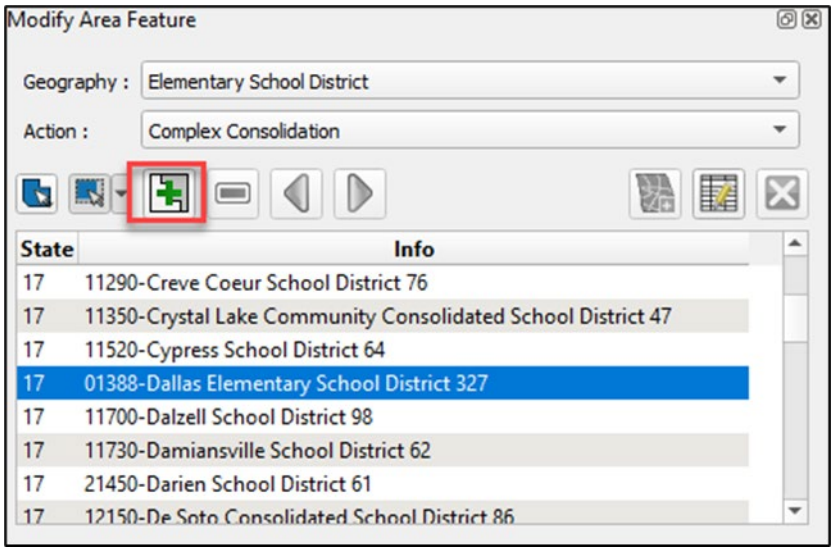
A complex consolidation change refers to the situation where two or more school districts merge to create a new school district with a new name and new SDLEA code along with additional boundary changes. Follow the steps in **Table 18** to perform a complex consolidation.

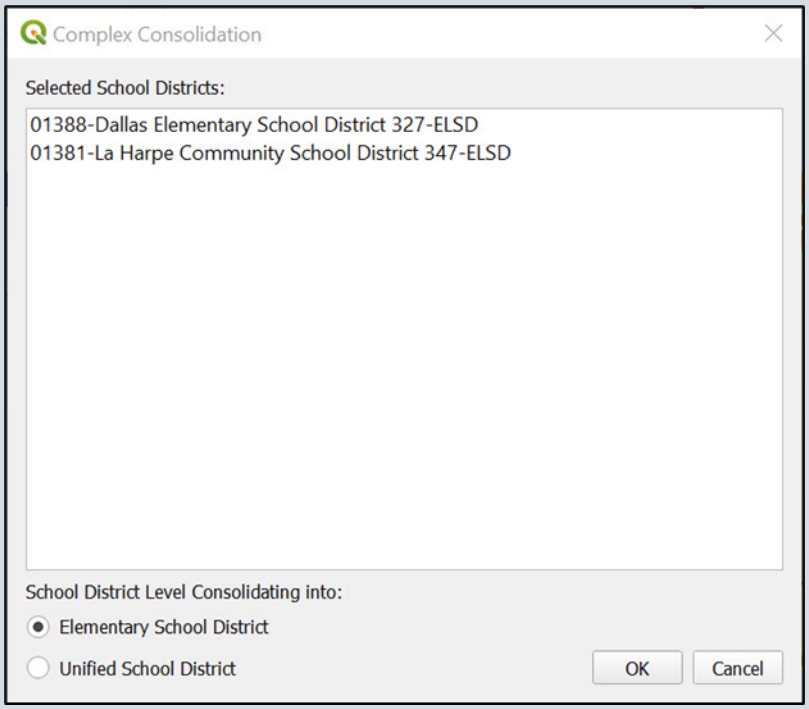
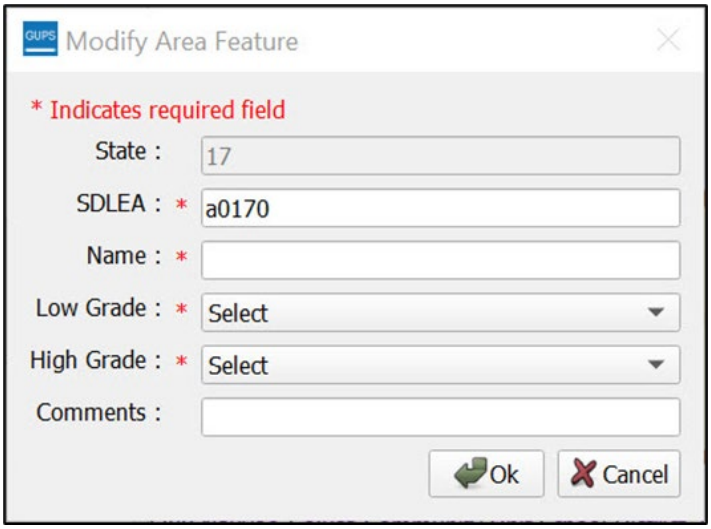
Table 18: Steps to Perform a Complex Consolidation

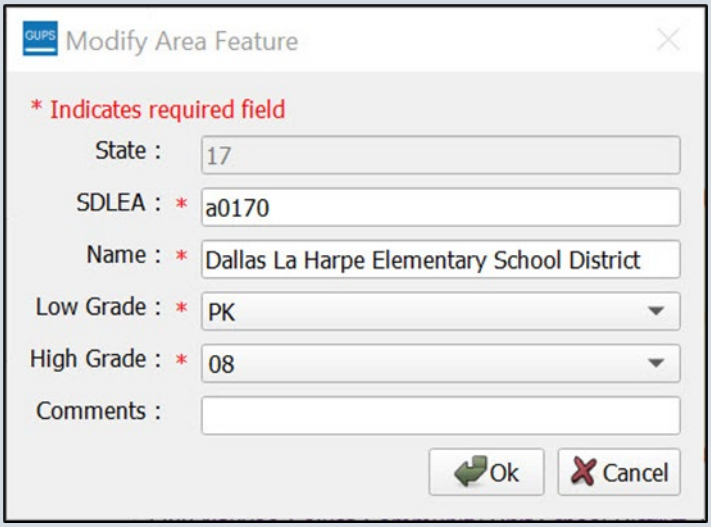
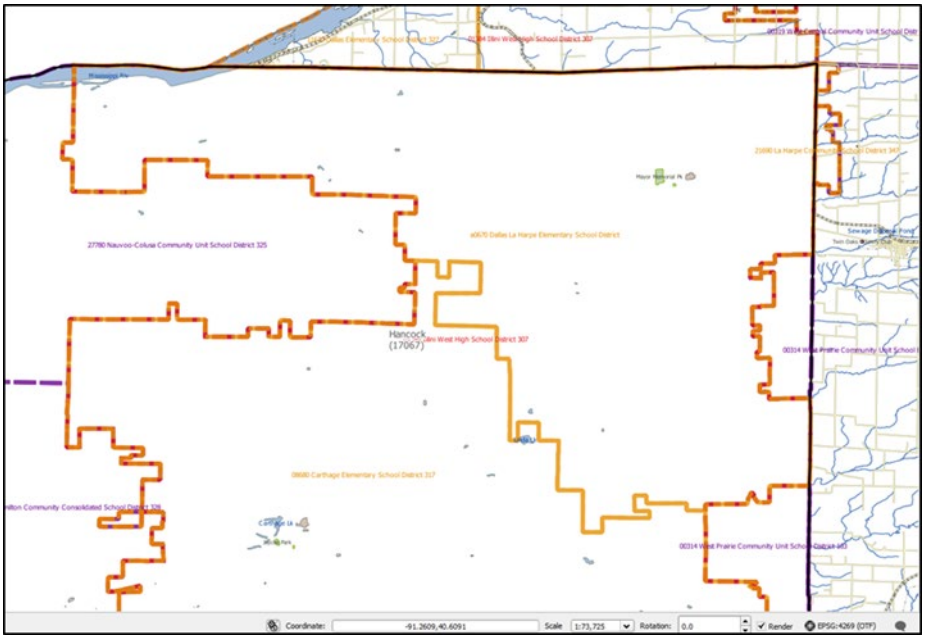
Step	Action and *Result*
Step 1	Begin by selecting the **Modify Area Feature** button from the **SDRP toolbar**. 
Step 2	In this example, a complex consolidation will be completed between **01388–Dallas Elementary School District 327** and **01381–La Harpe Community School District 347**. In the **Modify Area Feature** window select **Elementary School District** from the **Geography** drop down menu and then choose **Complex Consolidation** from the **Action** drop down menu. 

Step	Action and *Result*
Step 3	Double-click the left mouse button to select **01388–Dallas Elementary School District 327** from the target layer list. *Upon selection, the **Map View** zooms to the extent of **Dallas Elementary School District**.*  

Step	Action and *Result*
Step 4	To begin the consolidation, choose the **Select Feature(s)** button from the **Modify Area Feature** window. 
Step 5	Using the **Select Feature(s)** button, select any face from **01381–La Harpe Community School District 347**. This selection is for identifying the second school district to be included in the complex consolidation. *When a face is selected, the **Complex Consolidation Selection** dialog opens with a list of all unified and elementary school districts in the state*. This warning window confirms the school districts to consolidate from. Select **OK**. 

Step	Action and *Result*
Step 6	*The **Map View** refreshes and the entire **La Harpe Community School District** is highlighted in yellow.* 
Step 7	With both school districts selected, choose the **Complex Consolidation** button from the **Modify Area Feature** window to begin the consolidation. 

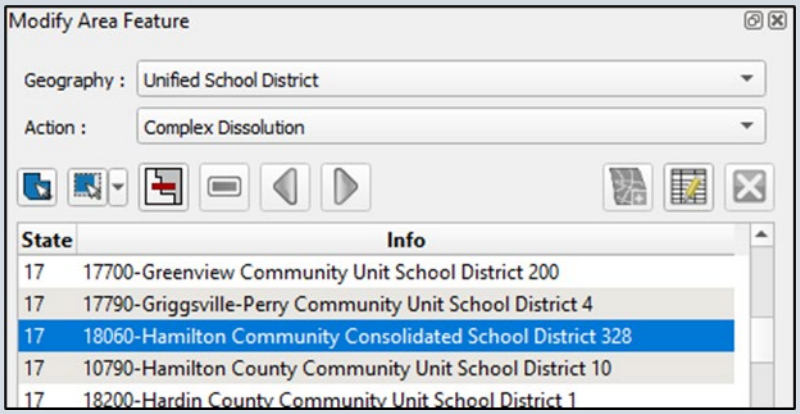
Step	Action and *Result*
Step 8	*The first window to appear is for **Selected School Districts***. This window includes a layer list of school districts to be consolidated as well as two radio buttons to choose the school district type to consolidate into.  The radio button automatically defaults to the school district type of the selected target layer, in this case, **Elementary School District**. It is also possible to consolidate the chosen elementary school districts into a unified school district by selecting the **Unified School District** radio button. In this example, the chosen elementary school districts are consolidated into a new elementary school district. Select **OK**.
Step 9	*The **Modify Area Feature Attribute** window opens*. This window is used to provide the attribute information for the new consolidated school district. Required fields include **SDLEA**, **Name**, **Low Grade**, and **High Grade**. **Comments** are optional. 

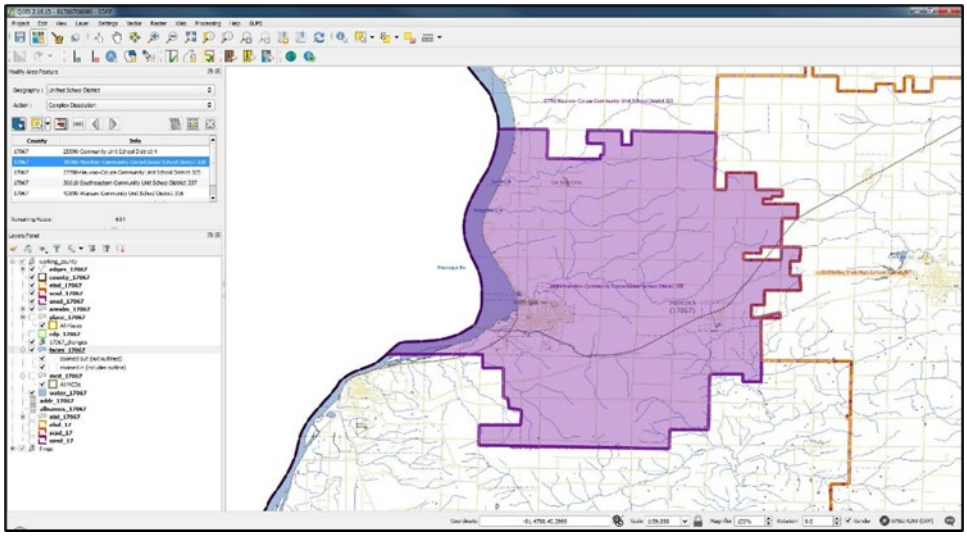
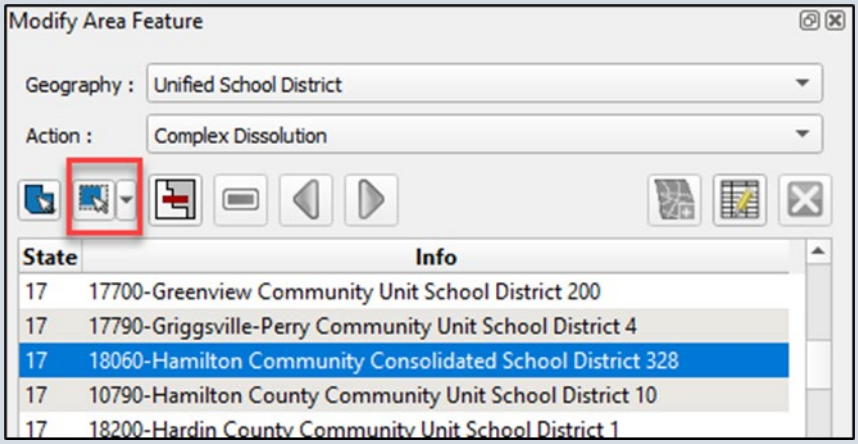
Step	Action and *Result*
Step 10	*GUPS automatically generates a temporary SDLEA code*. If an approved SDLEA code exists, enter it into the **SDLEA** field. If a temporary number is used, the SDRP team will obtain a permanent SDLEA code from the NCES. *In this example, the automatically generated SDLEA code is used*. Fill in the remaining required fields as shown below. Select **Ok** to close the window. 
Step 11	*The **Map View** refreshes, and the newly consolidated **Dallas La Harpe Elementary School District** appears on the map*. 
Step 12	A complex consolidation must also include boundary change(s). The next step is to complete these boundary changes. Refer to sub-section **5.3.1** for directions on how to perform a boundary change.

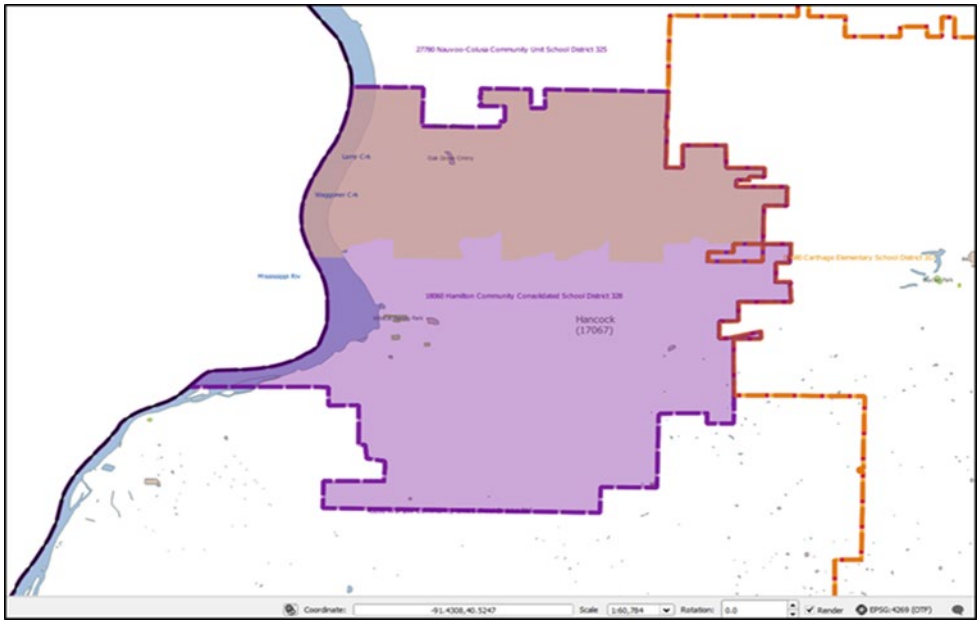
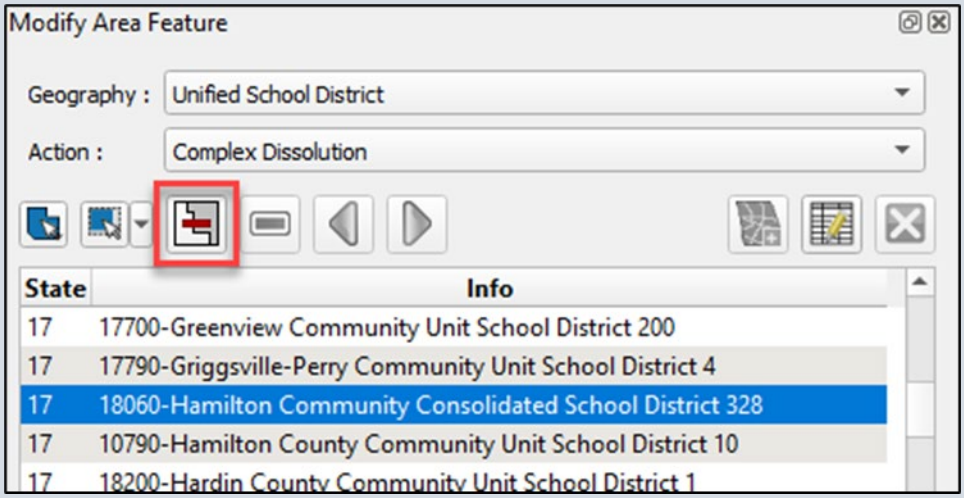
5.3.9 Complex Dissolution

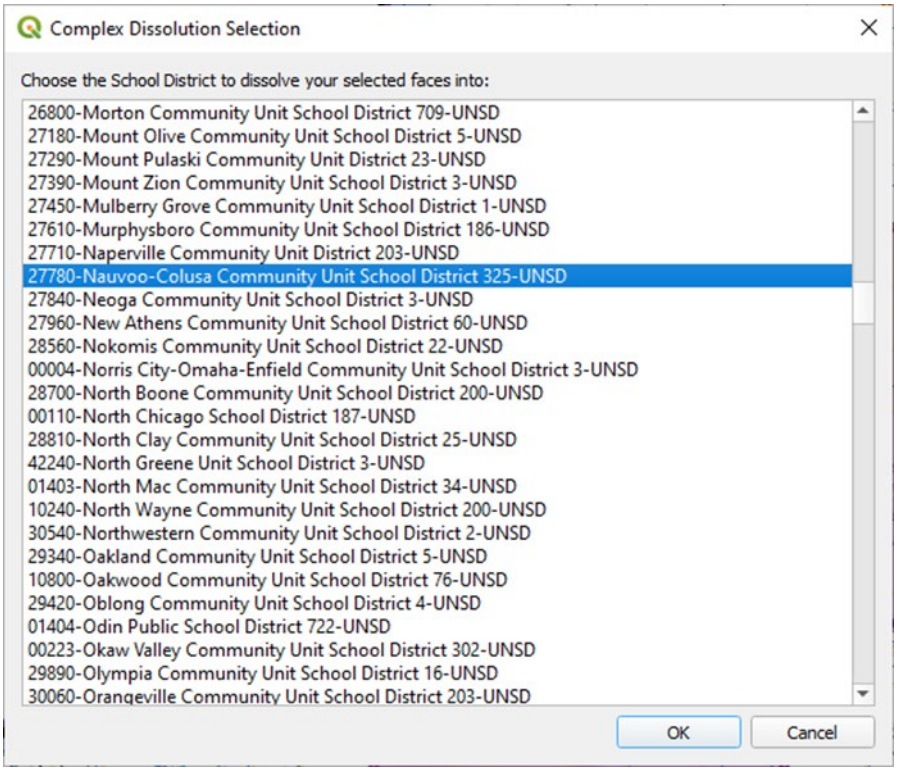
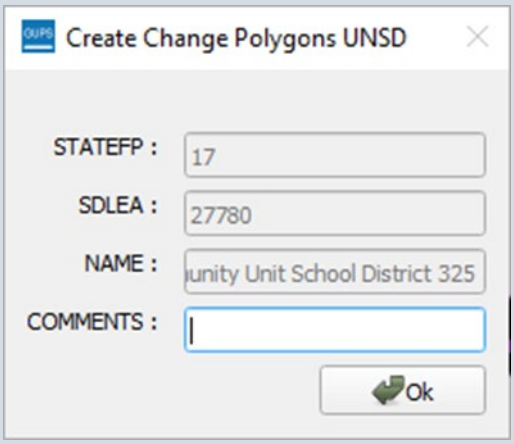
A complex dissolution change occurs when a single school district is dissolved and its area split between two or more other existing school districts, with or without additional boundary changes. Follow the steps in **Table 19** to perform a complex dissolution.

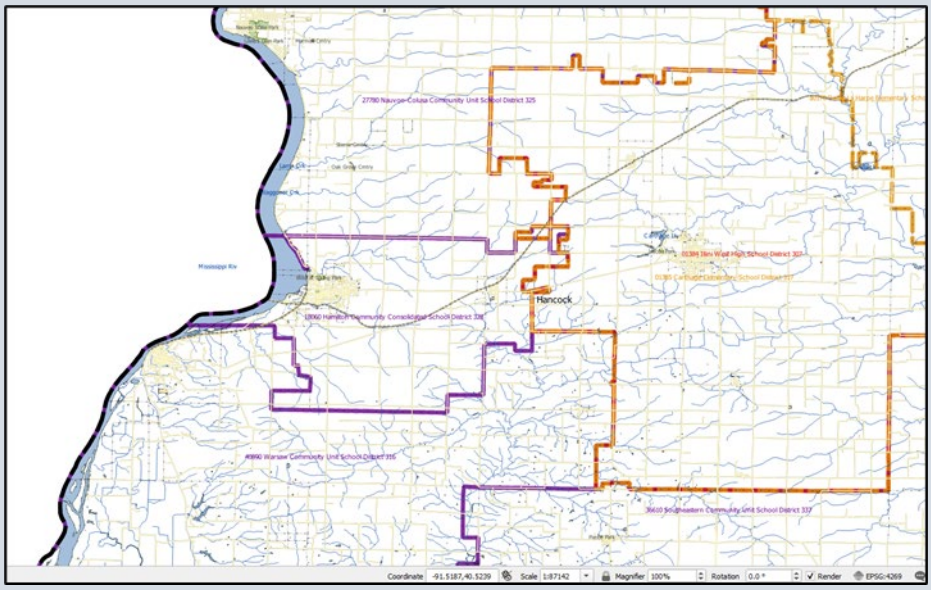
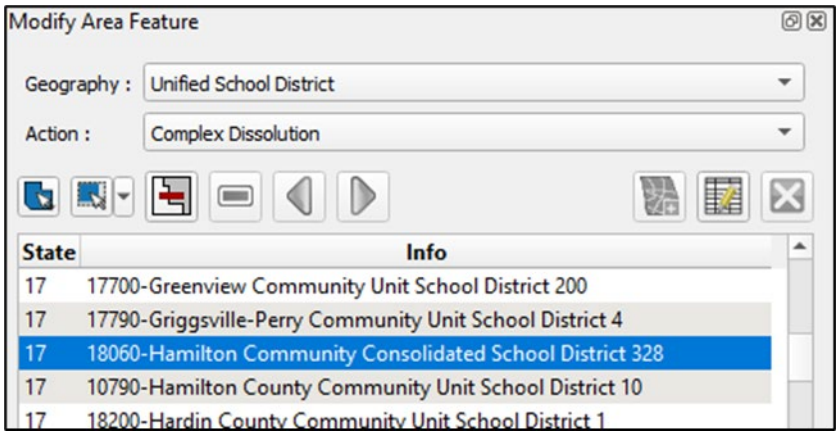
Table 19: Steps to Perform a Complex Dissolution

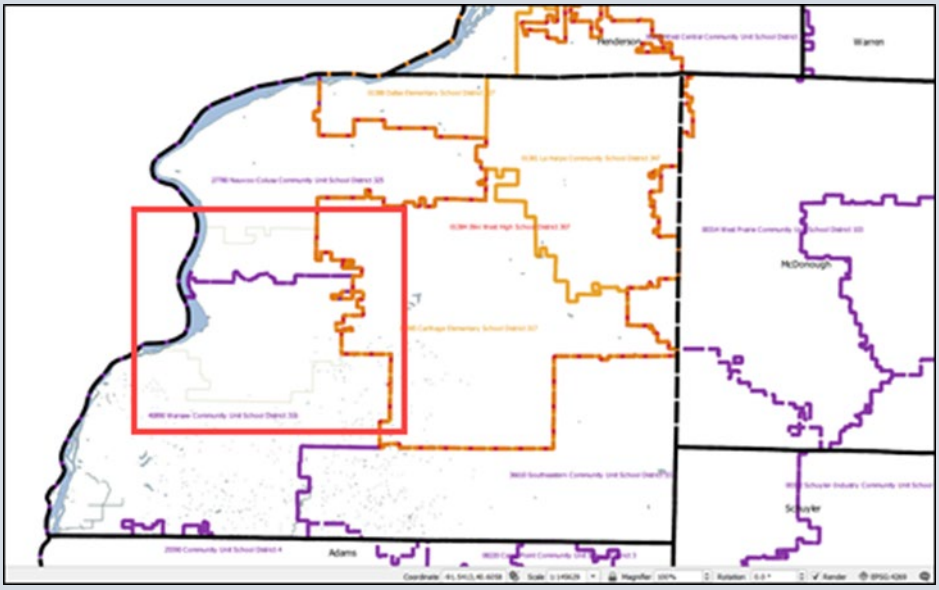
Step	Action and *Result*
	Complex dissolutions require county reference layers to be loaded into the SDRP project. For the affected school districts, confirm that county reference layers have been loaded for all applicable counties. Use the **Load/Unload County Reference Layer** tool described in **Table 11** 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. 
Step 3	Select **18060–Hamilton Community Consolidated School District 328** from the target layer list. 

Step	Action and *Result*
Step 4	*Upon selection, the **Map View** zooms to the extent of **Hamilton Community Consolidated School District**.* 
Step 5	To begin the dissolution, choose the **Select Feature(s)** button from the **Modify Area Feature** window. 

Step	Action and *Result*
Step 6	Use the **Select Feature(s)** button to choose faces from the target layer. This may be done by either 1) selecting individual faces to be included or 2) selecting a region of faces by left-clicking the mouse and dragging across the target school district. Only faces that exist within the target school district will be selected. *Selected faces will be highlighted in yellow. This example overlays the yellow on the purple for the school district*. 
Step 7	With the faces selected, choose the **Complex Dissolution** button from the **Modify Area Feature** window to begin the dissolution. 

Step	Action and *Result*
Step 8	*The first window to appear is for **Select School Districts***. Each school district listed is sorted alphabetically by level. From this list, choose the school district that will be used to incorporate the dissolved faces. In this example, select **27780–Nauvoo-Colusa Community Unit School District 325**, then select **OK**. 
Step 9	*The final window to appear is the **Create Change Polygons** attribute information*. The **COMMENTS** field is editable to allow any notes that may be relevant to the dissolution. Select **Ok**. 
	There could be a lag between selecting the faces to be included in the dissolution and when the dissolution completes in GUPS. If there is a noticeable lag, GUPS is still in the process of dissolving the selected faces and completes once the **Modify Area Feature** notification appears.

Step	Action and *Result*
Step 10	*The **Map View** refreshes and the updated school district boundaries for both **Hamilton Community Consolidated School Districts** and **Nauvoo-Colusa Community Unit School District** display.* 
Step 11	*GUPS automatically reselects **18060–Hamilton Community School District 328** to finish selecting the remaining faces.* 

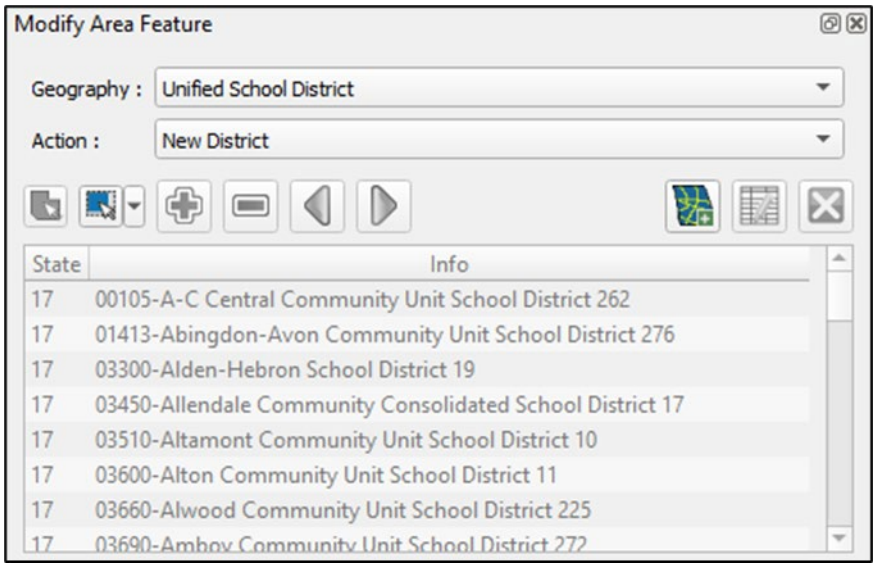
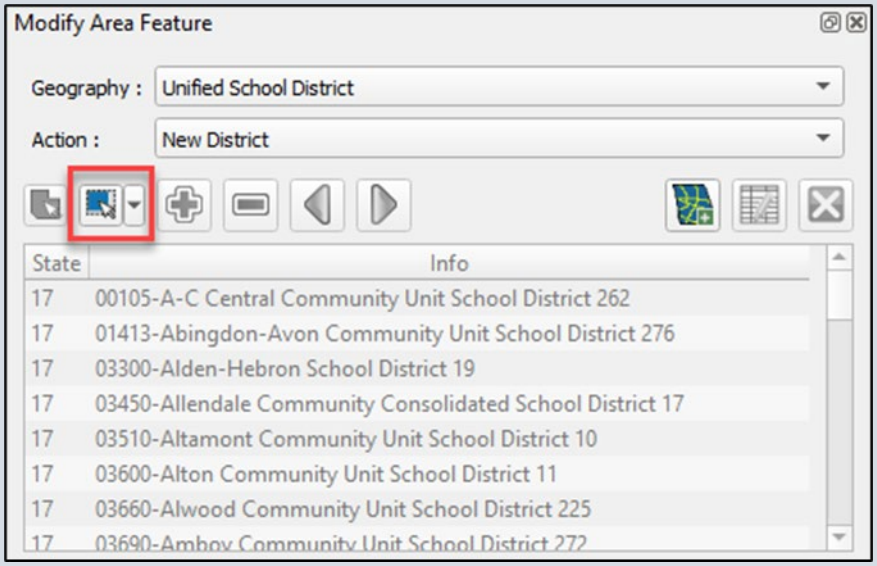
Step	Action and *Result*
Step 12	To complete the dissolution, select the remaining faces and dissolve them into neighboring **Warsaw Community Unit School District**. *Once dissolved, the revised school district boundaries should reflect the example below*. To help view the dissolution, a red rectangle is used in the image below. The former boundary lines are shaded in light gray. 

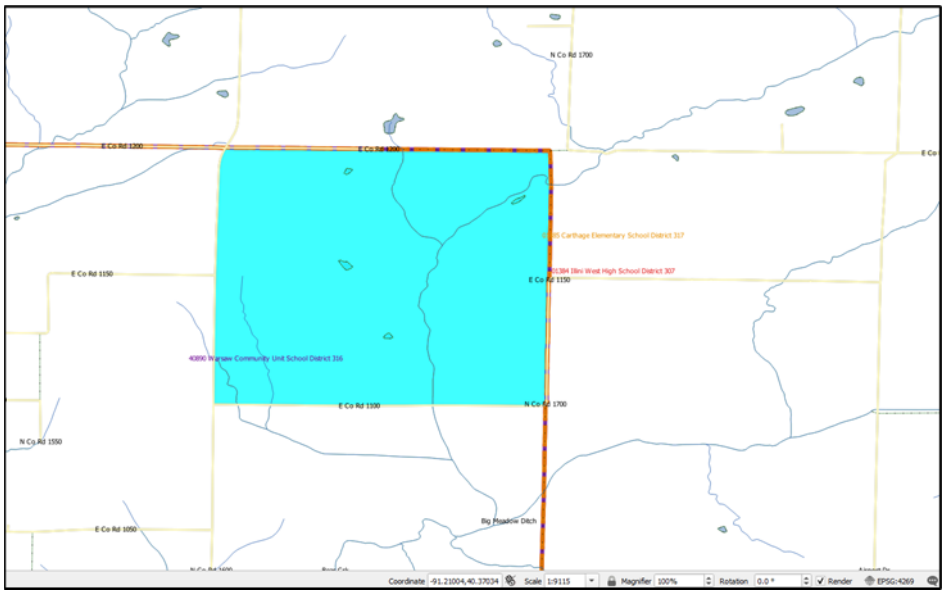
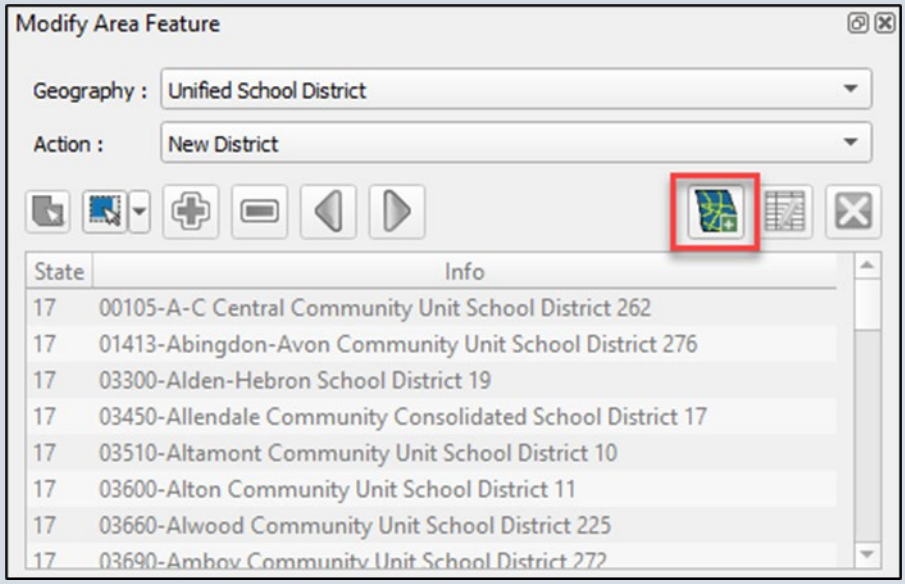
5.3.10 New District

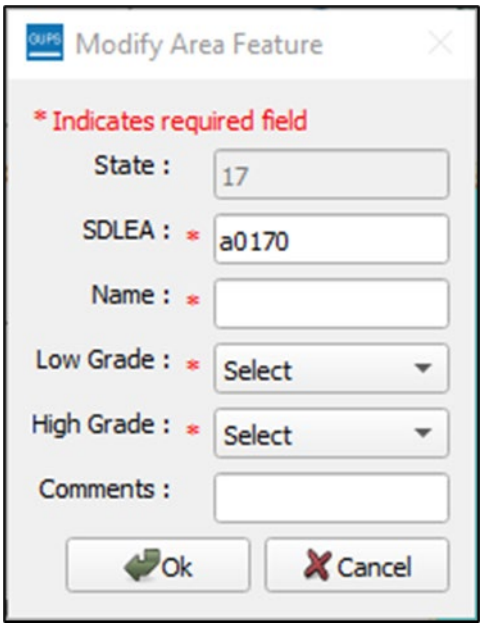
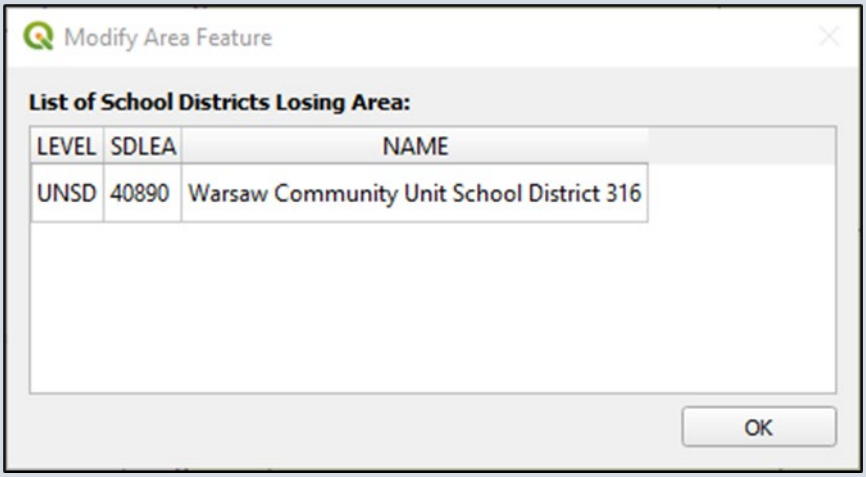
A new district change occurs when transferring area from one or more existing school districts to form a completely new school district. Do not confuse this transaction with a consolidation where the entire area of one or more school districts consolidates to form a new school district. Follow the steps in **Table 20** to create a new school district.

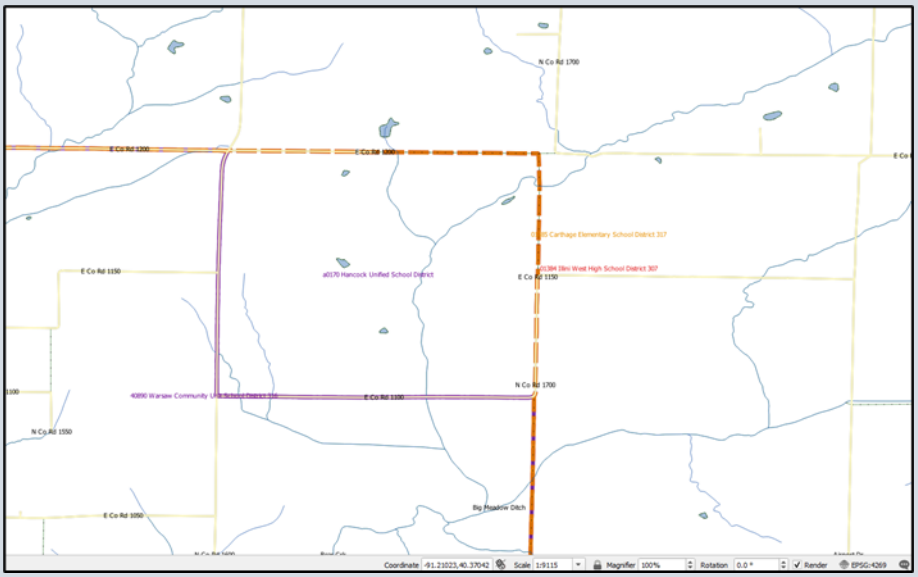
Table 20: Steps to Create a New District

Step	Action and *Result*
	A new district change requires county reference layers to be loaded. Confirm that county reference layers have been loaded for all applicable counties before continuing. Use the **Load/Unload County Reference Layer** tool described in **Table 11** to load county reference layers.
Step 1	Begin by selecting the **Modify Area Feature** button from the **SDRP toolbar**. 

Step	Action and *Result*
Step 2	This example illustrates creating a unified school district, **Hancock Unified School District**. In the **Modify Area Feature** window, use the mouse next to the **Geography** and **Action** drop-down menus to choose **Unified School District**. Select **New District**, respectively.  Note: When the action is set to **New District**, the **Modify Area Feature** window disables the school district layers list and activates only the **Select Feature(s)** and **New District** buttons.
Step 3	From the **Modify Area Feature** window, choose the **Select Feature(s)** button. 

Step	Action and *Result*
Step 4	In the **Map View**, zoom into an area to include in the new district. This example demonstrates selecting faces from existing **40890–Warsaw Community Unit School District 316** to create the new district. 
Step 5	Select the **Add New District** button in the **Modify Area Feature** window. 

Step	Action and *Result*
Step 6	*The **Modify Area Feature** window opens with attributes needed to create a new district.*  The red asterisk denotes the required fields (**SDLEA**, **Name**, **Low Grade**, and **High Grade**) to complete the new district fields. *GUPS automatically generates a temporary **SDLEA code**. If a temporary number is used, the SDRP team will obtain a permanent SDLEA code from the NCES.* Complete these fields and then select **Ok**.
Step 7	*The **List of School Districts Losing Area** window appears*. Select **OK**. 
	There could be a lag between selecting the faces to be included in the new district and when the new district action completes in GUPS. If there is a noticeable lag, GUPS is still in the process of creating the new district with the chosen faces and completes once the **Modify Area Feature** notification appears.

Step	Action and *Result*
Step 8	*The **Map View** refreshes, and the new **Hancock Unified School District** appears on the map.* 

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.

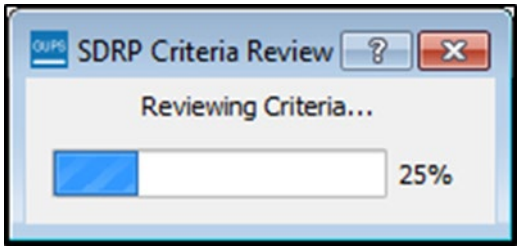
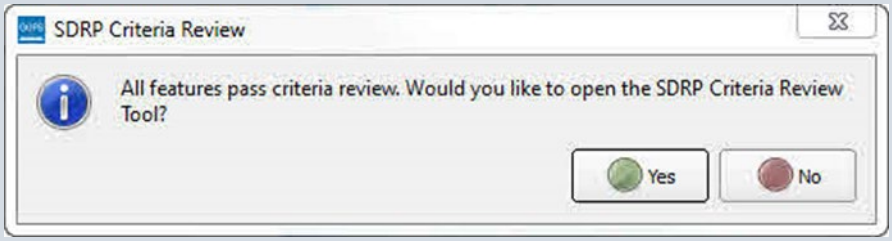
The tool reports two problem types: errors and informational warnings. Errors are critical data issues that must be fixed before exporting data to the Census Bureau. Warnings are issues that the Census Bureau would like the mapping coordinator to review. This tool reviews five primary criteria as listed in **Table 21**.

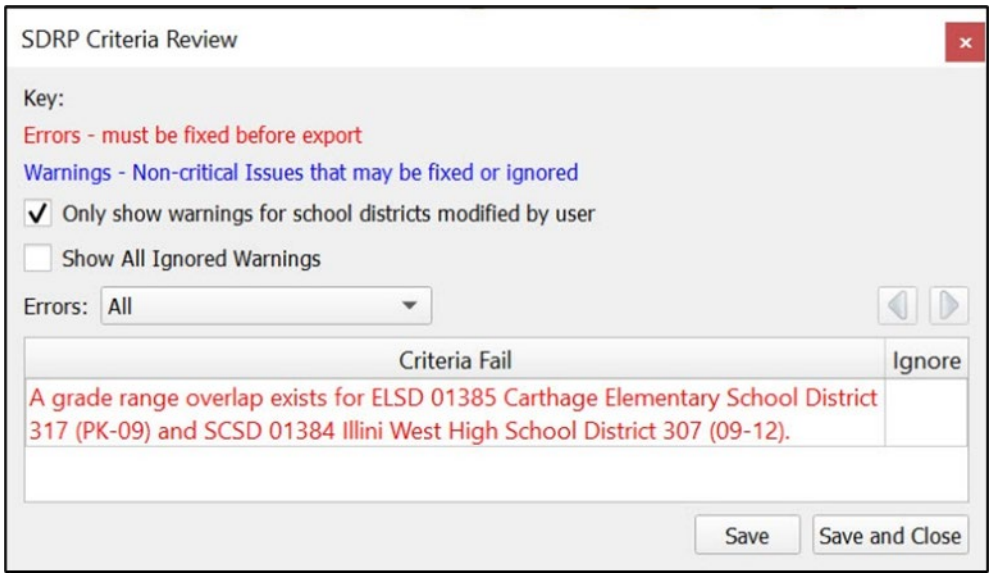
Table 21: SDRP Criteria Review Tool Error and Warning Messages

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 22 covers the steps to use the SDRP Criteria Review tool.

Table 22: Steps to Use the SDRP Criteria Review Tool

Step	Action and *Result*
Step 1	Open the **SDRP Criteria Review** tool from the **SDRP toolbar**.  Once selected, users may be asked to save the project before the tool can run. All edits must be saved prior to review. If a save-related message appears select **Yes**. *The following window appears indicating the tool's progress in reviewing all criteria checks*. 
Step 2	If the tool determines that spatial and attributes changes have passed review, *the following window appears.*  The option to open the **SDRP Criteria Review** tool is presented if the user would like to review any warnings that were previously fixed. In this scenario, all features have passed the criteria review.

Step	Action and *Result*
Step 3	If errors are found, *the following window appears*. 

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

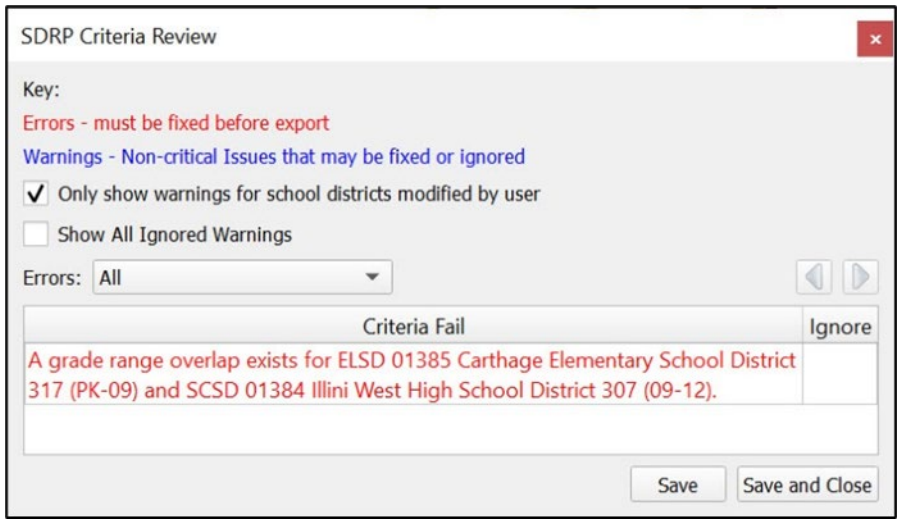
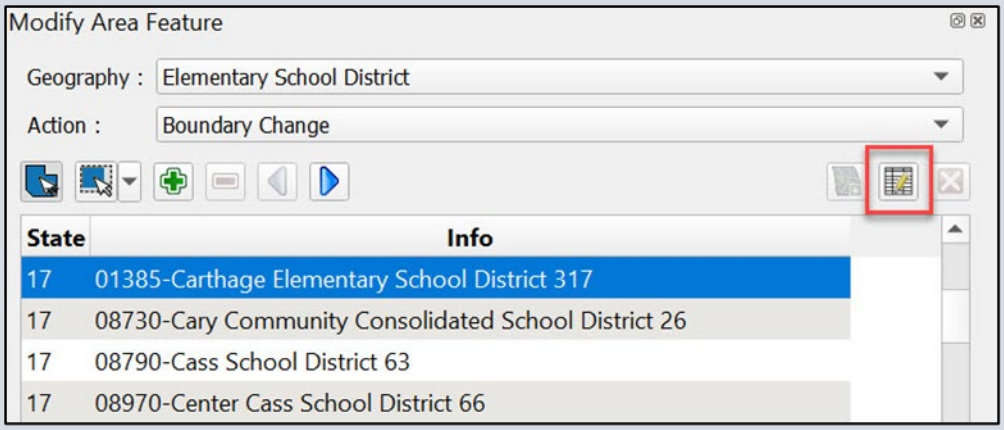
5.4.1.1 Grade Range Overlap Error

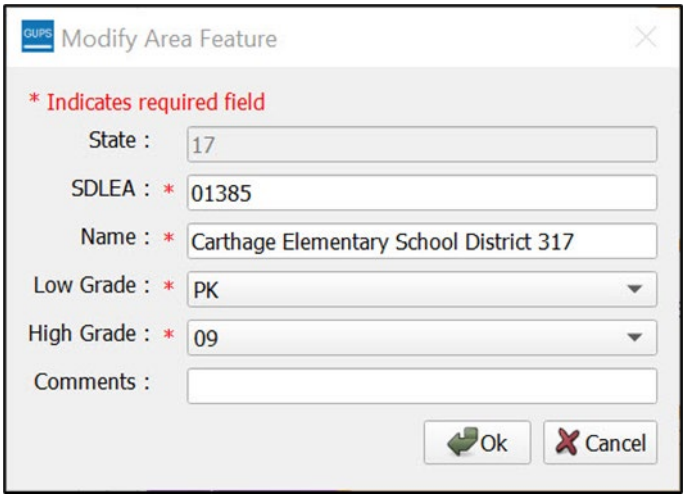
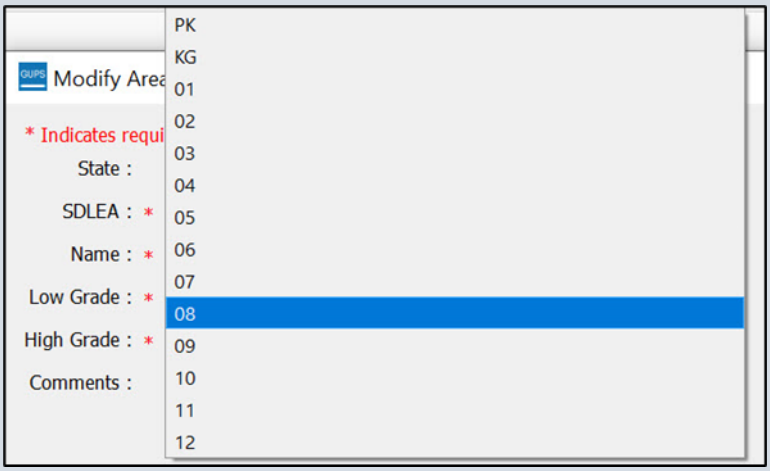
Note: The scenarios provided are intended to be an introduction on how to resolve criteria errors in GUPS and not a comprehensive list of all possible scenarios and solutions that can occur. The steps taken to resolve real-world criteria errors largely depend on the type of edits completed and the local,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

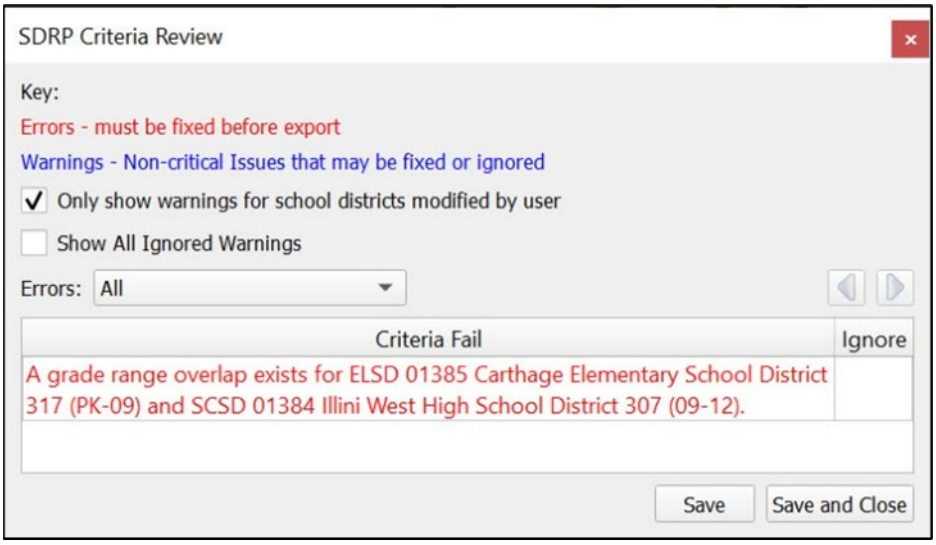
Grade Range Overlaps occur when one school district contains grade ranges that also exist in another school district occupying the same area. For example, an elementary school district has a grade range of pre-k (PK)-9 while the underlying secondary school district has a grade range of 9-12. This is 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 23 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 23: Steps to Correct a Grade Range Overlap Error

Step	Action and *Result*
Step 1	In this example, 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**.  Review the error to identify the issue. *Both the elementary school district (01385–Carthage Elementary School District 317) and the secondary school district (01384–Illini West High School District 307) have '9' in their grade range coverage*. Carthage Elementary's grade range should only include PK-08. Therefore, an attribute change must occur for Carthage Elementary School District to resolve this issue.
Step 2	To correct the grade range overlap, select **01385–Carthage Elementary School District 317** from the **Modify Area Feature** window info list as the target layer. Then select the **Change Attributes** button. 

Step	Action and *Result*
Step 3	*The window opens with editable attributes fields for **01385–Carthage Elementary School District 317**.* 
Step 4	Change the **High Grade** attribute from 09 to 08. Then select **OK**. 

Step	Action and *Result*
Step 5	In the **SDRP Criteria Review** tool (still open from its original execution), select the **Save** button. The criteria check will run again.  *If all issues were corrected, a message displays saying all features pass criteria review*. Otherwise, continue correcting the failures. 

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 30**) 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 23**, would resolve the grade range gap error.

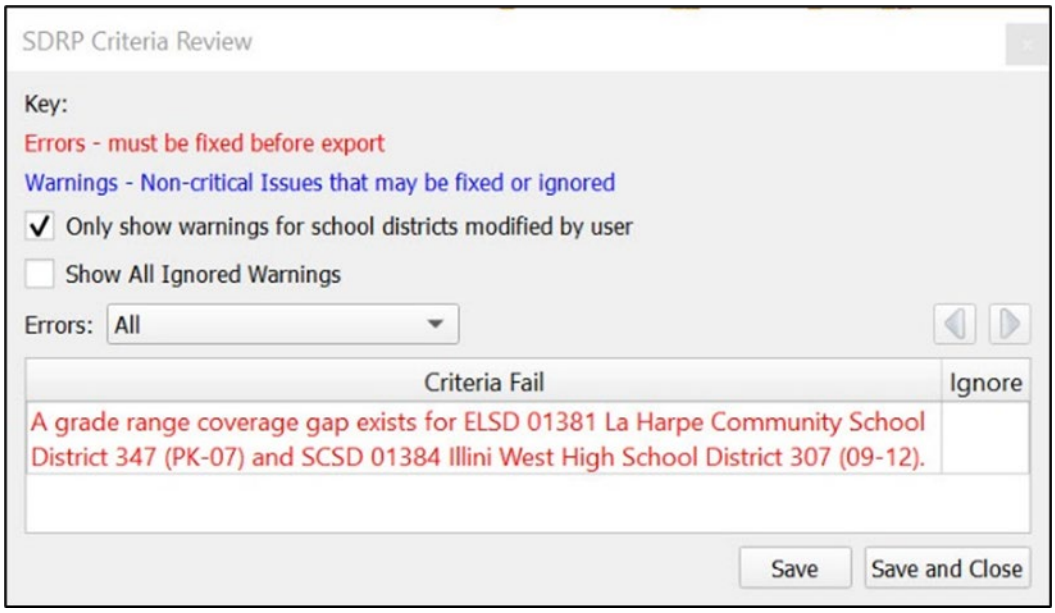


Figure 30: Example of a Grade Range Gap Error–Incorrect Attributes

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 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 13** 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 31**). In the example below, 18060–Hamilton Community School District 328 has been flagged as being partially dissolved.

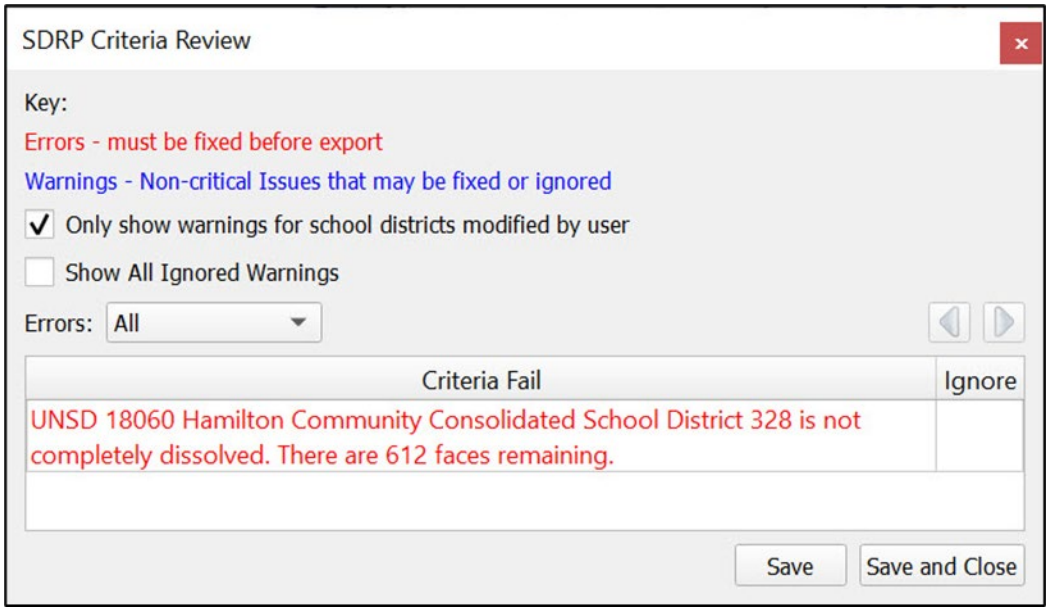


Figure 31: Example of a Partially Dissolved School District Error

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 19** 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 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.

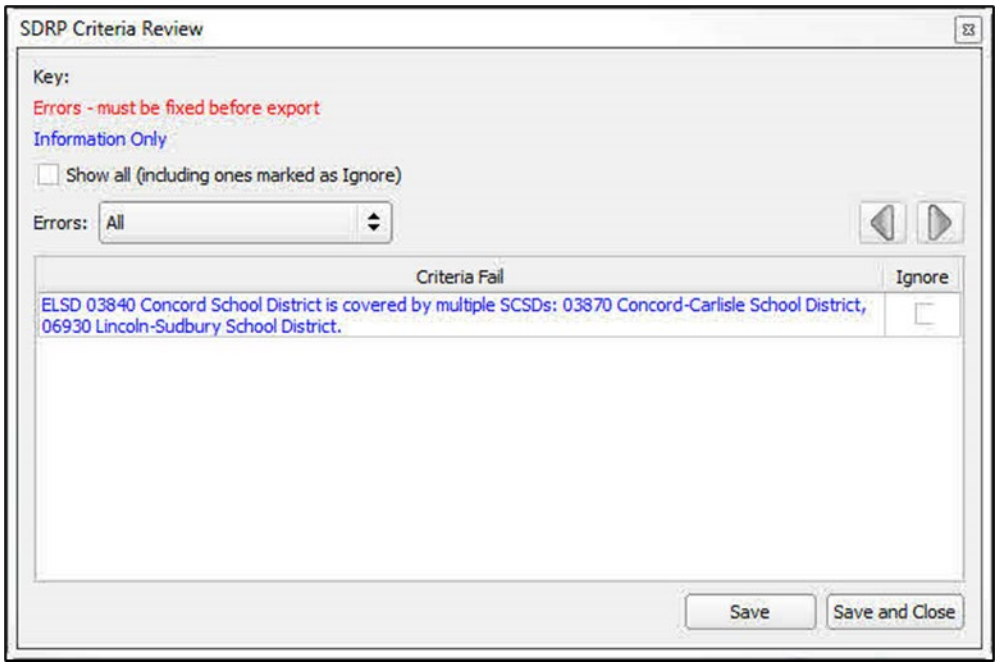


Figure 32: Informational Warning (Multiple Secondary School Districts–Single School District)

In this example, illustrated in **Figure 32**, 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 should belong to ELSD Lincoln-Sudbury School District and not ELSD Concord School District.
- New SCSD–Include this face 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 33**).

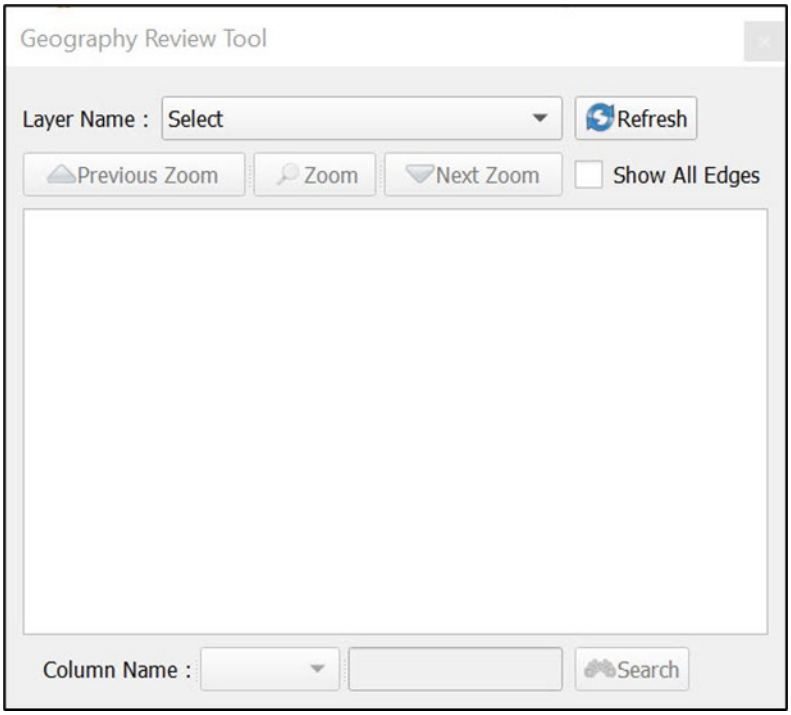
Figure 33: Information Warning Check Boxes

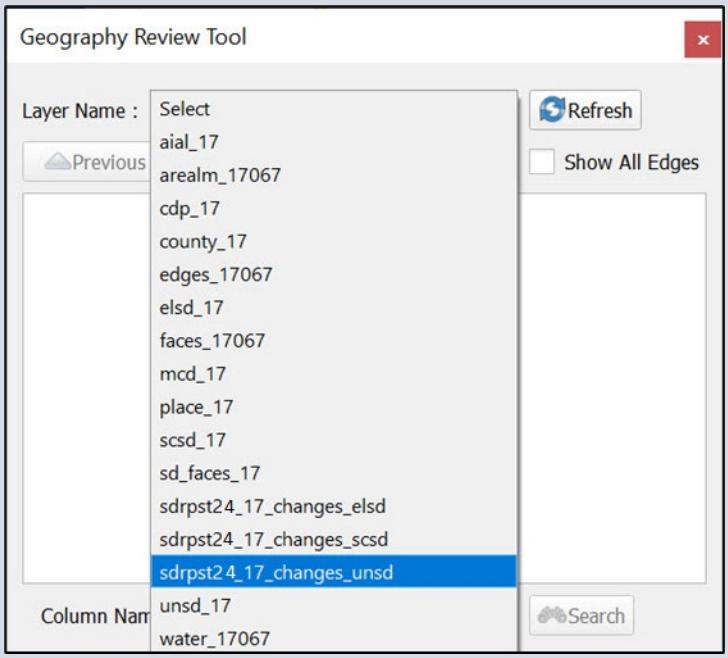
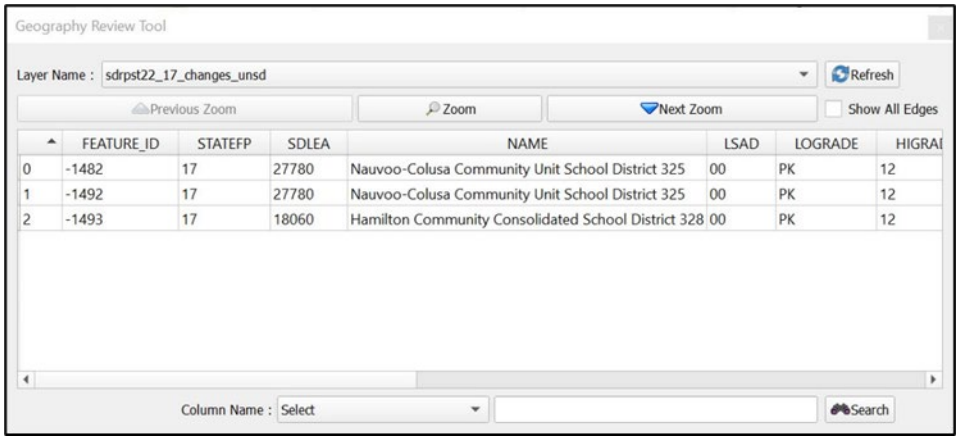
Note: When the Show All checkbox is selected, the Ignore checkbox for previously ignored informational warnings is disabled. Informational warnings marked as ignore cannot be unchecked once changes are saved in the SDRP Criteria Review tool.

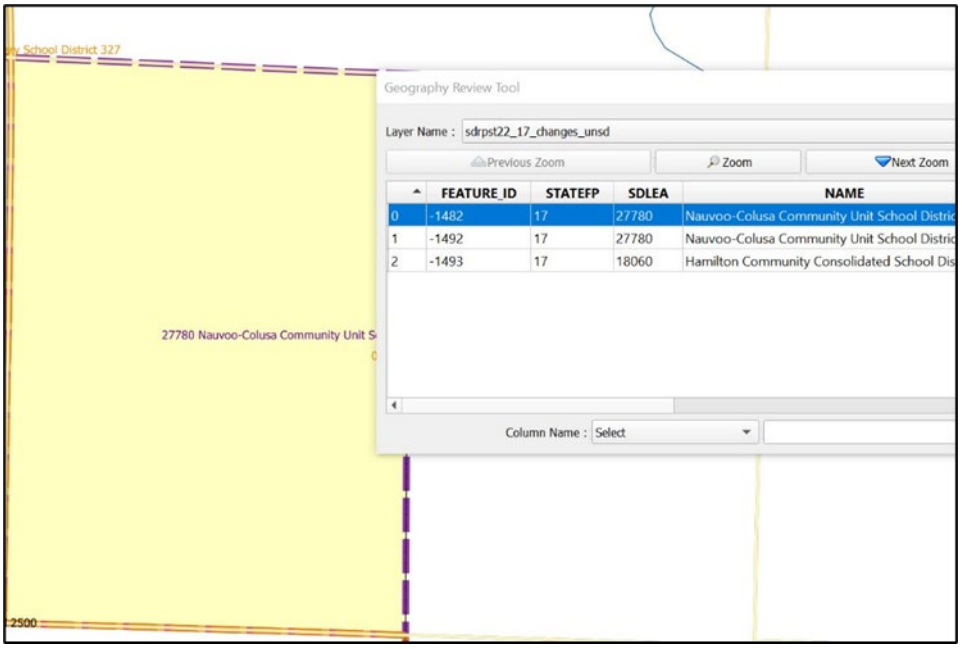
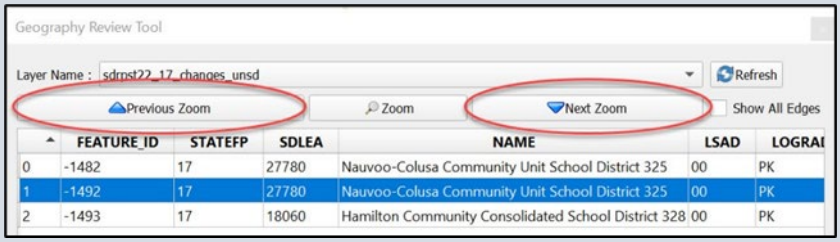
5.4.2 Geography Review Tool

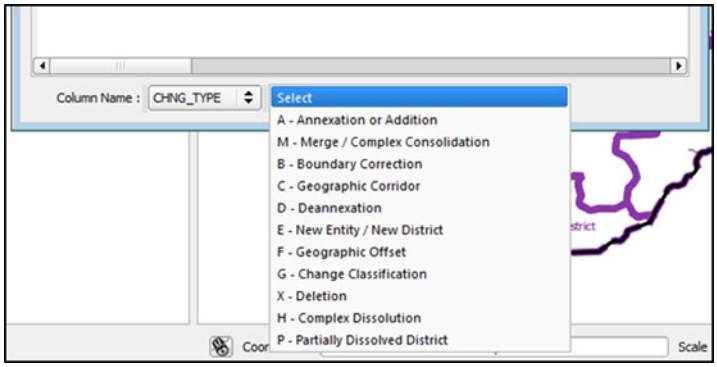
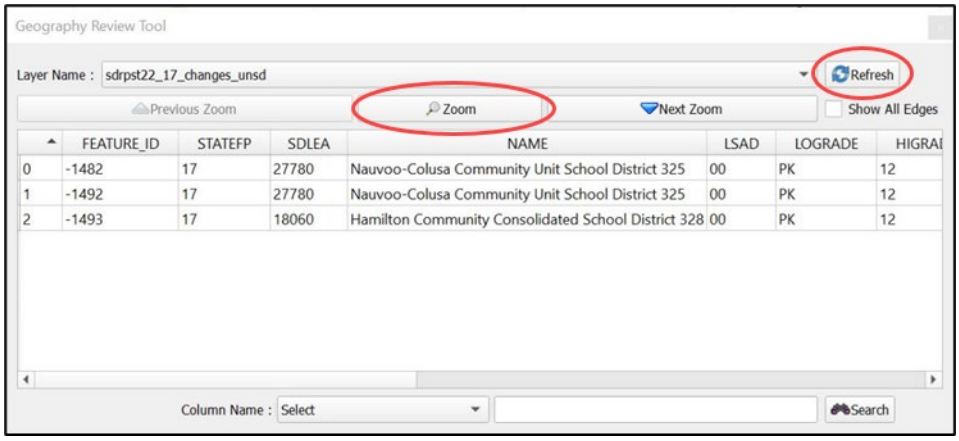
The Geography Review tool filters the map layers based on various fields in the attribute table. Use this tool to check the updates made to linear features and school districts. This tool may also be used to view the attributes of entities, features, and boundaries that were not changed. Steps for using the Geography Review tool information appear in **Table 24**.

Table 24: Steps to Use the Geography Review Tool

Step	Action and *Result*
Step 1	Select the **Geography Review** tool from the **SDRP toolbar**.  *The **Geography Review Tool** window opens.* 

Step	Action and *Result*
Step 2	From the **Layer Name** drop-down menu select the data layer to view.  For this example, select "**sdrpst24_17_changes_unsd**." This is a change polygon created from updating a unified school district layer.
Step 3	*Once selected, the attribute table opens and the attributes for each unified school district that changed are displayed*. 
	If all the columns in the attribute data table are not visible, drag the edge of the window outward to widen the view. Alternatively, move the window to another location by selecting inside the box and dragging it.

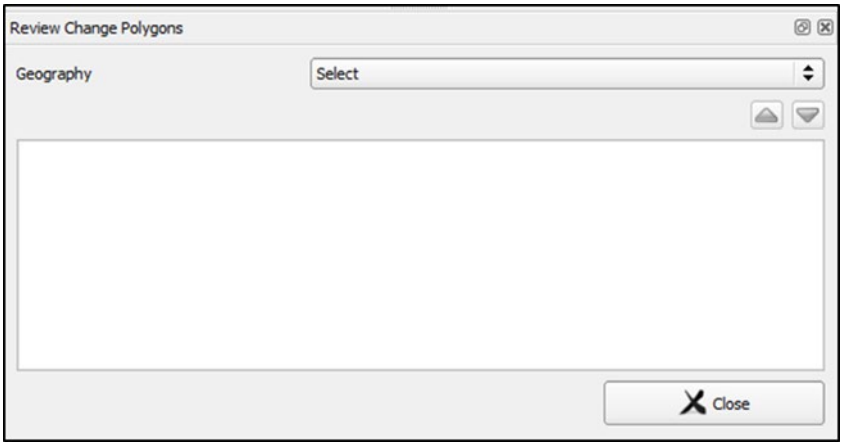
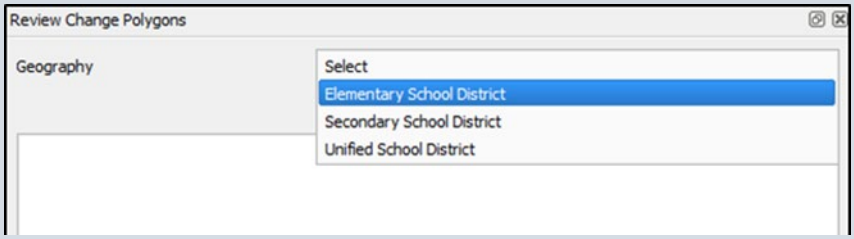
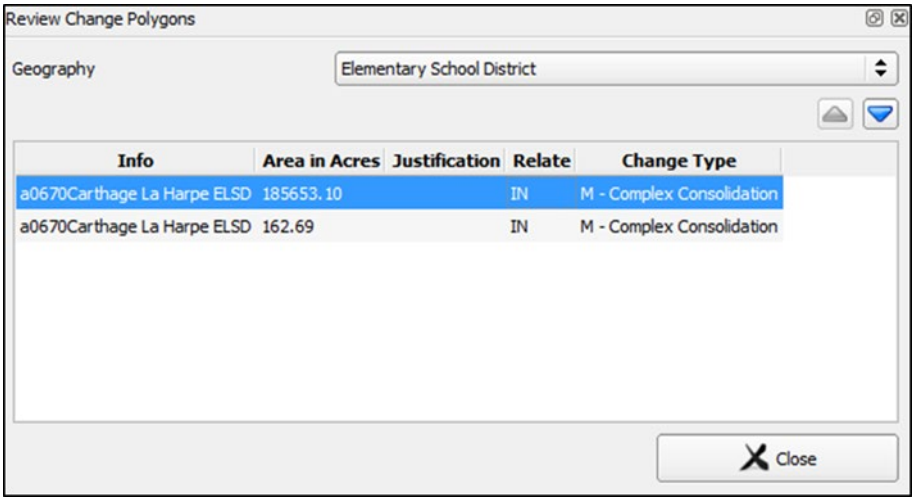
Step	Action and *Result*
Step 4	To view the unified school district on the map, select the corresponding row in the attribute table, then choose the **Zoom** button in the window. *The row is highlighted, and the map automatically zooms to the unified school district. The feature will be highlighted yellow–color may vary.* 
Step 5	To view other unified school districts in the table rows, use the **Previous Zoom** and **Next Zoom** buttons. *Selecting each button automatically zooms and highlights the feature for that row.* 

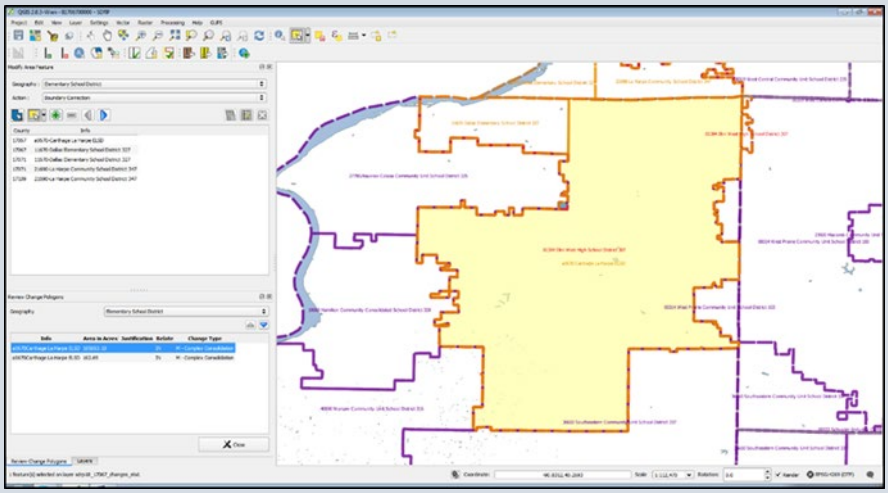
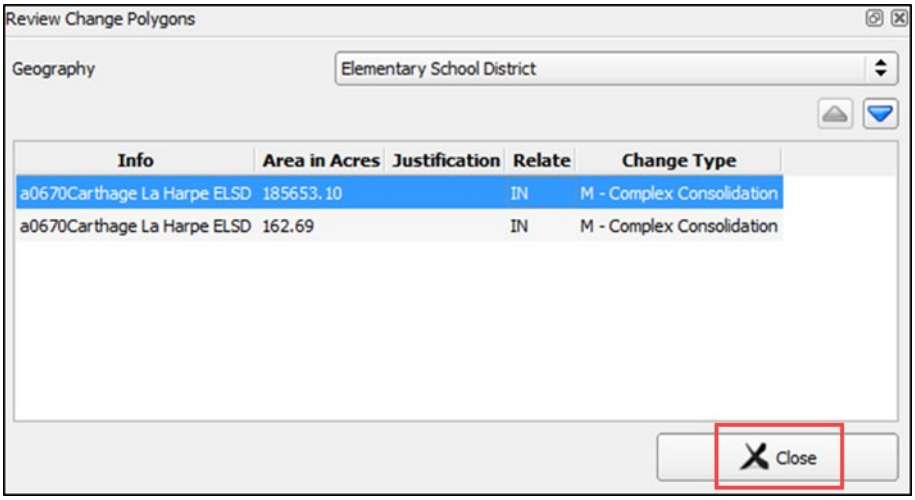
Step	Action and *Result*
Step 6	Use the **Search** feature at the bottom of the window to filter the table layers by specific attributes (e.g., full name, MTFCC, change type, etc.)  For this example, select change type (**CHNG_TYPE**) and choose **M–Merge/Complex Consolidation**. After selecting **Search** button, the attribute table is filtered to show the rows for only those records with a CHNG_TYPE 'M'. 
	The drop-down list of CHNG_TYPES is a global list for all Census Bureau programs, therefore there are more CHNG_TYPES available than are used in the SDRP. The following CHNG_TYPES are those specific to the SDRP: A–Annexation or Addition; M–Merge/Complex Consolidation; B–Boundary Correction; E–New Entity/New District; G–Change Classification; H–Complex Dissolution, P–Partially Dissolved District; X–Deletion; N–New in County School District.
Step 7	To view an individual record, select its row and choose the **Zoom** button. To return to the attribute table to see a full, unfiltered, unified school district layer select the **Refresh** button in the upper right-hand corner of the window. 

5.4.3 Review Change Polygons Tool

The Review Change Polygons tool, described in **Table 25**, allows the user to view the transactions created from school district boundary edits.

Table 25: Steps to Use the Review Change Polygons Tool

Step	Action and *Result*
Step 1	Select the **Review Change Polygons** tool from the **SDRP toolbar**.  *The **Review Change Polygons** window opens just below the **Table of Contents**.* 
Step 2	Use the **Geography** drop-down menu to select the school district geography type to review. In this example, select **Elementary School District**. 
Step 3	After selecting the geography type, *the window populates with all change polygon transactions for the selected school district level*. This elementary school district has two transactions for a complex consolidation. 

Step	Action and *Result*
Step 4	To view the polygon related to the transaction, select the row for the polygon in the list. The map zooms to the location of the polygon and highlights that polygon on the map (highlight is yellow, but color may vary.) 
Step 5	Once the review is complete, close the **Review Change Polygons** tool by selecting the **Close** button in the lower right-hand corner. 

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.

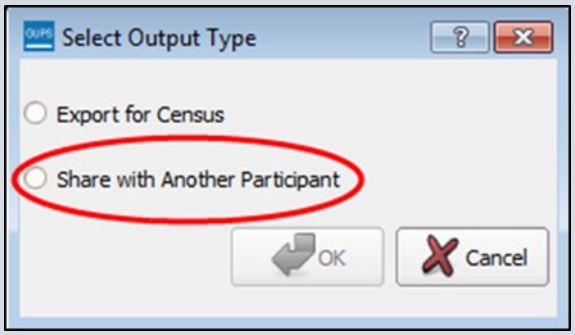
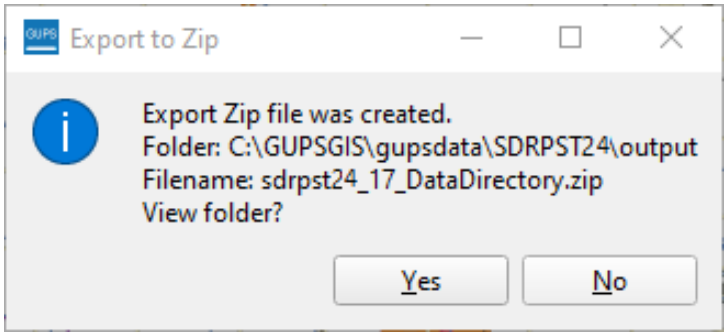
Exporting a file for submission to the Census Bureau requires all SDRP criteria review errors to be resolved. The Census Bureau will only accept this file export for submission. In either case,

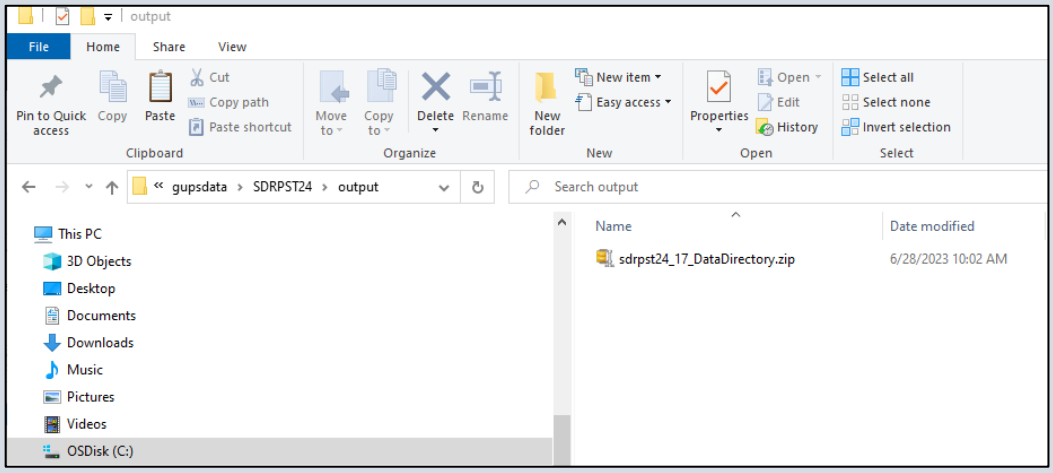
GUPS automatically names the output Zip file. It packages all files required by the Census Bureau into the Zip file and saves it in the default GUPS project directory.

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 26**.

Table 26: Steps to Export a File to Share with Another Participant

Step	Action and *Result*
Step 1	Select on the **Export to Zip** button on the **SDRP toolbar**. 
Step 2	*The **Select Output Type** window opens*. Select the **Share with Another Participant** radio button. Then choose **OK** to continue. 
Step 3	*The **Export to Zip** window opens and displays the location of the export file*. Select **Yes** to view the folder with the export file or **No** to close the window.  Note: The screenshot above is for illustration purposes only and does not reflect the current SDRP year. When running the Export to Zip tool, folder names and files names created during export will reflect the correct SDRP year **SDRPST25**.

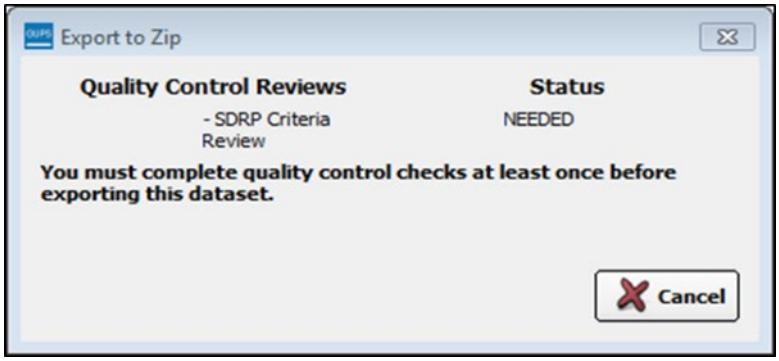
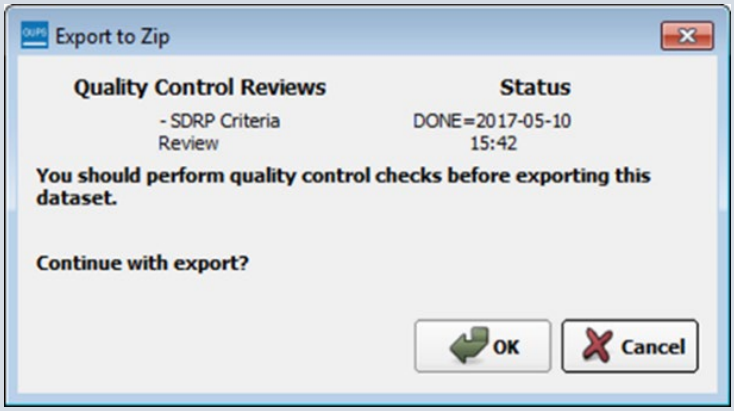
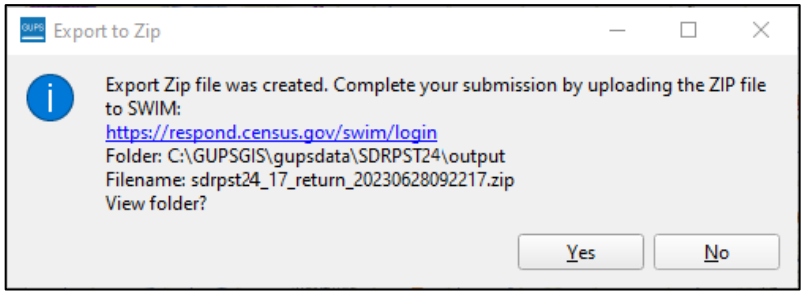
Step	Action and *Result*
Step 4	*Selecting **Yes** displays the folder location where GUPS placed the zipped file.*  Note: GUPS automatically saves the file to an output folder that the GUPS installer placed on the computer during the installation process.

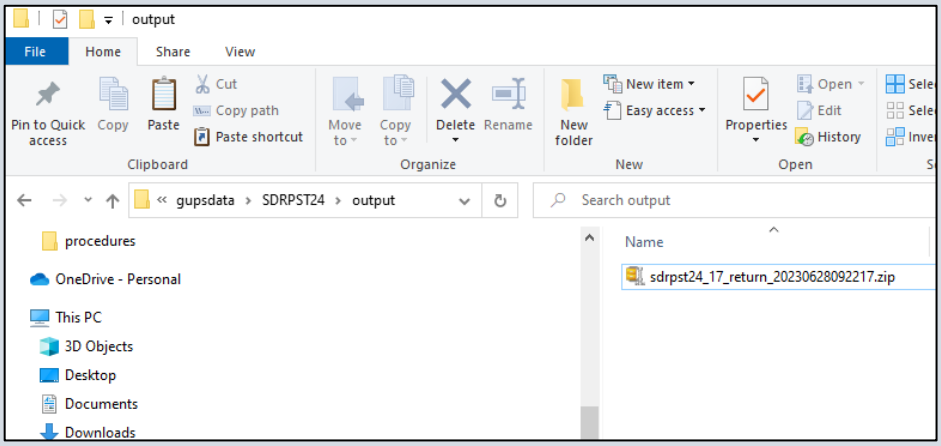
5.5.2 Export a File for Submission to the Census Bureau

To export a file for submission to the Census Bureau follow the steps in **Table 27**.

Table 27: Steps to Export a File for Submission to the Census Bureau

Step	Action and *Result*
Step 1	Select on the **Export to Zip** button on the **SDRP toolbar**. 
Step 2	*The **Select Output Type** window opens*. Select the **Export for Census** radio button. Then choose **OK** to continue. 

Step	Action and *Result*
Step 3	If the **SDRP Criteria Review** tool was not previously executed, *the **Export to Zip** window displays the SDRP Criteria Review check with a status of **NEEDED***.  If this message appears, select the **Cancel** button, run the **SDRP Criteria Review** tool, and resolve any errors. Check the "**Show All Ignored Warnings**" box, as shown in **Figure 33**, for all informational messages that are valid. Then repeat the export steps again.
Step 4	If the **SDRP Criteria Review** tool was previously executed, the **Export to Zip** window displays the status of the check and the date and time the checks were made, as shown below.  Review the run times listed. If any additional changes were made after the time displayed, select **Cancel** and run the **SDRP Criteria Review** tool again. Then repeat the export steps. To continue with the export, select **OK**.
Step 5	*The **Export to Zip** window opens and displays the location of the export file*. Select **Yes** to view the folder with the export file or **No** to close the window. 

Step	Action and *Result*
Step 6	*Selecting **Yes** displays the folder location where GUPS placed the zipped file.*  Note: GUPS automatically saves the file to an output folder that the GUPS installer placed on the computer during the installation process.

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.

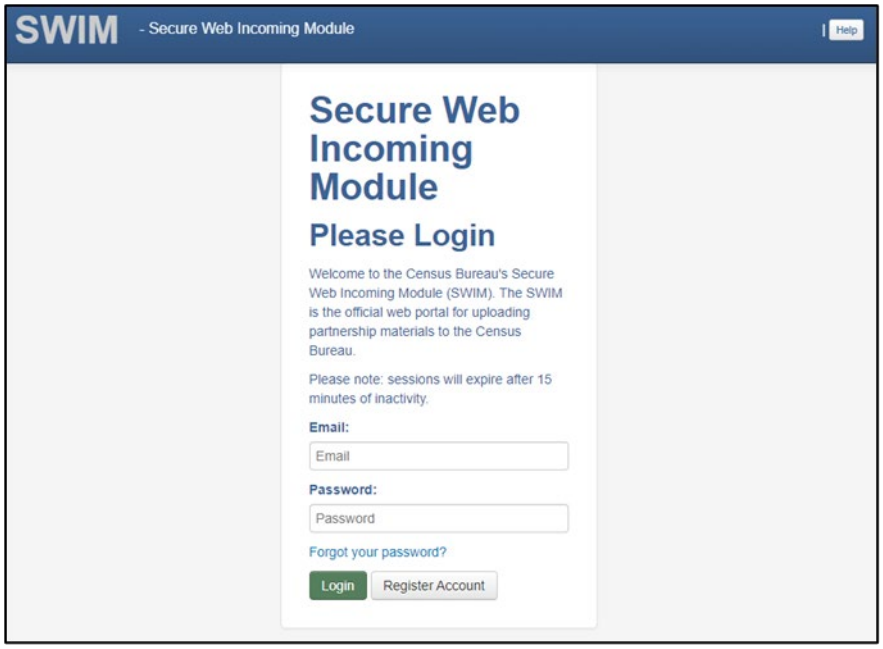
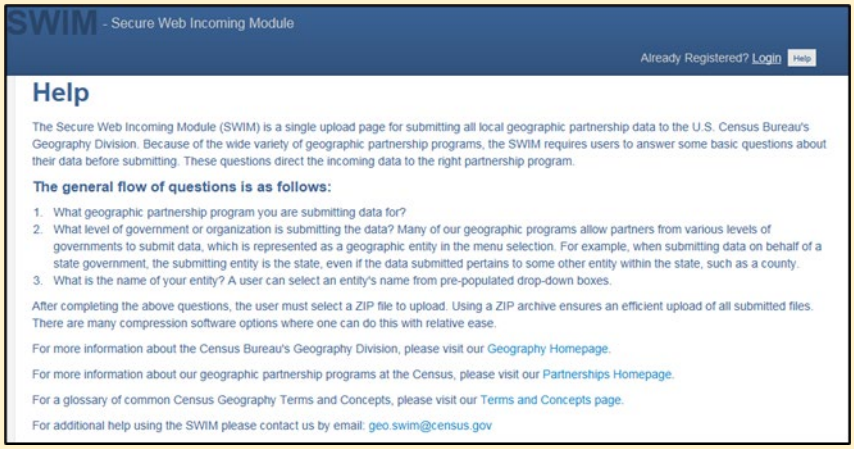
To check for the existence of a SWIM account or to reset a password on an established account, choose "Forgot your password?" on the main SWIM page and enter the email address in question to check for the existence of an account. If SWIM locates an account, it asks the established security question for 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.

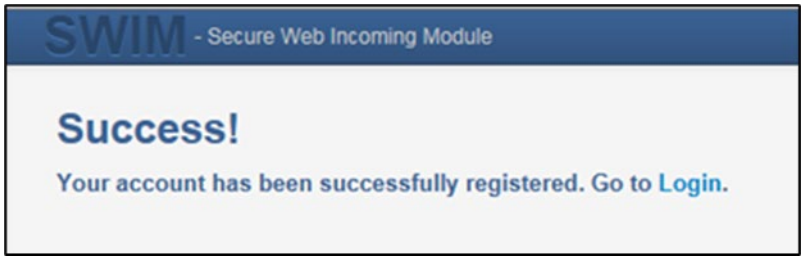
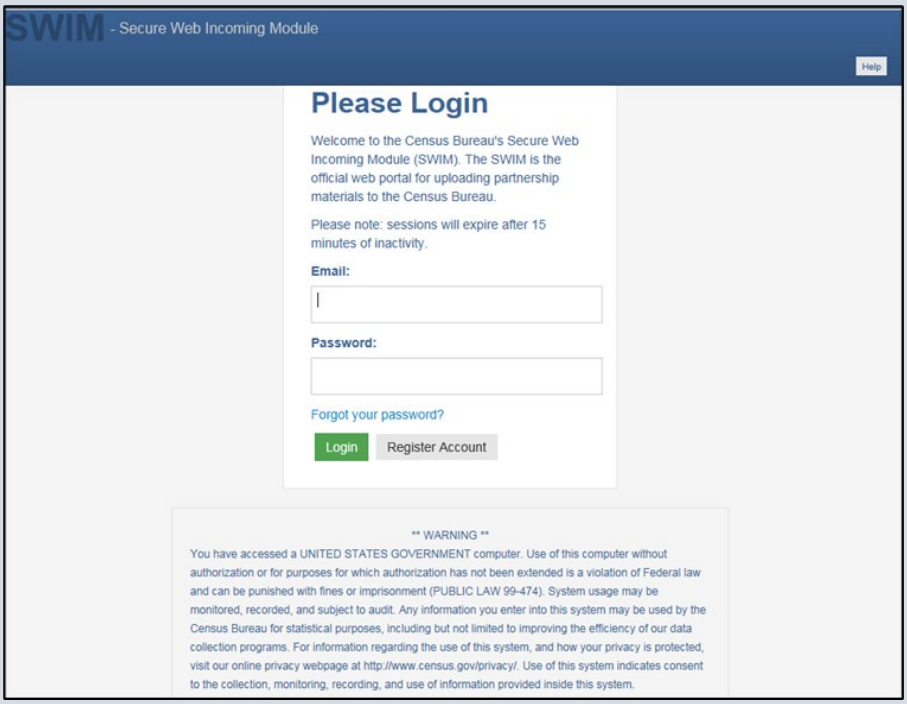
Note: The components of both the email address and the password of SWIM accounts are case-sensitive. Make note of the format used when establishing the SWIM account (e.g., jane@anytown.org or Jane@anytown.org or JANE@ANYTOWN.ORG.)

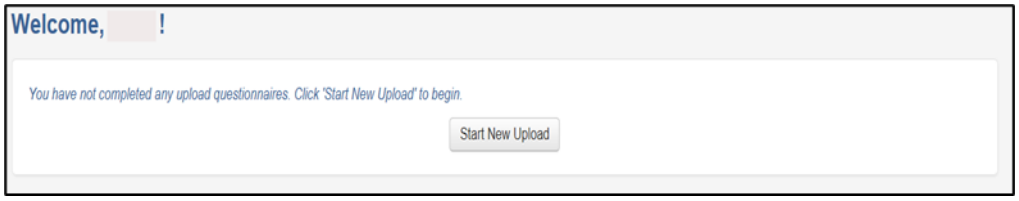
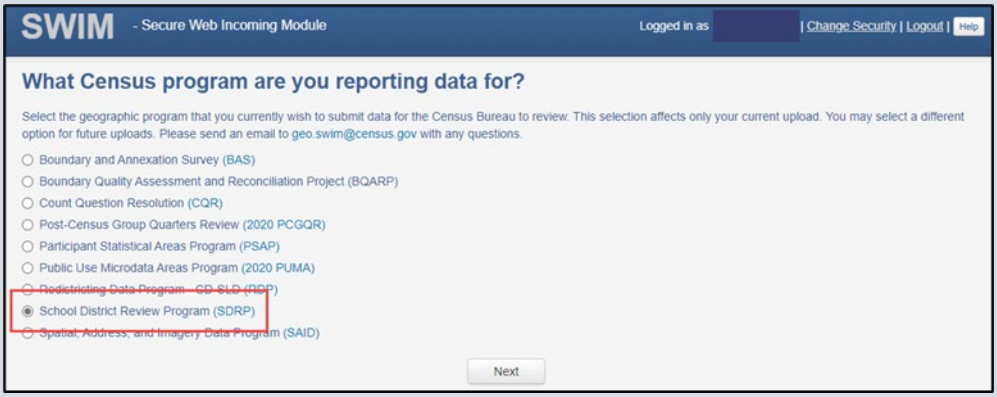
SWIM allows four attempts to login before it temporarily locks the account for 15 minutes. After the lock expires, try to login again or reset the password using the aforementioned "Forgot your password?" link on the login page. Once reset and logged into SWIM, account holders may modify their password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

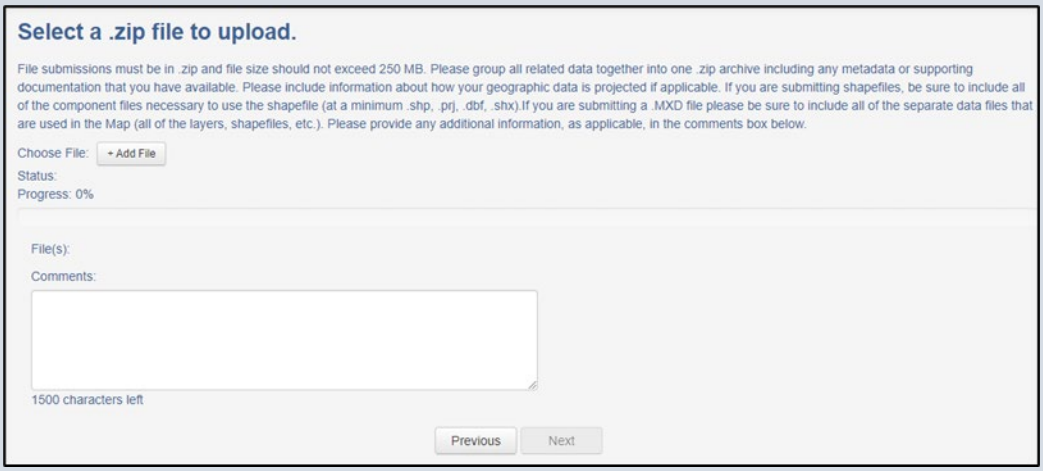
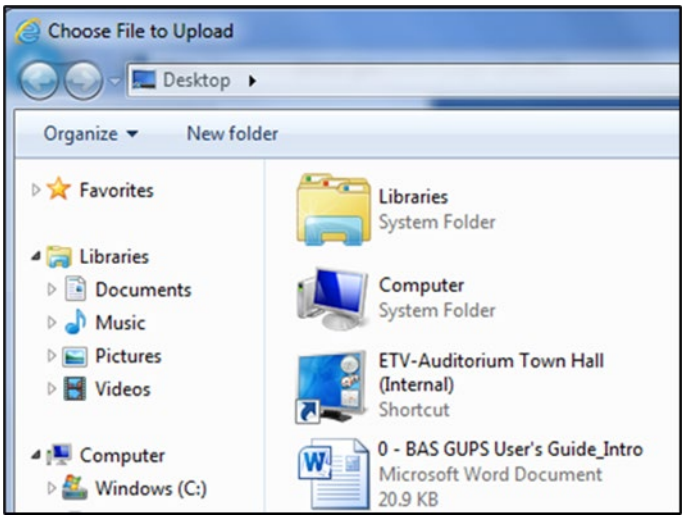
SWIM file requirements include submission of .zip file format. The .zip file may not include another .zip file as a component and it must not be larger than 250 megabytes. To send Annotation Phase changes to the Census Bureau, follow the instructions in **Table 28**. If problems still occur with SWIM, contact the Census Bureau because it may be necessary to create a new SWIM account.

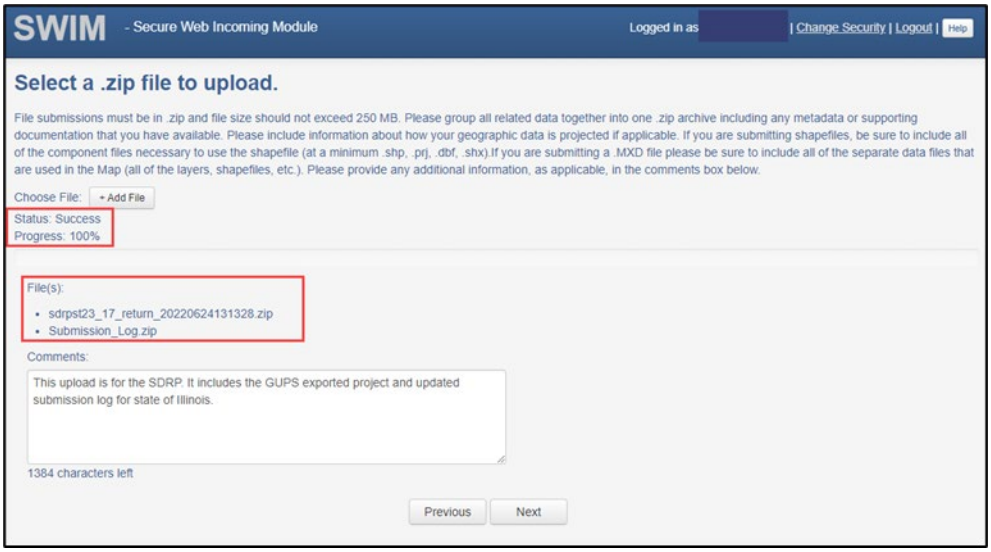
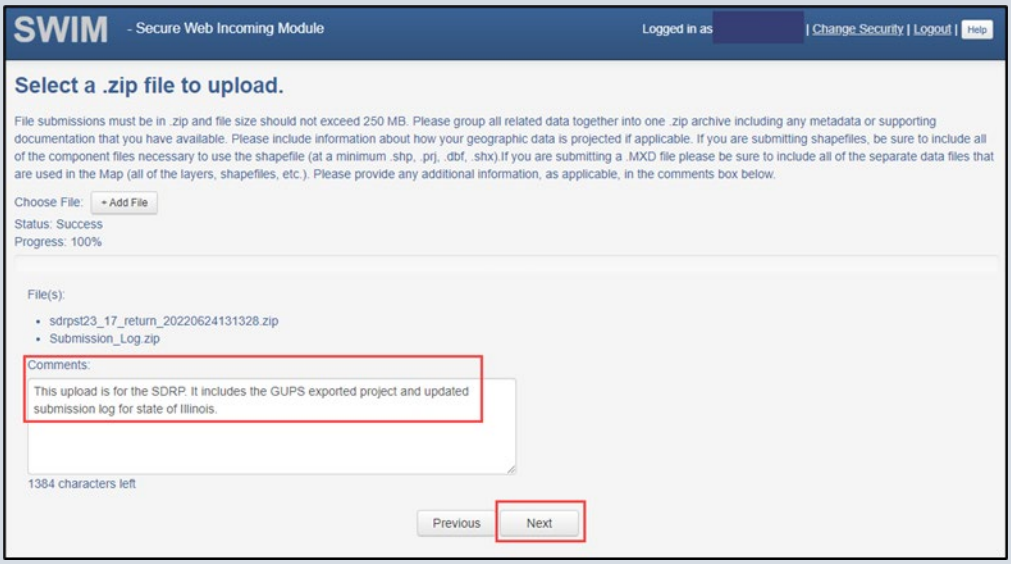
Table 28: Steps to Use SWIM

Step	Action and *Result*
Step 1	Open a new browser window and enter the URL: <https://respond.census.gov/swim>. *The SWIM login screen opens*. 
Step 2	For users that already have a SWIM account enter the email address and password. The email and password are case sensitive. Select the **Login** button. Skip to **Step 7**.
Step 3	Users without a SWIM account must register. Select the **Register Account** button. *The **Account Registration** screen opens*. All fields on the **Account Registration** screen are required.
	While working in SWIM obtain help by selecting the Help button on any screen. A screen opens with links to help resources. 
Step 4	On the **Account Registration** screen, enter the 12-digit token provided by the Census Bureau, then enter contact name, agency, and email in the appropriate fields.

Step	Action and *Result*
Step 5	Create a password. The passwords must meet the five criteria below: 1. It must be 8 characters in length. 2. It must have at least one upper case character. 3. It must have at least one lower case character. 4. It must have at least one number. 5. It must have at least one special character (valid special characters are: #, !, $, *, &, ?, ~). Note: The commas shown immediately above are to separate the special characters listed. A comma is not a valid character for the password
Step 6	Set up a security question (choose the arrow on the right of the **Security Question** box and select a question in the drop-down list, then enter an answer in the **Answer** box). When finished, select the **Submit** button. A screen opens to confirm that the account has been successfully registered.  Choose **Login** to return to the SWIM Login screen to enter the newly established account login and password information.
Step 7	Enter the account login and password information and choose the **Login** button. 

Step	Action and *Result*
Step 8	*With a valid login and password, the **Welcome** screen opens*. To begin the submission process, choose the **Start New Upload** button. 
Step 9	*The "**What Census program are you reporting data for?**" window opens.* Select the **School District Review Program** radio button, and then choose **Next** at the bottom of the screen. 
Step 10	*The **Select a State** window opens asking which state is being reported*. Select the radio button next to the appropriate state and then choose the **Next** button to continue. 

Step	Action and *Result*
Step 11	*The **Select a .zip file to upload** screen opens.* 
Step 12	To upload a .zip file, select the **+ Add File** button on the screen to open a window that allows the user to navigate to the .zip file's location. 
	More than one .zip file can be added for upload in the SWIM session by repeating use of the **+ Add File** button to locate and select each .zip file (e.g., zipped updated listing files, zipped submission log, zipped GUPS project) to upload. Or users can upload the individual .zip files separately. Please include Comments detailing what files are included in the SWIM upload and whether more files are expected.

Step	Action and *Result*
Step 13	Locate the .zip file(s) to upload and then double-click the left mouse button to add it to the window for upload. *The **Progress** field on the **Select a .zip file to upload** screen shows the progress of the upload. Once the upload is complete, the **Status** field shows **Success**, and the name of the file appears in the **File(s)** field.* 
Step 14	Type any comments in the **Comments** field. Select the **Next** button. 

Step	Action and *Result*
Step 15	*The **Thank You** page confirms the receipt of the submission*. To add additional files, choose the **upload form** link in the phrase **You may Log Out or return to the upload form**, to submit more files. This choice returns to the **Welcome** screen. Otherwise, to log out, select **Log Out**. 
	Be aware SWIM sessions deactivate after 15 minutes of inactivity.

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 34**). 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." The Science Hill Independent School District is assigned grades K-8 while the Pulaski County School District maintains its grades K-12.

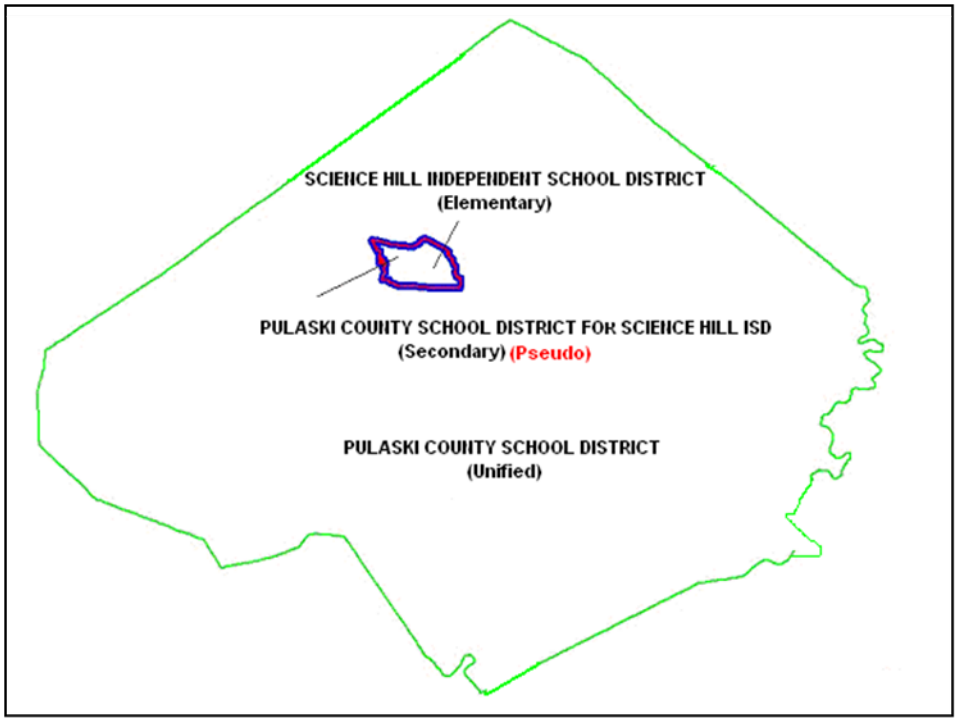


Figure 34: Example of a Pseudo School District–Pulaski County, KY

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 SDLEA code 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 Listing[1] as shown in **Table 29**.

Table 29: 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	A	Pulaski County School District for Science Hill ISD
21	05220	PK	08	E	--	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 SDLEA code.
- 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.xlsx where <ST> = two-digit state 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.xlsx. **Table 30** describes the fields in the file, their length, data type, a brief description of the field, and the valid value ranges.

Table 30: Data Dictionary for the Inventory and Grade Range File

Attribute Field	Length	Type	Description	Value/Range
STATE CODE	2	VARCHAR	State code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
SDLEA	5	VARCHAR	School District Local Education Agency code	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.xlsx. **Table 31** describes the fields in the file, their length, data type, a brief description of the field, and the valid value ranges.

Table 31: Data Dictionary for the County Coverage File

Attribute Field	Length	Type	Description	Value/Range
STATE CODE	2	VARCHAR	State code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56

Attribute Field	Length	Type	Description	Value/Range
COUNTY CODE	3	VARCHAR	County code	001-840
COUNTY NAME	100	VARCHAR	County name	Not Blank
SDLEA	5	VARCHAR	School District Local Education Agency code	00001-99998
NAME	100	VARCHAR	School district name	Not Blank

B3 Data Dictionary for the Legal Government Coextensive Coverage File

These files follow the naming convention <ST>_Coextensive_Coverage_A.xlsx. **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 Legal Government Coextensive Coverage File

Attribute Field	Length	Type	Description	Value/Range
STATE CODE	2	VARCHAR	State code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
COUNTY CODE	3	VARCHAR	County code	001-840
COUNTY NAME	100	VARCHAR	County name	Not Blank
SDLEA	5	VARCHAR	School District Local Education Agency code	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 government the school district is coextensive with	Not Blank
FIPS55 CODE	5	VARCHAR	Federal Information Processing Series (FIPS) code (formerly FIPS 55) of the place the school district is coextensive with. This field is only populated when the coextensive government is a place.	00001-89999

B4 Data Dictionary for the School District to Geography Relationship File

These files follow the naming convention <ST>_SD_GEO_Relationship_A.xlsx. **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 School District to Geography Relationship File

Attribute Field	Length	Type	Description	Value/Range
SDLEA	5	VARCHAR	School District Local Education Agency code	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	P
STATE CODE	2	VARCHAR	State code	01, 02, 04-06, 08-13, 15-42, 44-51, 53-56
COUNTY CODE	3	VARCHAR	County code	001-840
COUNTY SUBDIVISION CODE	5	VARCHAR	County subdivision 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, barrio-pueblo, purchase, town, township, UT, village, charter township, reservation, no suffix exists

Attribute Field	Length	Type	Description	Value/Range
PLACE 'PART' FLAG	1	VARCHAR	School district partially covers incorporated place part flag	P
PLACE CODE	5	VARCHAR	Place 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 two-digit state code. Descriptions for abbreviated state shapefile names are provided in **Table 34**.

Table 34: Abbreviated State Shapefile Names

<layername>	Description
aial	American Indian Areas–Legal
cdp	Census Designated Places
county	Counties and Equivalent Areas
mcd	Minor Civil Divisions (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 5-digit state and county code. Descriptions for abbreviated county shapefile names are provided in **Table 35**.

Table 35: Abbreviated County Shapefile Names

<layername>	Description
arealm	Area Landmarks
edges	All Lines
faces	Topological Faces (Topological Polygons)
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 36–44 correspond to the state-based shapefiles while tables 45–48 correspond to the county-based shapefiles.

Table 36: American Indian Areas (aial)–Legal

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
AIANNHCE	4	String	Census American Indian, Alaska Native, Native Hawaiian (AIANNH) area code
COMPTYP	1	String	Indicates if record is reservation (or equivalent) or off-reservation trust land portion of AIANNH area
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	National Standard code for AIANNH area
LSAD	2	String	Legal/Statistical Area Description code
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	Class code
PARTFLG	1	String	Part flag
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 AIANNH area
VINTAGE	2	String	Vintage

Table 37: Census Designated Places (cdp)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
PLACEFP	5	String	Place code
PLACENS	8	String	National Standard feature code for the place
NAMELSAD	100	String	Name with translated Legal/Statistical Area Description (LSAD)
LSAD	2	String	Legal/Statistical Area Description code
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	Class code
PARTFLG	1	String	Part flag

Table 38: County and Equivalent Areas (county)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
COUNTYFP	3	String	County code
COUNTYNS	8	String	National Standard 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 code
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	Class code
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: County Subdivisions (mcd)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
COUNTYFP	3	String	County code
COUSUBFP	5	String	County subdivision code
NAMELSAD	100	String	Name with translated Local/Statistical Area Definition (LSAD)
COUSUBNS	8	String	National Standard feature code for the county subdivision
LSAD	2	String	Legal/Statistical Area Description code
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	Class code
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 40: Incorporated Places (place)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
PLACEFP	5	String	Place code
NAMELSAD	100	String	Name with translated Local/Statistical Area Definition (LSAD)
PLACENS	8	String	National Standard feature code for the place
LSAD	2	String	Legal/Statistical Area Description code
FUNCSTAT	1	String	Functional status code
CLASSFP	2	String	Class code
PARTFLG	1	String	Part flag
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: Elementary School Districts (elsd)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
SDLEA	5	String	School District Local Education Agency code
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description code
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census Bureau school district type (e.g., A=Pseudo; B=Dept. of Defense; C=Interstate; D=Bureau of Indian Affairs; E=Same Name)
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 code
VINTAGE	2	String	Vintage

Table 42: Secondary School Districts (scsd)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
SDLEA	5	String	School District Local Education Agency code
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description code
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census Bureau school district type (e.g., A=Pseudo; B=Dept. of Defense; C=Interstate; D=Bureau of Indian Affairs; E=Same Name)
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 code
VINTAGE	2	String	Vintage

Table 43: School District Administrative Areas (sdadm)–Vermont only

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
SDLEA	5	String	School District Local Education Agency code
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description code
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census Bureau school district type (e.g., A=Pseudo; B=Dept. of Defense; C=Interstate; D=Bureau of Indian Affairs; E=Same Name)
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 code
VINTAGE	2	String	Vintage

Table 44: Unified School Districts (unsd)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
SDLEA	5	String	School District Local Education Agency code
NAME	100	String	Base name portion of the standardized name
LSAD	2	String	Legal/Statistical Area Description code
LOGRADE	2	String	School district low grade
HIGRADE	2	String	School district high grade
SDTYP	1	String	Census Bureau 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 code
VINTAGE	2	String	Vintage

Table 45: Area Landmark (arealm)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
COUNTYFP	3	String	County 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	National Standard feature code for the area landmark
PARTFLG	1	String	Part flag
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 46: All Lines (edges)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
COUNTYFP	3	String	County code
TLID	10	Number	Permanent Edge ID
TFIDL	10	Number	Permanent Face (Topological Polygon) ID on the left
TFIDR	10	Number	Permanent Face (Topological Polygon) 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 47: Faces (faces)

Attribute Field	Length	Type	Description
TFID	20	Number	Permanent Face (Topological Polygon) ID
STATEFP	2	String	State code
COUNTYFP	3	String	County code
TRIBSUBCE	3	String	Census Bureau tribal subdivision code
TTRACTCE	6	String	Tribal census tract code
TBLKGRPCE	1	String	Tribal census block group code
AIANNHCE	4	String	Census Bureau American Indian, Alaska Native, or Native Hawaiian (AIANNH) area code
AIANNHCE20	4	String	2020 Census AIANNH area code
COMPTYP	1	String	Indicates if record is reservation (or equivalent) or off-reservation trust land portion of AIANNH area
ANRCFP	5	String	Alaska Native Regional Corporation (ANRC) 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 SDLEA code
SCSD	5	String	Current secondary school district SDLEA code
UNSD	5	String	Current unified school district SDLEA 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 Bureau urban area code
CBSAFP	5	String	Core based statistical area code
NECTAFP	5	String	New England city and town area code
BLKGRPCE	1	String	Census block group code
BLOCKCE	4	String	Tabulation block code
SUFFIX1CE	2	String	Census block suffix 1
SUFFIX2CE	2	String	Census block suffix 2

Attribute Field	Length	Type	Description
BAGCE	3	String	Block area grouping
PUMACE20	5	String	Public use microdata area code from 2020
SUBMCDFP	5	String	Sub-minor civil division code
UGACE	5	String	Urban growth area code
STATEFP20	2	String	State code from 2020
COUNTYFP20	3	String	County code from 2020
TRACTCE20	6	String	Census tract code from 2020
PLACEFP	5	String	Place code
COUSUBFP	5	String	County subdivision code
CONCITYFP	5	String	Consolidated city code
CDSESSN	3	String	Congressional district session code
LWFLG	1	String	Land/water flag

Table 48: Hydrography–Area (water)

Attribute Field	Length	Type	Description
STATEFP	2	String	State code
COUNTYFP	3	String	County code
ANSICODE	100	String	National Standard 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 3.34.3 documentation from the following link <https://docs.qgis.org/3.34/en/docs/user_manual/>.

Note: The QGIS 3.34.3 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 35**) 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.

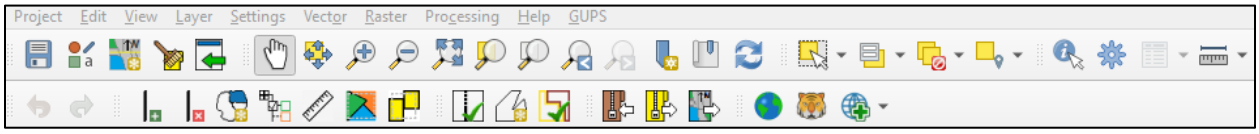


Figure 35: Menu Bar, Standard Toolbar, and SDRP Toolbar

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.

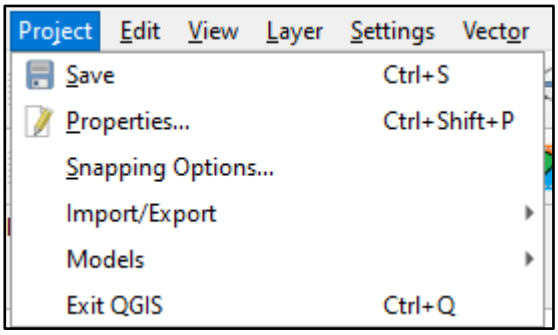
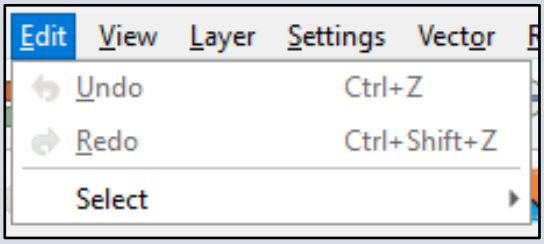
E1 Menu Bar

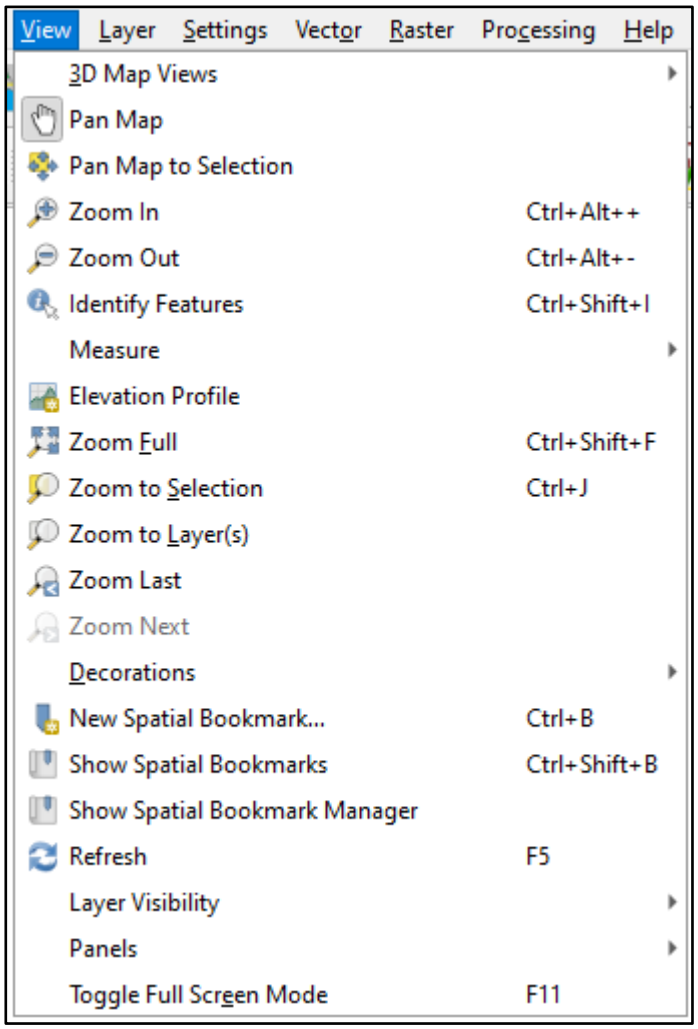
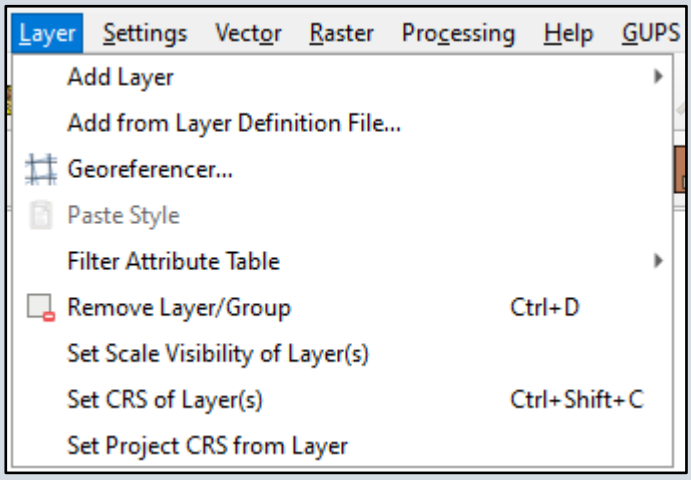
The Menu bar includes top-level, drop-down menus and allows navigation through GUPS using a standard hierarchical menu. Most relate to QGIS functionality and not GUPS functionality. The Menu bar, shown in **Figure 36** offers basic features to manage the Map View. Almost all the functions available from the Menu bar are also available in the various toolbars.

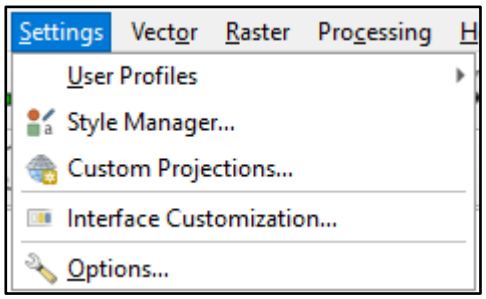
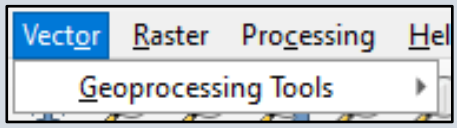
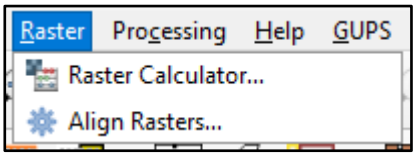
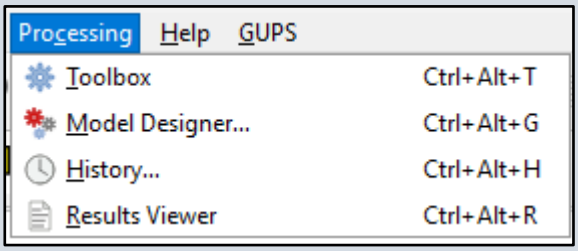
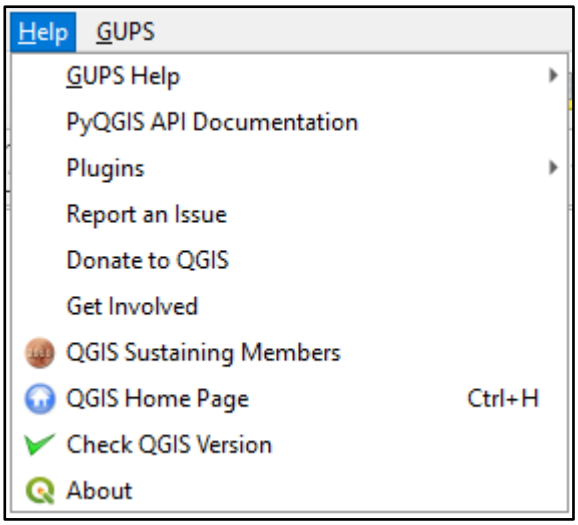
Figure 36: Menu Bar

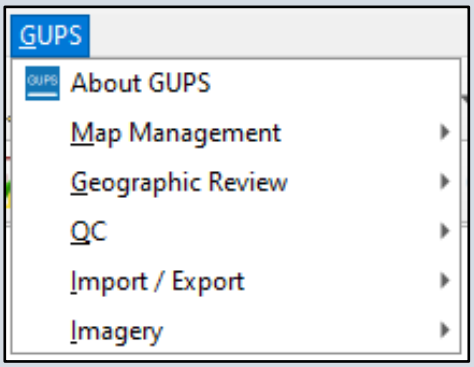
Table 49 defines each of the tabs on the Menu bar, provides an image of the drop-down options for each, and describes each tab's function.

Table 49: Menu Bar Tabs and Their Function/Description

Menu	Menu Option(s)	Function/Description
Project		Provides access and exit points of the project file.
Edit		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		Provides options for navigating the map, identifying feature attributes, and creating spatial bookmarks.
Layer		Provides large set of tools to create new data sources, add them to a project, or save modifications to them.

Menu	Menu Option(s)	Function/Description
Settings		Provides tools and options to manage profiles, styles, projections, and interfaces of the project.
Vector		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		Provides common raster-based GIS tasks from different providers.
Processing		Provides access to other non-GUPS functionality such as model creation, viewing the results of models executed, and history.
Help		Provides common help functions for understanding QGIS.

Menu	Menu Option(s)	Function/Description
GUPS		Provides information about GUPS version (About GUPS) and shortcuts to other common GUPS related toolbars. The About GUPS sub-menu 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 37** provides the navigation tools to interact with the map and layers attribute tables.

Figure 37: Standard Toolbar

The Standard toolbar includes three sub-toolbars, identified by the grouping bars or markers on the toolbar. See **Figure 38** for a visual of the markers.

Figure 38: Sub-Toolbar Markers

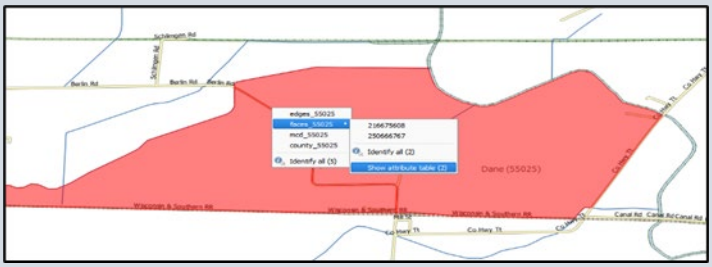
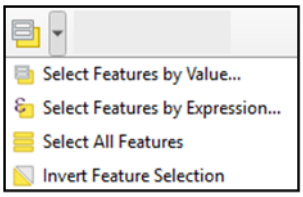
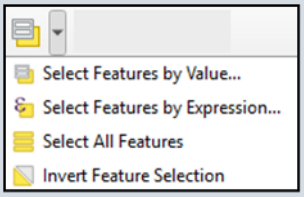
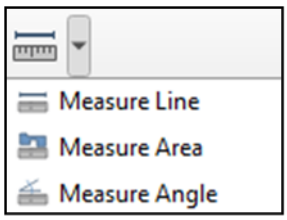
The first sub-toolbar, the Project toolbar, contains buttons for saving projects, changing map projects, and managing map projects. The second sub-toolbar, the Map Navigation toolbar, contains buttons to navigate the Map View. The last sub-toolbar, the Attributes toolbar, contains buttons to identify, 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 50 provides a visual of each button, the corresponding name, and each button's function/description.

Table 50: 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.

Button	Name	Function/Description
	Style Manager	Opens interface that manages symbols, color ramps, texts formats or label settings.
	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 sub-appendices **E2.1** and **E2.2**.
	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 re-center 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).
	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.
	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.
	Zoom Full	Displays the map in the Map View at a smaller scale and zooms to the full extent of the project.
	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.
	Zoom Last	Zooms the Map View to the previous map extent.
	Zoom Next	Zooms the Map View forward to the next map extent (only if a previous extent is available.)

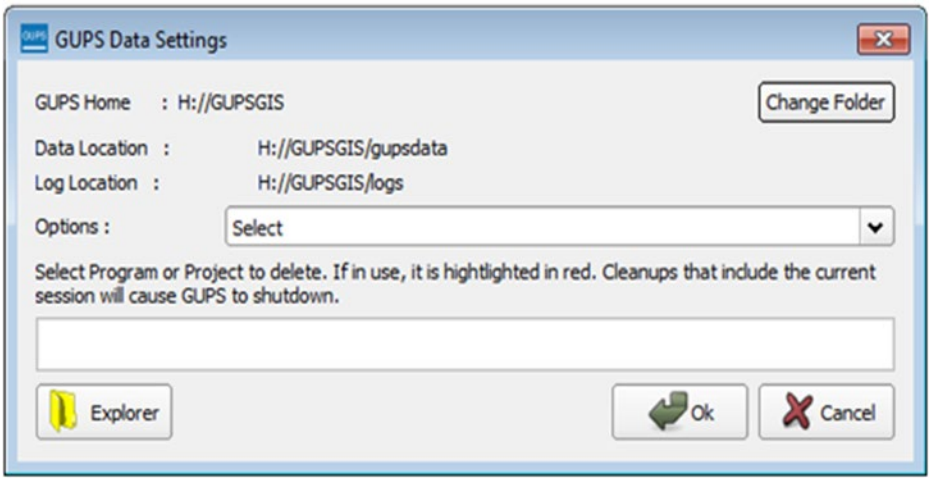
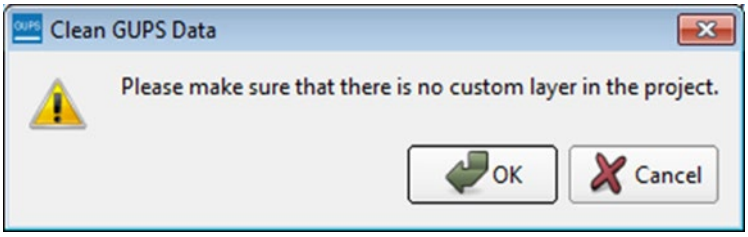
Button	Name	Function/Description
	New Bookmark	Creates a spatial bookmark for the given area to ease navigation. Allows for the naming and saving of the geographic location for future reference.
	Show Bookmarks	Views and manages spatial bookmarks. Use the mouse to double-click bookmark name in the Spatial Bookmark window to zoom to the bookmark.
	Refresh	Refreshes Map View at the current extent.
	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 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	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.

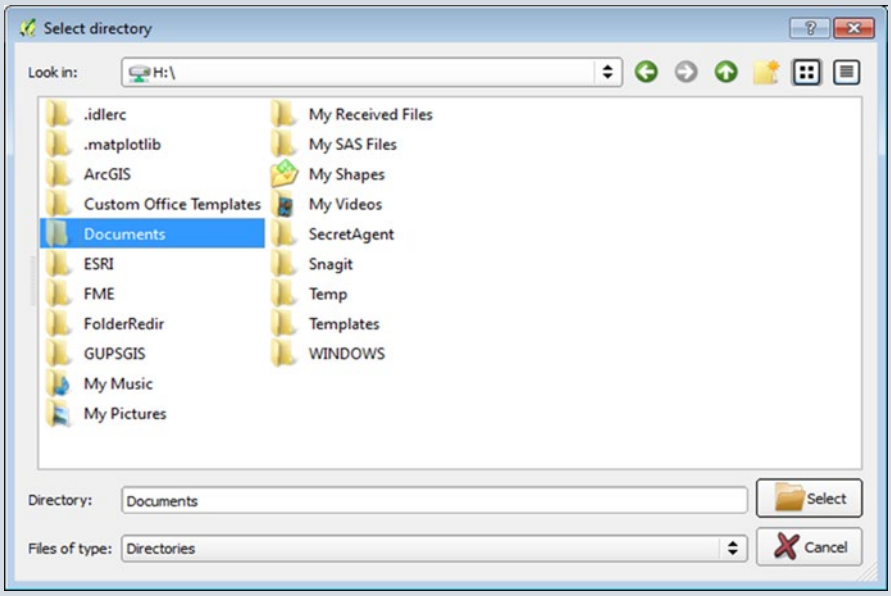
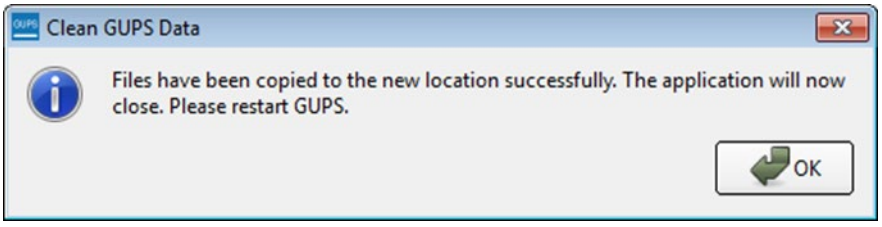
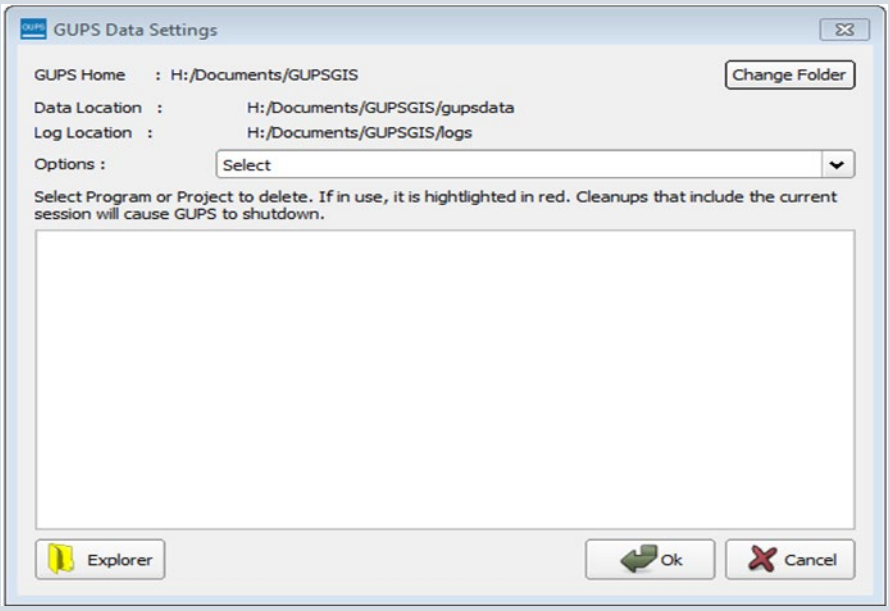
E2.1 Change the Working Directory

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 51**.

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 51: Steps to Change the Working Directory

Step	Action and *Result*
Step 1	After choosing the **GUPS Data Settings** button, *the **GUPS Data Settings** window appears*. Select the **Change Folder** button along the upper right side of the window.  *A notification appears asking the user to check that there are no custom layers in the project*. Custom layers are any data in the project that is stored outside the GUPSGIS data folder, for example, a reference shapefile. Only layers stored in the GUPSGIS folder are copied through this action. Select **OK**. 

Step	Action and *Result*
Step 2	*The next screen to appear is the **Select Directory** window*. From this screen choose the location for the new working directory. In this example, the Documents folder is chosen as the new location for the GUPSGIS data folder. Choose the **Select** button to continue. 
Step 3	Once all files have been copied, *GUPS displays a final notification that the move was successful and that GUPS must be restarted*. 
Step 4	To confirm that the working directory has been changed, open the **GUPS Data Settings** tool and check the folder location that appears for the **GUPS Home**, **Data Location**, and **Log Location** fields. 

E2.2 Clean GUPS Data

The GUPS Data Settings tool (**Figure 39**) offers three clean data options: Clean by Project, Clean by Program, and Clean All GUPS Data.

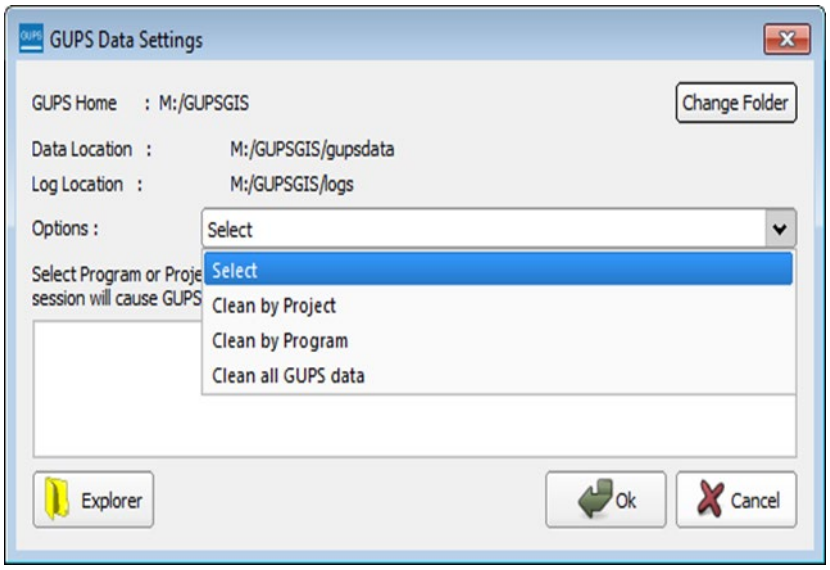


Figure 39: GUPS Data Settings Window

The Clean by Project (**Figure 40**) 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.

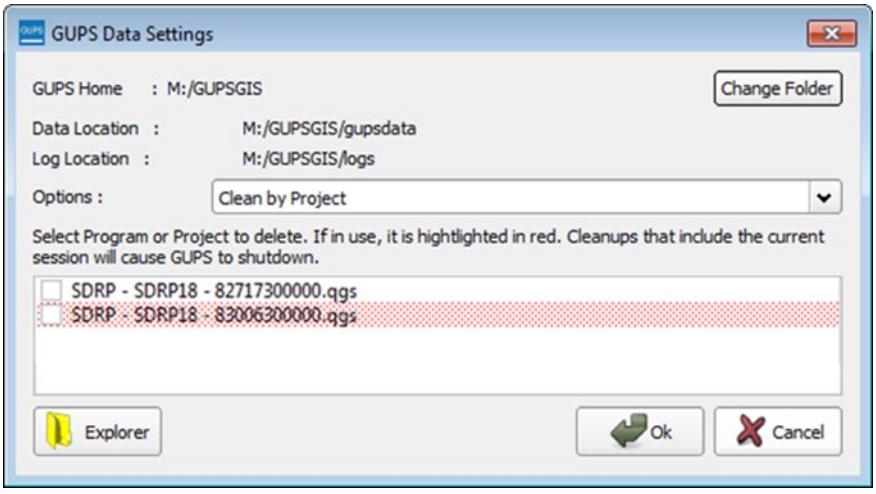


Figure 40: GUPS Data Settings–Clean by Project

In order to delete all projects associated with a certain program, use the Clean by Program option (**Figure 41**). To ensure that all data and files associated with a program are removed, restart QGIS/GUPS by closing the program and reopening it again.

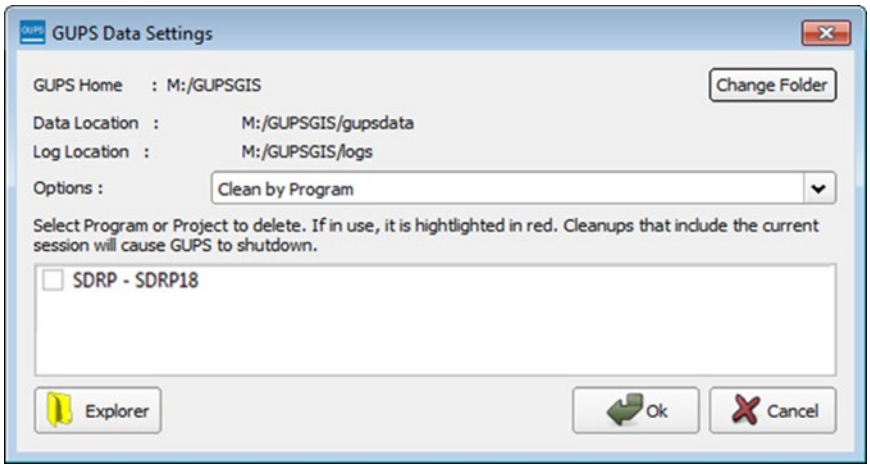


Figure 41: GUPS Data Settings–Clean by Program

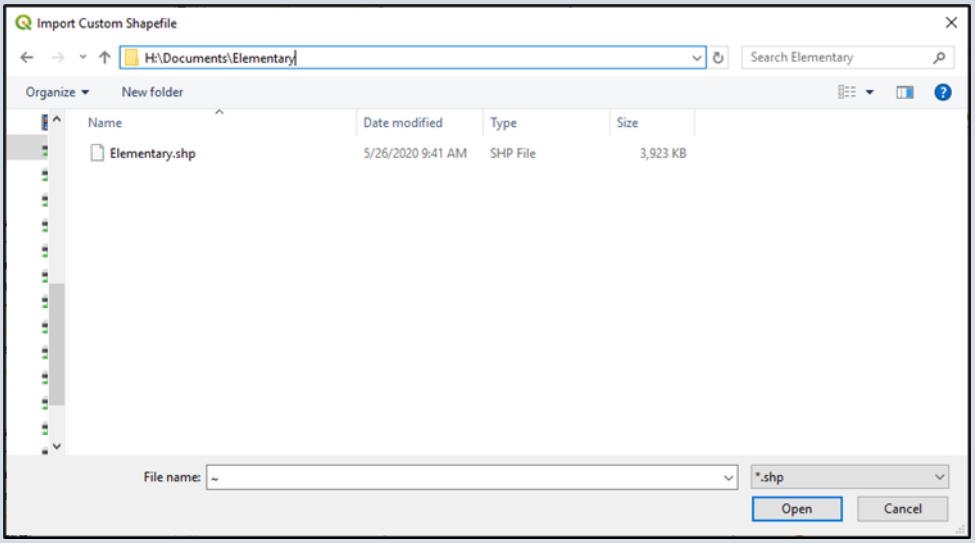
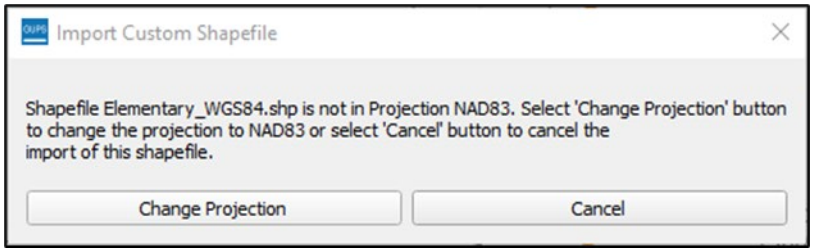
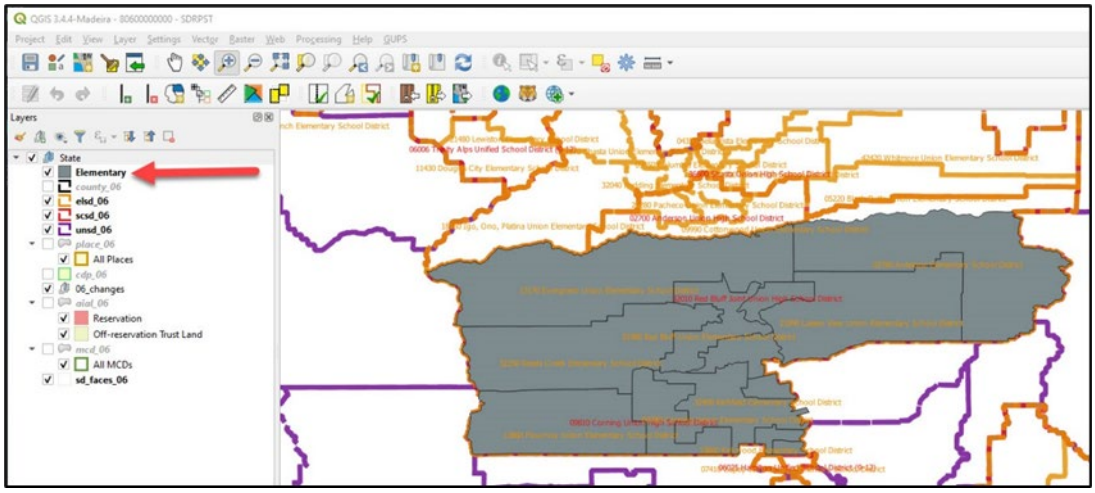
The final option is to Clean All GUPS Data. As the name implies, this deletes all GUPS data located in the GUPSGIS data folder in the home directory. This permanently deletes all files and folders, so once the tool has finished, files and folders cannot be recovered. GUPS should automatically restart 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.

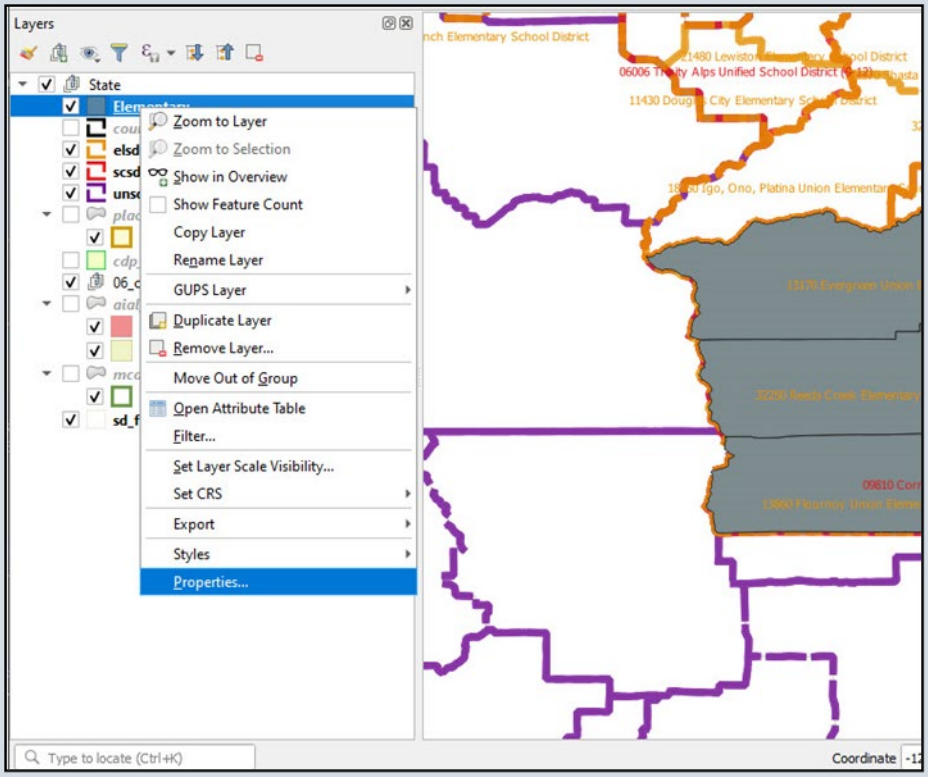
E2.3 Import Custom Shapefiles

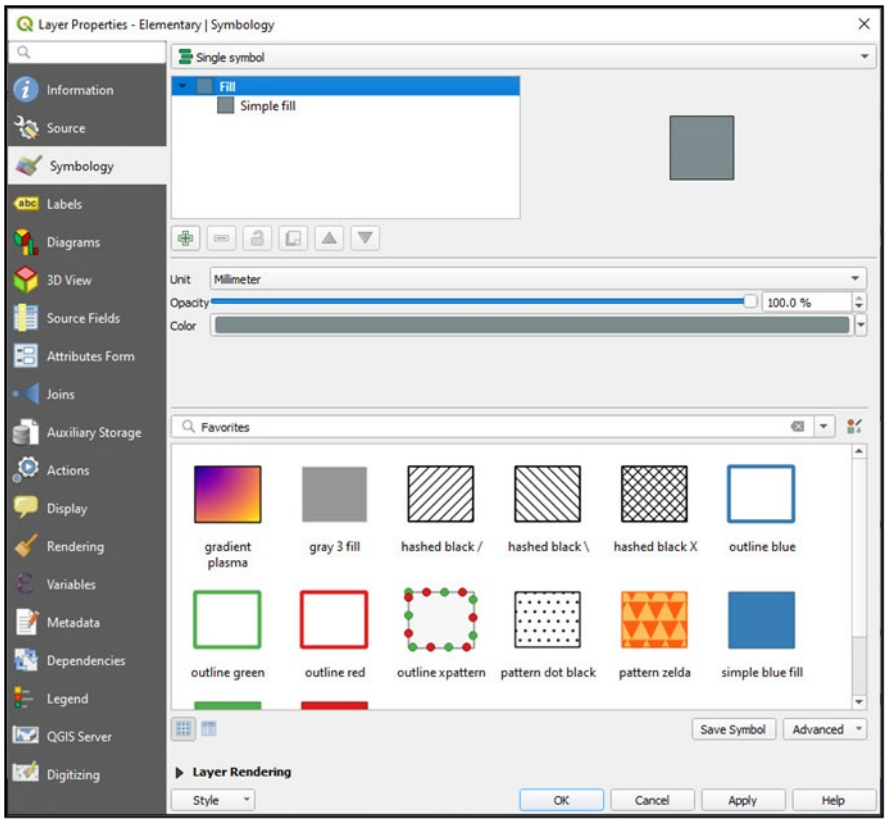
GUPS is a full GIS software. It provides all the standard GIS software capabilities including importing user data. To access the full list of possible user files to import, select Layer from the Menu bar, then select the sub-menu Add Layer. GUPS also provides a custom tool to import shapefiles and convert the spatial reference if necessary. Follow the steps in **Table 52** to add a shapefile using the Import Custom Shapefile button on the Standard toolbar.

Table 52: Steps to Import Custom Shapefiles

Step	Action and *Result*
Step 1	From the **Standard toolbar**, select the **Import Custom Shapefile** button. 

Step	Action and *Result*
Step 2	*A file browser window opens*. Browse to the location of the shapefile to import. Select the shapefile and then select **Open**. 
Step 3	If the selected shapefile has a projection that differs from the default projection set for the project (NAD83), the tool will display a notification indicating that a difference in projection has been found. Select **Change Projection** to convert the imported shapefile to match the NAD83 projection set for the project and add the layer to the project. Select **Cancel** to cancel the import and close the tool.  

Step	Action and *Result*
Step 4	Participants modify the properties of the layer by selecting the layer in the **Table of Contents** and using the right mouse button to open **Properties** for the layer. 

Step	Action and *Result*
Step 5	*The **Layer Properties** window opens*. Modifications can be made to various default properties set for the added layer.  Participants may also “drag and drop” the layer into a different location within the Table of Contents to change the placement of the layer within the project.
	Imported shapefiles are added to the project folder located in the GUPSGIS home directory. The GUPSGIS home directory is typically located in the **My Documents** folder. These imported shapefiles will be included as part of the Zip file created using the **Share with Another Participant** export (see sub-section **5.5.1**; however, imported shapefiles will not be included when exporting a file for submission to the Census Bureau.

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 42** 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 42: Table of Contents Toolbar

Table 53 provides a visual of each button, the corresponding name, and each button's function/description.

Table 53: Table of Contents Toolbar Buttons and Their Function/Description

Button	Name	Function/Description
	Open Layer Styling Panel	Toggles layer styling panel on/off.
	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.
	Filter Legend by Map Content	Removes layers not currently in the Map View extent.
	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.)
	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 43 for an example of the checkmark and arrow symbology.

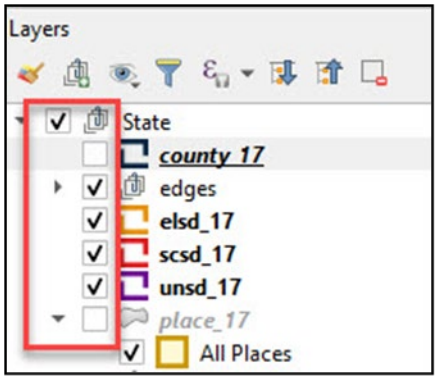


Figure 43: Table of Contents with Layer Checkmarks and Arrows

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

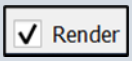
The Status bar (**Figure 44**) at the bottom of the GUPS main page displays information about the map from the current map scale to mouse cursor coordinates.

Figure 44: Status Bar

Table 54 describes each element of the Status bar.

Table 54: Status Bar Elements and Their Function/Description

Element	Function/Description
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.
	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.
	Temporarily prevent layers from drawing. Enable by selecting the checkbox immediately to the left of “Render”.
	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.