

2020 Census Participant Statistical Areas Program (PSAP) Verification Respondent Guide

Instructions for Participants with Tribal Statistical Geographies
November 2019



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INTRODUCTION

A. General Information

The U. S. Census Bureau completed processing of the 2020 Census Participant Statistical Areas Program (PSAP) delineation phase submissions and is now ready to begin the 2020 Census PSAP verification phase. The verification phase provides an opportunity to ensure the 2020 statistical areas are acceptable and reflect the edits made by participants and the Census Bureau during the delineation phase. It serves as a final review of the statistical areas used to tabulate the results of the 2020 Census, the American Community Survey, the Economic Census, and potentially other census surveys.

In some instances the Census Bureau revised participants' delineation phase submissions in order to meet established criteria and guidelines. For that reason, participants are encouraged to conduct a thorough review of the current 2020 statistical areas to determine if they work for the tabulation and distribution of statistical data and to provide corrections where needed. Participants can compare the current 2020 statistical area boundaries and attributes with the information submitted during the delineation phase or conduct a complete review without making a comparison to their delineation phase submission.

Note: Participant revisions to the 2020 statistical areas during the verification phase, that were not provided during the delineation phase, will be considered based on the scope of the revision, their merit for analytical purposes, and their adherence to the established criteria and guidelines.

The Census Bureau requests tribal participants use TIGERweb or Online Portable Document Format (PDF) maps to review the 2020 statistical areas applicable to their tribal area(s) and to use either the Geographic Update Partnership Software (GUPS) or paper maps to provide corrections where needed. The statistical areas eligible for review are tribal census tracts, tribal block groups, census designated places (CDPs), Alaska Native Regional Corporations (ANRCs), Alaska Native village statistical areas (ANVSAs), Oklahoma tribal statistical areas (OTSAs), OTSA tribal subdivisions, State American Indian Reservations (SAIRs), State Designated Tribal Statistical Areas (SDTSAs), and Tribal Designated Statistical Areas (TDSAs). Please note, ANRCs and SAIRs are not statistical areas, but were included for review as part of the 2020 Census PSAP for administrative reasons, so they are included in verification to confirm the boundaries and attributes remain intact following the delineation phase.

IMPORTANT: The verification phase provides the only opportunity for participants to review CDPs modified or created during the delineation phase. Locate the file that lists the new CDPs created since the delineation phase on the PSAP website. Please review the CDPs within the tribal areas listed on the verification announcement to ensure each CDP captures the extent of the community it seeks to define (i.e., review the boundary) and is identified by the name locally used for that community (i.e., review the CDP name).

For navigating the various products and software for PSAP verification, it is helpful to understand the unique coding used by the Census Bureau for tribal areas. Tribal identification codes contain a unique 12-character alphanumeric identification code assigned by the Census Bureau that identifies the tribe and its associated geographic area. An example of a 12-character tribal identification code, TR0013TA0185, where TR0013 is the six character tribal code that represents the Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation and TA0185 is the six character tribal geographic area code that represents Benton Paiute Reservation, the geographic area associated with the Utu Utu Gwaitu Paiute Tribe. These are the codes listed on the top of verification announcement. In addition to this 12-character tribal identification code, another unique 11-digit code is used for the Online PDF maps and is listed on the bottom of the verification announcement. Details on the unique 11-digit coding and the file naming conventions used for the Online PDF maps are included within [Chapter 3](#).

For participants using GUPS to make corrections, only the last four numbers in the tribal identification code are displayed along with the entity name. In this example, GUPS would show “0185 Benton Paiute Reservation”. The Secure Web Incoming Module (SWIM), used to transmit the verification phase corrections, utilizes only the tribal name. For this example, SWIM would show only the name, “Benton Paiute Reservation and Off-Reservation Trust Land” with no reference to numeric coding.

B. 2020 Census PSAP Schedule

Below is the 2020 Census PSAP schedule that includes past, ongoing, and upcoming activities.

Table 1: 2020 Census PSAP Schedule

Dates	Event
March-May 2018	Census Bureau contacted 2010 Census PSAP participants to inquire about 2020 Census PSAP participation. ✓
July 2018	Census Bureau distributed 2020 Census PSAP invitation materials to 2020 Census PSAP participants. ✓
January 2019	2020 Census PSAP delineation phase began. Participants had 120 calendar days to submit updates. ✓
January-February 2019	Census Bureau conducted 2020 Census PSAP delineation phase webinar trainings. ✓
July 2019	Census Bureau conducted closeout of the 2020 Census PSAP delineation phase. ✓
January 2020	2020 Census PSAP verification phase begins. Participants have 90 calendar days upon receipt of verification announcement to review the 2020 statistical areas and submit corrections. ✓
April 2020	2020 Census PSAP verification phase ends.

Dates	Event
September 2020	Census Bureau plans to conduct closeout of the 2020 Census PSAP verification phase.
November 2020 – February 2021	On a flow basis, beginning in November 2020 through February 2021, the 2020 statistical areas become available for public use.

C. Training and Support

The Census Bureau provides assistance by answering questions; clarifying criteria, guidelines and procedures; and by providing information concerning specific situations that participants encounter when reviewing and verifying their 2020 statistical areas. A pre-recorded verification phase training video/demonstration is available on the PSAP website for participants to utilize as an on-demand training tool. The verification phase training video/demonstration provides an overview of the verification phase and of the updated PSAP website. It provides information on the following topics:

- Reviewing 2020 statistical areas.
- Making corrections to 2020 statistical areas.
- Submitting corrections to 2020 statistical areas.

The verification phase training video/demonstration does not include the detailed steps for using GUPS included in the delineation phase training materials; therefore, all of the delineation phase training materials (e.g., presentations, scripts, and recordings of the Tribal GUPS and Tribal Paper webinars) remain on the PSAP website for participants' use. No training webinars are planned for the verification phase.

IMPORTANT: It is vital that participants use all of the existing training materials as they begin their verification phase review and potential corrections of 2020 statistical areas.

For questions concerning technical matters with the GUPS application or specific programmatic questions, support from the Census Bureau is available by phone at 1-844-788-4921 or by email at <geo.psap@census.gov>.

D. Respondent Guide Organization

This respondent guide consists of three parts: *Reviewing 2020 Statistical Areas*, *Correcting 2020 Statistical Areas*, and *Submitting Corrections to the 2020 Statistical Areas*. It includes information to enhance the instructions and details provided in both the *2020 Census PSAP Tribal Respondent Guide (G-690)* and the *2020 Census PSAP Tribal Paper Respondent Guide (G-700)* created for use in the delineation phase, as well as new information applicable to the verification phase.

For an overview of the 2020 statistical areas as well as the GUPS basics or paper map update instructions, participants must refer to the appropriate delineation phase respondent guide,

(e.g., *2020 Census PSAP Tribal Respondent Guide (G-690)* or *2020 Census PSAP Tribal Paper Respondent Guide (G-700)*). Participants will also need to navigate the PSAP website, <<https://www.census.gov/programs-surveys/decennial-census/about/psap.html>>, to review other program materials such as the Quick Reference Guides for their specific statistical geographies, the Quick Program Guide, and the training materials.

As with the delineation phase respondent guide, two styles are implemented within this guide. The first provides specific instructions through “Step – Action and *Result*” tables. In these tables, the Action is usually a command or action to perform and the *Result(s)* of the action are written in *italics*. For an example, the action “Double-click the icon” has the *result* of “*and the program automatically launches.*” The second is the use of **bold, blue colored font** to denote the presence of a cross-referenced hyperlink to other sections, figures, tables, or appendices. To skip directly to the linked item, use the Ctrl key and click the left mouse button while hovering over the **bold blue words**. The “Chapter 3” mentioned above in Section A is the first cross-referenced hyperlink in this document.

IMPORTANT: At the time of creation of this respondent guide, the PSAP website, TIGERweb, GUPS, and the Online PDF maps of tribal statistical areas are in the final stages of development. As a result, the screenshots within this document may vary slightly from the final versions released to support the verification phase. While the examples may differ slightly, the overall instruction, action, and result remain consistent with what is anticipated with the final versions.

PART 1 REVIEWING 2020 STATISTICAL AREAS

Reviewing the 2020 statistical areas to determine if any corrections are necessary is the first step of the verification phase. With 90 calendar days to conduct the review, it is important to begin your review as soon as possible after receipt of the verification announcement.

IMPORTANT: A participant's focus should remain on whether the existing 2020 statistical areas work for the tabulation and distribution of statistical data.

The chapters within this part of the respondent guide discuss the following:

- Identifying a plan for conducting verification.
- Reviewing the 2020 statistical areas using TIGERweb or the Online PDF maps to verify if the statistical area boundaries and attributes (e.g., tribal census tract codes, tribal block group codes, CDP names, and tribal area names) align with expectations.
- Detailing the email notification requested from participants to inform the Census Bureau of their intentions to make corrections or to approve the existing 2020 statistical areas.

CHAPTER 1 IDENTIFYING A PLAN FOR CONDUCTING VERIFICATION

The Census Bureau strongly recommends reviewing the current 2020 statistical area boundaries and attributes to determine if they serve your tribal area(s) for the tabulation and distribution of statistical data. Because time is a factor during verification, the Census Bureau recommends prioritizing the verification review to ensure a review of the updates you submitted and, if applicable, to the review the new CDPs created since delineation and any updates submitted for existing CDPs on your tribal area(s). A list of new CDPs is available on the PSAP website beneath the **2020 Census PSAP Verification Materials** section within the **Additional Review Materials** sub-section.

Participants that made specific boundary and attribute updates during the delineation phase may wish to conduct a review of those specific updates to determine if the Census Bureau applied those changes. They can do so by using TIGERweb Web Mapping Service (WMS), and TIGERweb Representational State Transfer (REST) Services described in the next chapter to pull the Current vintage into their own web mapping service or GIS for comparison.

The most common reason delineation phase updates were not applied relates to the improper application of guidelines or adherence to criteria for each specific statistical geography. If updates were made during delineation that resulted in statistical areas not complying with minimum criteria or not following the guidelines for the specific statistical area, and an adequate justification for the update was not supplied, the Census Bureau did not make those updates. Resupplying that change as a correction during the verification phase will likely result in the same outcome (i.e., the Census Bureau not accepting the correction to the statistical area).

If you determine a **significant amount of updates** were not applied and have questions about why the updates were not applied, please contact the Census Bureau by email at

<geo.psap@census.gov> or by phone at 1-844-788-4921 so they can research the tribal area(s) and provide you with background information from the delineation phase processing. Do not proceed with resubmitting delineation phase updates that were not applied to the 2020 statistical areas, or with making significant corrections to the statistical areas until a conversation with the Census Bureau occurs. They will provide instruction and guidance on how, or if, to proceed with making corrections.

CHAPTER 2 USING TIGERWEB TO REVIEW 2020 STATISTICAL AREAS

TIGERweb was first introduced as a supplemental source for use during the delineation phase. The *2020 Census PSAP Tribal Respondent Guide (G-690)* includes *Appendix E* and the *2020 Census PSAP Tribal Paper Respondent Guide (G-700)* includes *Appendix F* that provide tables with guidance for using TIGERweb to compare the 2010 statistical areas with the proposed 2020 statistical areas. For the verification phase, use the information in this chapter of the respondent guide, in association with the guidance from *Appendix E* or *Appendix F* in the respective delineation phase respondent guide and the *TIGERweb User Guide* available within TIGERweb, to conduct a review of your 2020 statistical areas. For participants that do not wish to use TIGERweb, skip to **Chapter 3** for instructions on using the Online PDF maps of your tribal area(s) to conduct the review.

TIGERweb is a web-based system that allows users to visualize the Topologically Integrated Geographic Encoding and References system and database (TIGER) data in three ways: TIGERweb Applications, TIGERweb WMS, and TIGERweb REST Services.

The TIGERweb Applications choice allows users to select features and view their attributes, to search for features by name or geocode, and to identify features by selecting them from a map. It provides a simple way to view TIGER data without Geographic Information System (GIS) software and without downloading data. It uses the TIGERweb REST Services to provide an online, web-based method for reviewing the TIGER data.

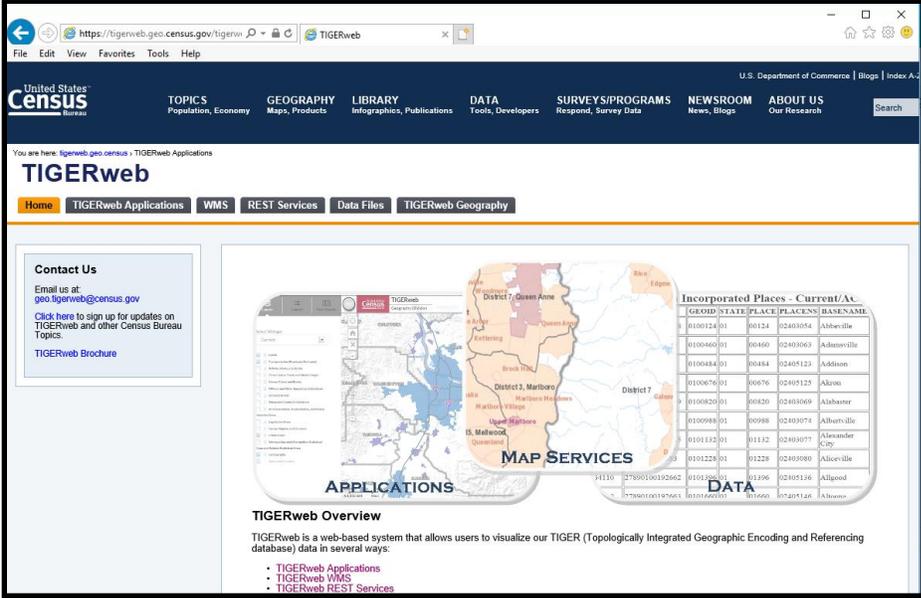
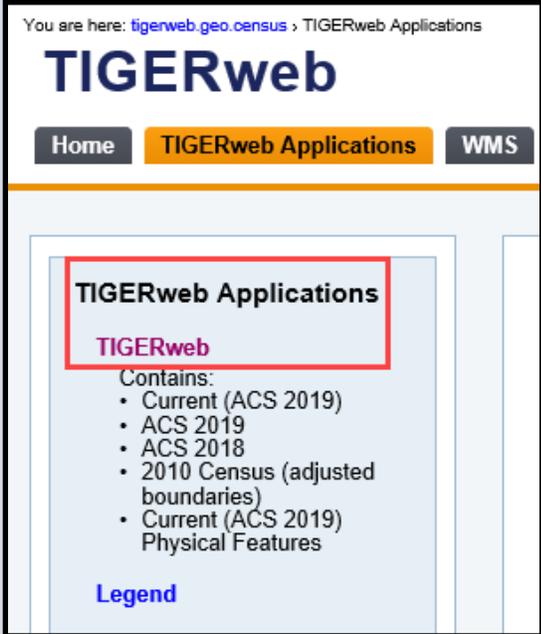
TIGERweb WMS and TIGERweb REST Services allow users to integrate census data into their own GIS or custom web-based application. Find more information about TIGERweb within the online documentation on its website:

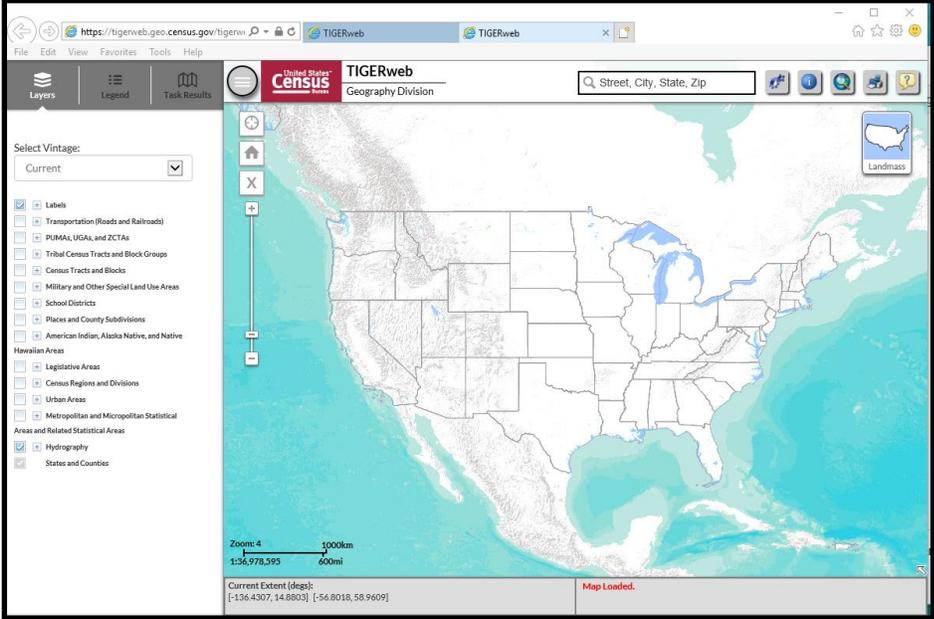
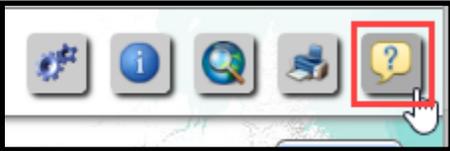
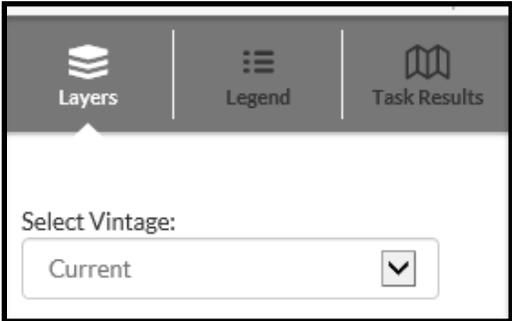
<https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html>.

2.1 TIGERweb Applications

See **Table 2** for an example of using TIGERweb online map viewer to review 2020 statistical areas located on tribal areas. Refer to **Appendix A** for instructions on using the TIGERweb online map viewer to compare the 2020 statistical areas to the 2010 statistical areas.

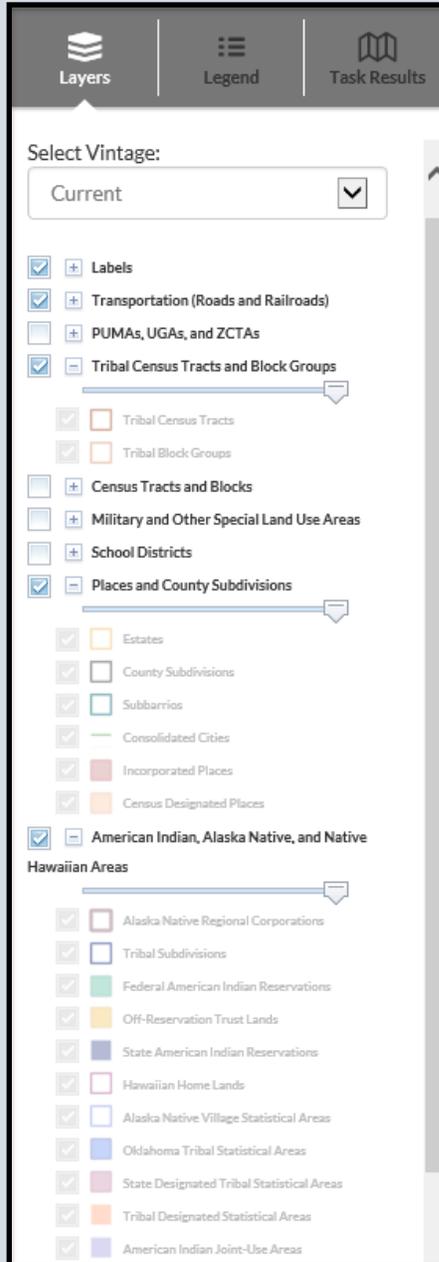
Table 2: Using the TIGERweb Online Map Viewer

Step	Action and Result
<p>Step 1</p>	<p>Open a new internet browser window and navigate to the TIGERweb website <https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html>. The TIGERweb main page appears.</p>  <p>Note: A link to TIGERweb is also available on the PSAP website.</p>
<p>Step 2</p>	<p>Click the TIGERweb Applications tab to the right of the Home tab, then TIGERweb along the left side of the screen. Do not select TIGERweb Decennial or TIGERweb Economic Census.</p> 

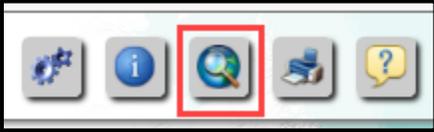
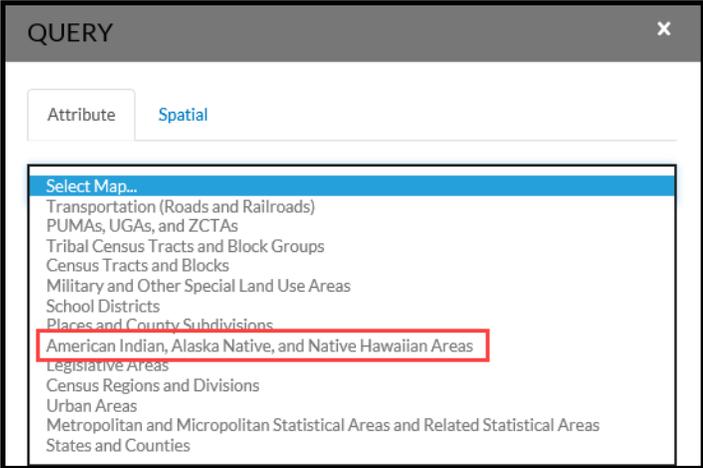
Step	Action and Result
Step 3	<p>The <i>TIGERweb</i> online map viewer application launches.</p> 
	<p>Access the <i>TIGERweb User Guide</i> from the Help/About button in the upper right corner of the screen after launching TIGERweb or along the left side of the screen within the TIGERweb Applications tab.</p> 
Step 4	<p>With the Layers tab active, ensure the Select Vintage section is set, and remains set, to Current. Note: Even though the 2020 statistical areas are included in the Current vintage and made available to the public through TIGERweb, they are not yet used in most data products since they will not be finalized until after the verification phase concludes.</p>  <p>IMPORTANT: Refer to <i>Table 58</i> and <i>Table 59</i> in <i>Appendix E</i> of the <i>2020 Census PSAP Tribal Respondent Guide (G-690)</i> or to <i>Table 11</i> in <i>Appendix F</i> of the <i>2020 Census PSAP Tribal Paper Respondent Guide (G-700)</i> for background on the map display, navigation tools, Layers panel, legend, and tools. The remaining steps in this table assume familiarity with TIGERweb and its functionality that is defined in the aforementioned respondent guide.</p>

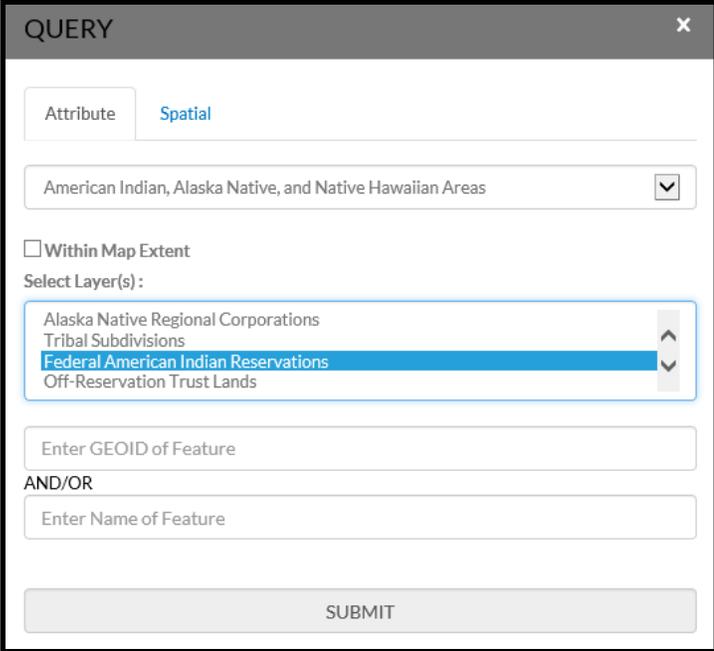
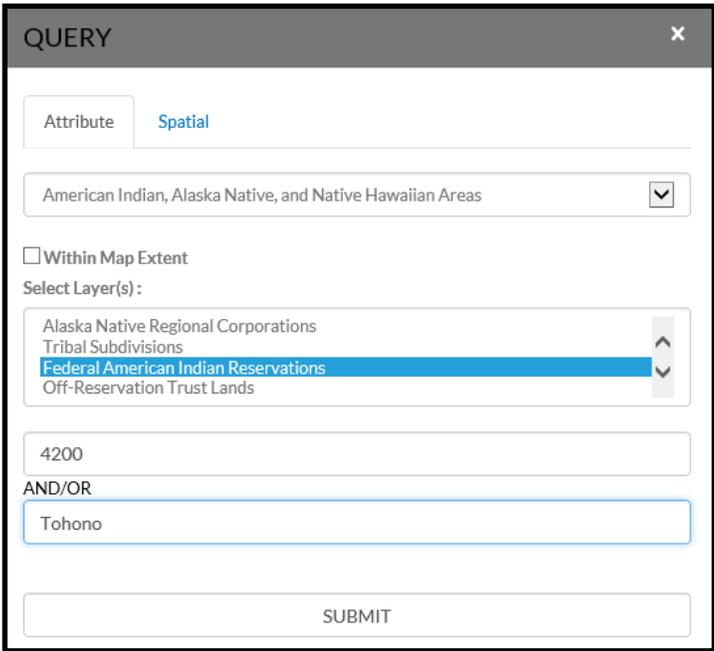
Check the **Tribal Census Tracts and Block Groups** layer, the **Places and County Subdivisions** layer, and the **American Indian, Alaska Native and Native Hawaiian Areas** layer (e.g., AI/AN/NH) in the **Layers** panel. These three layers contain the 2020 statistical areas for tribal census tracts, tribal block groups, CDPs, ANVSAs, OTSAs, OTSA tribal subdivisions, TDSAs, SDTSAs, ANRCs, and SAIRs. Check the **Transportation (Roads and Railroads)** layer to assist with the review. Ensure the **Labels** layer and **Hydrography** layer (not visible in the image below) remain checked.

Step 5



Note: For Census Bureau purposes, the term “county” includes municipios in the Commonwealth of Puerto Rico; parishes in Louisiana; boroughs, city and boroughs, municipalities, and census areas in Alaska; independent cities in Maryland, Missouri, Nevada, and Virginia; districts and islands in American Samoa, and districts in the U.S. Virgin Islands; municipalities in the Commonwealth of the Northern Mariana Islands; and the areas constituting the District of Columbia and Guam. Henceforth in this document, the terms “county” or “counties” will refer to all of these entities.

Step	Action and Result
	<p>Because geographic and locational context and relationships are important, TIGERweb determines which geographic entities and features may be visible based on the map scale. Participants can turn on/off layers in the Layers panel which limits the amount of data on the map that appear at a given scale. Additionally, when multiple layers display, one layer may obscure another. Change the transparency of the layer by moving the sliding bar beneath each layer name to the left or right. The image in Step 5 shows the slide bar beneath the layers for the Tribal Census Tracts and Block Groups, the Places and County Subdivisions, and the American Indian, Alaska Native and Native Hawaiian Areas.</p>
Step 6	<p>Manually zoom in or use the Query tool to zoom to the extent of the tribal area to review.</p> 
Step 7	<p>Within the Query tool, ensure the Attribute tab is active. Choose American Indian, Alaska Native, and Native Hawaiian Areas from the Select Map... drop-down menu.</p> 

Step	Action and Result
Step 8	<p>Select the appropriate layer (e.g., Federal American Indian Reservation, State American Indian Reservations, Alaska Native Regional Corporations, Alaska Native Village Statistical Areas, Oklahoma Tribal Statistical Areas, Tribal Subdivisions, State Designated Tribal Statistical Areas, or Tribal Designated Statistical Areas) for the tribal area containing the statistical areas to review within the Select Layer(s) section.</p> 
Step 9	<p>Type all, or part of, the tribal area name in the Enter Name of Feature section AND/OR all, or part of, the four digit tribal geographic area code, as described in Section A, in the Enter GEOID of Feature section. Click SUBMIT.</p> <p>Note: The complete 12-character tribal identification code, from which to find the four digit tribal geographic area code, is located at the top of the verification announcement.</p> 

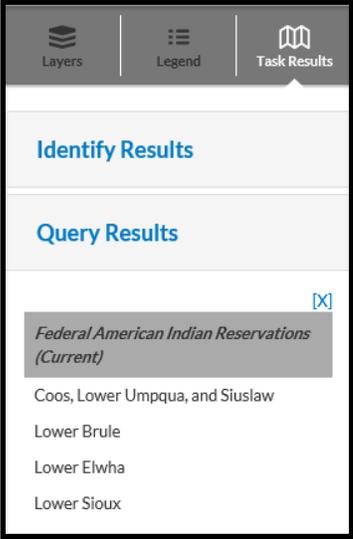
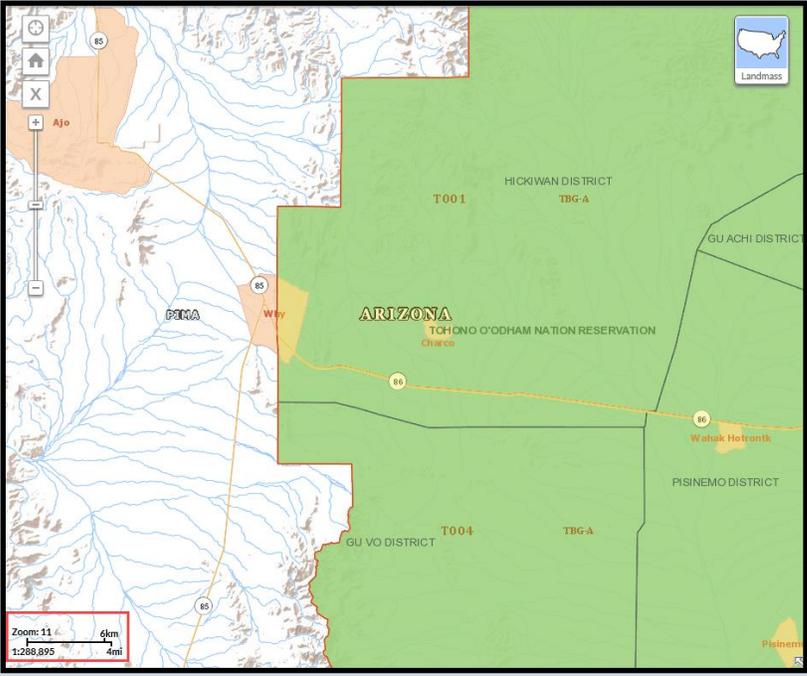
Step	Action and Result
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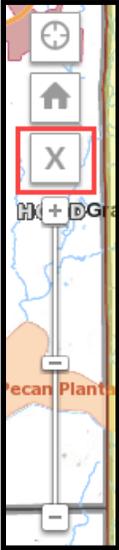
The map display zooms to the extent of the tribal area and the name of the tribal area appears in the **Query Results** section of the **Task Results** tab along the left side of the screen.

Step 10

Clicking the tribal area in the **Query Results** section launches a **TIGERweb – Info** window with basic census and geographic information about the tribal area and selects the tribal area in the map display.

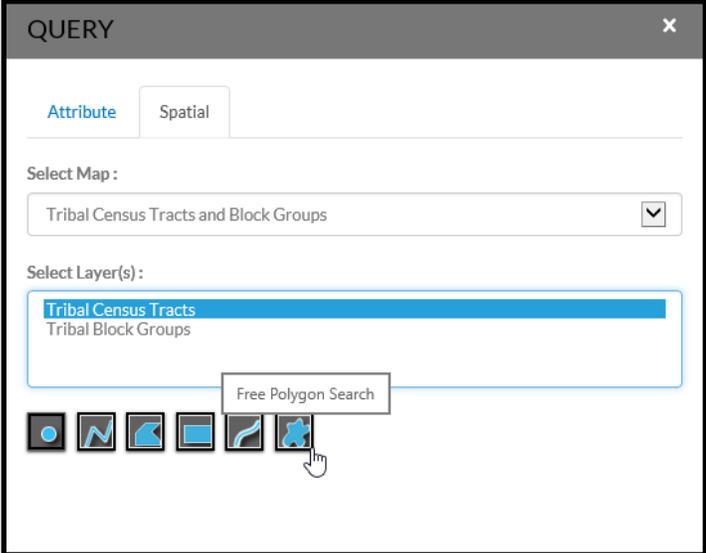
Geographic Identifier	4200R
Name	Tohono O'odham Nation Reservation
AIANNH Census Code	4200
AIANNH NS Code	00023763
AIANNH State-FIPS Code 1	04-73950
AIANNH State-FIPS Code 2	N/A
AIANNH State-FIPS Code 3	N/A
AIANNH Component Flag	R
Urban/Rural Flag	N/A
Base Name	Tohono O'odham Nation
Legal/Statistical Area Description Code 86	
MTFCC	G2101
AIANNH Class Code	D8
AIANNH Federal-State Flag	F
Functional Status	A
Decennial Population Count	N/A
Decennial Housing Count	N/A
Centroid Latitude	+32.1501951
Centroid Longitude	-112.0448537
Internal Point Latitude	+32.1500358
Internal Point Longitude	-112.0704020
Land Area (Square Meters)	11535016214
Water Area (Square Meters)	883039
MAF/TIGER OID	224901230482917

Step	Action and Result
	<p>If a tribal area name (or partial name) repeats among tribal areas, the query returns all tribal areas with that name in the Query Results section of the Task Results tab. <i>Click the correct tribal area to review and TIGERweb zooms to the spatial extent of that tribal area.</i></p> 
<p>Step 11</p>	<p>Continue to zoom in using either the Zoom In scrollbar or the rollerball on the mouse to visualize the statistical area boundaries and features used to form the boundaries. At the tribal area extent, statistical area boundary review is likely impossible, so continue to zoom in and pan around the tribal area to manually view the statistical area boundaries to verify they align with expectations.</p>
	<p>The Scale Bar at the bottom left of the map display displays the scale, but it also indicates the zoom level in the form of numbers. <i>At zoom level 6, county boundaries become visible. At zoom level 9, boundaries of tribal census tracts and CDPs/incorporated places appear. At zoom level 10 tribal block group boundaries and tribal census tract labels appear, and at zoom level 11 labels for CDPs/incorporated places and tribal block groups appear.</i></p> 

Step	Action and Result
Step 12	<p>To start a new query or refresh the screen, click Clear Map (button with an “X”) on the navigation toolbar above the Zoom-In scrollbar. <i>The TIGERweb – Info window disappears and the located tribal entity is no longer highlighted.</i></p>  <p>The image shows a vertical navigation toolbar on a map. From top to bottom, the buttons are: a plus sign in a circle, a house icon, a square with an 'X' (highlighted with a red box), a location pin icon, and a zoom-in slider. Below the toolbar, a map shows a brown area labeled 'Pecan Plant'.</p>

Step	Action and Result
Step 13	<p>IMPORTANT: The Query tool can also be used to query within the map extent (the extent of the tribal area zoomed from the previous steps) and zoom to individual tribal census tracts, tribal block groups, and CDPs.</p> <p>With TIGERweb zoomed to the extent of the queried tribal area, change the Select Map... selection from American Indian, Alaska Native, and Native Hawaiian Areas to Tribal Census Tracts and Block Groups, check the Within Map Extent checkbox, then select the appropriate layer within the Select Layer(s) section, and key the appropriate GEOID or Name. The Name for tribal census tracts begins with the letter “T” and is followed with a three digit number (T001, T002, etc.). The tribal block groups are labeled letters A-K, except letter I.</p> <p>To zoom into tribal census tract T001 in Tohono O’odham Nation, with the map zoomed to the spatial extent of the Tohono O’odham Nation, change the Select Map... section from American Indian, Alaska Native, and Native Hawaiian Areas to Tribal Census Tracts and Block Groups, check the Within Map Extent checkbox, select Tribal Census Tracts in the Select Layer(s) section, key T001 into the Name field and click SUBMIT. <i>TIGERweb zooms to the spatial extent of tribal census tract T001 within Tohono O’odham Nation.</i></p> <div data-bbox="519 756 1198 1375" data-label="Form"> </div> <p>To zoom to tribal block group A of tribal census tract T001, with the map zoomed to the spatial extent of T001, change the layer to Tribal Block Groups, key an A into the Name field, and click SUBMIT. <i>TIGERweb zooms to the spatial extent of tribal block group A of tribal census tract T001 within Tohono O’odham Nation.</i></p>

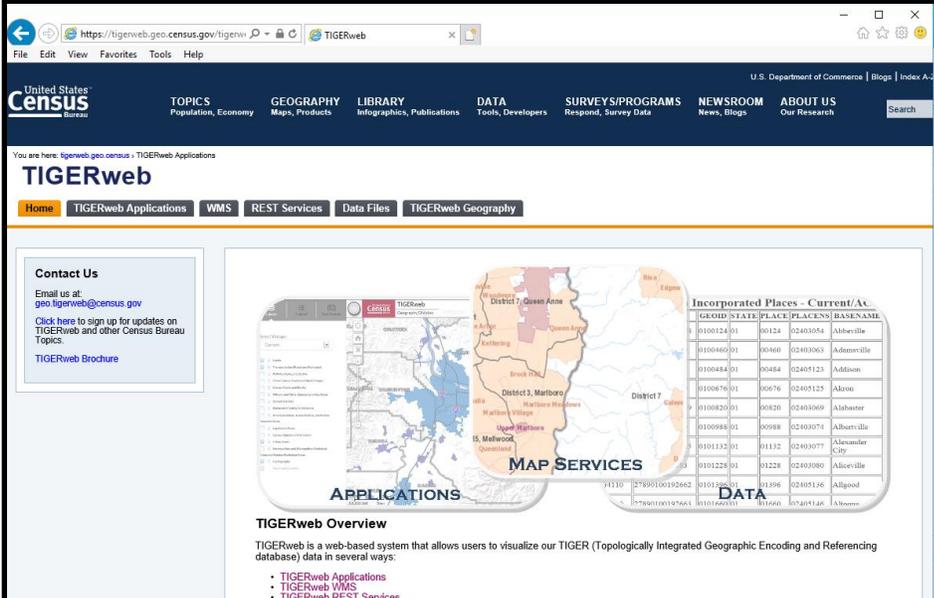
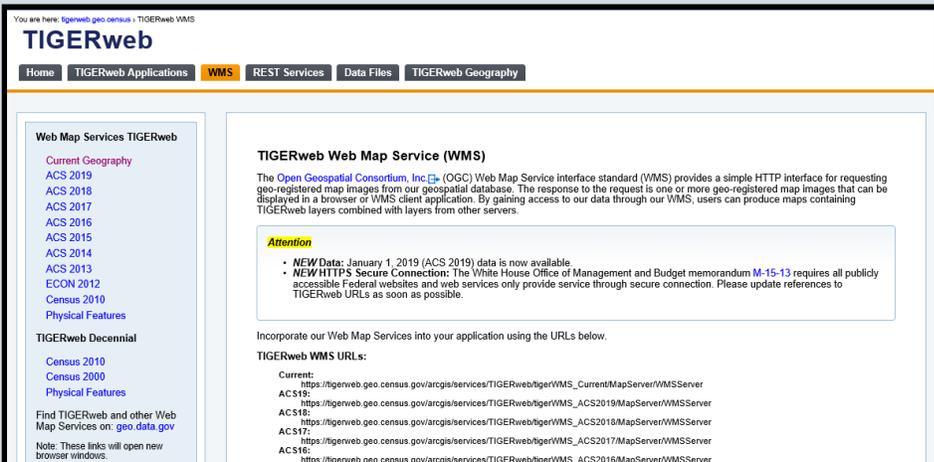
Step	Action and Result
Step 14	<p>To review the CDPs in Tohono O’odham Nation, change the Select Map... section to Places and County Subdivisions, select Census Designated Places within the Select Layer(s) choices, key all or part of the Name rather than GEOID and click SUBMIT. <i>TIGERweb zooms to the spatial extent of the CDP that falls within Tohono O’odham Nation.</i></p> <div data-bbox="495 367 1226 1039" data-label="Form"> </div> <p>Note: This method of querying individual statistical areas may not be feasible for tribal areas with a large number of statistical areas, but it may be helpful if a participant knows exactly what statistical areas they modified during the delineation phase.</p>
	<p>The use of satellite imagery or terrain in TIGERweb may also benefit a participant conducting a review of the 2020 statistical areas. Refer to Appendix B for instructions on toggling between landmass, satellite imagery, and terrain within the TIGERweb online map viewer.</p>

Step	Action and Result
Step 15	<p>Instead of an attribute query, some may want to perform a spatial query. Change the tab within the Query tool from Attribute to Spatial. Select the map from which to query in the Select Map... section and the appropriate layer within the Select Layer(s) section. Choose the spatial method symbol from the six choices: Point, Polyline, Polygon, Rectangle, Free Line, or Free Polygon. Once selected interactively touch/draw on the map display to define the spatial area to query.</p> 
Step 16	<p>If you are responsible for one tribal area in PSAP, review the 2020 statistical areas and attributes in that tribal area to determine if corrections are necessary. Using guidance in Chapter 4 of this respondent guide, send an email to the Census Bureau indicating whether you approve of the 2020 statistical areas or whether corrections are forthcoming. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are identified, make note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p> <p>If you are responsible for more than one tribal area in PSAP, perform a quick review of the 2020 statistical areas and attributes in each to identify whether or not corrections are necessary. As soon as one correction is identified, move to reviewing the next tribal area until all tribal areas under your responsibility for PSAP are reviewed. Using guidance in Chapter 4 of this respondent guide, send one email that gives a status (approved as-is or corrections forthcoming) for all of the tribal areas in your verification universe. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are needed, continue to identify corrections in each tribal area, making note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p>

2.2 TIGERweb WMS and TIGERweb REST Services

Rather than using the TIGERweb online map viewer, see [Table 3](#) for steps on reviewing the 2020 tribal statistical areas by using the TIGERweb WMS. See [Table 4](#) for steps on reviewing the 2020 tribal statistical areas by using the TIGERweb REST Services.

Table 3: Using the TIGERweb WMS

Step	Action and Result																																																							
Step 1	<p>Open a new internet browser window and navigate to the TIGERweb website <https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html>. The <i>TIGERweb main page</i> appears.</p>  <p>The screenshot shows the TIGERweb main page with the following elements:</p> <ul style="list-style-type: none"> United States Census Bureau logo and navigation menu (TOPICS, GEOGRAPHY, LIBRARY, DATA, SURVEYS/PROGRAMS, NEWSROOM, ABOUT US). Breadcrumbs: You are here: tigerweb.geo.census.gov > TIGERweb Applications Navigation tabs: Home, TIGERweb Applications, WMS, REST Services, Data Files, TIGERweb Geography. Map Services Overview section with a map of the United States and a table of incorporated places. <table border="1" data-bbox="1071 672 1274 892"> <thead> <tr> <th>GEOID</th> <th>STATE</th> <th>PLACE</th> <th>PLACENS</th> <th>BASENAME</th> </tr> </thead> <tbody> <tr> <td>0100124</td> <td>01</td> <td>00124</td> <td>02403054</td> <td>Abbeville</td> </tr> <tr> <td>0100460</td> <td>01</td> <td>00460</td> <td>02403063</td> <td>Adonville</td> </tr> <tr> <td>0100484</td> <td>01</td> <td>00484</td> <td>02403123</td> <td>Addicks</td> </tr> <tr> <td>0100676</td> <td>01</td> <td>00676</td> <td>02403125</td> <td>Alcorn</td> </tr> <tr> <td>0100820</td> <td>01</td> <td>00820</td> <td>02403069</td> <td>Albaster</td> </tr> <tr> <td>0100988</td> <td>01</td> <td>00988</td> <td>02403074</td> <td>Alberville</td> </tr> <tr> <td>0101132</td> <td>01</td> <td>01132</td> <td>02403079</td> <td>Alexander City</td> </tr> <tr> <td>0101228</td> <td>01</td> <td>01228</td> <td>02403080</td> <td>Aliceville</td> </tr> <tr> <td>0101396</td> <td>01</td> <td>01396</td> <td>02403126</td> <td>Allgood</td> </tr> <tr> <td>0101660</td> <td>01</td> <td>01660</td> <td>02403124</td> <td>Albion</td> </tr> </tbody> </table> <p>TIGERweb Overview TIGERweb is a web-based system that allows users to visualize our TIGER (Topologically Integrated Geographic Encoding and Referencing database) data in several ways:</p> <ul style="list-style-type: none"> TIGERweb Applications TIGERweb WMS TIGERweb REST Services 	GEOID	STATE	PLACE	PLACENS	BASENAME	0100124	01	00124	02403054	Abbeville	0100460	01	00460	02403063	Adonville	0100484	01	00484	02403123	Addicks	0100676	01	00676	02403125	Alcorn	0100820	01	00820	02403069	Albaster	0100988	01	00988	02403074	Alberville	0101132	01	01132	02403079	Alexander City	0101228	01	01228	02403080	Aliceville	0101396	01	01396	02403126	Allgood	0101660	01	01660	02403124	Albion
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Step 2	<p>Click the WMS tab which is two tabs to the right of the Home button. The <i>TIGERweb Web Mapping Service (WMS) page</i> opens. Visit <https://www.opengeospatial.org/standards/wms> to download and review the WMS specification.</p>  <p>The screenshot shows the TIGERweb WMS page with the following elements:</p> <ul style="list-style-type: none"> Navigation tabs: Home, TIGERweb Applications, WMS, REST Services, Data Files, TIGERweb Geography. Section: Web Map Services TIGERweb List of map services: Current Geography, ACS 2019, ACS 2018, ACS 2017, ACS 2016, ACS 2015, ACS 2014, ACS 2013, ECON 2012, Census 2010, Physical Features. Section: TIGERweb Decennial Section: TIGERweb Web Map Service (WMS) Text: The Open Geospatial Consortium, Inc. (OGC) Web Map Service interface standard (WMS) provides a simple HTTP interface for requesting geo-registered map images from our geospatial database. Attention box: NEW Data: January 1, 2019 (ACS 2019) data is now available. NEW HTTPS Secure Connection: The White House Office of Management and Budget memorandum M-15-13 requires all publicly accessible Federal websites and web services only provide service through secure connection. Section: Incorporate our Web Map Services into your application using the URLs below. Section: TIGERweb WMS URLs: List of URLs: Current, ACS19, ACS18, ACS17, ACS16. 																																																							

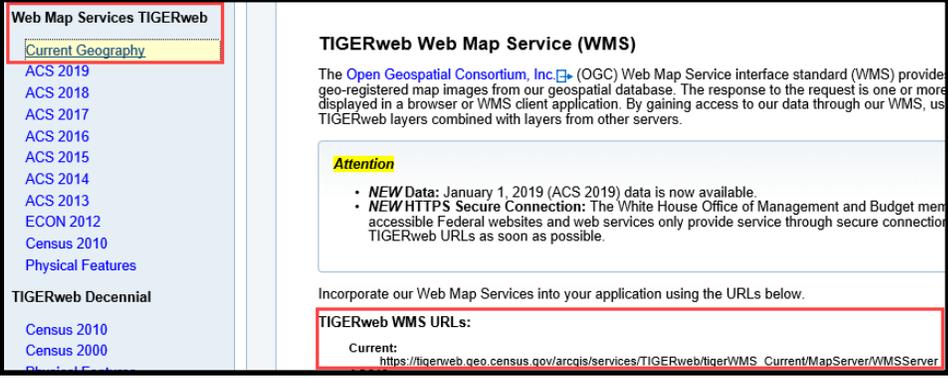
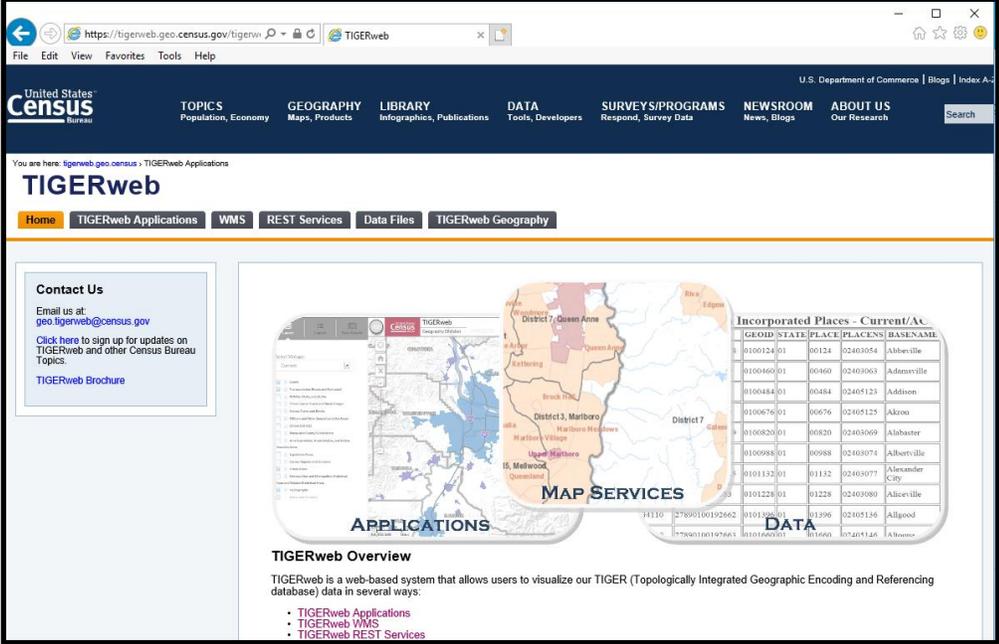
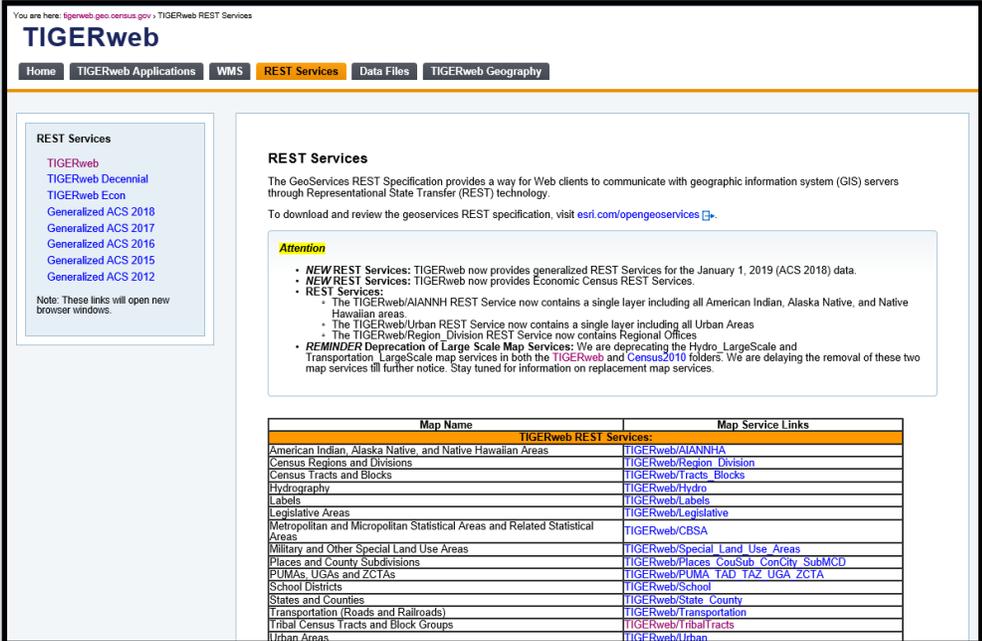
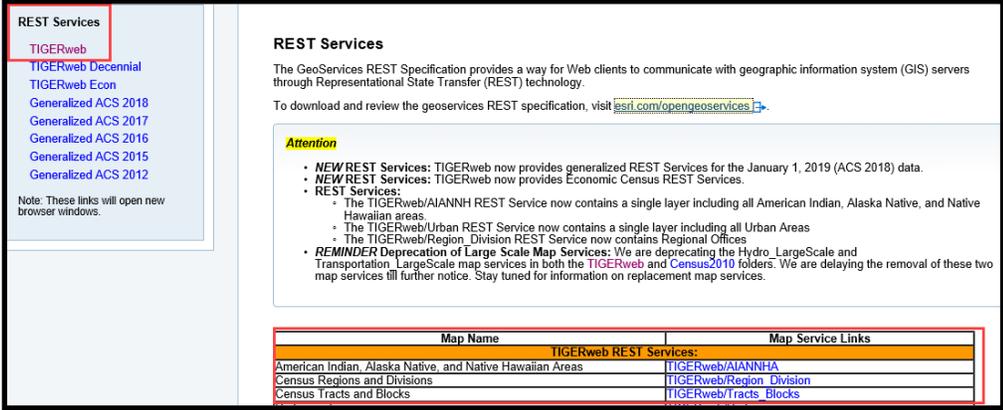
Step	Action and Result
Step 3	<p>Incorporate the Current URL from the TIGERweb WMS URLs section on the WMS main page into your local service/system OR select the Current Geography link along the left side of the WMS main page beneath the Web Map Services TIGERweb section to uncover additional WMS options.</p> 
Step 4	<p>Both methods provide the ability to load URLs for the Current vintage and Census 2010 vintage data into your local service/system for comparison. Follow the information on screen to complete loading the data. Compare the 2020 statistical areas to the 2010 statistical areas by turning the Census 2010 layer on/off in your local service/system.</p> <p>Note: While having the Census 2010 layer for comparison is nice, a participant’s focus should remain on whether the existing 2020 statistical areas work for the tabulation and distribution of statistical data for the tribal area.</p>
Step 5	<p>Zoom and pan, or perform queries within your service/system, after incorporating the Current vintage census data to review the 2020 statistical area boundaries and attributes applicable to your tribal area(s) and to verify they align with expectations.</p>
Step 6	<p>If you are responsible for one tribal area in PSAP, review the 2020 statistical areas and attributes in that tribal area to determine if corrections are necessary. Using guidance in Chapter 4 of this respondent guide, send an email to the Census Bureau indicating whether you approve of the 2020 statistical areas or whether corrections are forthcoming. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are identified, make note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p> <p>If you are responsible for more than one tribal area in PSAP, perform a quick review of the 2020 statistical areas and attributes in each to identify whether or not corrections are necessary. As soon as one correction is identified, move to reviewing the next tribal area until all tribal areas under your responsibility for PSAP are reviewed. Using guidance in Chapter 4 of this respondent guide, send one email that gives a status (approved as-is or corrections forthcoming) for all of the tribal areas in your verification universe. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are needed, continue to identify corrections in each tribal area, making note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p>

Table 4: Using the TIGERweb REST Services

Step	Action and Result																																																							
<p>Step 1</p>	<p>Open a new internet browser window and navigate to the TIGERweb website: https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html. The TIGERweb main page appears.</p>  <p>The screenshot shows the TIGERweb main page with navigation tabs: Home, TIGERweb Applications, WMS, REST Services, Data Files, and TIGERweb Geography. The REST Services tab is highlighted. Below the tabs, there is a 'Contact Us' section and a 'TIGERweb Overview' section. The overview section includes a map and a table of incorporated places.</p> <p>TIGERweb Overview</p> <p>TIGERweb is a web-based system that allows users to visualize our TIGER (Topologically Integrated Geographic Encoding and Referencing database) data in several ways:</p> <ul style="list-style-type: none"> TIGERweb Applications TIGERweb WMS TIGERweb REST Services <p>Incorporated Places - Current/ACS</p> <table border="1"> <thead> <tr> <th>GEOID</th> <th>STATE</th> <th>PLACE</th> <th>PLACENS</th> <th>BASENAME</th> </tr> </thead> <tbody> <tr><td>0100124</td><td>01</td><td>01124</td><td>02403054</td><td>Ashville</td></tr> <tr><td>0100460</td><td>01</td><td>00460</td><td>02403063</td><td>Adena</td></tr> <tr><td>0100484</td><td>01</td><td>00484</td><td>02405123</td><td>Addison</td></tr> <tr><td>0100676</td><td>01</td><td>00676</td><td>02405125</td><td>Akron</td></tr> <tr><td>0100820</td><td>01</td><td>00820</td><td>02403069</td><td>Albaster</td></tr> <tr><td>0100988</td><td>01</td><td>00988</td><td>02403074</td><td>Alberville</td></tr> <tr><td>0101132</td><td>01</td><td>01132</td><td>02403077</td><td>Alexander City</td></tr> <tr><td>0101228</td><td>01</td><td>01228</td><td>02403080</td><td>Aliceville</td></tr> <tr><td>0101396</td><td>01</td><td>01396</td><td>02405116</td><td>Allgood</td></tr> <tr><td>0101660</td><td>01</td><td>01660</td><td>07405116</td><td>Althaus</td></tr> </tbody> </table>	GEOID	STATE	PLACE	PLACENS	BASENAME	0100124	01	01124	02403054	Ashville	0100460	01	00460	02403063	Adena	0100484	01	00484	02405123	Addison	0100676	01	00676	02405125	Akron	0100820	01	00820	02403069	Albaster	0100988	01	00988	02403074	Alberville	0101132	01	01132	02403077	Alexander City	0101228	01	01228	02403080	Aliceville	0101396	01	01396	02405116	Allgood	0101660	01	01660	07405116	Althaus
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<p>Step 2</p>	<p>Click the REST Services tab which is three tabs to the right of the Home button. The REST Services page opens. Visit https://www.esri.com/opengeservices to download and review the GeoServices REST specification.</p>  <p>The screenshot shows the TIGERweb REST Services page. The REST Services tab is selected. The page contains a list of REST Services, an attention section with updates, and a table of map service links.</p> <p>REST Services</p> <ul style="list-style-type: none"> TIGERweb TIGERweb Decennial TIGERweb Econ Generalized ACS 2018 Generalized ACS 2017 Generalized ACS 2016 Generalized ACS 2015 <p>Attention</p> <ul style="list-style-type: none"> NEW REST Services: TIGERweb now provides generalized REST Services for the January 1, 2019 (ACS 2018) data. NEW REST Services: TIGERweb now provides Economic Census REST Services. REST Services: <ul style="list-style-type: none"> The TIGERweb/AIANHH REST Service now contains a single layer including all American Indian, Alaska Native, and Native Hawaiian areas. The TIGERweb/Urban REST Service now contains a single layer including all Urban Areas The TIGERweb/Region Division REST Service now contains Regional Offices REMEMBER Deprecation of Large Scale Map Services: We are deprecating the Hydro_LargeScale and Transportation_LargeScale map services in both the TIGERweb and Census 2010 folders. We are delaying the removal of these two map services till further notice. Stay tuned for information on replacement map services. <table border="1"> <thead> <tr> <th>Map Name</th> <th>Map Service Links</th> </tr> </thead> <tbody> <tr> <td colspan="2">TIGERweb REST Services:</td> </tr> <tr><td>American Indian, Alaska Native, and Native Hawaiian Areas</td><td>TIGERweb/AIANHH</td></tr> <tr><td>Census Regions and Divisions</td><td>TIGERweb/Region Division</td></tr> <tr><td>Census Tracts and Blocks</td><td>TIGERweb/Tracts Blocks</td></tr> <tr><td>Hydrography</td><td>TIGERweb/Hydro</td></tr> <tr><td>Labels</td><td>TIGERweb/Labels</td></tr> <tr><td>Legislative Areas</td><td>TIGERweb/Legislative</td></tr> <tr><td>Metropolitan and Micropolitan Statistical Areas and Related Statistical Areas</td><td>TIGERweb/CBSA</td></tr> <tr><td>Military and Other Special Land Use Areas</td><td>TIGERweb/Special Land Use Areas</td></tr> <tr><td>Places and County Subdivisions</td><td>TIGERweb/Places CouSub ConCity SubMCD</td></tr> <tr><td>PUMAs, UGAs and ZCTAs</td><td>TIGERweb/PUMA TAB TAZ UGA ZCTA</td></tr> <tr><td>School Districts</td><td>TIGERweb/School</td></tr> <tr><td>States and Counties</td><td>TIGERweb/State County</td></tr> <tr><td>Transportation (Roads and Railroads)</td><td>TIGERweb/Transportation</td></tr> <tr><td>Tribal Census Tracts and Block Groups</td><td>TIGERweb/Tribal Tracts</td></tr> <tr><td>Urban Areas</td><td>TIGERweb/Urban</td></tr> </tbody> </table>	Map Name	Map Service Links	TIGERweb REST Services:		American Indian, Alaska Native, and Native Hawaiian Areas	TIGERweb/AIANHH	Census Regions and Divisions	TIGERweb/Region Division	Census Tracts and Blocks	TIGERweb/Tracts Blocks	Hydrography	TIGERweb/Hydro	Labels	TIGERweb/Labels	Legislative Areas	TIGERweb/Legislative	Metropolitan and Micropolitan Statistical Areas and Related Statistical Areas	TIGERweb/CBSA	Military and Other Special Land Use Areas	TIGERweb/Special Land Use Areas	Places and County Subdivisions	TIGERweb/Places CouSub ConCity SubMCD	PUMAs, UGAs and ZCTAs	TIGERweb/PUMA TAB TAZ UGA ZCTA	School Districts	TIGERweb/School	States and Counties	TIGERweb/State County	Transportation (Roads and Railroads)	TIGERweb/Transportation	Tribal Census Tracts and Block Groups	TIGERweb/Tribal Tracts	Urban Areas	TIGERweb/Urban																					
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Step	Action and Result										
Step 3	<p>Incorporate the appropriate Map Service Links into your local server/system (e.g., TribalTracts, AIANNHA, and Places_CouSub_ConCity_SubMCD, plus other valuable reference links like Transportation, State_County, and Hydro) from the TIGERweb REST Services section on the REST Services main page OR select the TIGERweb link along the left side of the REST Services main page beneath the REST Services section to uncover additional REST Services options. Do not select any other service than TIGERweb.</p>  <p>The screenshot shows the 'REST Services' page. On the left, a sidebar lists various services: TIGERweb (highlighted), TIGERweb Decennial, TIGERweb Econ, Generalized ACS 2018, Generalized ACS 2017, Generalized ACS 2016, Generalized ACS 2015, and Generalized ACS 2012. A note below the sidebar states: 'Note: These links will open new browser windows.' The main content area is titled 'REST Services' and explains that GeoServices REST Specification provides a way for Web clients to communicate with GIS servers. It includes an 'Attention' section with the following bullet points:</p> <ul style="list-style-type: none"> • NEW REST Services: TIGERweb now provides generalized REST Services for the January 1, 2019 (ACS 2018) data. • NEW REST Services: TIGERweb now provides Economic Census REST Services. • REST Services: <ul style="list-style-type: none"> • The TIGERweb/AIANNH REST Service now contains a single layer including all American Indian, Alaska Native, and Native Hawaiian areas • The TIGERweb/Urban REST Service now contains a single layer including all Urban Areas • The TIGERweb/Region_Division REST Service now contains Regional Offices • REMINDER Deprecation of Large Scale Map Services: We are deprecating the Hydro_LargeScale and Transportation_LargeScale map services in both the TIGERweb and Census2010 folders. We are delaying the removal of these two map services till further notice. Stay tuned for information on replacement map services. <p>At the bottom of the screenshot is a table titled 'Map Service Links' with the following content:</p> <table border="1"> <thead> <tr> <th>Map Name</th> <th>Map Service Links</th> </tr> </thead> <tbody> <tr> <td colspan="2">TIGERweb REST Services:</td> </tr> <tr> <td>American Indian, Alaska Native, and Native Hawaiian Areas</td> <td>TIGERweb/AIANNHA</td> </tr> <tr> <td>Census Regions and Divisions</td> <td>TIGERweb/Region_Division</td> </tr> <tr> <td>Census Tracts and Blocks</td> <td>TIGERweb/Tracts_Blocks</td> </tr> </tbody> </table>	Map Name	Map Service Links	TIGERweb REST Services:		American Indian, Alaska Native, and Native Hawaiian Areas	TIGERweb/AIANNHA	Census Regions and Divisions	TIGERweb/Region_Division	Census Tracts and Blocks	TIGERweb/Tracts_Blocks
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Step 4	<p>Both methods provide the ability to load URLs for the Current vintage and Census 2010 vintage data into your local service/system for comparison. Follow the information on screen to complete loading the data. Compare the 2020 statistical areas to the 2010 statistical areas by turning the Census 2010 layer on/off in your local service/system.</p> <p>REMINDER: While having the Census 2010 layer for comparison is nice, a participant’s focus should remain on whether the existing 2020 statistical areas work for the tabulation and distribution of statistical data for the tribal area.</p>										
Step 5	<p>Zoom and pan, or perform queries within your service/system, after incorporating the Current vintage census data to review the 2020 statistical area boundaries and attributes applicable to your tribal area(s) and to verify they align with expectations.</p>										

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Step 6	<p>If you are responsible for one tribal area in PSAP, review the 2020 statistical areas and attributes in that tribal area to determine if corrections are necessary. Using guidance in Chapter 4 of this respondent guide, send an email to the Census Bureau indicating whether you approve of the 2020 statistical areas or whether corrections are forthcoming. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are identified, make note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p> <p>If you are responsible for more than one tribal area in PSAP, perform a quick review of the 2020 statistical areas and attributes in each to identify whether or not corrections are necessary. As soon as one correction is identified, move to reviewing the next tribal area until all tribal areas under your responsibility for PSAP are reviewed. Using guidance in Chapter 4 of this respondent guide, send one email that gives a status (approved as-is or corrections forthcoming) for all of the tribal areas in your verification universe. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are needed, continue to identify corrections in each tribal area, making note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p>

CHAPTER 3 USING ONLINE PDF MAPS TO REVIEW 2020 STATISTICAL AREAS

The Census Bureau created tribal area-based, Online PDF maps that show the tribal statistical areas, associated labels, and other common map features to assist with the review of the 2020 tribal statistical areas specific to each tribal area. If corrections are identified, then participants either use GUPS or paper maps provided separately by the Census Bureau to make those corrections. The Census Bureau does not recommend participants print the Online PDF map(s) for use in making corrections.

While the 2020 tribal statistical areas can be reviewed using TIGERweb, the Online PDF maps may be preferred by some participants over TIGERweb. For some tribal areas, this product may allow participants to more easily scan and review the tribal statistical area boundaries. The verification phase is the last opportunity to correct errors or inconsistencies with the 2020 tribal statistical areas before the final 2020 tabulation geography is created, so this verification review is very important.

The file naming convention of the Online PDF maps, except for the Alaska Native Regional Corporation (ANRC) maps, combines the map type abbreviation with a unique 11-digit numeric code (e.g., **<map type abbreviation><499RRRRRAAAA>.pdf**).

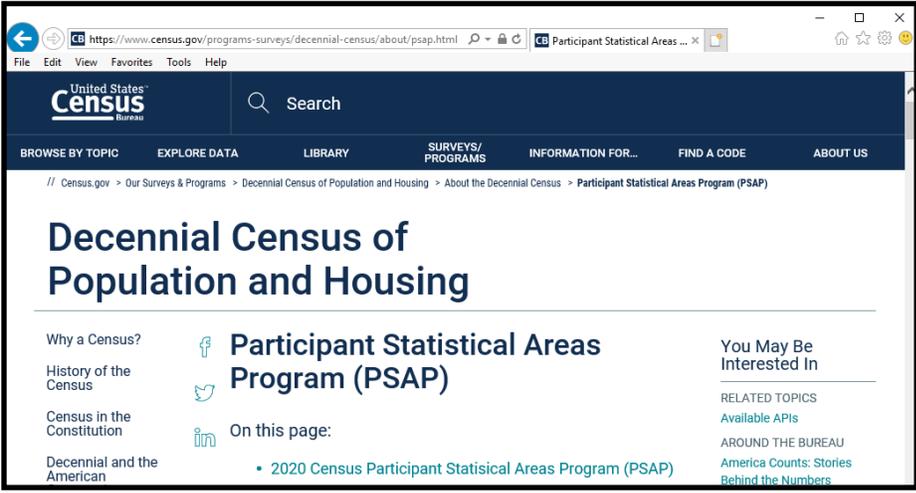
Below are the seven map type abbreviations based on the type of tribal entity.

- PSAPV20FR for Federal American Indian Reservation.
- PSAPV20SR for State American Indian Reservation.
- PSAPV20RC for Alaska Native Regional Corporation.
- PSAPV20NV for Alaska Native Village Statistical Area.
- PSAPV20OT for Oklahoma Tribal Statistical Area.
- PSAPV20SD for State Designated Tribal Statistical Area.
- PSAPV20TD for Tribal Designated Statistical Area.

The unique 11-digit numeric code appears on the bottom of the verification announcement to indicate each tribal area under your responsibility to review and verify. It utilizes the numeric coding of the 12 character tribal identification code, without use of the alpha characters “TR” or “TA”, where RRRR is the tribal code and AAAA is the tribal geographic area code described in **Section A**. The file naming convention for the ANRC maps uses the map type abbreviation mentioned above, but uses <ffff> instead of <499RRRRRAAAA>, where ffff is the five-digit Federal Information Processing Series (FIPS) code for the ANRC (e.g., **PSAPV20RC<ffff>.pdf**).

Refer to **Table 5** for the steps to locate and use the Online PDF maps to conduct a review of the 2020 statistical areas.

Table 5: Locating and Using the Online PDF Maps to Review 2020 Statistical Areas

Step	Action and Result
Step 1	<p>Open a new internet browser window and navigate to the PSAP website <https://www.census.gov/programs-surveys/decennial-census/about/psap.html>. The PSAP main page appears.</p>  <p>The screenshot shows a web browser window with the URL https://www.census.gov/programs-surveys/decennial-census/about/psap.html. The page features the United States Census Bureau logo and a search bar. Below the navigation menu, the breadcrumb trail reads: // Census.gov > Our Surveys & Programs > Decennial Census of Population and Housing > About the Decennial Census > Participant Statistical Areas Program (PSAP). The main heading is 'Decennial Census of Population and Housing'. The primary content area is titled 'Participant Statistical Areas Program (PSAP)'. To the left, there are links for 'Why a Census?', 'History of the Census', 'Census in the Constitution', and 'Decennial and the American'. To the right, there is a 'You May Be Interested In' section with 'RELATED TOPICS' including 'Available APIs', 'AROUND THE BUREAU', 'America Counts: Stories', and 'Behind the Numbers'. A section titled 'On this page:' lists '2020 Census Participant Statistical Areas Program (PSAP)'.</p>
Step 2	<p>Scroll down the page to locate the Online PDF Maps – Tribal sub-section within the 2020 Census PSAP Verification Materials section.</p>

Step	Action and Result
Step 3	<p>Click the link for the type of tribal entity for your tribal area(s) from the list of American Indian Areas (i.e., Federal Reservations, State Reservations, Alaska Native Regional Corporations, Alaska Native Village Statistical Areas, Oklahoma Tribal Statistical Areas, State Designated Tribal Statistical Areas, or Tribal Designated Statistical Areas). <i>The system routes participants to file transfer protocol (FTP) directory for the type of tribal entity selected that shows sub-folders for each tribal area within that tribal entity type.</i></p>
Step 4	<p>Within the type of tribal entity directory, scroll through the list of sub-folders to locate the one that corresponds with the tribal area for review. The tribal area sub-folder naming convention incorporates the tribal geographic area code (i.e., the last four digits of unique 11-digit code or the five-digit FIPS code for ANRCs) and the name of the tribal area.</p> <ul style="list-style-type: none"> • Federal Reservations sub-folder naming convention = r<AAAA>_<Tribal name>, where AAAA corresponds to the last four digits of the unique 11-digit code. • State Reservations sub-folder naming convention = r<AAAA>_<Tribal name>, where AAAA corresponds to the last four digits of the unique 11-digit code. • Alaska Native Regional Corporations sub-folder naming convention = r<ffff>_<ANRC name>, where ffff corresponds to the five digit FIPS code of the ANRC. • Alaska Native Village Statistical Areas sub-folder naming convention = s<AAAA>_<ANVSA name>, where AAAA corresponds to the last four digits of the unique 11-digit code. • Oklahoma Tribal Statistical Areas sub-folder naming convention = s<AAAA>_<OTSA name>, where AAAA corresponds to the last four digits of the unique 11-digit code. • State Designated Tribal Statistical Areas sub-folder naming convention = s<AAAA>_<SDTSA name>, where AAAA corresponds to the last four digits of the unique 11-digit code. • Tribal Designated Statistical Areas sub-folder naming convention = s<AAAA>_<TDSA name>, where AAAA corresponds to the last four digits of the unique 11-digit code.
Step 5	<p>From the tribal area sub-folder, the individual PDF tribal area map(s) appear. Click the PDF file name to open the file directly from the website or to save the file locally for later use. Follow the on-screen prompts for downloading and saving the file. If using the file locally, ensure the use of either Adobe Reader® or Adobe Acrobat® to preserve map symbology and readability.</p>
Step 6	<p>With the tribal area based PDF file open, zoom and pan around the tribal area to review the statistical area boundaries and attributes to confirm they align with expectations. If more than one map sheet is necessary to depict all of the statistical areas within a tribal area, the PDF file is bundled to include multiple sheets. Review each map sheet that contains a statistical area boundary.</p>

Step	Action and Result
Step 7	<p>If you are responsible for one tribal area in PSAP, review the 2020 statistical areas and attributes in that tribal area to determine if corrections are necessary. Using guidance in Chapter 4 of this respondent guide, send an email to the Census Bureau indicating whether you approve of the 2020 statistical areas or whether corrections are forthcoming. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are identified, make note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS or on the paper maps. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p> <p>If you are responsible for more than one tribal area in PSAP, perform a quick review of the 2020 statistical areas and attributes in each to identify whether or not corrections are necessary. As soon as one correction is identified, move to reviewing the next tribal area until all tribal areas under your responsibility for PSAP are reviewed. Using guidance in Chapter 4 of this respondent guide, send one email that gives a status (approved as-is or corrections forthcoming) for all of the tribal areas in your verification universe. If no corrections are identified, your participation concludes after sending an email of approval to the Census Bureau. If corrections are needed, continue to identify corrections in each tribal area, making note of which statistical areas and/or attributes need modification. A list of statistical areas in need of correction is useful when making the corrections in GUPS or on the paper maps. Proceed to Part 2 of this respondent guide for guidance on correcting the 2020 statistical areas.</p>

CHAPTER 4 EMAIL NOTIFICATION OF CORRECTIONS TO OR APPROVAL OF THE 2020 STATISTICAL AREAS

Within 30 calendar days of receipt of the verification announcement, the Census Bureau requests either the PSAP primary official contact or the PSAP primary technical contact email <geo.psap@census.gov> to indicate whether or not corrections to the 2020 statistical areas for their tribal area(s) are forthcoming. See **Figure 1** for a sample email that contains information that ensures proper accounting for your tribal areas and their verification status.

Note: The information included in the sample email is fictitious.

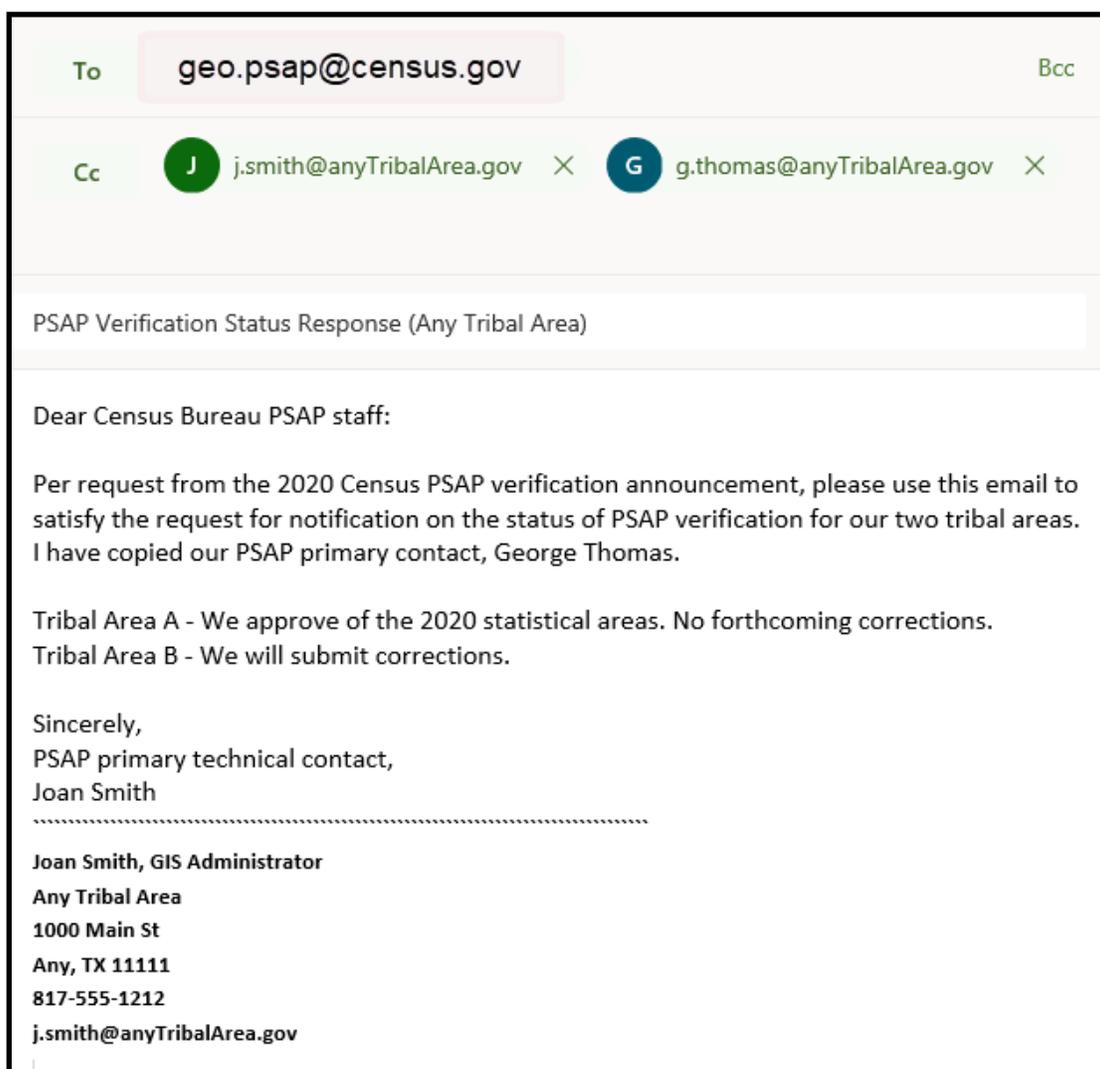


Figure 1: Sample Verification Email Notification from Participant

A complete review of a tribal area is not required to notify the Census Bureau of forthcoming corrections. Identification of any correction to a 2020 statistical area allows for the email notifying the Census Bureau that corrections are forthcoming. Conversely, if the review concludes that no corrections are required, an email notification of approval allows the Census Bureau to proceed with the 2020 statistical areas as they exist in the verification phase

materials. If corrections are identified after having notified the Census Bureau that no corrections were necessary, please send an email alerting the Census Bureau to a change in the verification status for the specific tribal area(s).

For participants with more than one tribal area to review, the Census Bureau suggests a quick review of each so that notification can be sent for all tribal areas at once within the requested 30 calendar days of receipt of the verification announcement. If the Census Bureau does not receive email notification of approval or has not received a submission for your tribal area(s) halfway through the review period (i.e., approximately 45 calendar days from receipt of the verification announcement), a follow-up notification regarding the status of your tribal area(s) will be distributed by email or letter. This follow-up notification includes a reminder to email the Census Bureau of your approval or of your intention to make a submission and reinforces the importance of an on-time verification submission. Participants are encouraged to use the time remaining in the review period to complete their verification phase corrections. Late submissions will not be accepted.

Prior to making **major or significant corrections**, contact the Census Bureau by email at geo.psap@census.gov or by phone at 1-844-788-4921 to receive guidance on how, or if, to proceed. There may be situations where boundary changes suggested during the delineation phase were not applied and communication with the participant about those changes was not initiated. Contacting the Census Bureau to learn more about why the verification materials do not reflect delineation phase updates will inform a participant whether resubmitting the same changes are acceptable for the verification phase.

However, if **minor or a few corrections** are necessary proceed with the instructions in either the *2020 Census PSAP Tribal Respondent Guide (G-690)* or *2020 Census PSAP Tribal Paper Respondent Guide (G-700)* and in this verification phase respondent guide to complete the statistical area corrections.

IMPORTANT: Participants that agree with the boundaries of the 2020 statistical areas for their tribal area(s) only need to submit an email stating their approval. No submission or additional correspondence is required.

PART 2 CORRECTING 2020 STATISTICAL AREAS

Participants that determine corrections to the 2020 statistical areas are necessary must use either GUPS or paper maps to perform the corrections. Because the process for using GUPS or paper maps to update statistical areas during the verification phase is identical to the process used during the delineation phase, the detailed content within the delineation guides is not repeated within this verification phase material. Participants must refer to both the instructions provided in this part of the verification respondent guide and the appropriate delineation phase respondent guide to make corrections.

IMPORTANT: If no corrections were identified during the review of the 2020 statistical areas described in Part 1, skip to [Chapter 9](#). Participation concludes after sending an email to the Census Bureau indicating approval of the 2020 statistical areas as they exist in TIGERweb or on the Online PDF maps.

For participants using GUPS, i.e., those that can edit tribal census tracts, tribal block groups, and CDPs, continue with Chapter 5. For participants using paper maps to make corrections, skip to [Chapter 6](#).

CHAPTER 5 USING GUPS TO CORRECT 2020 STATISTICAL AREAS

This chapter provides instructions for updating GUPS in support of the verification phase and provides a refresher on getting started with GUPS by opening a new project for PSAP Verification. It introduces a new pop-up window created to support the verification phase and reinforces the importance of using the proper, existing GUPS tools for making corrections to the 2020 statistical areas. It concludes with a section that includes the instructions for creating the verification phase .zip file for submission.

IMPORTANT: Numerous details exist in the delineation phase respondent guide, *2020 Census PSAP Tribal Respondent Guide (G-690)*, that do not repeat in this verification phase material. For this reason, the delineation phase respondent guide should be used as the primary source of information to implement the corrections identified during the TIGERweb and/or Online PDF maps review.

Prior to making any correction to the 2020 statistical area boundaries in GUPS, ensure the corrections result in statistical areas that follow the respective statistical area thresholds, requirements, criteria, and guidelines outlined in the respective chapters in *Part 1* of the *2020 Census PSAP Tribal Respondent Guide (G-690)*. See [Figure 2](#) for a visual of a portion of the Table of Contents from the *G-690*. Participants may also refer to *Appendix B* in the *G-690* or to the *Federal Register* notice section on the PSAP website to locate the established criteria and guidelines.

Part 1	Overview of 2020 Census PSAP Materials and the Tribal Statistical Geographies ..	1
Chapter 1.	Delineation Phase Materials for 2020 Census PSAP	2
1.1	Informational and Instructional Materials	2
1.2	Map Materials	3
1.3	DVD Materials.....	3
1.4	Delineation Phase Postcard.....	4
Chapter 2.	Tribal Census Tracts.....	5
2.1	Tribal Census Tract Threshold Requirements.....	6
2.2	Tribal Census Tract Codes and Numeric Identification.....	7
2.3	Tribal Census Tract Boundary Requirements	7
Chapter 3.	Tribal Block Groups	9
3.1	Tribal Block Group Threshold Requirements.....	10
3.2	Tribal Block Group Codes and Identification	10
3.3	Tribal Block Group Boundary Requirements	11
Chapter 4.	Census Designated Places (CDPs)	12
Part 2	Introducing GUPS for 2020 Census PSAP	13

Figure 2: Individual Statistical Geography Chapters in the G-690 Table of Contents

5.1 Updating GUPS

Participants with corrections to the 2020 statistical areas must update their version of GUPS from the delineation phase. In addition to new tools and functionality within GUPS, the newer version is programmed to run on the QGIS 3 Madeira platform rather than on QGIS 2 Las Palmas platform. The Census Bureau bundled the update for GUPS and QGIS into a single .zip file available for download from the PSAP website. No software installation DVDs are distributed for the verification phase.

IMPORTANT: Participants must download and install the newer version of software to make corrections to the 2020 statistical areas during the verification phase.

The local computer to install the newer version of GUPS and to use for the submission of corrections (by using the Secure Web Incoming Module (SWIM)) needs the minimum requirements listed below in [Table 6](#). The Census Bureau recommends installing the newer version of QGIS and GUPS on the same local computer(s) used for the delineation phase.

Table 6: Requirements for Hardware, Operating Systems, and Internet Browsers

Hardware	Operating System	Supported Browsers
<p>Disk Space Needed to Run GUPS: 4 GB</p> <p>Disk Space Needed to Store Shapefiles: Shapefile sizes vary. To view the size of your shapefiles, select a file/ folder, right-click, and choose Properties in the drop-down menu. The Files Properties box opens and displays the file/folder sizes. Select multiple files/folders in the list to view their properties via the same method.</p> <p>RAM:</p> <ul style="list-style-type: none"> 4 GB minimum; 8 GB or more recommended for optimal performance. 	<p>Windows®: To run GUPS, Windows users need one of the following Windows operating systems:</p> <ul style="list-style-type: none"> Windows 7® Windows 8® Windows 10® <p>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. Find instructions for using Boot Camp at: https://www.apple.com/support/bootcamp/getstarted/. Some Apple iOS® users may want to use Red Hat software. Locate instructions at: https://www.redhat.com/download/.</p> <p>IMPORTANT: 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.</p>	<p>Minimum Browser Versions to Use the Secure Web Incoming Module (SWIM): SWIM supports the two most recent versions of each of the major internet browsers:</p> <ul style="list-style-type: none"> Internet Explorer® Google Chrome® Mozilla Firefox® Apple Safari®

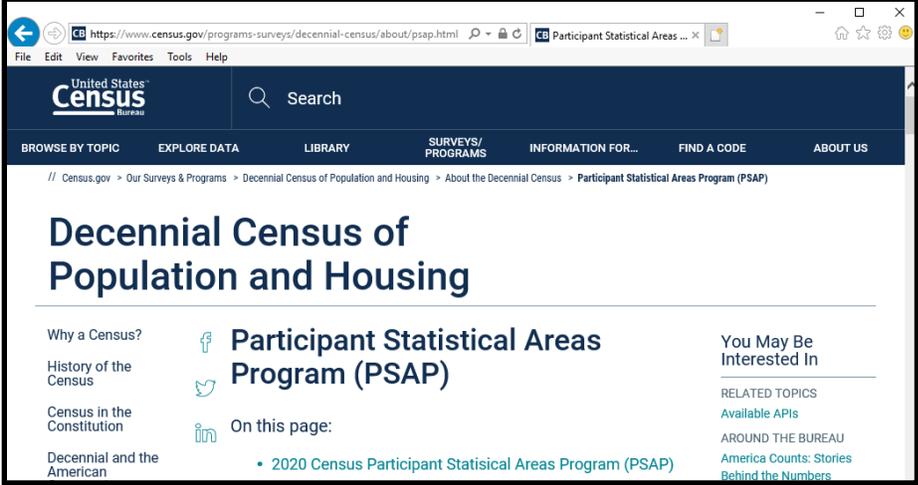
Note: Depending on the version of Windows or Operating System on the local computer used for PSAP, the GUPS dialog boxes shown throughout this document may have a different appearance than the screenshots contained in the respondent guide, although the content is essentially the same.

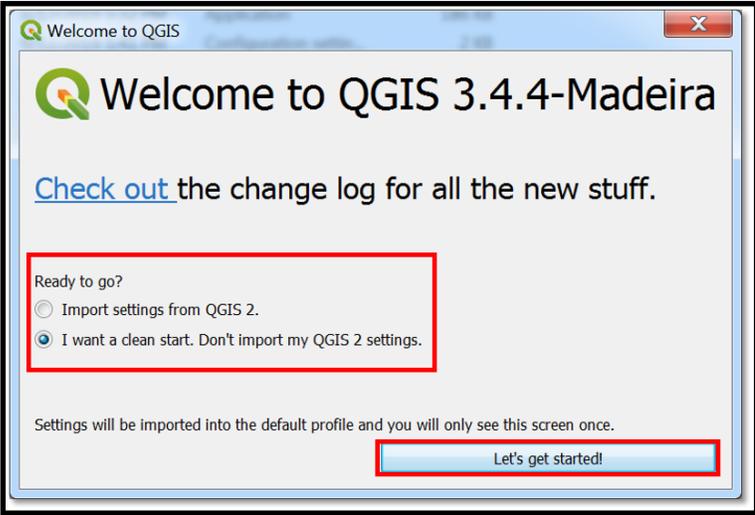
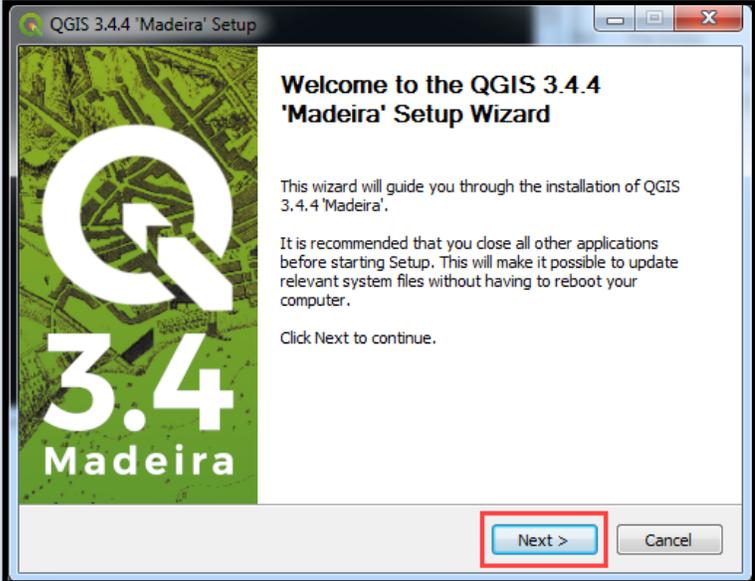
5.1.1 Downloading and Installing GUPS and QGIS

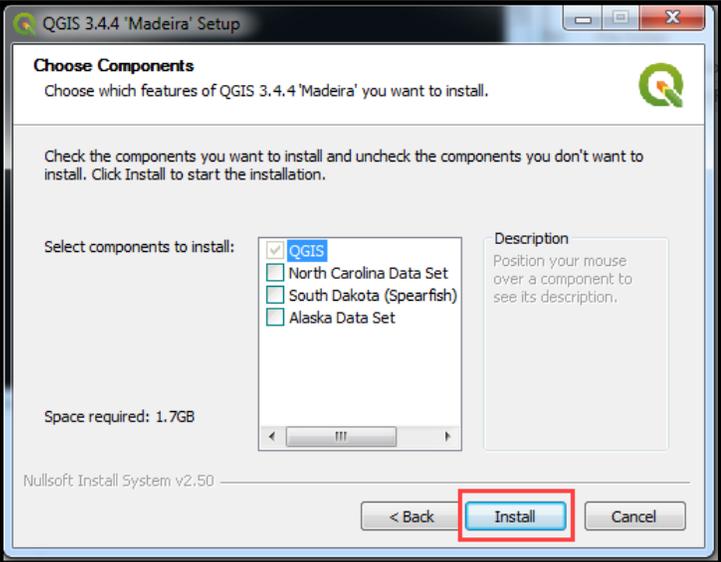
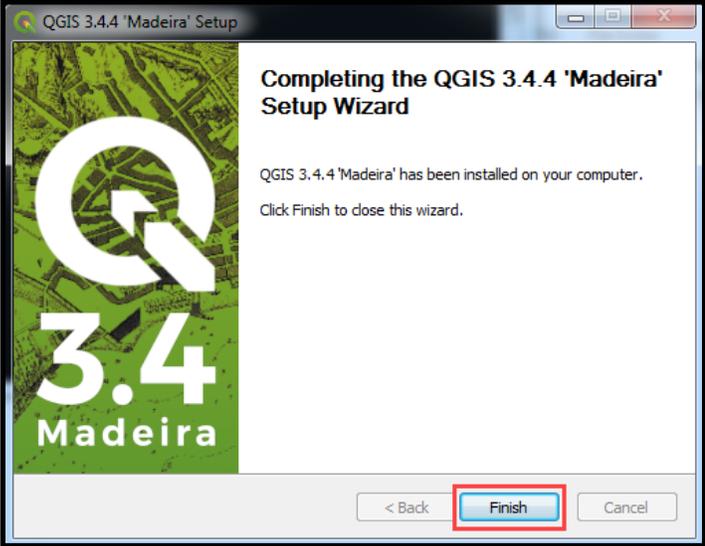
Table 7 provides the steps to download and install the newer version of GUPS and QGIS necessary to support verification phase corrections.

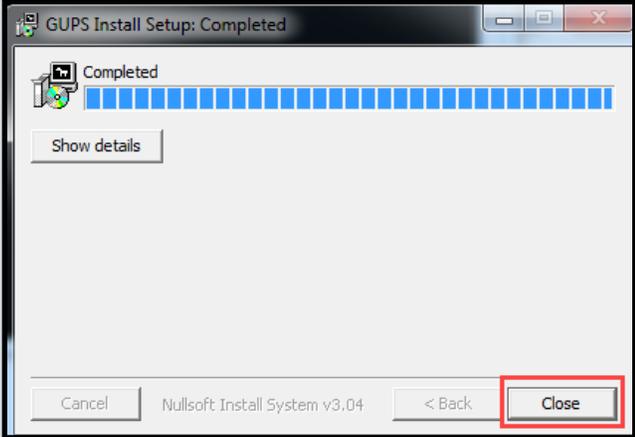
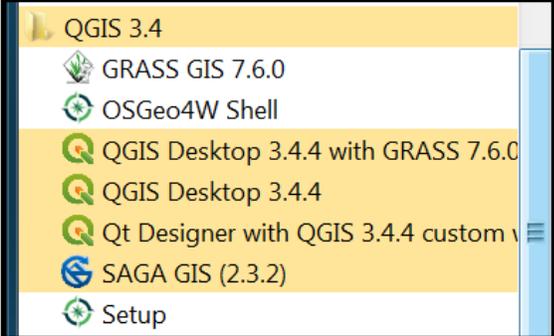
Note: Administrator privileges are likely necessary to install GUPS. Check with the local system administrator for instructions on installing an external software to the local computer prior to contacting the Census Bureau for assistance.

Table 7: Downloading and Installing the Newer Version of GUPS and QGIS

Step	Action and Result
Step 1	<p>Open a new internet browser window and navigate to the PSAP website <https://www.census.gov/programs-surveys/decennial-census/about/psap.html>. The PSAP main page appears.</p>  <p>The screenshot shows a web browser window displaying the PSAP website. The browser's address bar shows the URL: https://www.census.gov/programs-surveys/decennial-census/about/psap.html. The website header includes the United States Census Bureau logo and a search bar. Below the header, there are navigation tabs: BROWSE BY TOPIC, EXPLORE DATA, LIBRARY, SURVEYS/PROGRAMS, INFORMATION FOR..., FIND A CODE, and ABOUT US. The main content area features the title 'Decennial Census of Population and Housing' and a sub-section for 'Participant Statistical Areas Program (PSAP)'. There are also social media icons and a 'On this page:' section with a link to '2020 Census Participant Statistical Areas Program (PSAP)'.</p>
Step 2	<p>Scroll down the page to the 2020 Census PSAP Verification Materials section to locate the Download the GUPS link. Click the link to download the file. Use Save As rather than Save to choose a specific folder on the local computer to download the file.</p>
Step 3	<p>Navigate to the folder on the local computer where the downloaded .zip file resides. Double-click the .zip file to unzip and extract its contents.</p>
Step 4	<p>From the folder where the .zip file was extracted, double-click the SETUP-<version>.bat file to start installation. Regardless of the version of the file, there will be only one SETUP .bat file to choose.</p>

Step	Action and Result
Step 5	<p>The Welcome to QGIS screen appears that allows a participant to import their previous settings from QGIS 2 or starting clean. Choose Start Clean and click Let's get started to proceed. Note, if a new version of GUPS that uses QGIS 3 is already installed from your work with other census programs, this window may not appear.</p> 
Step 6	<p>When the installer opens, the Welcome to the QGIS 3.4.4 'Madeira' Setup Wizard screen appears.</p>  <p>Note: The version needed for the verification phase is QGIS 3.4.4 Madeira. If the exact same version of QGIS exists on the computer, an instruction to uninstall and reinstall may appear. Participants may retain other versions of QGIS that may be in use for other programs (e.g., QGIS 2 Las Palmas version used for the delineation phase), but we suggest to reinstall if the same version exists on the computer to ensure installation of the latest update.</p> <p>Before proceeding with installation, close all other programs or applications. Once other programs and applications are closed, click the Next button.</p>

Step	Action and Result
Step 9	<p>The Choose Components screen opens.</p>  <p>'<input checked="" type="checkbox"/> QGIS' in the Select components to install field is checked and grayed out since it is the default. Simply click Install to continue.</p>
	<p>To review a previous screen or reread the license agreement, click the Back button (each screen contains this button). <i>This returns the screen to the previous page.</i></p>
Step 10	<p>The software takes between five and 10 minutes to install. <i>When it finishes installation, the Completing the QGIS 3.4.4 'Madeira' Setup Wizard screen opens.</i> Click the Finish button to finish the QGIS update and launch the GUPS update.</p> 

Step	Action and Result
Step 11	<p>The GUPS Install Setup: Completed screen opens showing the status of the installation of GUPS. To complete the installation, click the Close button.</p> 
Step 12	<p>Use QGIS Desktop 3.4.4 for the verification phase work. Disregard the other software installed as part of the process. Once the application installs, QGIS 3.4 is added to the Start Menu, All Programs list and a QGIS 3.4 icon is created on the desktop.</p> 

After successfully updating GUPS and QGIS for use in the verification phase, participants are ready to begin their work to correct the 2020 statistical areas. Proceed to the next chapter for more instructions on opening GUPS and starting a new project.

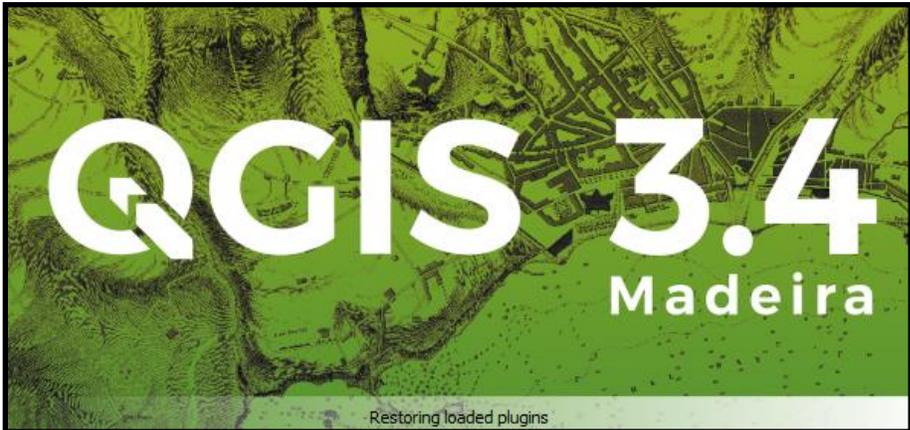
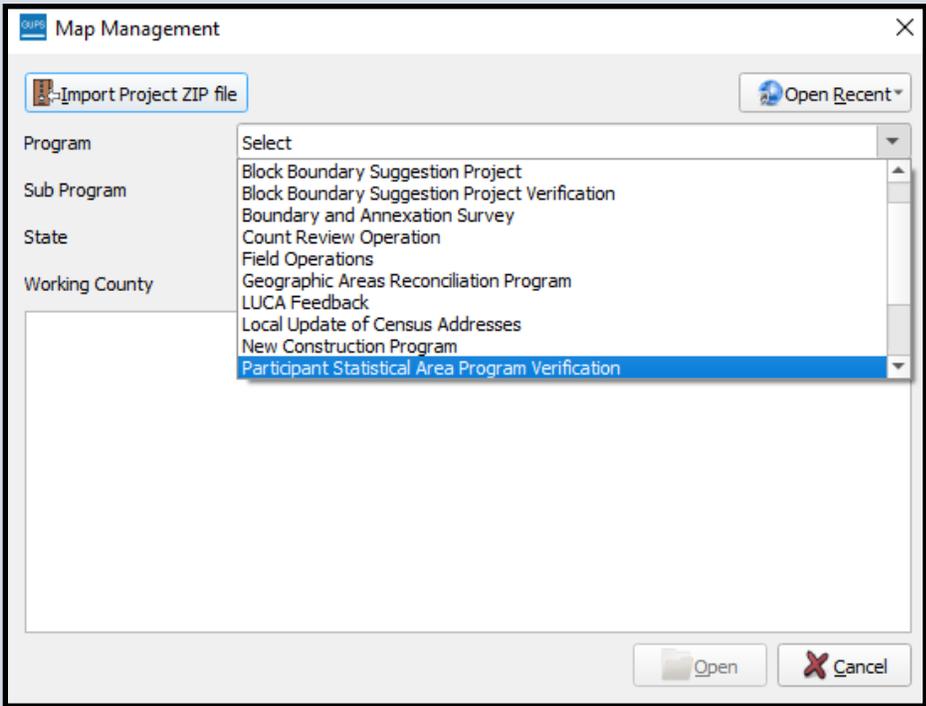
5.2 Opening GUPS and Starting a New Project

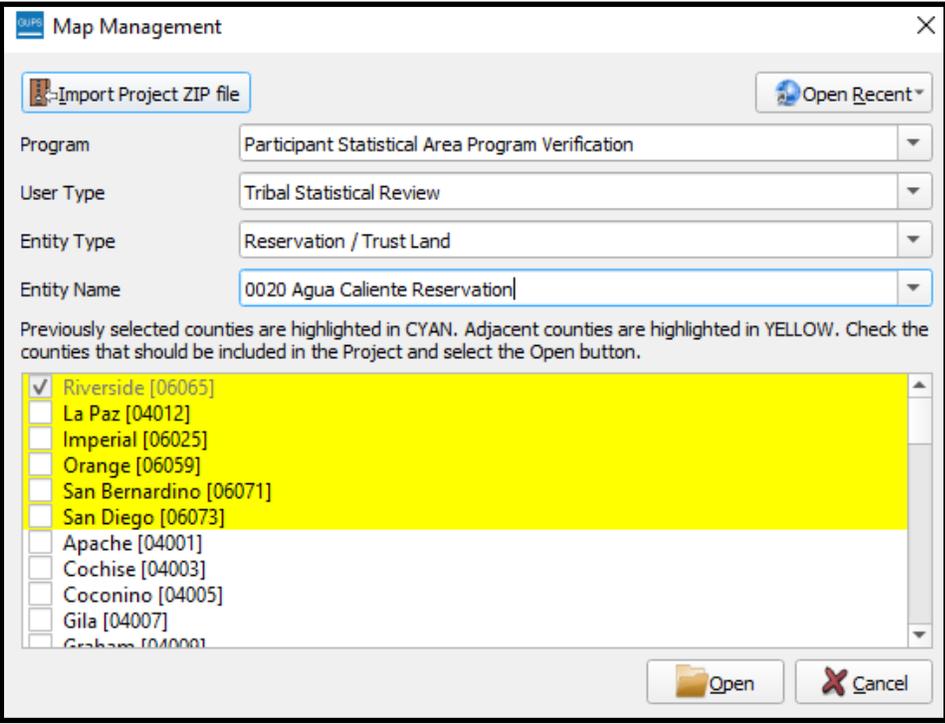
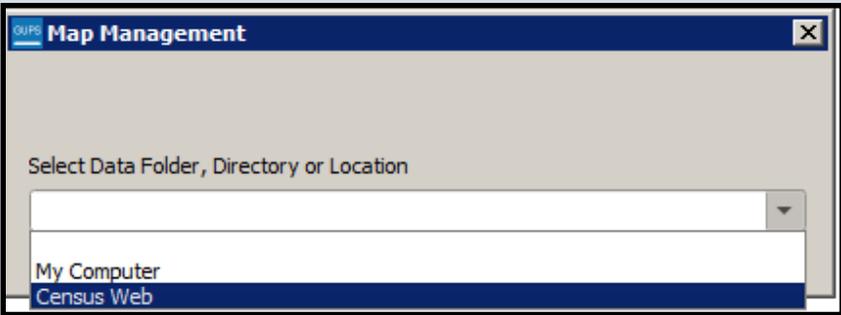
Because no DVDs are distributed for the verification phase, participants with corrections must use the **Census Web** option in GUPS to download the shapefiles directly into GUPS. To open the GUPS using Census Web follow the steps in [Table 8](#) below.

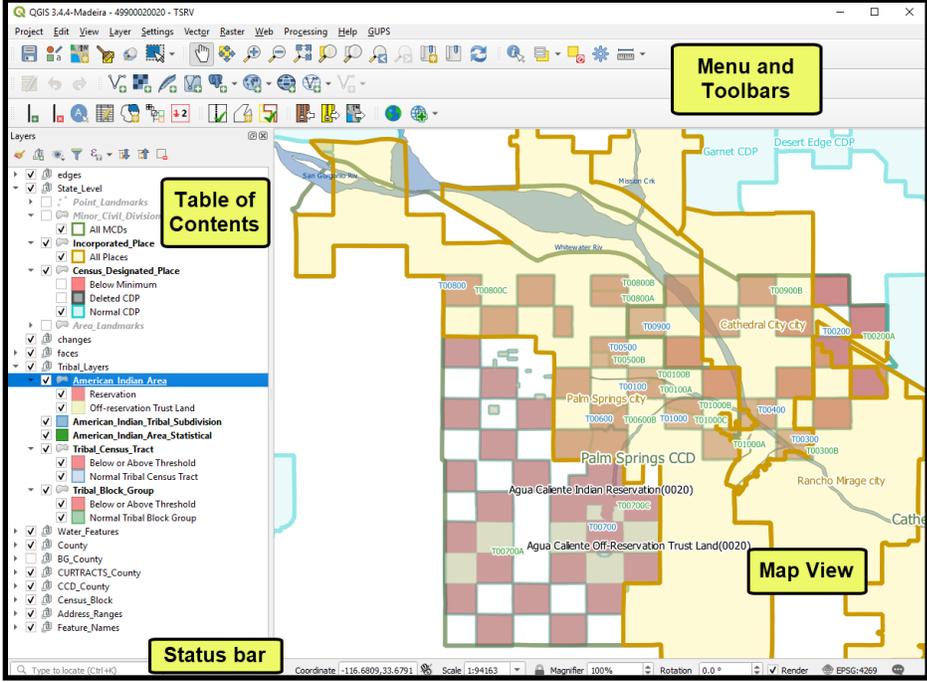
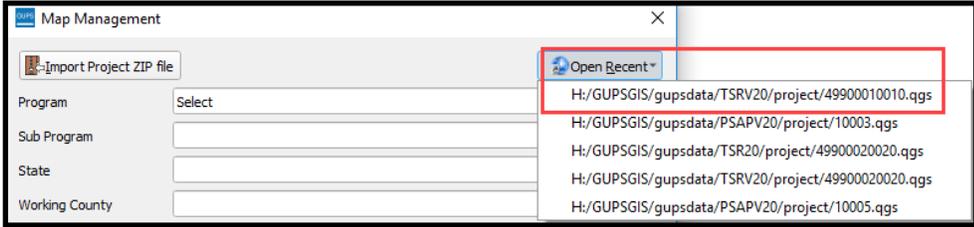
IMPORTANT: GUPS needs at least 4 gigabytes of free space on the hard drive to begin.

To practice using GUPS without committing the corrections, simply exit GUPS without saving. Before GUPS closes, it will give the option to save or discard the changes. Participants can reopen saved projects and continue working later.

Table 8: Getting Started with GUPS using Census Web

Step	Action and Result
Step 1	<p>Select QGIS Desktop 3.4.4 from the All Programs list in the Start Menu, shown in Step 12 of the previous table or from the QGIS 3.4 desktop icon. <i>The QGIS splash screen appears.</i></p>  <p>Note: Depending on the age of the computer and amount of RAM, the application may require a few moments to load and open.</p>
Step 2	<p><i>The Map Management window appears.</i></p>  <p>Use the drop-down menu next to the Program field to select Participant Statistical Areas Program Verification.</p>

Step	Action and Result
Step 3	<p>Select Tribal Statistical Review for the User Type, select Reservation/Trust Land for the Entity Type, and then the tribal area in which to make the corrections for the Entity Name. Notice the use of tribal area coding and tribal name in the Entity Name field as described in Section A.</p>  <p>Previously selected counties are highlighted in CYAN. Adjacent counties are highlighted in YELLOW. Check the counties that should be included in the Project and select the Open button.</p> <p>Do not select adjacent counties that appear in the window beneath the Entity Name unless they assist with providing a reference for corrections in the tribal area.</p>
Step 4	<p>Choose Census Web from the Select Data Folder, Directory or Location window to download the data directly into GUPS.</p> 

Step	Action and Result
Step 5	<p>When the data loads, the Table of Contents populates and symbolizes according to preset styles. The Map View fills with the tribal area. The Menu and Toolbars appear along the top and the Status Bar appears at the bottom of the screen. <i>The QGIS 3.4.4 Madeira and PSAPV are displayed at the very top of the GUPS screen, confirming use of the newer QGIS and selection of the verification phase (e.g., PSAPV).</i></p>  <p>The screenshot shows the QGIS 3.4.4 Madeira interface. At the top, the menu bar includes Project, Edit, View, Layer, Settings, Vector, Raster, Web, Processing, and Help. Below the menu bar is a toolbar with various icons. On the left side, there is a 'Layers' panel with a 'Table of Contents' label. The main map area is labeled 'Map View' and displays a map of a tribal area with various colored polygons and labels like 'Garnet CDP', 'Desert Edge CDP', 'Palm Springs City', and 'Agua Caliente Indian Reservation'. At the bottom, there is a 'Status bar' with coordinate and scale information.</p>
Step 6	<p>To save a project, use the Save button on the Standard toolbar or locate the Save option beneath the Project tab along the Menu bar.</p>
Step 7	<p>To open a previously saved project, in the Map Management window, click the drop-down arrow next to the Open Recent button. <i>The drop-down menu opens with a list of current projects.</i></p>  <p>The screenshot shows the 'Map Management' window. It has a title bar with a close button. Below the title bar, there is a button labeled 'Import Project ZIP file'. There are four input fields: 'Program', 'Sub Program', 'State', and 'Working County'. To the right of these fields is a dropdown menu labeled 'Open Recent'. The dropdown menu is open, showing a list of project files with their full paths, such as 'H:/GUPSGIS/gupsdata/TSRV20/project/49900010010.qgs'.</p>
	<p>Multiple project files, for multiple programs, may appear, as shown above. In the example above, three separate projects exist on the same computer (PSAPV20, TSR20, and TSRV20). To identify which of the entries in the list represents a particular project, look at folder name that follows “/gupsdata” to identify the project (e.g., PSAPV20, TSR20, and TSRV20). Notice the Tribal GUPS projects for PSAP use the unique 11-digit coding mentioned in Chapter 3.</p>
Step 8	<p>To add the delineation phase submission layers into the verification phase project for reference in making corrections, refer to Appendix C.</p>

With the project loaded, participants are ready to begin making corrections. Continue to refer to the delineation phase respondent guide for detailed instructions. To begin making updates,

use the **Modify Area Feature** tool within GUPS to select the geography to correct. Use the information gained from the TIGERweb review of statistical areas, or from the review of the Online PDF maps, to select the corresponding geography from the list that appears in the **Modify Area Feature** window. Because some corrections cascade to underlying geographies, perform the updates in the same order as conducted during the delineation phase: tribal census tract, tribal block group, and then CDP.

Refer to *Chapter 8* of the *2020 Census PSAP Tribal Respondent Guide (G-690)* for instructions on updating each of the three statistical area types. Refer specifically to *Table 61* to confirm a linear feature is an acceptable statistical area boundary prior to making the boundary correction.

5.3 Introducing the GUPS Modification for the Verification Phase

New for the verification phase is a pop-up window, shown in [Figure 3](#), which appears after a tribal area downloads when a participant selects any of the tools to start reviewing the statistical areas. It contains a message about the purpose of the verification phase, verification of statistical areas, not another delineation opportunity.

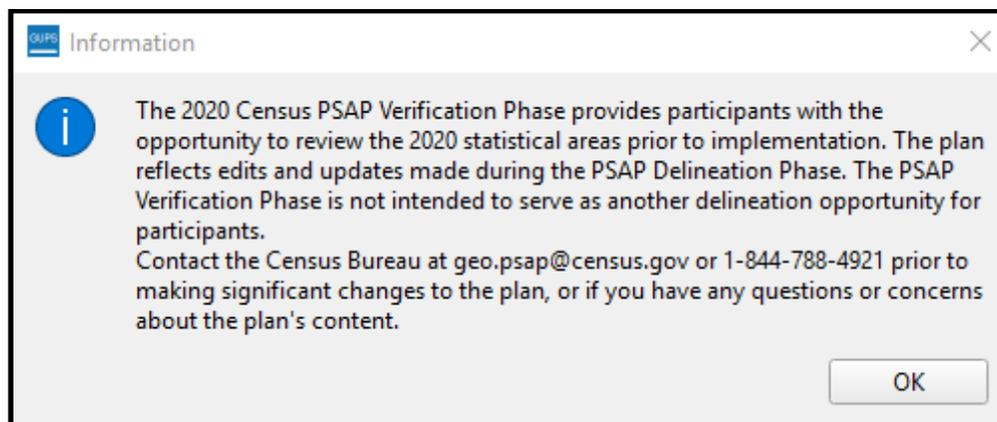


Figure 3: GUPS Information Window

All previously programmed tools and functionality remain in this version of GUPS for the verification phase.

5.4 Reinforcing GUPS Tools for the Verification Phase

Use the *List of Tables* and *List of Figures* within the *Table of Contents* of the *2020 Census PSAP Tribal Respondent Guide (G-690)* to help locate the specific table or figure that may assist with completing the corrective action during the verification phase. Most instructions exist in *Chapter 7*. At a minimum, review of the following tables within the G-690:

- *Table 13* for a refresher of the **Menu bar** tabs and functions.
- *Table 15* for a refresher of the **Standard toolbar** buttons, names and their function (or description).
- *Table 18* for a refresher of the **PSAP toolbar** buttons, names and their function (or description).

The Table of Contents within GUPS for the verification phase includes the same type of layers as provided during delineation. The edges layer is mapped to display the types of features (roads, linear water, and all others) as well as whether or not those features are acceptable, questionable, or not acceptable for use as a statistical area boundary. Other layers included for reference are the point landmark, minor civil division, census county division, incorporated place, area landmarks, various American Indian layers, water features, the county boundary, block groups and census tracts. Layers that are not applicable to the tribal area are grayed-out. The layers where corrections may occur include the Tribal_Census_Tract, Tribal_Block_Group, and Census_Designated_Place. Those layers have preset symbology to assist with visualizing whether they are valid geographies that meet established thresholds. See [Figure 4](#) for a visual of the Table of Contents for a GUPS verification phase project.

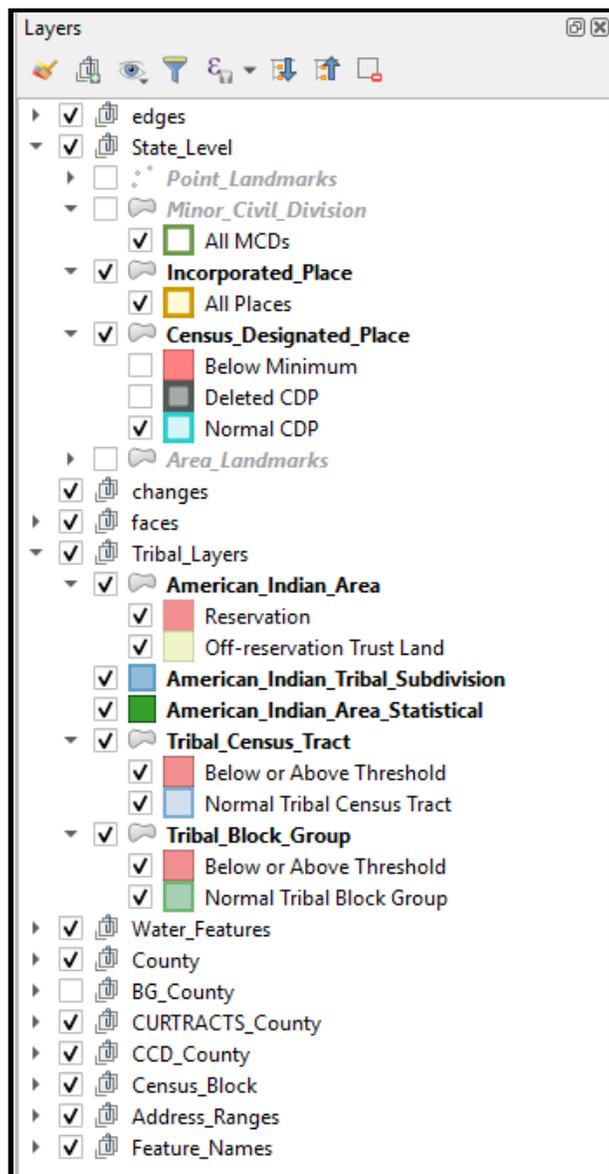


Figure 4: Example of GUPS Table of Contents with Layers

5.4.1 Clarifying the Use of the Boundary Change Tools

During processing of delineation phase submissions, the Census Bureau uncovered situations where participants misused GUPS tools and functionality. A common misuse involved tools used to make boundary modifications. Instead of using the instructions for performing boundary changes, participants used the merge and split instructions to modify boundaries. Though the boundary modification was seemingly successful, the means by which a participant generated the modification introduced numerous issues with coding, recoding, and suffixing that complicated the processing of participant submissions.

Since the focus of the verification phase is on correcting the 2020 statistical areas that do not align with participant expectations or that may have been misprocessed, participants should use the boundary change tools to correct the 2020 statistical areas, and not the merge or split tools within GUPS. While the merge and split tools remain available for use, please consider the type of correction that needs to occur and choose the tool that best fits that task. If you have any questions regarding which GUPS tool should be used to make your corrections, contact the Census Bureau by phone at 1-844-788-4921. A member of our technical support group can assist you with your GUPS functionality questions

Refer to [Figure 5](#) for a visual that highlights the boundary change sections for tribal census tracts, tribal block groups, and CDPs in the Table of Contents of the *2020 Census PSAP Tribal Respondent Guide (G-690)*.

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Figure 5: Boundary Change Sections in the G-690 Table of Contents

5.4.2 Clarifying the Use of the Undo Button

Another action to clarify from the delineation phase involves the use of the **Undo** button. The description of the **Undo** button is included within *Table 18* of the *2020 Census PSAP Tribal Respondent Guide (G-690)*. For an example, a participant split a tribal census tract that was over threshold, but one of the resulting tribal census tracts ended up below threshold. Instead of using the **Undo** button to cancel the split action and restore the tribal census tract's original boundary or instead of supplying a justification that supports the split, the participant proceeded to merge the newly suffixed tract which introduced an unintended change in the tribal census tract coding.

5.4.3 Reinforcing the Use of Imagery

Should corrections be necessary, use of imagery is strongly recommended. To make spatially accurate boundary corrections, enable imagery from the PSAP toolbar by selecting the **Add Imagery** button. Adding imagery allows participants to visualize the features and alignment of boundaries prior to making corrections. The description of the **Add Imagery** button is included within *Table 18* of the *2020 Census PSAP Tribal Respondent Guide (G-690)*.

Note: Uncheck (i.e., turn-off) the imagery layer from the Table of Contents to prevent GUPS issues that may occur when re-opening the PSAP verification phase project.

5.5 Exporting a File for Submission

Upon completion of all statistical area corrections, execute the three validation tools to help review and validate the corrections made to the 2020 statistical areas. Run the **PSAP Criteria Review** tool first, then the **Review Change Polygons** tool, and finish with the **Geography Review** tool. Refer to *Chapter 9* of the *2020 Census PSAP Tribal Respondent Guide (G-690)* for instructions on the use of the three validation tools. The **Export to Zip** tool executes these tools if a participant overlooks them.

Upon clicking the **Export to Zip** button, two options for exporting within GUPS remain in the verification phase: **Export for Census** or **Share with Another Participant**. To export the corrected statistical areas for submission to the Census Bureau, select the first choice, **Export for Census** as shown below in [Figure 6](#).

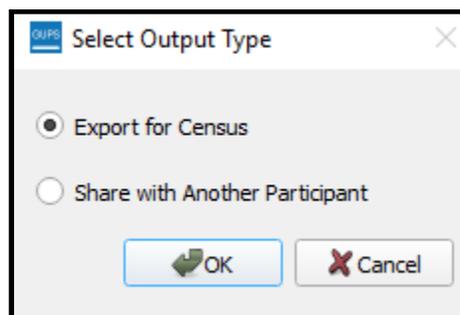


Figure 6: Select Output Type Window - Export for Census

IMPORTANT: Do not submit a partial submission (i.e., just tribal census tracts if corrections are still underway for tribal block groups or CDPs). Ensure all of the work is complete prior to executing this tool.

Table 55 in the *2020 Census PSAP Tribal Respondent Guide (G-690)* describes the export process. The only difference for the verification phase is the directory path and file name. See [Figure 7](#) for an example of the **Export to Zip** window that includes the verification phase directory and file information. Be sure to make note of the directory path and file name.

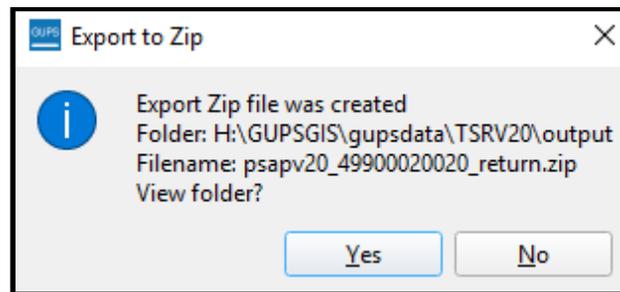


Figure 7: Export to Zip Window for Verification Phase

With the file exported, proceed to [Part 3](#) of this verification guide for instructions on submitting the .zip file to the Census Bureau. Skip the next chapter.

CHAPTER 6 USING PAPER MAPS TO CORRECT 2020 STATISTICAL AREAS

Following the review of the 2020 statistical area boundaries, in TIGERweb or with the Online PDF maps, and the identification of corrections, follow the instructions in *Part 2* of the *2020 Census PSAP Tribal Paper Respondent Guide (G-700)* for making corrections during the verification phase. The same delineation phase instructions apply to the verification phase.

Prior to making any correction to the 2020 statistical area boundaries on the paper maps, ensure the corrections result in statistical areas that follow the respective statistical area thresholds, requirements, criteria, and guidelines outlined in the respective chapters in *Part 1* of the *G-700*. See [Figure 8](#) for a visual of a portion of the Table of Contents from the *G-700*. Participants may also refer to *Appendix B* in the *G-700* or to the *Federal Register* notice section on the PSAP website to locate the established criteria and guidelines.

Part 1	Overview of the 2020 Census PSAP Materials and Tribal Statistical Geographies ..	1
Chapter 1.	Delineation Phase Materials for 2020 Census PSAP	2
1.1	Informational and Instructional Materials.....	2
1.2	Map Materials.....	3
1.2.1	Paper Maps	3
1.2.2	Adobe Portable Document Format (.pdf) Files	4
1.3	Other Materials.....	5
Chapter 2.	Tribal Census Tracts.....	7
2.1	Tribal Census Tract Threshold Requirements	8
2.2	Tribal Census Tract Codes and Numeric Identification	9
2.3	Tribal Census Tract Boundary Requirements.....	9
Chapter 3.	Tribal Block Groups	12
3.1	Tribal Block Group Threshold Requirements.....	13
3.2	Tribal Block Group Codes and Identification	13
3.3	Tribal Block Group Boundary Requirements	14
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5.2	ANVSA Guidelines	17
5.3	ANVSA Relationship to Incorporated Places and CDPs.....	18
Chapter 6.	Alaska Native Regional Corporation (ANRC).....	19
Chapter 7.	Oklahoma Tribal Statistical Areas (OTSAs) and OTSA Tribal Subdivisions	21
7.1	OTSA Criteria.....	22
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9.3	Considerations for Delineating SDTSAs	29
Chapter 10.	State American Indian Reservations (SAIRs).....	30
10.1	SAIR Criteria and Guidelines	30

Figure 8: Individual Statistical Geography Chapters in the G-700 Table of Contents

Read the chapter that applies for your type of tribal area.

- Tribal Census Tract details are in *Chapter 2*.
- Tribal Block Group details are in *Chapter 3*.
- CDP details are in *Chapter 4*.
- ANVSA details are in *Chapter 5*.
- ANRC information is in *Chapter 6*.
- OTSA and OTSA tribal subdivisions details are in *Chapter 7*.
- TDSA details are in *Chapter 8*.
- SDTSA details are in *Chapter 9*.
- SAIR information is in *Chapter 10*.

Most of the chapters align to specific tribal area types, except for Federal American Indian Reservations. They should review *Chapter 2*, *Chapter 3*, and *Chapter 4*, as applicable.

Refer to *Table 5* in the *2020 Census PSAP Tribal Paper Respondent Guide (G-700)* for instruction on the proper pencil color to use when making corrections to the verification maps. As with the delineation phase, colored pencils are included in the verification phase material shipment along with the paper maps.

Refer to *Chapter 12* in the *2020 Census PSAP Tribal Paper Respondent Guide (G-700)* for instruction on updating the paper maps with corrections.

Proceed to **Part 3** of this verification guide for instructions on shipping the updated paper maps to the Census Bureau.

PART 3 SUBMITTING CORRECTIONS TO THE 2020 STATISTICAL AREAS

This part of the respondent guide provides information for both GUPS and paper map participants. Participants that used GUPS to make corrections are provided a refresher on the use of the Secure Web Incoming Module (SWIM) to submit the corrected 2020 statistical areas. The *2020 Census PSAP Tribal Respondent Guide (G-690)* devoted an entire chapter, *Chapter 10*, to the SWIM topic providing background, requirements, and an example of using SWIM to submit the PSAP delineation phase materials. The instructions in [Table 9](#) update the *Chapter 10* example to show the pertinent information for the verification phase.

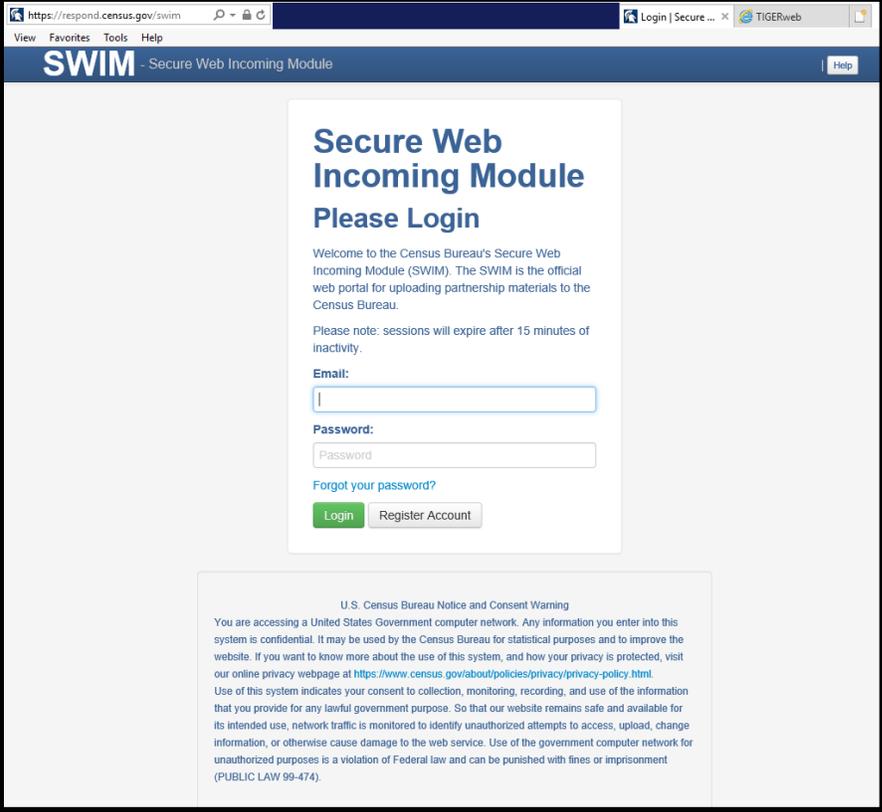
Participants that used the verification phase paper maps to perform their corrections are provided with some high level information, but primarily refer to the *2020 Census PSAP Tribal Paper Respondent Guide (G-700)*. The *G-700* devoted an entire chapter, *Chapter 12*, to showing examples for updating the various tribal statistical areas and another chapter, *Chapter 13*, to providing paper map submission instructions.

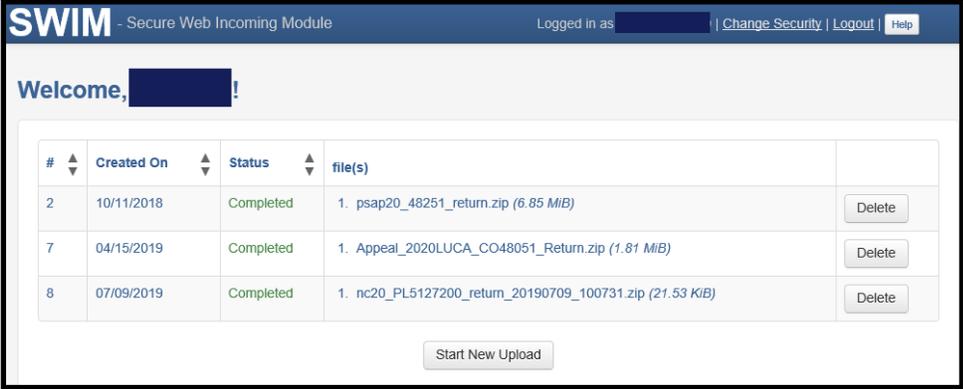
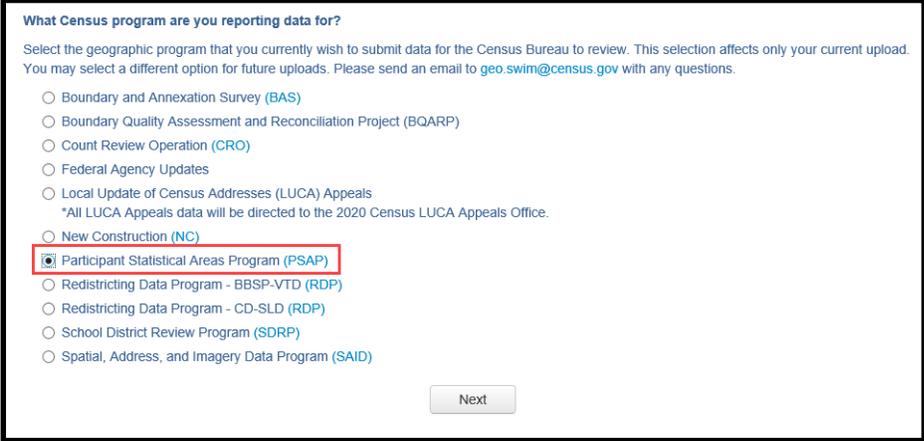
Please submit all corrections, whether made using GUPS or paper maps, to the 2020 statistical areas within 90 calendar days of receiving the verification announcement. The Census Bureau cannot provide extensions to this 90 calendar day review period. The Census Bureau will review all submissions to ensure they meet the established 2020 Census PSAP criteria and will contact participants if there are questions regarding the submission(s).

CHAPTER 7 SUBMITTING CORRECTIONS USING SWIM

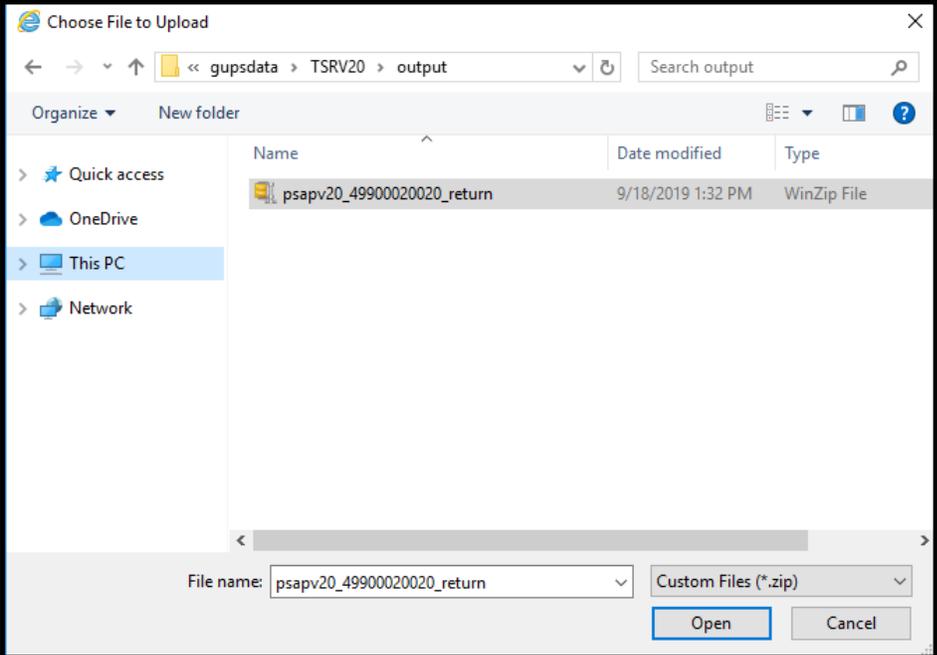
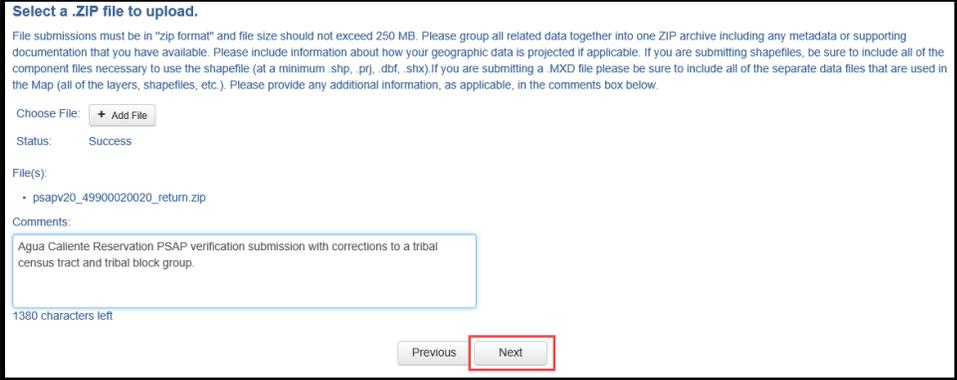
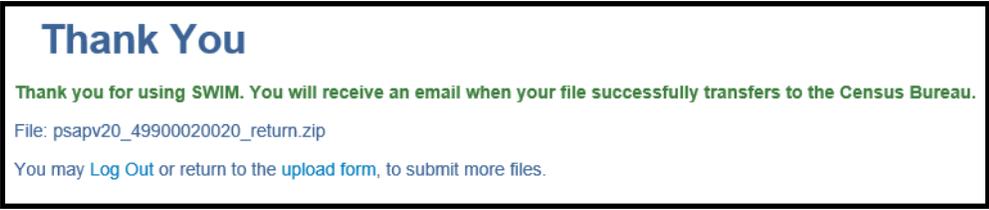
See [Table 9](#) for an example of using SWIM to submit corrections to 2020 statistical areas.

Table 9: SWIM Example

Step	Action and Result
<p>Step 1</p>	<p>Open a new internet browser window and enter the SWIM URL <https://respond.census.gov/swim>. The Secure Web Incoming Module Please Login screen opens.</p> 
	<p>Refer to <i>Section 10.2</i> the <i>2020 Census PSAP Tribal Respondent Guide (G-690)</i> for details on how to determine if an account exists and the SWIM requirements for accounts, passwords, and files submitted using SWIM.</p> <p>Note: We suspect that most participants will have an existing SWIM account since delineation phase materials were submitted through SWIM. For participants without an existing SWIM account, please contact the Census Bureau to receive a 12-digit registration token for account registration.</p>

Step	Action and Result
Step 2	<p>Enter the email address and password, then click the Login button. <i>The Welcome screen opens and previously posted files appear along with the date and status of the upload.</i></p>  <p>Click the Start New Upload button.</p>
Step 3	<p><i>The “What Census program are you reporting data for?” screen appears.</i></p>  <p>Choose Participant Statistical Areas Program (PSAP) and then click the Next button.</p> <p>Note: Unlike GUPS, there is not a specific program choice for PSAP Verification. The verification phase is part of PSAP, so there was no need to add another program choice in SWIM for the submission of verification phase corrections.</p>
Step 4	<p><i>The “What type of geography are you reporting statistical areas for?” screen appears with two choices: County and Tribal Area.</i></p>  <p>Choose Tribal Area and then click the Next button.</p>

Step	Action and Result
Step 5	<p>The Select a Tribal Area screen appears.</p> <div data-bbox="446 273 1274 535" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p>Select a Tribal Area</p> <p>Tribal Area:</p> <div style="border: 1px solid #ccc; padding: 2px; display: flex; align-items: center;"> Select ▼ </div> <div style="display: flex; justify-content: flex-end; gap: 10px; margin-top: 10px;"> Previous Next </div> </div> <p>Choose the appropriate tribal area name from the drop-down menu, as described previously in Section A, and then click the Next button.</p>
Step 6	<p>The Select a .ZIP file to upload screen appears. Click the +Add File button.</p> <div data-bbox="365 693 1347 1176" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p>Select a .ZIP file to upload.</p> <p>File submissions must be in "zip format" and file size should not exceed 250 MB. Please group all related data together into one ZIP archive including any metadata or supporting documentation that you have available. Please include information about how your geographic data is projected if applicable. If you are submitting shapefiles, be sure to include all of the component files necessary to use the shapefile (at a minimum .shp, .prj, .dbf, .shx). If you are submitting a .MXD file please be sure to include all of the separate data files that are used in the Map (all of the layers, shapefiles, etc.). Please provide any additional information, as applicable, in the comments box below.</p> <p>Choose File: + Add File</p> <p>Status:</p> <p>File(s):</p> <p>Comments:</p> <div style="border: 1px solid #ccc; height: 30px; margin: 5px 0;"></div> <p>1500 characters left</p> <div style="display: flex; justify-content: flex-end; gap: 10px; margin-top: 10px;"> Previous Next </div> </div>

Step	Action and Result
Step 7	<p>The Choose File to Upload window opens for use in navigating to the location of the exported .zip file generated by using the Export to Zip button in GUPS. Click the Open button.</p>  <p>Notice the Status is set to Success and the file name appears beneath the File(s) section. Add optional comments that may assist the Census Bureau with processing of the submission and click Next.</p> 
Step 8	<p>The Thank You screen appears. It thanks the participant and indicates a forthcoming email once the transfer completes.</p>  <p>In the last sentence on the Thank You screen, choose upload form to return to the Welcome screen and begin the upload process for another tribal area or choose Log Out.</p>

CHAPTER 8 SUBMITTING CORRECTIONS USING PAPER MAPS

To submit the paper maps with corrections, separate the map sheets with corrections from those without corrections. Retain a copy of the portion of the map(s) that show the corrections for use if the Census Bureau contacts you with questions. Retain copies of all supporting documentation that you may have assembled since the delineation phase that reinforces the corrected 2020 statistical areas.

IMPORTANT: Do not ship materials on a flow basis. Complete all work prior to making a submission.

Place the updated maps and any supporting documentation that may assist the Census Bureau with understanding the corrections in the original verification phase material packaging (i.e., map tubes, boxes, or envelope). Use the FedEx postage paid label/envelope to return the corrected map(s) to the Census Bureau. If the postage-paid label is misplaced, call the Census Bureau at 1-844-788-4921 for instructions. To ship the corrected materials on your own, the Census Bureau recommends using a service that provides tracking information, such as the United States Postal Service traceable delivery, FedEx, United Parcel Service, or similar service.

Ship the corrected map sheets to the following address:

*ATTN: GEOGRAPHY PSAP BLDG 63E
National Processing Center
1201 E 10th St
Jeffersonville IN 47132*

CHAPTER 9 NEXT STEPS FOR THE 2020 CENSUS PSAP

Congratulations on the completion of your review of the 2020 statistical areas and of your corrections, if applicable. Your participation in the 2020 Census PSAP concluded with either the email stating no changes were forthcoming or with the submission of verification phase corrections. Thank you for participating in this program to prepare useful statistical areas for the 2020 Census. Knowledge provided by PSAP participants is invaluable.

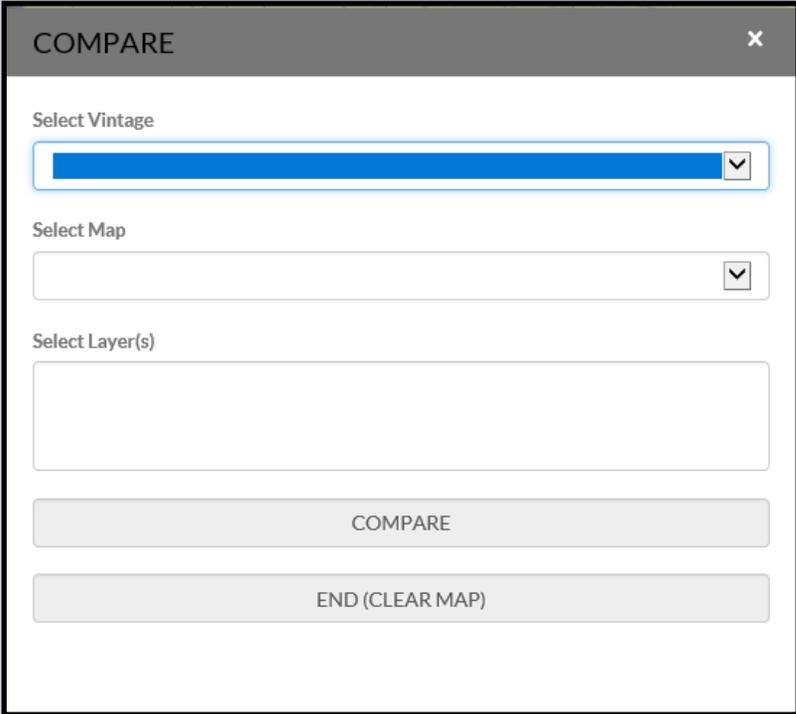
The Census Bureau will process the corrections and finalize the 2020 statistical areas for use in tabulating census data for the next decade. The final data will be made available to the public on the Census Bureau website beginning in November 2020 through February 2021.

APPENDICES

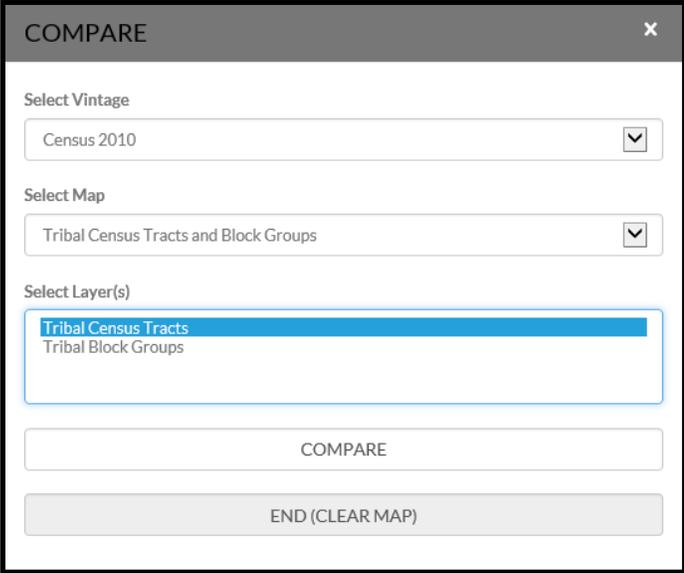
APPENDIX A USING TIGERWEB TO COMPARE 2020 STATISTICAL AREAS TO 2010 STATISTICAL AREAS

The TIGERweb **Compare** tool allows participants to visualize the changes between the 2020 statistical areas and the 2010 statistical areas. **Table 10** presents the steps for comparing the two vintages.

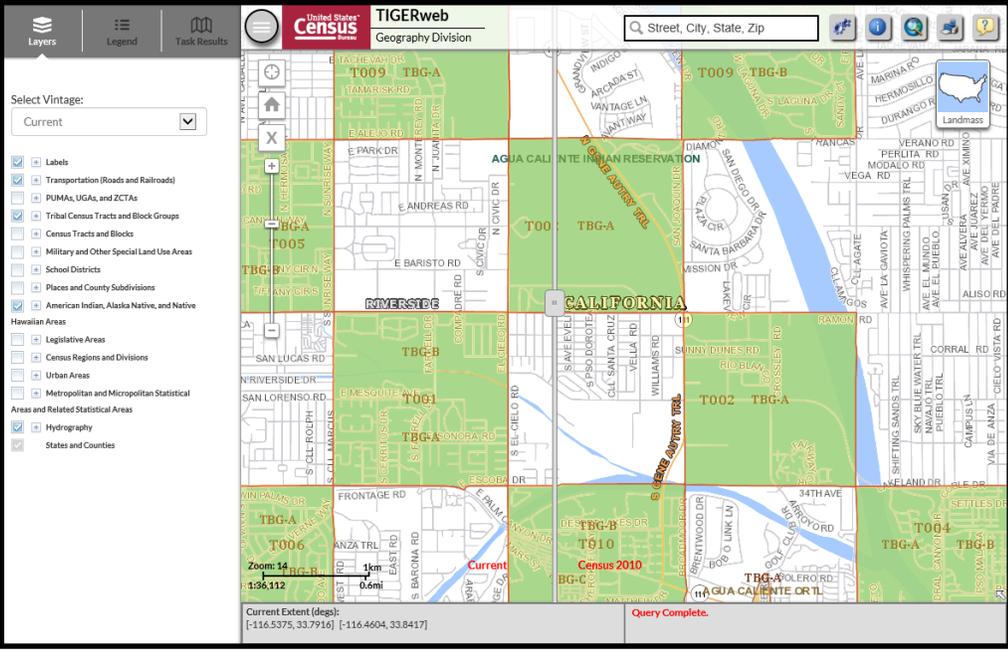
Table 10: Comparing 2020 and 2010 Statistical Areas in TIGERweb

Step	Action and Result
Step 1	<p>To compare the Current vintage to the 2010 Census vintage, launch the TIGERweb online application from the TIGERweb website: https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html.</p> <p>Using the instructions presented in Section 2.1, zoom manually or through a query to the area of interest for comparison.</p>
	<p>Click the Compare button along the upper right of the TIGERweb window.</p>  <p>The Compare window appears.</p> 
	<p>While this comparison does not compare what was submitted during the delineation phase, it does allow for visual comparison between the current 2020 statistical areas and the 2010 statistical areas which may help identify statistical areas splits or merges that occurred as a result of delineation phase processing.</p>

Step	Action and Result
------	-------------------

Step 2	<p>Select the Vintage to compare (e.g., Census 2010), Select the Map to compare with the current (e.g., Tribal Census Tracts and Block Groups), and Select the Layer (e.g., Tribal Census Tracts) and click COMPARE.</p> 
--------	--

A light gray, vertical slide bar appears on-screen with the **Current** vintage displayed on the left and the **Census 2010** vintage on the right. Click the bar to move it left or right and reveal the change of boundaries between the vintages. Large changes are easily viewed on-screen, but smaller modifications to the boundaries are more difficult to see.

Step 3	
--------	--

Note: This example does not depict any boundary differences, but does show the light-gray, vertical slide bar mid-screen and the red label for **“Current”** and **“Census 2010”** at the bottom of the screen.

Step	Action and Result
Step 4	Changing the Select Map choice to Places and County Subdivisions and then selecting the Census Designated Places in the Select Layer(s) drop-down allows for a vintage comparison of the CDPs. If applicable in your tribal area, repeat the same steps listed above to compare the vintages of CDPs.

APPENDIX B CHANGING THE MAP BACKGROUND WITHIN THE TIGERWEB ONLINE MAP VIEWER

The TIGERweb online map viewer has three choices for the map background it displays: Landmass, Satellite, and Terrain. These three choices are housed within the Topography button which is in the upper right corner of the map display, beneath the five tool buttons. The Topography button is also known as the Base Map Selector in the TIGERweb User Guide. See [Figure 9](#) for a visual of the button and its location within the TIGERweb online map viewer.



Figure 9: TIGERweb Topography Button

The default selection is Landmass. To switch displays, continue to click the Topography button, observing the instruction while hovering the mouse over the button. The hover message informs the user of the current display and what the display will be upon switching to the next choice. See [Figure 10](#) for a visual that illustrates changing between base map background choices and how the hover messages compare to what is on-screen. In the example below, though the image on the left shows the Topography button indicating the graphic for the Satellite selection, the hover message indicates the current selection is Landmass. The satellite imagery does not display until clicking the button again to change the display to Terrain. Terrain would not display until clicking the button back to Landmass.



Figure 10: Topography Button with All Base Map Choices

Use of satellite imagery and terrain base map backgrounds help to identify and visualize the features that the 2020 statistical area boundaries follow and may provide valuable insight to understanding if corrections need to be made.

APPENDIX C ADDING DELINEATION PHASE SUBMISSION TO VERIFICATION PHASE PROJECT

Participants may add their delineation phase submission files into their verification phase GUPS project. Doing so provides a visible reference for use during interactive GUPS work to correct the discrepant statistical area boundaries.

IMPORTANT: While having the delineation files available for reference during verification is nice, the Census Bureau strongly encourages participants to focus on the existing 2020 statistical areas and whether they work for the tabulation and distribution of statistical data.

Refer to *Section 7.3* and *Table 29* within the *2020 Census PSAP Tribal Respondent Guide (G-690)* for detailed instruction on the proper use of the **Add Vector Layer** button and for changing layer symbolization or call the Census Bureau at 1-844-788-4921 for assistance. As a high level summary for adding the delineation submission shapefiles into the verification phase project, follow these steps:

- Navigate to the directory location of the delineation phase .zip file (i.e., **PSAP20_<499RRRRAAAA>_return.zip**). As noted previously in the document, the <499RRRRAAAA> corresponds to a unique 11-digit code for your tribal area(s). The default directory location was likely **C:\GUPSGIS\gupsdata\TSR20\output**, but you may have copied the file to another directory for storage reasons or to archive it for safe-keeping.
- Unzip the delineation phase submission .zip file.
- Utilize the **Add Vector Layer** button within the **Manage Layers** toolbar, as highlighted below in **Figure 11**, to add in the “changes” shapefiles. The “changes” shapefiles show the polygons for the respective layer that were changed, so they can be used as reference when making corrections. **Note:** Ensure layers being added use the NAD83 coordinate system. Do not add layers into GUPS in coordinate systems other than NAD83.

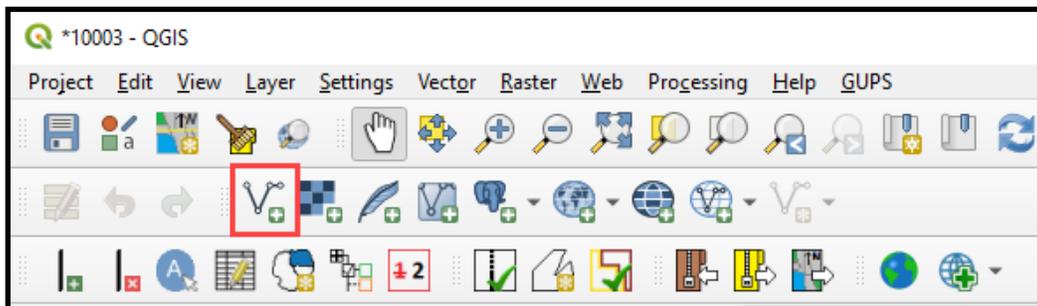


Figure 11: GUPS – Manage Layers Toolbar - Add Vector Layer Button

- Change the symbolization of the added shapefiles to view properly with the verification phase shapefiles. Depending on where the added shapefiles appear in the Table of Contents, symbolization changes can occur to the outline, pattern, transparency, color, layer order, etc.

With updated symbology and the ability to turn on/off layers, participants can visualize the differences between the delineation and verification phase statistical area boundaries and use the components of the delineation phase submission to assist with making the correction during the verification phase. Refer to *Sections 8.3.5, 8.4.4, and 8.5* of the *2020 Census PSAP*

Tribal Respondent Guide (G-690) for instructions on making boundary corrections to the tribal census tracts, tribal block groups, and CDPs, respectively.