

2021 Orange County Supervisorial Redistricting Walkthrough



Redistricting is the process of drawing new boundary lines for public offices that are elected by district, including the Orange County Board of Supervisors. The goal is population equity, meaning all districts are nearly equal in population.

This document covers the process for members of the public who wish to submit a proposed redistricting plan and includes:

- Contact information for questions
- Submittal Type Option 1: Electronic- General instructions for using the online *Esri Redistricting* software
- Submittal Type Option 2: Excel file - Submittal requirements and process

Plans must be received by 11:59 p.m. on Friday, October 15, 2021 to be considered.

When & Where?

- October 1–October 15, 2021
- Any computer with a connection to the internet
- <https://ocredistricting.esriemcs.com/redistricting/>

Branches of the Orange County Public Library have computers with internet access; for locations and hours, please visit <https://www.ocpl.org/libraries>.

Contact information for questions on proposed plans

The Center for Demographic Research (CDR) at California State University, Fullerton, the County's redistricting consultant, will be available during the submission period to provide assistance to those wishing to prepare redistricting plans through phone calls via (657) 278-2706 or virtual meetings (e.g., Zoom). The days and hours during which the CDR will provide staff assistance are below. For questions, please contact (657) 278-2706 during the following business hours from October 1, 2021–October 15, 2021:

- 7:00 a.m.–7:00 p.m. Mondays, Tuesdays, Wednesdays and Thursdays, October 4–October 14, 2021
- 7:00 a.m.–5:00 p.m. Fridays, October 1, 8 & 15, 2021
- 10:00 a.m.–2:00 p.m. Saturday, October 2 & October 9, 2021

In addition, a video tutorial on using the *Esri Redistricting* software is available online at: <https://ocgov.app.box.com/folder/146330367754?s=b914e6otkpfv508qb21qukrv8m7o478y>

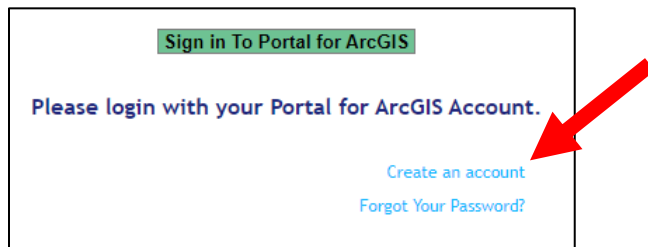
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Option 1: Electronic- General instructions for using online *Esri Redistricting* software

In order to begin for the first time, you will need to have an email account

Set Up Your Account

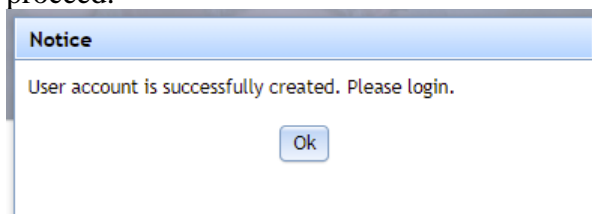
- Start at the County of Orange Esri Redistricting home page at <https://ocredistricting.esriemcs.com/redistricting/>
- If you are a first time user, Click “Create an account”



- Enter first and last name, email address, desired user name, and password. **[A]** [If you do not have an email address, you may create one for free at Gmail.com, Yahoo.com, Hotmail.com, etc.]
 - If you forget your password, click the link “Forgot Your Password?” You will be asked to provide your username and email address to reset your password.
- Click “Create” **[B]**

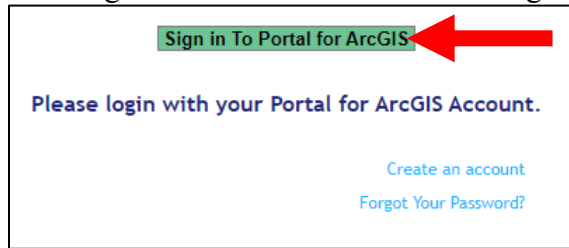


A window will pop up with a notice that your account has been successfully created. Click “Ok” to proceed.



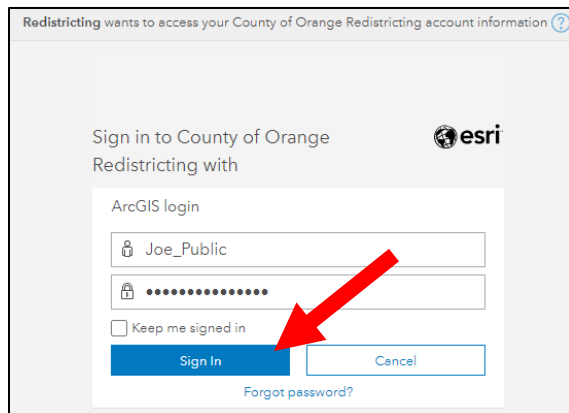
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You will be taken back to the redistricting software home page and you need to click on the green link “Sign in To Portal for ArcGIS” to sign in and use the software.



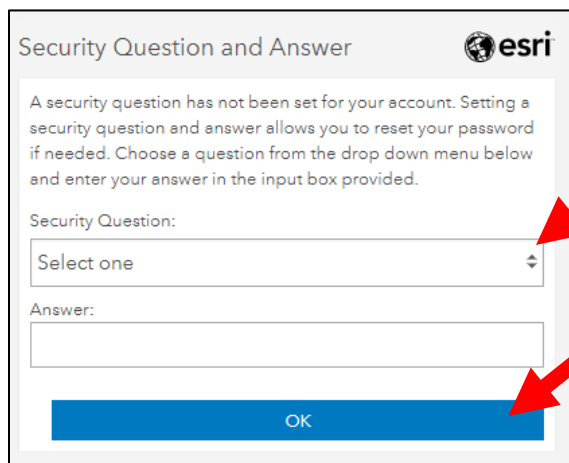
Another window will pop up and ask for you to sign into the County of Orange Redistricting software.

- Enter your new user name and password.
- Click “Sign In.”



Once you log in, you will need to select and answer a security question in case you need to reset your password at a future time.

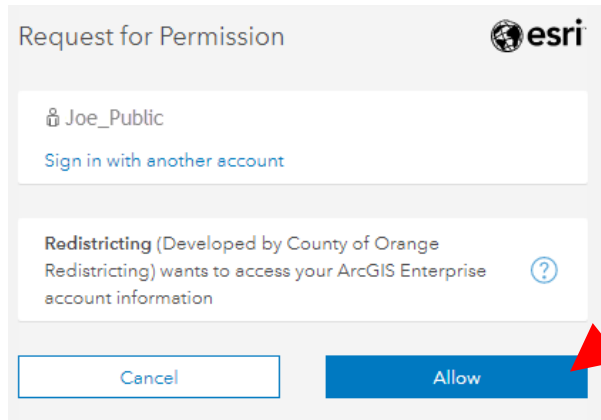
- Select your preferred security question.
- Enter your answer to the security question.
- Click “Ok”



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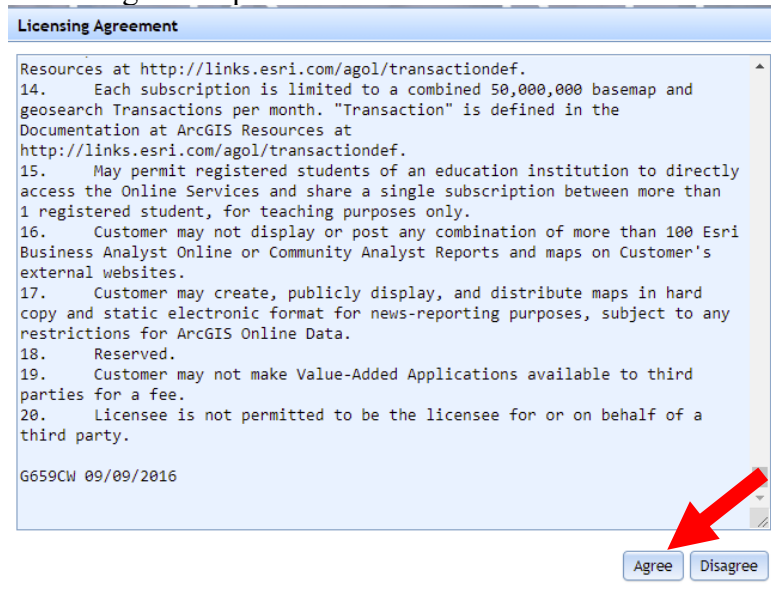
A window will pop up and request permission to sign into the County of Orange's Esri Redistricting software for your user account.

- Click "Allow"



A final window will pop up regarding the licensing agreement.

- Click "Agree" to proceed



The software will automatically load with a landing page allowing you to choose a template to start from.

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Notes about your plan:

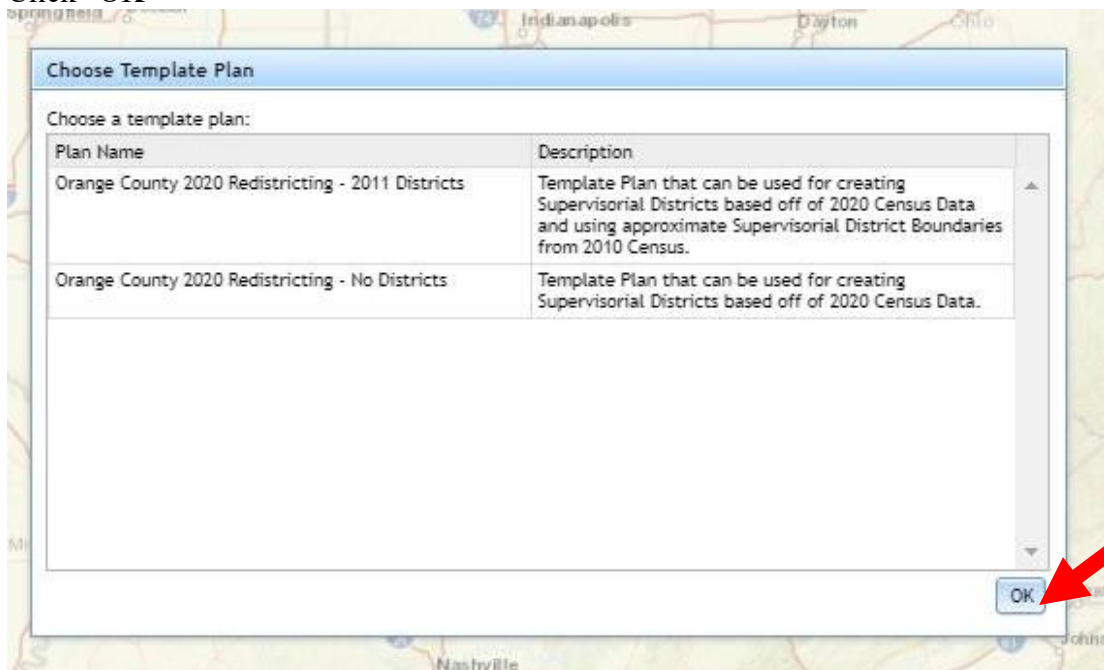
- Does not need to be completed in one session.
- May be accessed at a later time.
- May be accessed from any computer terminal.
- It is recommended that you save your plan regularly while working on it.
- Must be a complete plan for successful submission (for more details, see the criteria described in the Public Participation Plan https://cob.ocgov.com/sites/cob/files/2021-08/ITEM01_Public_Participation_Plan_2021.07.27_FINAL.pdf).

To Create a Plan

- After signing in for the first time once your account is set up, the software will load and you will choose a template plan to start with.

You may choose between two starting templates: an empty plan or the current (2011) supervisorial districts.

- Select the template type you want to use.
- Click “OK”



Input a title for your new plan. Adding a description is optional at this point.

- Click “OK.”

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Things to keep in mind in developing a plan

1. The County seat is located in the City of Santa Ana. District 1 should contain all or part of the City of Santa Ana.
2. All plans must have 5 districts with no unassigned areas.
3. All districts must be contiguous; this means that all areas assigned to a single district must be connected.
4. **Target population for each district is 638,602.** The difference between the smallest and largest district cannot be more than 10 percentage points, also referred to as the “10% spread” or “10% maximum deviation”.
5. Save your work as you go. Save your plan before you sign out.
6. If you have problems assigning a group of geographies to a district, try selecting a smaller area to assign; sometimes the number of geographies is too large for the software to process.

Navigating the Graphical User Interface (GUI)

The graphical user interface (GUI) includes 5 sections (clockwise from top right):

1. Menu ribbon and tools [A]
2. Table view options, including pending changes [B]
3. Table view of district totals [C]
4. Contents pane [D]
5. Map [E]

Quick Tip

You can adjust text and image size in your internet browser by holding **Ctrl** and + or **Ctrl** and -.

Familiarize yourself with each window and its functionality.



- Resize windows so all are visible.
- To open/close the Contents pane, click on the arrow [F]
- Within the **Contents** pane, additional geographic layers [G] are included for reference if desired. These may be turned on or off by clicking in the box. These include the city boundaries, school districts and the existing supervisorial districts.

The screenshot displays the Redistricting Online 2.36 interface. At the top is a menu ribbon with options like File, Learn, View, Create, Review, Share, and Submit. Below the ribbon is a toolbar with icons for New, Open, Save, Save As, Archive, Open Local, Save Local, Print, Plan Book, Import, and Export. The main area is divided into a left-hand Contents pane and a central map. The Contents pane lists various layers: Map Notes, Districts, California_2020, 2020_Redistricting_Reference_Layers, City Boundaries, School Districts, Existing Supervisorial Districts, and Streets. A red arrow [F] points to a collapse/expand arrow in the Contents pane, and another red arrow [G] points to the 'City Boundaries' layer. The map shows a geographical view of Orange County with a shaded district boundary. A red arrow [E] points to the map area. At the bottom is a data table with columns for District, Color, Hide, Lock, TOTAL, TARGET_DEV, TARGET_DEV_P, CA_HISP, CA_HISP_P, CA_WHITENH, CA_WHITENH_F, CA_BLACKNH, CA_BLACKNH_F, CA_AIANNH, CA_AIANNH_P, CA_ASIANNH, CA_ASIANNH_P, and Districts. A red arrow [C] points to the 'TOTAL' column, and another red arrow [B] points to the 'Districts' column.

| District | Color | Hide | Lock | TOTAL | TARGET_DEV | TARGET_DEV_P | CA_HISP | CA_HISP_P | CA_WHITENH | CA_WHITENH_F | CA_BLACKNH | CA_BLACKNH_F | CA_AIANNH | CA_AIANNH_P | CA_ASIANNH | CA_ASIANNH_P | Districts |
|------------|-------|--------------------------|--------------------------|-----------|------------|--------------|-----------|-----------|------------|--------------|------------|--------------|-----------|-------------|------------|--------------|-----------|
| Unassigned | | <input type="checkbox"/> | <input type="checkbox"/> | 3,193,010 | | 0.00 | 1,090,281 | 34.15 | 1,200,128 | 37.59 | 49,943 | 1.56 | 5,325 | 0.17 | 699,267 | | 2 |
| District 1 | | <input type="checkbox"/> | <input type="checkbox"/> | 0 | -638,602 | -100.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| District 2 | | <input type="checkbox"/> | <input type="checkbox"/> | 0 | -638,602 | -100.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| District 3 | | <input type="checkbox"/> | <input type="checkbox"/> | 0 | -638,602 | -100.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| District 4 | | <input type="checkbox"/> | <input type="checkbox"/> | 0 | -638,602 | -100.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |
| District 5 | | <input type="checkbox"/> | <input type="checkbox"/> | 0 | -638,602 | -100.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |


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Menu Ribbon


After logging in, you may open a new plan or a different plan by using the **File Tab**  or clicking the **Open a plan** button in the orange header ribbon 

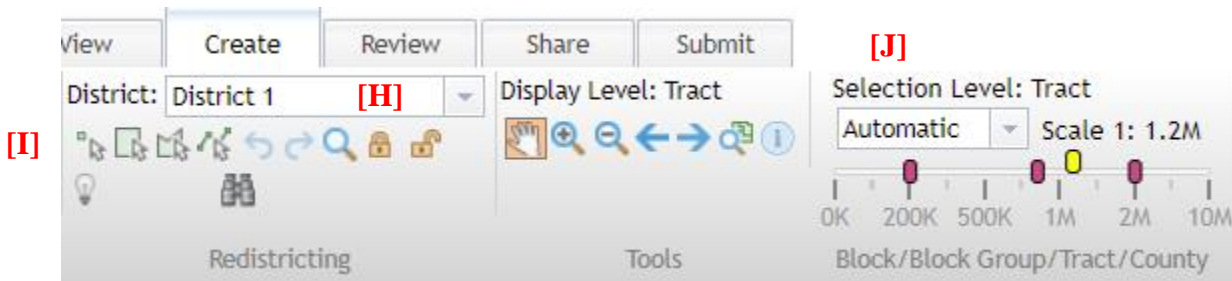
Modifying Your Plan

Most work will be done using tools from the **Create Tab** .

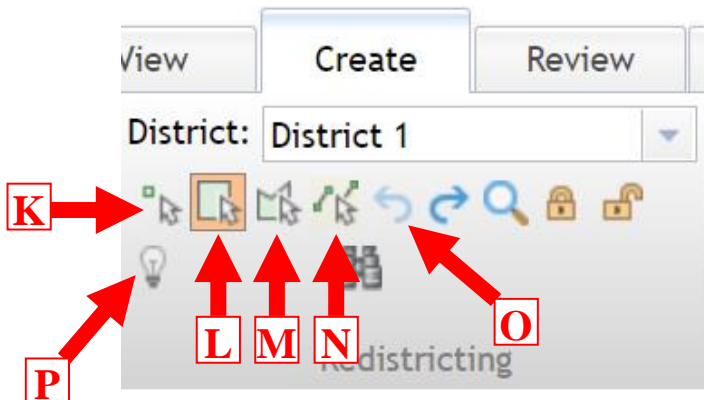
Before you begin editing, you may choose to **zoom in**. To do so, click on the **magnifying glass** icon  in the **Create Tab**. This allows you to click and **draw a rectangle** on the map. The area within the rectangle will be zoomed in. Repeat until desired scale is reached. As you zoom in, more detail will be revealed on the map. If your mouse has a scroll wheel, this can be used to zoom in and out. You can also click on the “+” and “-” buttons in the upper left corner of the map

window to zoom in and out. 

To **pan** around the map at the same scale, click the **pan** button  in the **Create Tab**. Click, hold, and drag your mouse to move to another part of the map you wish to **modify**. You must select a **District** in the pull-down menu **[H]** that you wish to **increase in size**. Choose one of the four Selection tools **[I]** you want to use to select the area you want to assign. The **Selection Level [J]** is set to default to the scale level (how far you’ve zoomed in) and will display the level of geography that will be selected. These selectable layers are, from smallest to largest, census block, block group, census tract, and county.




Once the District has been chosen, click on one of the four selection tools you would like to use in the **Create Tab**.









Selection Tools:

- [K]** Select geographies by picking them (one-by-one)
- [L]** Select geographies by rectangle
- [M]** Select geographies by polygon
- [N]** Select geographies by polyline
- [O]** Undo/Redo tools
- [P]** Two stage selection tool activation

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You may now select the area you wish to assign to your selected district. The **selected** area will change to the color designated for each district after each area is selected. This district colors are shown in the table in the bottom left corner. If you do not like the change you made, you can undo the action by clicking on the **Undo** button  [O] (see page 7).

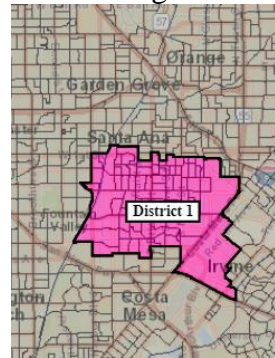
The default setting in the software is to assign areas in one step. If you would like to see the changes before you assign them, you can turn on the **Two-stage selection** process by clicking on the **light bulb**  [P] to expand the two-stage menu: . The two-stage selection allows you to select an area, see the area selected to be assigned, see the magnitude of the change first in the table below, and then apply the district selection by clicking the **Lasso** button  to complete the action. You can zoom into the selected area by clicking the **Zoom to current selection** button . You can clear a selection by clicking on the **Clear two stage selection** button . Turn off the two-stage process by clicking on the **light bulb** .


Example of modified supervisorial districts:

Before change:



After change:



In order to select multiple areas at once, the **polygon** tool  [M] (see page 7) allows you to draw a polygon on your map, selecting all blocks, block groups, or census tracts touching or within it. Note: the polygon tool works best with smaller geographic areas and 3-5 points of a polygon/area to select. If the tool doesn't select the area you attempted to select, try selecting a smaller area.



Double-click to complete your shape selection.

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To select a whole city or census designated place (CDP) and assign to a district, use the **Contents** pane on the left.

- Choose the district you want to assign the place to in the **Create** Tab in the menu ribbon.
- Expand/open the Contents pane and click on the **Identify** Tab at the bottom of the pane.
- Using the pull down menu in the **Contents – Identify** Tab [Q], select the city or census designated place and click **Show** [R]. You will see the city highlighted with a yellow border [S], verify the place selected is correct.
- Use the long scroll bar on the right side of the pane [T] to scroll to the bottom of the pane.
- Verify the District listed is the one you want to assign it to. [U]
- Click the **Assign To...** button [V] to add that city/CDP to the assigned district. Be patient as it may take a bit of time to assign the whole city depending on its size.

Tip: Don't use two stage selection when using Identify pane and assigning by place (only census tracts will get assigned if they are fully contained within the place)

Tip: If using the **Contents – Identify** to assign areas to districts, you can clear a selection by clicking on the **Clear** button [W].

Identify

Place: Aliso Viejo **Q** Show **R**

County: Show

Identify from: Place
Name: Aliso Viejo
Place: 00947

| Field | Value | On Top |
|------------|-------|--------------------------|
| AIAN | 700 | <input type="checkbox"/> |
| AIAN18 | 542 | <input type="checkbox"/> |
| AIAN18_P | 1.34 | <input type="checkbox"/> |
| AIANNH | 382 | <input type="checkbox"/> |
| AIANNH18 | 312 | <input type="checkbox"/> |
| AIANNH18_P | 0.77 | <input type="checkbox"/> |
| AIANNH_P | 0.73 | <input type="checkbox"/> |
| AIAN_P | 1.34 | <input type="checkbox"/> |
| ASIAN | 10432 | <input type="checkbox"/> |

Use Grid Demographics Only

Search Contents Legend Identify

Use Grid Demographics Only

Selection Color **W** Clear Zoom To

Source District: Any District

U Assign To... **V**

District: District 5

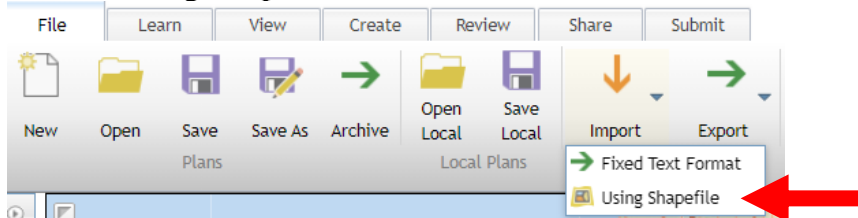
Search Contents Legend Identify

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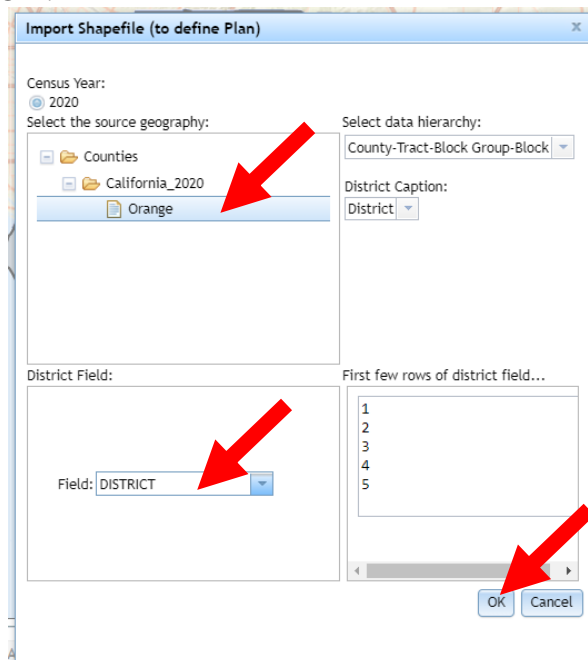
Importing a plan using a shapefile created in another program (NEW)

If you have created a plan using another software program, that plan can be imported from a shapefile.

1. To import a plan from a shapefile, go to the **FILE** Tab, **Import** button and select “Using Shapefile”



2. Browse to find the folder and select the four files associated with the shapefile you want to import.
 - a. Click on the first file, hold down the control button and then click the fourth file, this will select all four files associated with the plan shapefile to import. Click OK.
 - i. The four files are the: DBF, PRJ, SHP, and SHX
3. In the new pop up window, select “Orange” from the click menu in the upper left quadrant of the pop up window.
4. In the lower left, use the pull-down menu and select the name of the column with the proposed district IDs. The file must include district assignments for all 26,734 2020 Census blocks in Orange County.
5. Click OK.



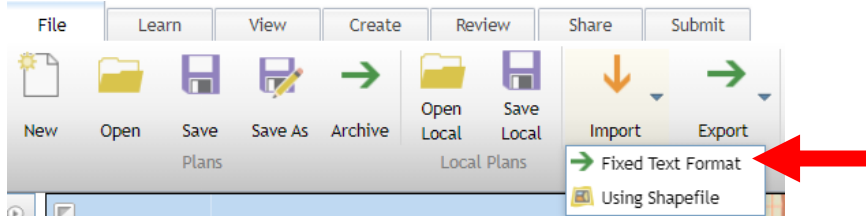
6. System will process and a new window will pop up. If the window says “No problems detectable, Would you like to continue with the import?”, click OK and your proposed district assignments will be imported. Give your map a name when prompted and save the map.

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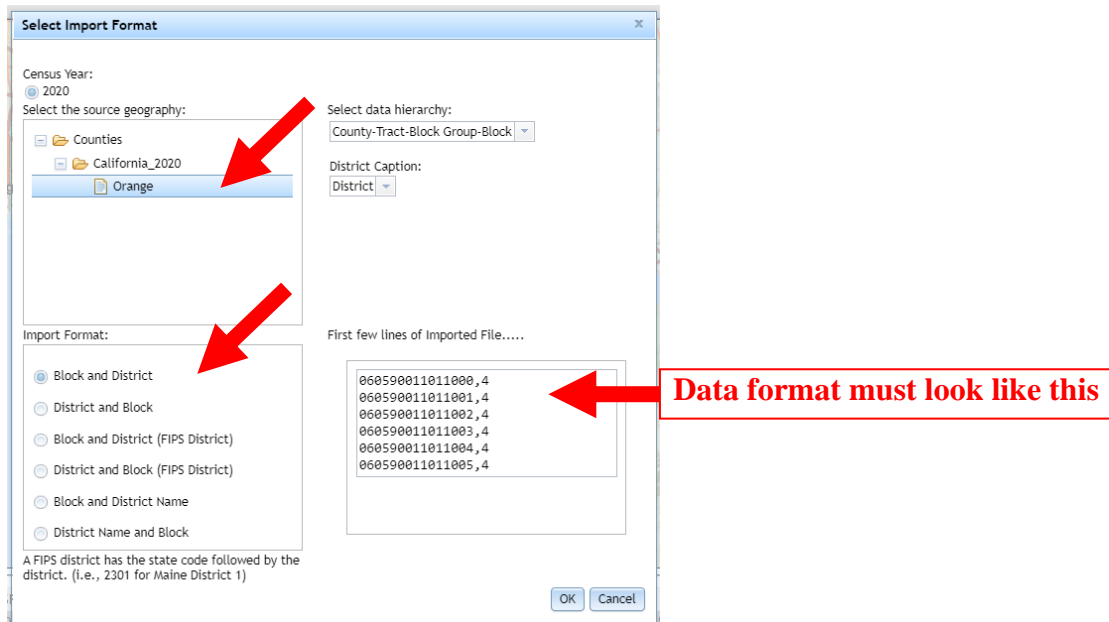
Importing a plan from a fixed text file created in another program (NEW)

If you have created a plan using another software program, that plan can also be imported as a fixed text file.

1. To import a plan from a text file, go to the **FILE** Tab, **Import** button and select “Fixed Text Format”



2. Browse to find the folder and select the text file you want to import.
3. In the new pop up window, select “Orange” from the click menu in the upper left quadrant of the pop up window.
4. Select the format of the text file to import in the lower left or leave as default format (Block and District).
5. Click OK.



6. System will process and a new window will pop up. If the window says “No problems detectable, Would you like to continue with the import?”, click OK and your proposed district assignments will be imported. Give your map a name when prompted and save the map.
 - a. If the pop up window reports a number of geographies (up to 26,734) did not import, check the format of your text file to ensure it looks like the sample above (e.g., 060590011011000,4)

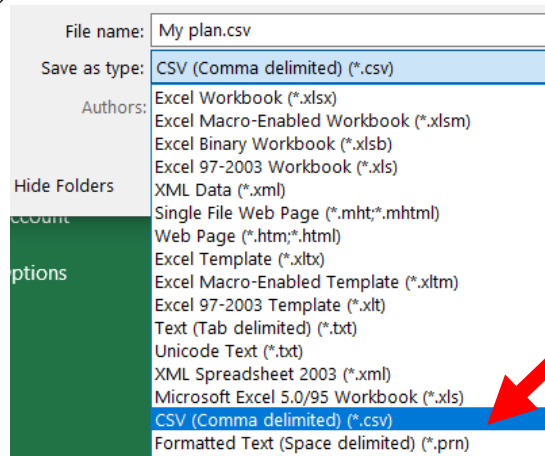
Note: the text file must contain IDs for all 26,734 2020 census blocks in Orange County and be in a format that lists either:

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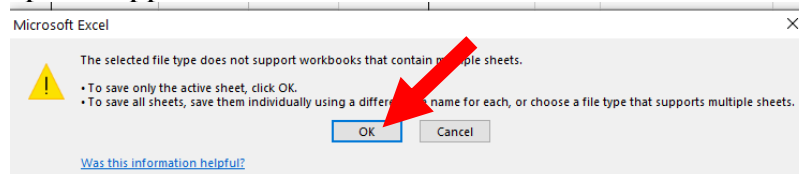
- the 15-digit 2020 census block ID plus a comma and then the proposed district ID OR
- the proposed district ID plus a comma and then the 15-digit 2020 census block ID

For advanced users: Text files can be created by exporting the attribute table associated with a shapefile or feature class.

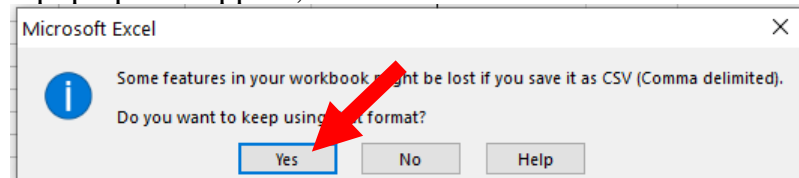
1. Export attribute table of shapefile or feature class to dbf or Excel.
2. Open exported attribute table in Excel.
3. Copy the columns with the GEOID (e.g., 060590011011000) and proposed district assignment and paste into a new Excel workbook.
4. Go to **FILE** Tab, select **Save As**, name file and select CSV (Comma delimited) (*.csv)



5. A pop up will appear, click OK to save as CSV.

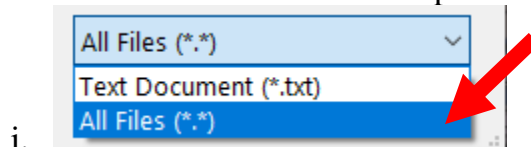


6. Another pop up will appear, click **Yes** to continue to save as a CSV.



7. To import the CSV into Esri Redistricting software, go to the **FILE** Tab, **Import** button and select “Fixed Text Format”.

- b. Navigate to the folder with your saved CSV file and then in the lower left of the import window, click on the pull down where it says “Text Document (*.txt)” and select “All Files (*.*)”. The CSV file should appear. Select the CSV file and continue with the steps above to import using the CSV file.



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Data and Variables Included in Software

Variables may be turned on and off by using the **Demographics** button in the **Create** Tab. The variables listed below and the percent share of the proposed district for each may be added.

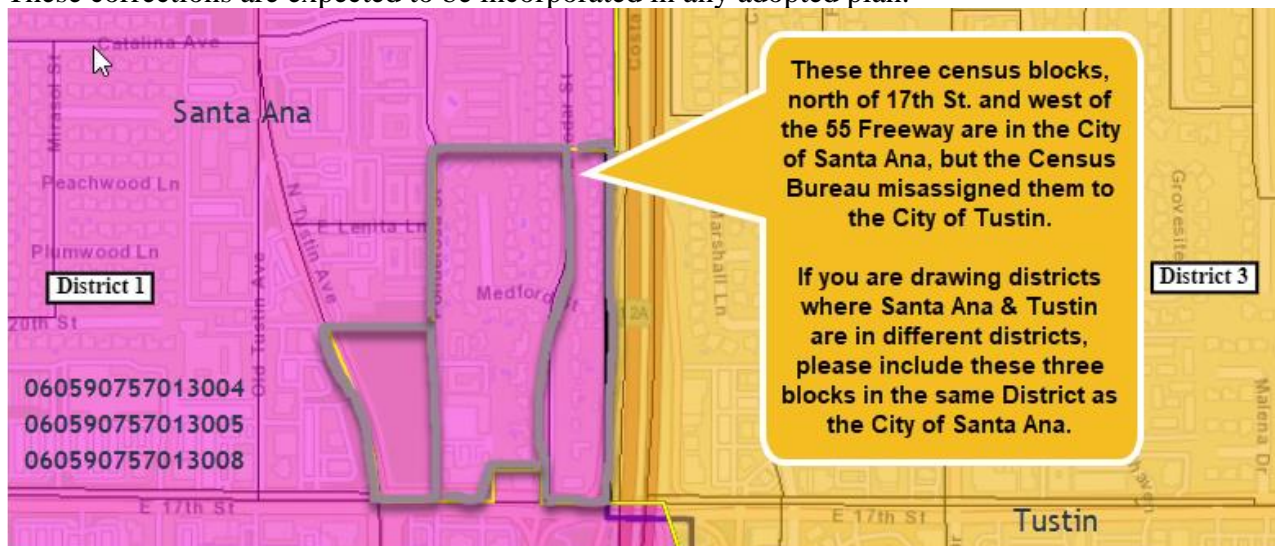
Note: Displaying more than 20 variables will slow district selection.



| Variable Name | Variable Description |
|---------------|---|
| TOTAL | Adjusted 2020 Total Population |
| CA_HISP | Adjusted Hispanic or Latino of Any Race |
| CA_WHITENH | Adjusted Not Hispanic White alone |
| CA_BLACKNH | Adjusted Not Hispanic Black or African American alone |
| CA_AIANNH | Adjusted Not Hispanic American Indian and Alaska Native alone |
| CA_ASIANNH | Adjusted Not Hispanic Asian alone |
| CA_NHPINH | Adjusted Not Hispanic Native Hawaiian and Other Pacific Islander alone |
| CA_OTHERNH | Adjusted Not Hispanic Some Other Race alone |
| CA_2PLUSNH | Adjusted Not Hispanic Two or More Races |
| TOTAL18 | Adjusted 2020 Total Population 18 and over |
| CA_HISP18 | Adjusted Population 18 and over Hispanic or Latino of Any Race |
| CA_WHTNH18 | Adjusted Population 18 and over Not Hispanic White alone |
| CA_BLKNH18 | Adjusted Population 18 and over Not Hispanic Black or African American alone |
| CA_AIANH18 | Adjusted Population 18 and over Not Hispanic American Indian and Alaska Native alone |
| CA_ASINH18 | Adjusted Population 18 and over Not Hispanic Asian alone |
| CA_NHPNH18 | Adjusted Population 18 and over Not Hispanic Native Hawaiian and Other Pacific Islander alone |
| CA_OTHNH18 | Adjusted Population 18 and over Not Hispanic Some Other Race alone |
| CA_2PLUSNH18 | Adjusted Population 18 and over Not Hispanic Two or More Races |

Data are from the 9/27/2021 Statewide Database Revised/Updated Adjusted 2020 Census P.L. 94-171 Redistricting Data file.



Note: There are 3 census blocks the Census Bureau misassigned to the City of Tustin that are actually in the City of Santa Ana with a total of 260 population. The three census blocks are indicated below and should be grouped with the City of Santa Ana to avoid splitting the city. These corrections are expected to be incorporated in any adopted plan.



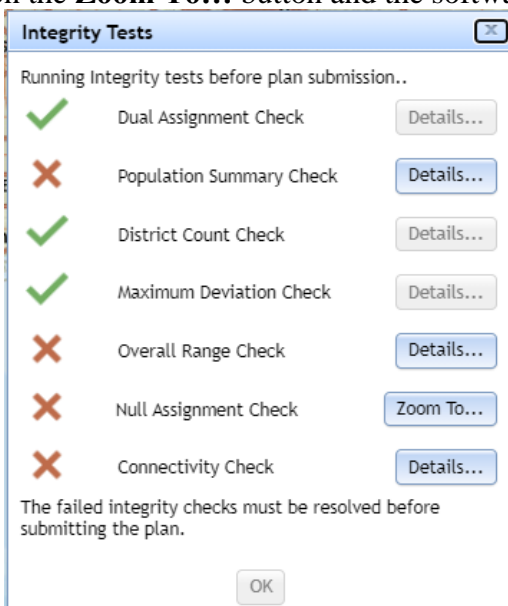
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Review Whether Plan is Complete Before Submission

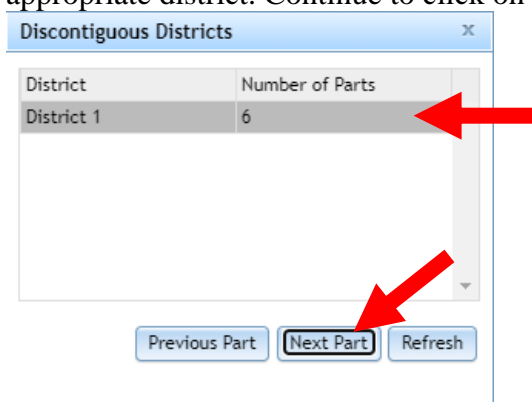
Once you have made changes to all the districts and you are satisfied with your plan, you need to verify your plan is complete. To do this, you must run the plan integrity checks. Save your plan.

Under the GUI's **Review** Tab menu , click the **Check Integrity** button . This will run six tests and search your map for errors, including any area that has not been assigned to a supervisorial district and for non-contiguous areas (these are areas that are not connected).

Once the integrity check is complete, a pop up window will display and indicate what errors are contained in the plan. Click on the **Details** buttons to see what the errors are and the software will walk you through how to correct the errors. If there are blocks without an assigned district, click on the **Zoom To...** button and the software will walk you through all the unassigned blocks.



If the **Connectivity Check** fails, a window will open listing the districts that failed the Connectivity Check. **Click** on the District to highlight it in grey; then click the **Next Part** button and the software will display the area that needs to be fixed. Assign the disconnected area to the appropriate district. Continue to click on the **Next Part** button until all items have been resolved.



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Submitting Your Plan



When you are ready to submit, go to the **Submit Tab** and click the **Submit Plan** button . The software will automatically run the six **Integrity Tests** and will let you know if there are any problems. All problems must be resolved before the plan may be submitted. Click on the **Details** button to see what errors have occurred and the software will walk you through how to resolve them.

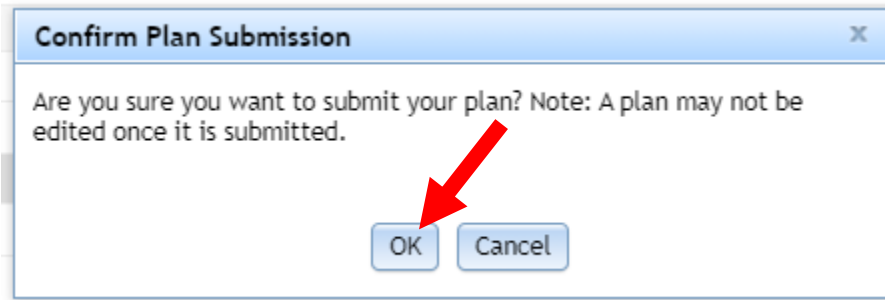
A dialog box titled "Integrity Tests" with a close button (X) in the top right corner. The text inside reads "Running Integrity tests before plan submission..". Below this is a list of six checks, each with a status icon and a button: 1. Dual Assignment Check (green checkmark, "Details..."), 2. Population Summary Check (green checkmark, "Details..."), 3. District Count Check (green checkmark, "Details..."), 4. Maximum Deviation Check (red X, "Details..."), 5. Null Assignment Check (green checkmark, "Zoom To..."), 6. Connectivity Check (green checkmark, "Details..."). At the bottom, a message states "The failed integrity checks must be resolved before submitting the plan." and an "OK" button is located at the bottom center.

You will be asked to include a brief summary of your redistricting plan, as well as your contact information. An explanation regarding how the plan keeps communities of interest together can be inputted in the “explanation of plan objectives” or submitted separately in comments to the Board of Supervisors in support of the submitted plan. Click **Submit Plan**.

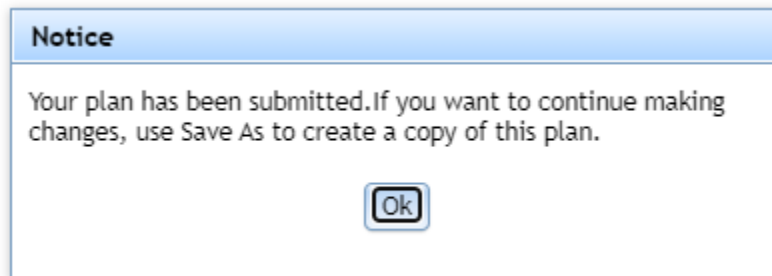
A "Submit Plan" dialog box with a blue title bar. It is divided into two sections: "Contact Information" and "Plan Information". Under "Contact Information", there are fields for Name (*), Organization (*), Phone Number (*), City (*), State (*), and Email Address (*), each with a text input field. Under "Plan Information", there is a "Plan Name: *" field and a larger text area for "Explanation of plan objectives: *". At the bottom, there is a note "A plan may not be edited once it is submitted." and two buttons: "Submit Plan" and "Cancel". Red arrows point to the "State" and "Email Address" fields in the Contact Information section, and to the "Plan Name" field and the "Explanation of plan objectives" text area in the Plan Information section.

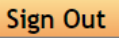
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Another window will pop up asking you to confirm you want to submit your plan with a reminder that the plan may not be edited after it is submitted. Click **OK** to submit your plan.



After you submit your plan, a window will pop up indicating your plan has been submitted. **Note:** If you make further changes to the plan you are working with, it will not make changes to the plan you submitted and you may to submit another plan if you choose. You will receive a confirmation email upon successful receipt of submission.



After your plan has been submitted, please log out by clicking the **Sign Out** button .

Things to remember:

- Resaving a submitted plan will not override the plan that was submitted.
- Submitted plans cannot be recalled or rescinded.
- Plans must have all five (5) Supervisorial districts to be considered, no non-contiguous areas, and all geographies must be assigned.
- Allow ample time to review and submit plan.
- **Plans must be received no later than 11:59 PM on Friday, October 15, 2021 to be considered.**
- You will automatically be sent an email verification that your plan has been submitted.

Option 2: Excel file - Submittal requirements and process

Items to fill out if using the Excel file:

1. “Author” Worksheet with the four items to be considered a complete plan:
 - a. Contact name
 - b. Phone number and/or email address
 - c. City and county of residence
 - d. A narrative description of the proposed plan, preferably in 250 words or less. The narrative may include a description of how the plan complies with the General

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Instructions for Developing/Submitting a Proposed Redistricting Plan (found within Item 1: Public Participation Plan located at: <https://cob.ocgov.com/2021-redistricting-kit>)

2. “Assignments” Worksheet with all 926 partial census tracts assigned a proposed supervisorial district.
 - a. If portions of a census tract are assigned to two or more supervisorial districts, list each census block located in each district using the “Partial Tract Form” Worksheet.

SUBMITTAL DEADLINE

In order to be considered by the Board of Supervisors, proposed redistricting plans must be received **no later than y 11:59 p.m. on Friday, October 15, 2021.**

Neither the County nor CDR is responsible for the rejection of proposals that are either not received by the deadline or are incomplete or that do not comply with the requirements outlined in the Public Participation Plan located at: <https://cob.ocgov.com/2021-redistricting-kit>.