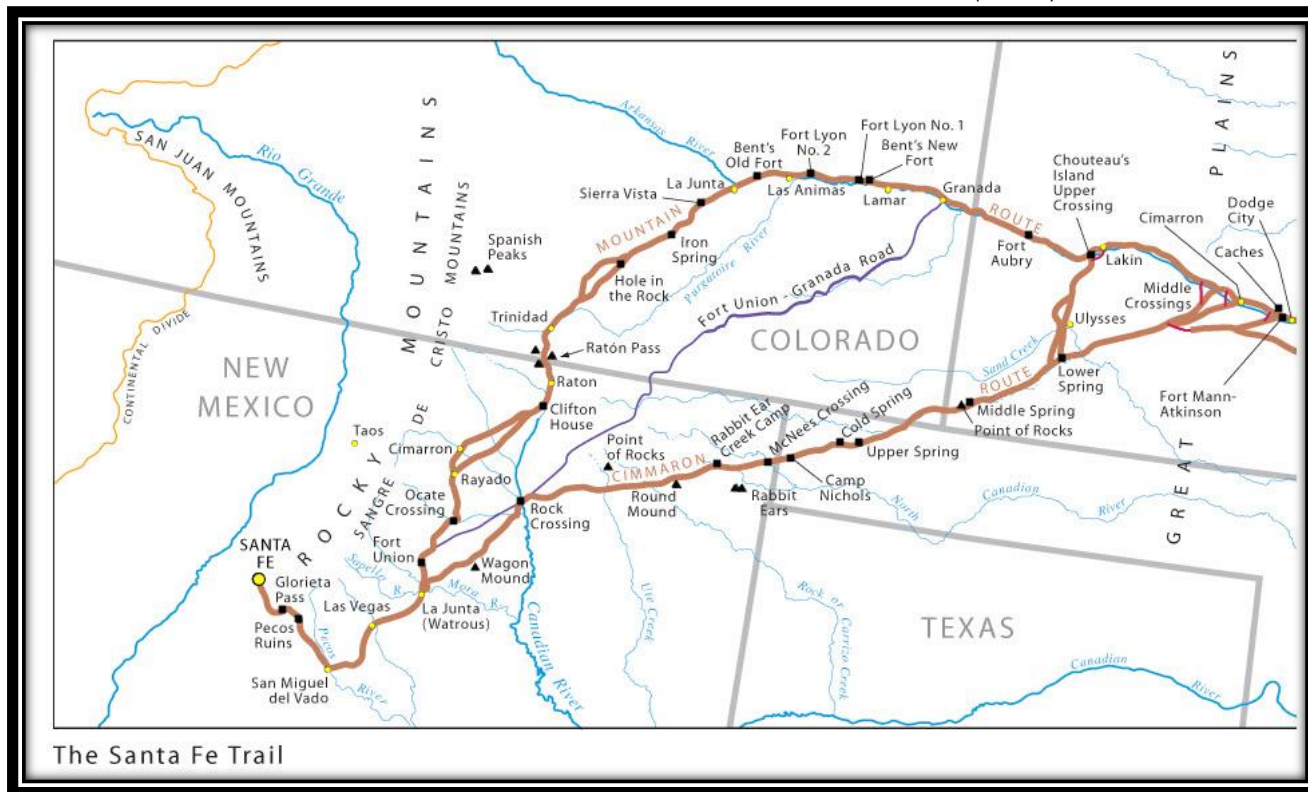


EXPLORING THE MORA WATERSHED: EXERCISE 2

Map Courtesy of the Santa Fe Trail Association



: Creating a Story Map of the Santa Fe Trail

A guided tour using ArcGIS Online to create a Story Map

Funding to develop this exercise has been provided by the National Science Foundation (NSF) award #IIA-1329470. Any opinions, findings, conclusions, or recommendations expressed in the material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



Exploring the Mora Watershed: Exercise 2

CREATING A STORY MAP OF THE SANTA FE TRAIL

Time to complete

Approximately 60-70 minutes

An Internet Connection is Required

In this exercise you will:

- 1) Learn about ESRI's Story Maps
- 2) Design a Story Map using a Map Journal design template
- 3) Publish your Story Map to view Online

INTRODUCTION

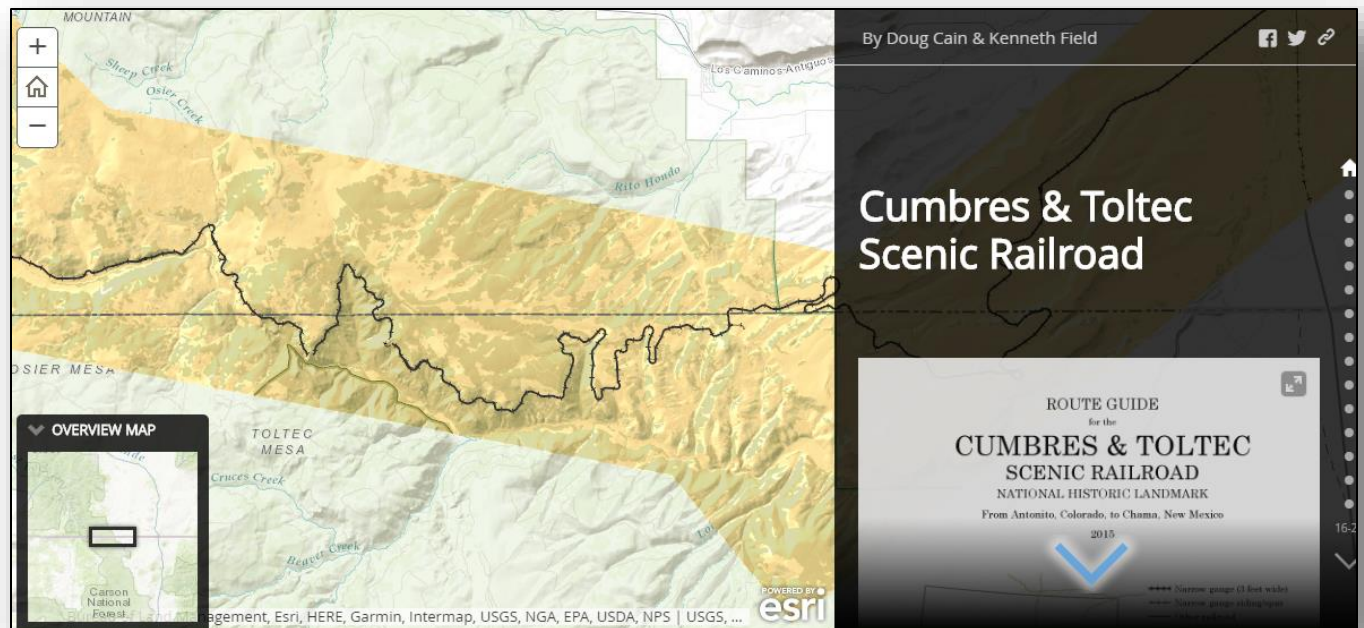
In exercise 1 we used ArcGIS Online to explore the Mora Watershed. In this exercise we will explore the tools needed to share spatial information in order to tell a story. Maps have always been used to convey spatial information and ESRI's *Story Maps* combine maps with narrative text, images, and multimedia to tell a story. In this lesson, you'll be introduced to some of the ways stories can be told using maps. You will also learn how to create your own *Story Map* and publish them online.

Explore a Story Map

Before we start to build our own Story Map, we will take a few minutes to explore a completed Story Map. Click on the link below to view a Story Map of the Cumbres and Toltec Scenic Railroad:

<http://www.esri.com/products/maps-we-love/cumbres-toltec>

If the HyperLink does not work please google: "Cumbres and Toltec scenic railroad story map"



After reviewing the Story Map, what did you learn about the scenic Railroad? Where does the railroad begin, end and what year was the railroad built? Answer these questions below.

List the beginning location: _____,

List ending location : _____

What year was the railroad built: _____

For our Story Map will be using a similar layout only our story will be about points of interest along the Santa Fe Trail within Northern New Mexico.

Santa Fe Trail Background

Before we get started designing our own Story Map, let's provide some background history regarding the Santa Fe Trail.

The Santa Fe Trail was a 19th-century transportation route through central North America that connected Independence, Missouri with Santa Fe, New Mexico. Pioneered in 1821 by William Becknell, it served as a vital commercial highway until the introduction of the railroad to Santa Fe in 1880. Santa Fe was near the end of the El Camino Real de Tierra Adentro which carried trade from Mexico City. (Wikipedia, 2-5-2017, https://en.wikipedia.org/wiki/Santa_Fe_Trail)

For over 60 years, the Santa Fe Trail was a thread in a web of international trade routes in North America. It influenced economies as far away as New York and London. Spanning 900 miles of the Great Plains, it connected the United States to Mexico and created cultural mosaic of individuals and groups who cooperated, and also sometimes clashed. In the process, the rich and varied cultures of the Great Plains Indian people became caught in the middle and were changed forever.

Take a few minutes to read more about the Santa Fe Trail by reading more about the history of the trail: <http://www.santafetrail.org/the-trail/history/history-of-the-sft/>

For our Story Map we are interested in the section of the Santa Fe Trail that covers Northern New Mexico and is closest to the Mora Watershed area that we reviewed in Exercise 1.

Five Principles of Effective Storytelling:

Building a good Story Map is similar to telling a good story. ESRI identifies five principles of effective Storytelling:

1. Connect with your audience
2. Lure people In
3. Choose the best use experience
4. Make easy-to-read maps
5. Strive for simplicity



Take a minute to read through these principles via the link below:

<https://storymaps.arcgis.com/en/five-principles/>

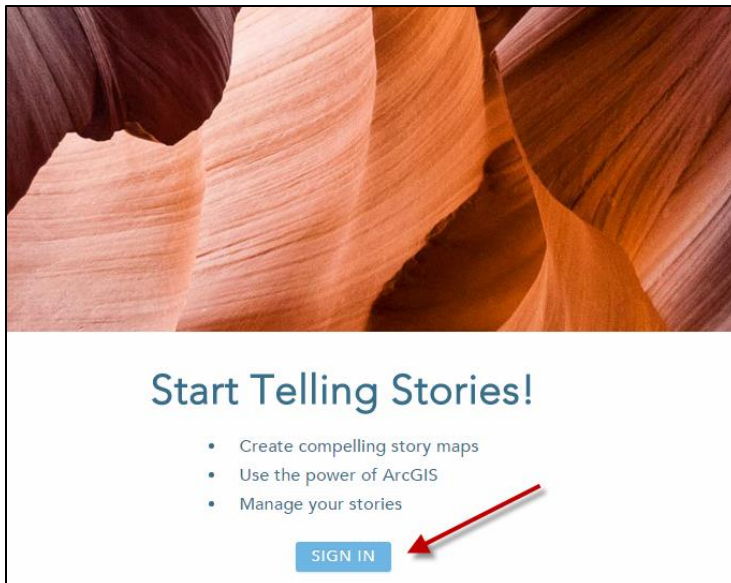
Let's Get Started

Before we create our own Story Map we need to Sign in to our ArcGIS Online Account.

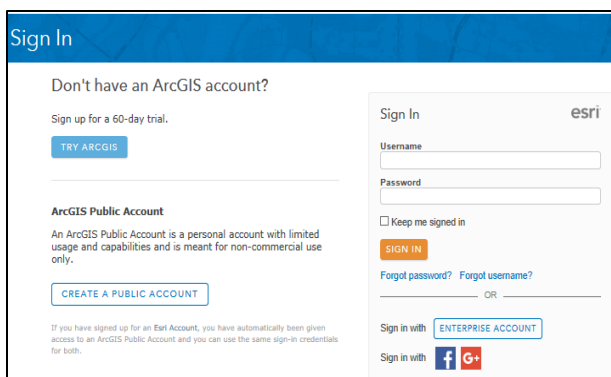
Create or Sign into your ArcGIS Online Account via the Story Maps Website

Before we can start to design our storm map we need to sign in or create a free ArcGIS Online account. Make sure you are connected to the internet. Go to the main Story Maps website at:

<https://storymaps.arcgis.com/en/my-stories/#>



Click on **Sign In** as shown in the image below.



This will take you to a similar Sign In window that you used in Exercise 1. Please enter the same Username and Password that you used for Exercise 1.

Let's Design our Story Map.

Story Maps are the ideal format to present a linear, place-based narrative featuring images or videos. Each stop in the story is geo-located. Those looking at the web based story map have the option of viewing sequentially through the story, or they can browse by interacting with the map.

For our Santa Fe Trail Story Map we will create something called a Map Journal. The Story Map builds on what we learned in Exercise 1 in that we will be creating an Online Map but in addition we will be adding sections that include photographs with descriptions and even embed video. For our Story Map we will focus on the section of the Santa Fe Trail in North Western New Mexico that spans the area of the Mora Watershed.

We will be identifying locations and associating photographs of areas that include:

- Point of Rocks
- Wagon Mound
- Ocate Creek Crossing
- Fort Union (Several Locations)
- La Junta (Watrous)



Step 1. Choose your Story Map Template

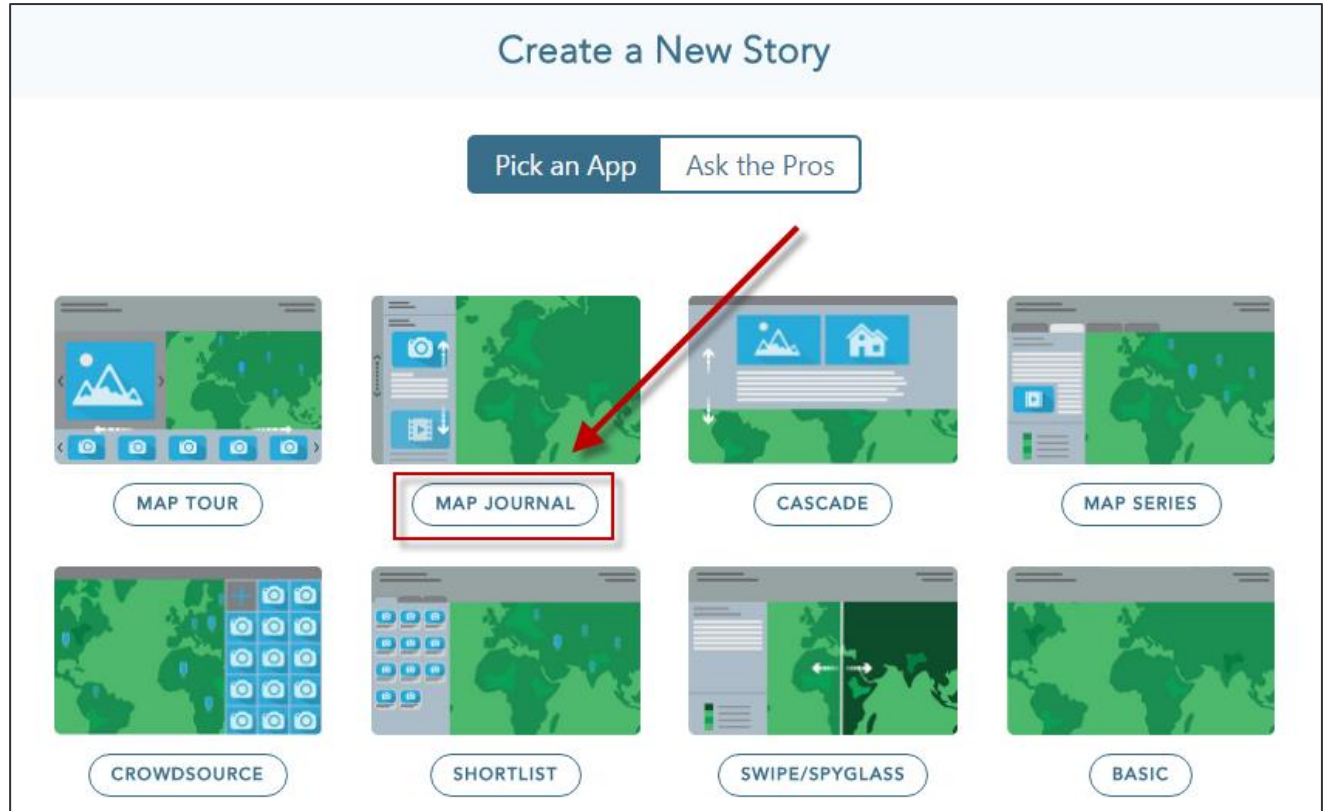
After signing in to <https://storymaps.arcgis.com/en/my-stories/#Story Maps>



Click on the **Create Story** Button.

This will open another window for you to select

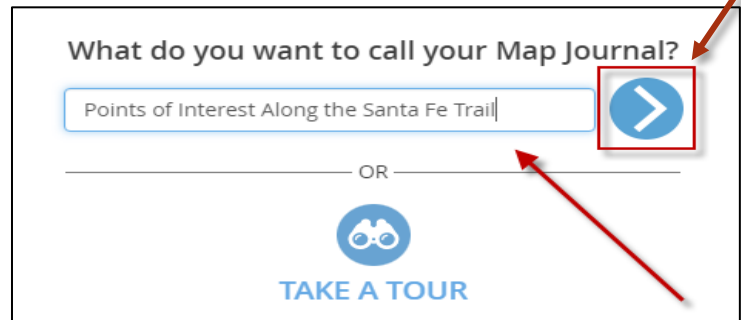
your Story Map Template. **Choose Map Journal**



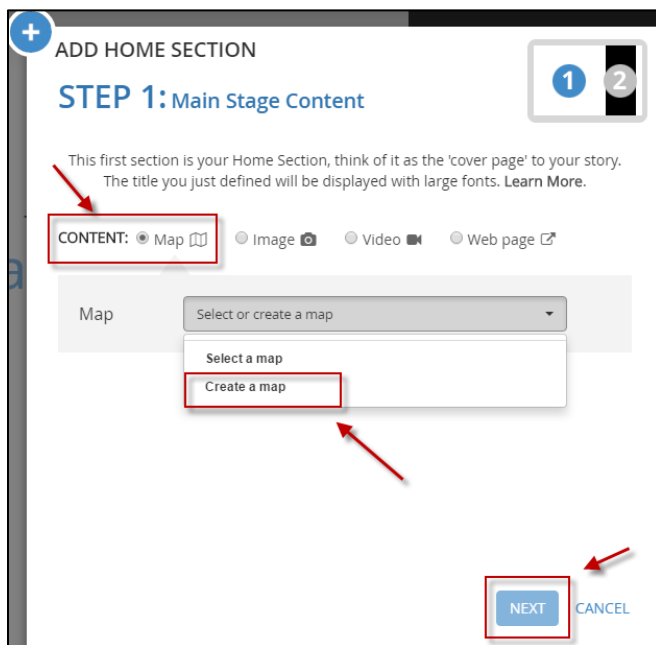
Within the Map Journal Builder. Choose the **Floating Panel Layout**, then click **Start**.



Next, enter the name of your Map Journal
Choose a title similar to what is listed:
“Points of Interest Along the Santa Fe Trail”.
Then Click on the blue arrow.



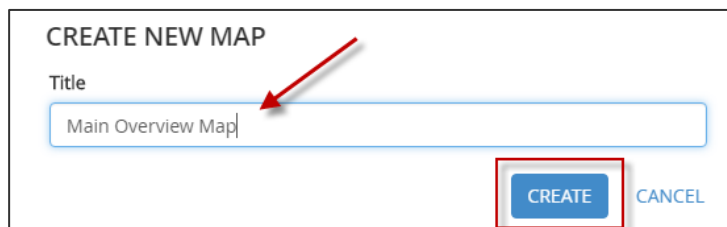
Main Stage Content

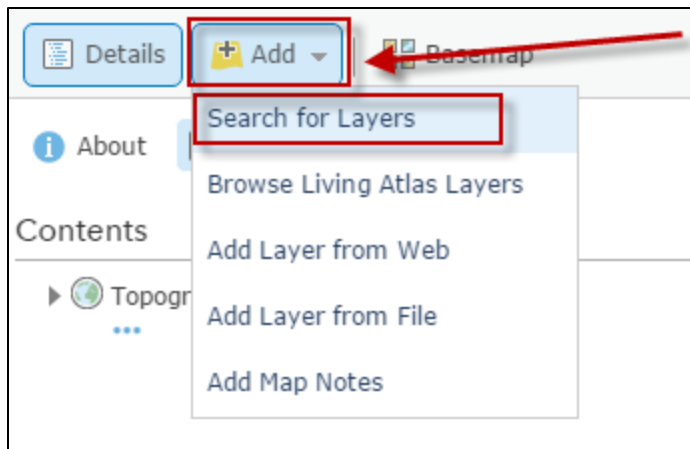


Your story map will have a “Main Stage Content”
This will be what is displayed in the largest part of the viewing window. The Main State Content will be a new Online Map that you will create.

From the **Content** section select **MAP** and use the drop down menu to select **Create a map** and then click **Next**.

This will prompt you to give your new map a title.
Enter a title something similar to **“Main Overview Map”**, as this map will be used for navigating and finding your points around the Santa Fe Trail.
Then Click on **Create**.

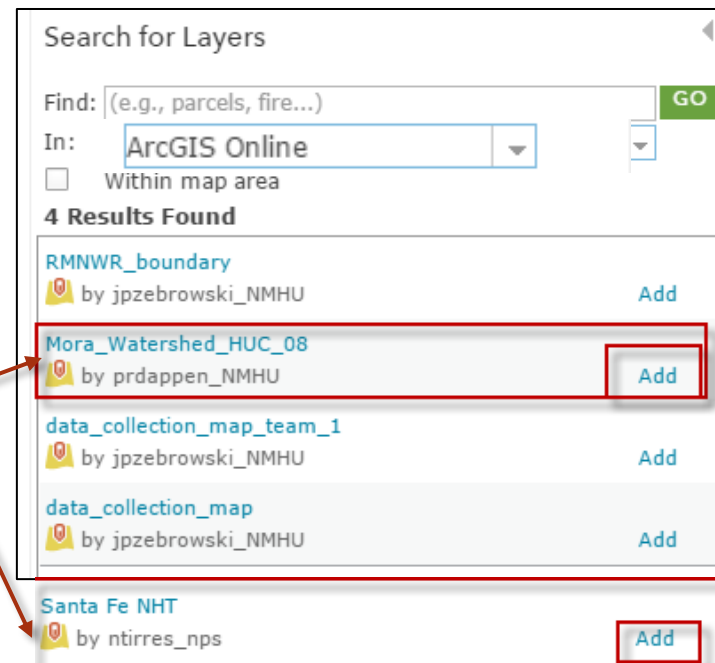
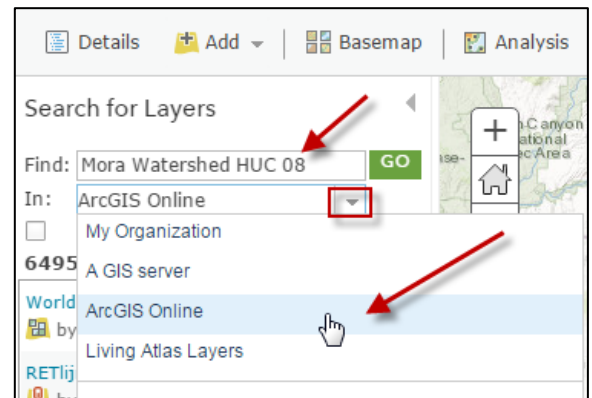




This will open a map in which you can edit. From the top menu click on **Add** and **Search for Layers**.

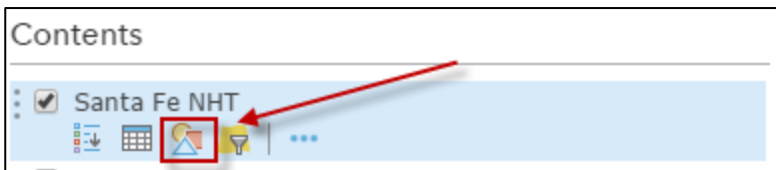
When the Search for Layers menu appears expand the tab next to My Organization and select **ArcGIS Online**. Type **Mora Watershed HUC 08** in the Find window and then click **GO**. When you have found this layer click **ADD**.

Next do another search for **Santa Fe NHT**. When you have found this layer click **ADD**. (It will look similar to the bottom layer shown below.

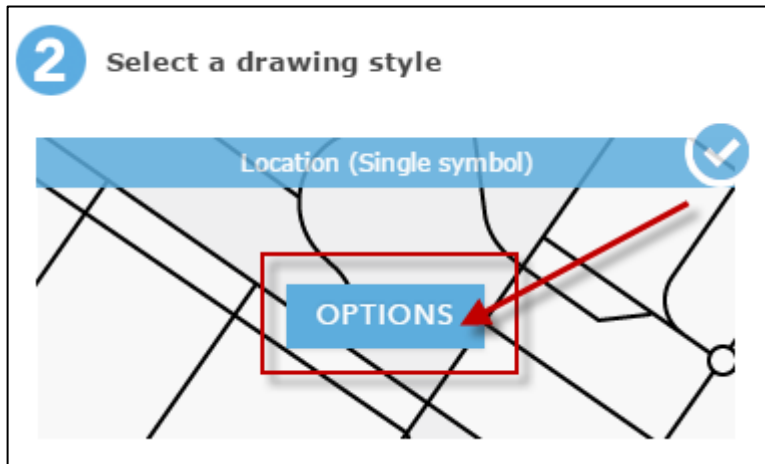


When you have added those two layers Click **Done Adding Layers**.

DONE ADDING LAYERS



You will now see those two layers on your map. Take a minute to change the color of the Santa Fe National Historic Trail and change it from purple to black. From the Table of Contents click on the **Change Style** Button



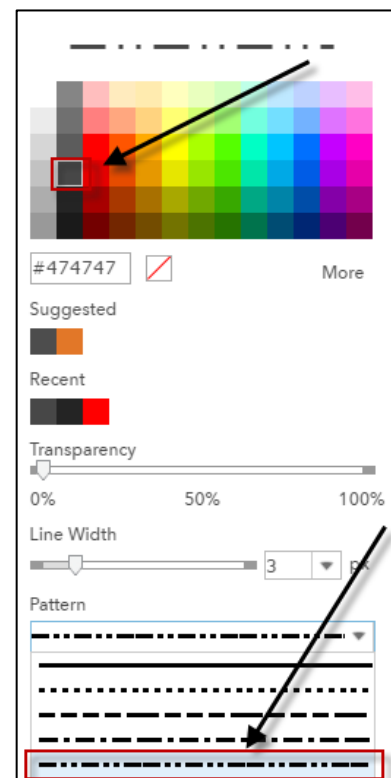
Next Click on **Options** within the Select drawing style menu.

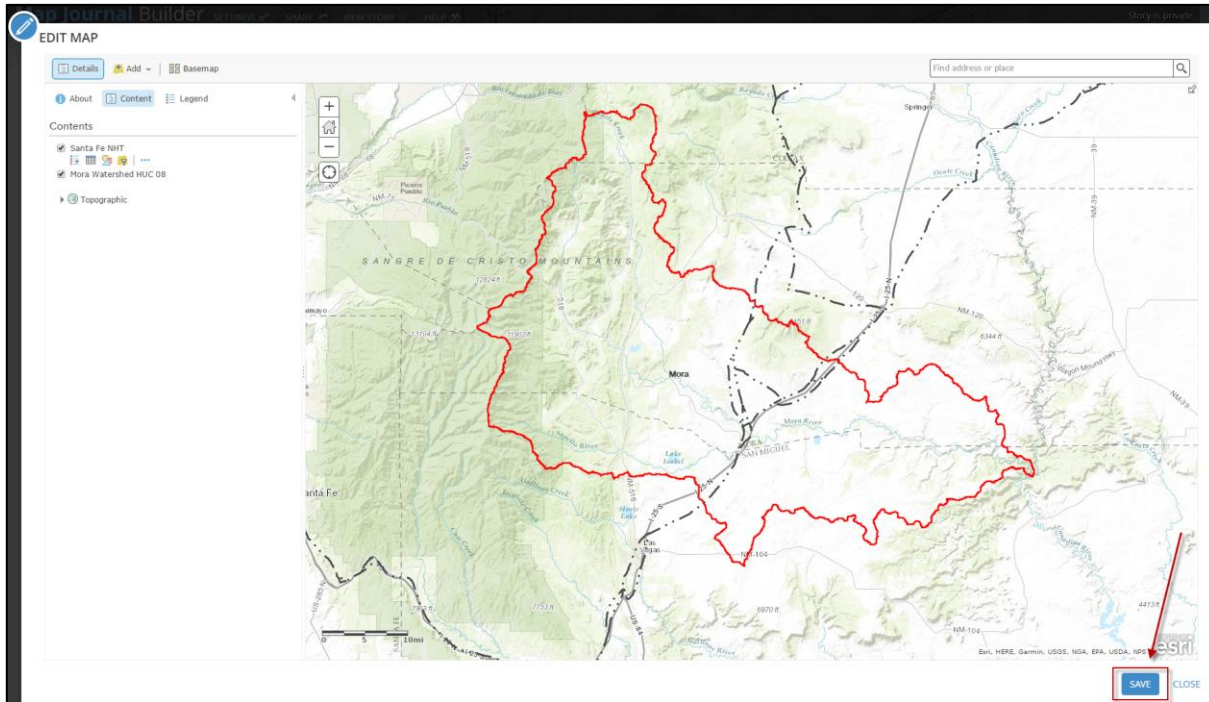
The purple line symbol will appear, click on either the word Symbols or the purple line and a color menu will appear.



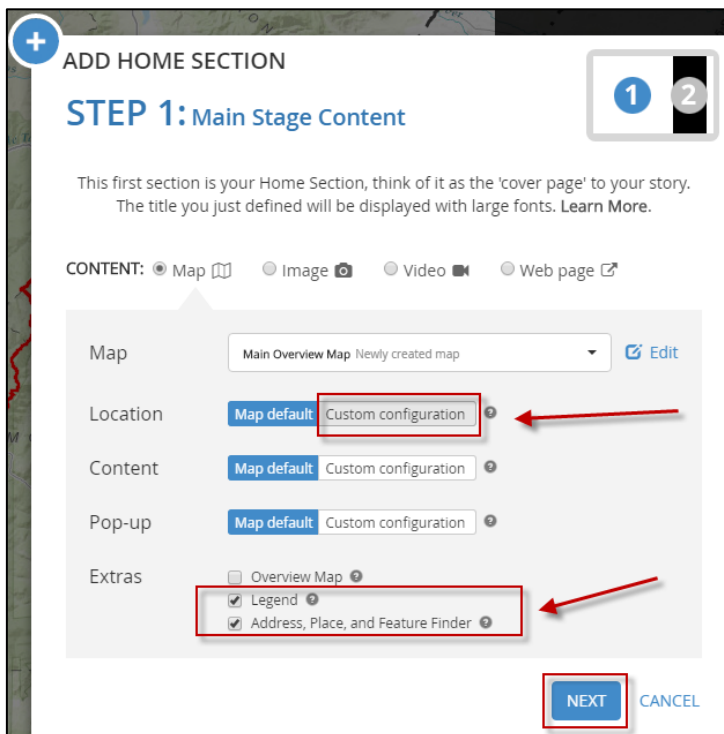
Select a dark grey or black color of your choosing and then from the Pattern drop down menu select a pattern similar to what is listed in the graphic.

Click **Done** when you are finished.





After adding these layers and changing the symbology click **SAVE** at the bottom of the map. After saving the map click **CLOSE**



Next for Location click on **Custom Configuration**

This will open the map viewer so you can pan the map and so that the Mora Watershed and the Santa Fe Trail are Centered in the Display. When done click on Click at the bottom

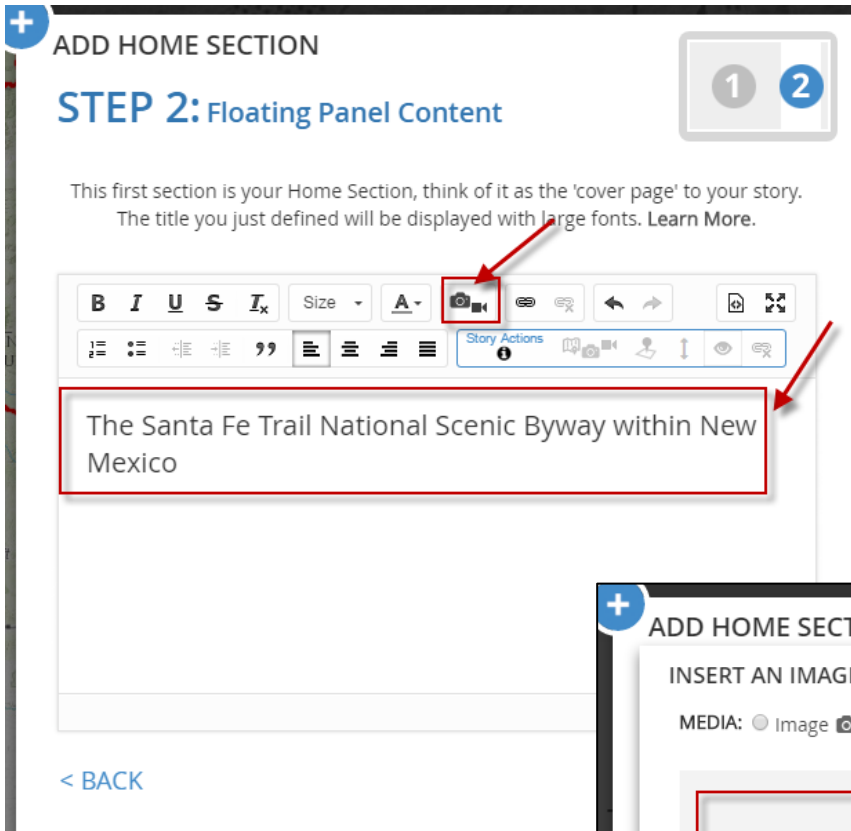
Save Map Location.

Under Extras make sure **Legend** and **Address, Place and Feature Finder** are selected. This will allow both items to be displayed in your map.

Click Next to start adding to the floating panel.

Floating Panel Content

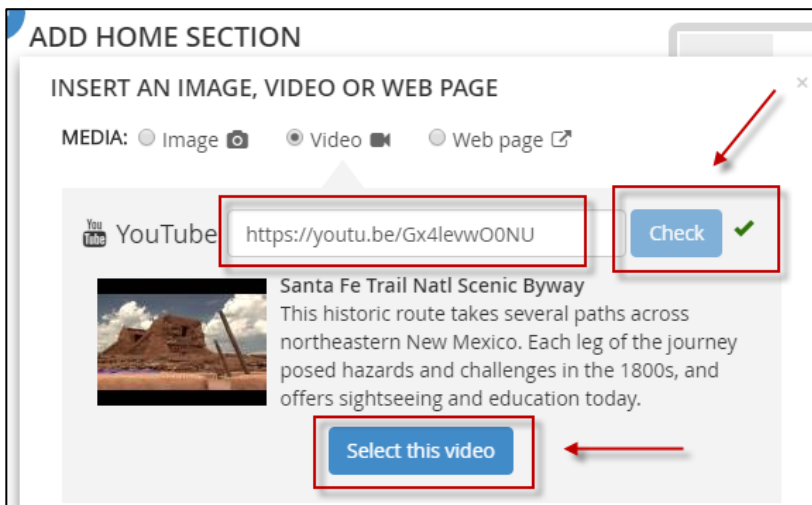
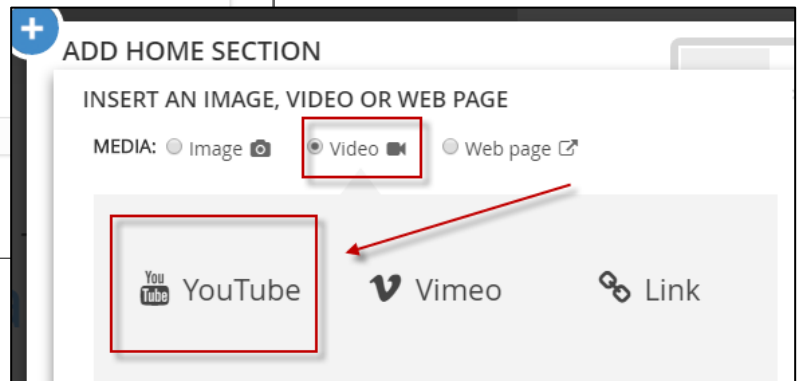
The Floating Panel Content will display items to the right of the main data frame. This will be where we will add media and photos to help tell our story.



First In the Text area type
"The Santa Fe Trail National Scenic Byway within New Mexico"

Next click on the **Camera/Video icon.**

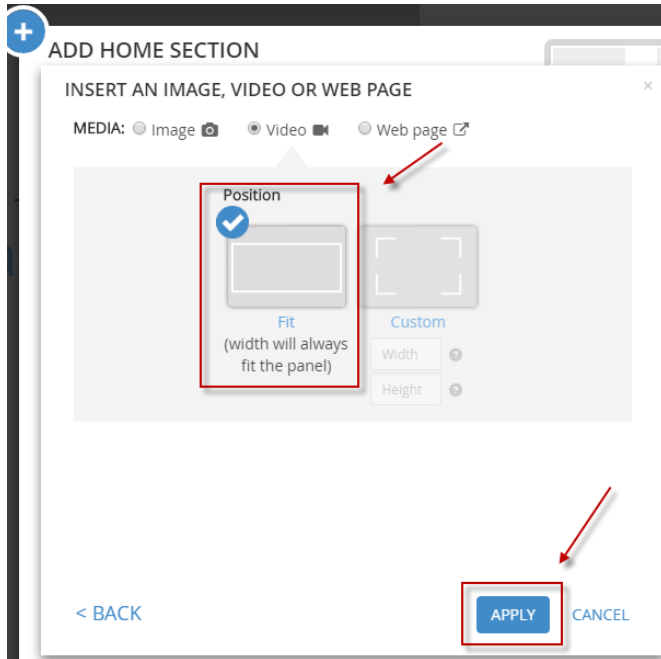
We will be linking a video in our first panel. Next Click on **Video** and **YouTube.**



Type in the link:

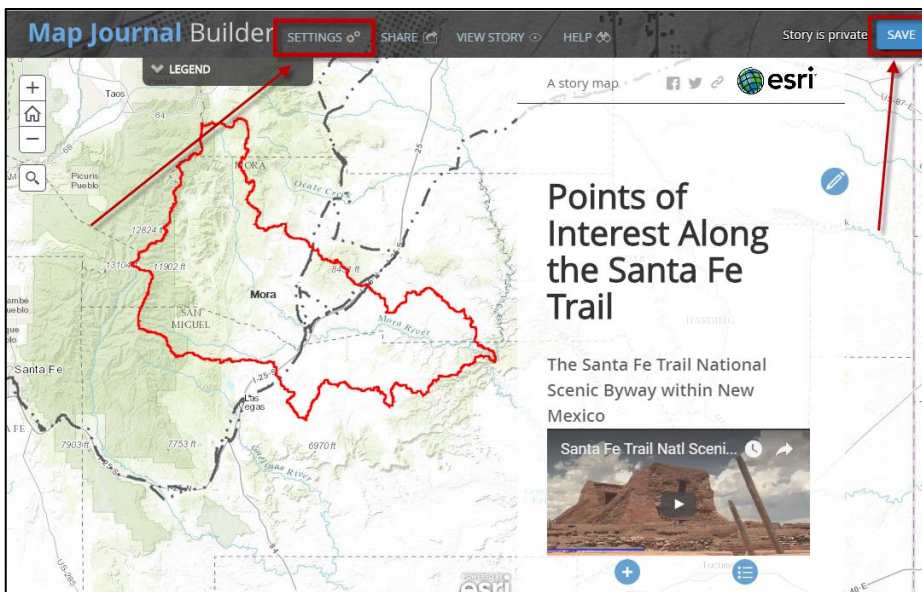
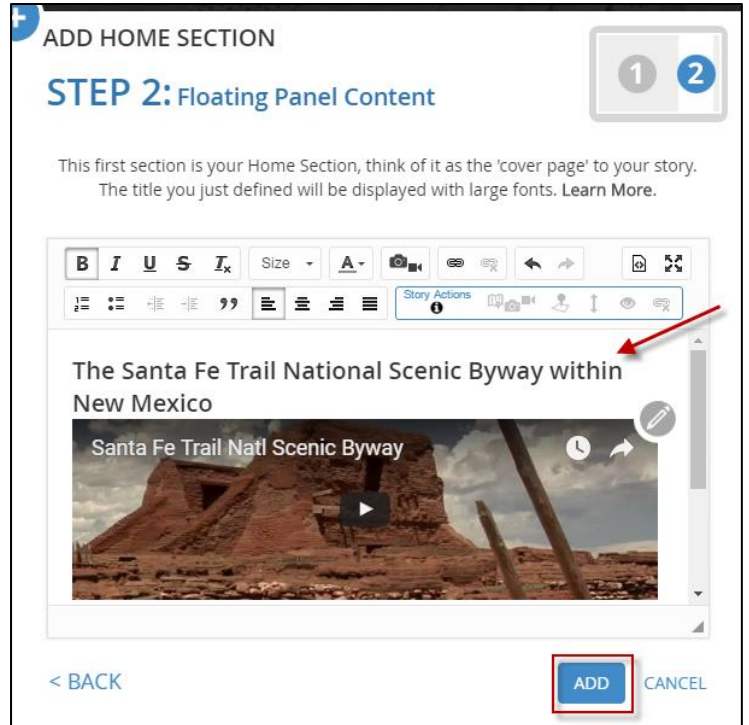
<https://youtu.be/Gx4levw00NU>

Then Click **Check** and then **Select this Video.**

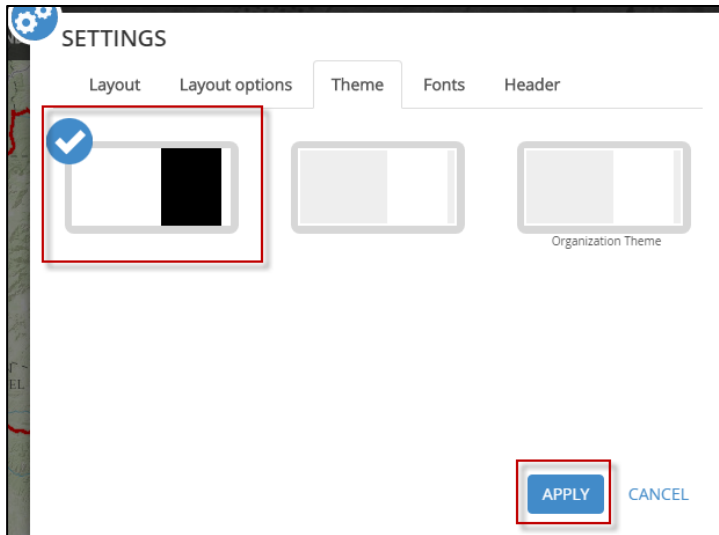


For Position select **FIT** and then click **Apply**.

A next menu will appear. See below. If you do not see your text you may need to re-type “**The Santa Fe Trail National Scenic Byway within New Mexico**” and then click **ADD**.



You should see a preview of your Story Map Layout. We will make some layout changes. But First click **SAVE** in the top right corner. Next Click on the **Settings** Button.



With the Settings window open, click on the **Theme** tab and check the black stripe. With will make the Floating Panel black and easier to see. Then click **Apply**.

Next we will add more sections to our Story Map

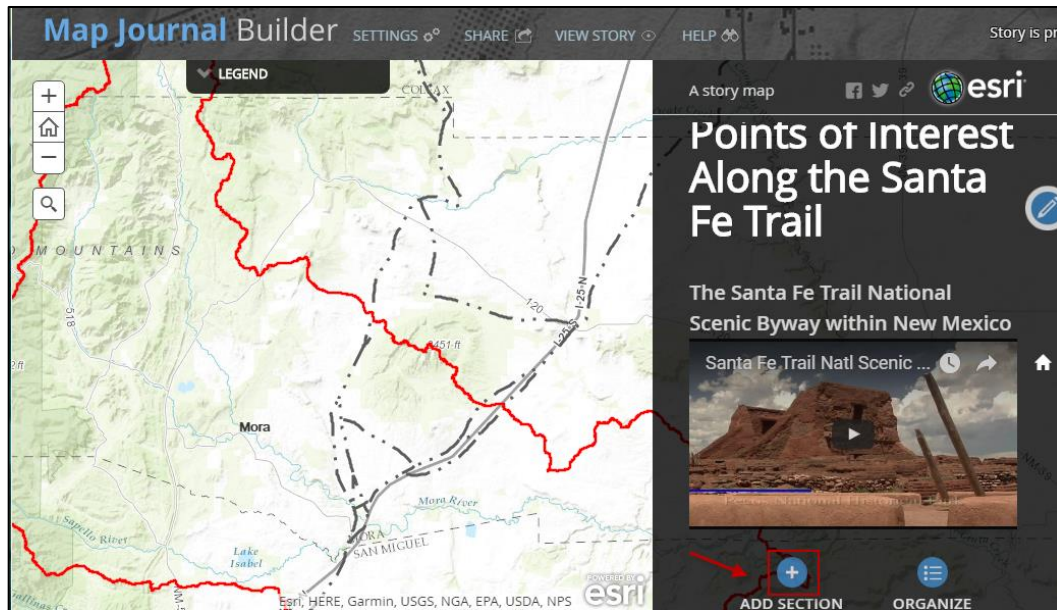
Adding More Sections to Our Story Map

We will be adding more photos and linking them to locations on our map. Because we have multiple points to add it is easier to work off of a spread sheet. Please download the Excel Sheet from the Mora Watershed Exercises, Exercise 2: <http://nfwri.org/resources/outreach/a-geographic-information-systems-based-exploration-of-the-mora-watershed-new-mexico>

Once you have downloaded the file, open it and you will see different headings. The **Item Name** field will be the Section Name, The **Location** field provides location information, the **Text** field indicates the text you will add, the **URL** field provides a link to where the photos are located, and the **Caption** field provides the source information for the photograph.

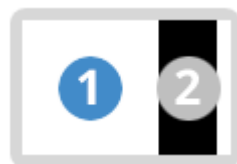
	B	C	D	E	F
1	Item Name	Location (Latitude/Longitude)	Text	URL	Caption
2	Main Page Video		Welcome to our Story Map of Historic Points along the The Santa Fe Trail within Northern New Mexico and The Mora River Watershed	https://youtu.be/Gx4lewwQ0NU	Video Courtesy of The New Mexico Tourism Department
3	Point of Rocks	36.42038, -104.15119	How did people find their way along the Santa Fe Trail? Landmarks such as Point of Rocks helped the weary traveler. You can find Point of Rocks approximately 25 miles east-northeast of Springer, New Mexico	https://c1.staticflickr.com/3/2825/342	Image Courtesy of Ronald Dulle Photography
4	Wagon Mound	In the Search Window type "Wagon Mound, New Mexico"	Wagon Mound was a landmark on the Santa Fe Trail. Coming from Raton, New Mexico, travelers looked for this wagon-like hill to tell them that they were close to Santa Fe. Leave Interstate 25 at the village of Wagon Mound in Mora County to find this landmark.	https://c1.staticflickr.com/3/2942/331	Image Courtesy of The National Park Service

Adding our First New Section, Point of Rocks



Now that our front page has been build, we will add sections describing locations along the Santa Fe Trail. In next section, we will describe Point of Rocks a famous stop for travelers along the Santa Fe Trail.

Next Click on **Add Section**



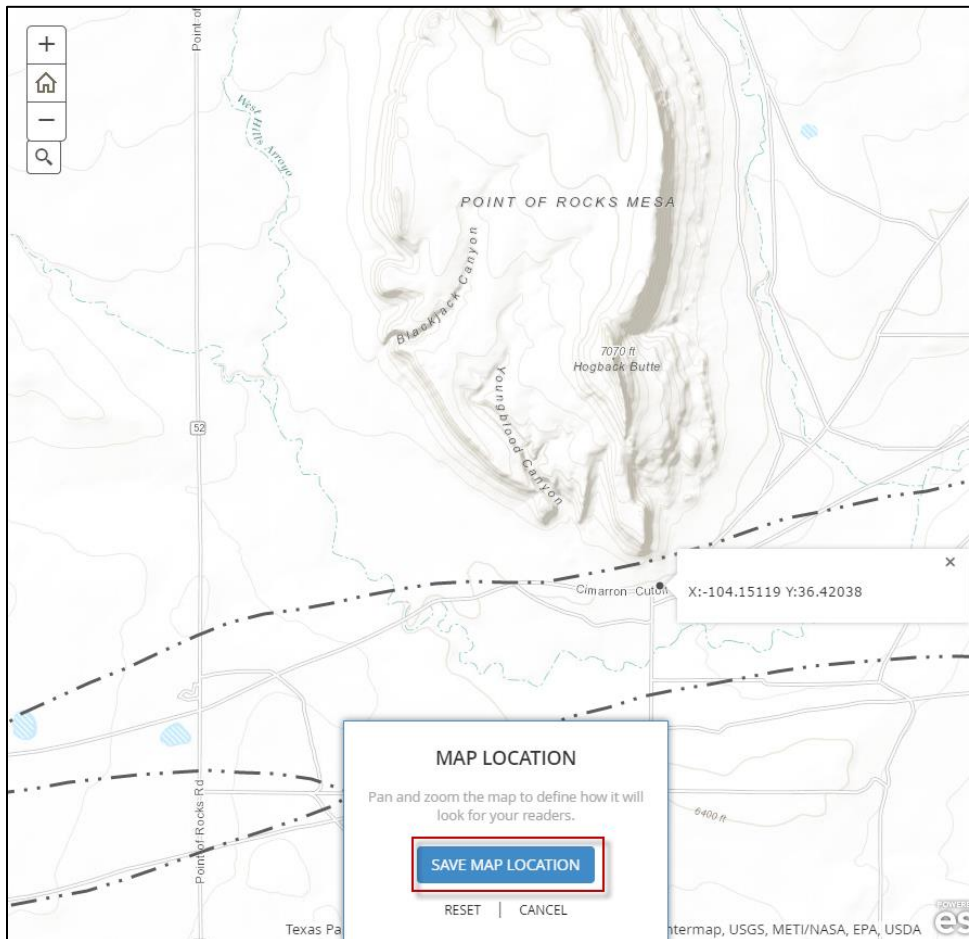
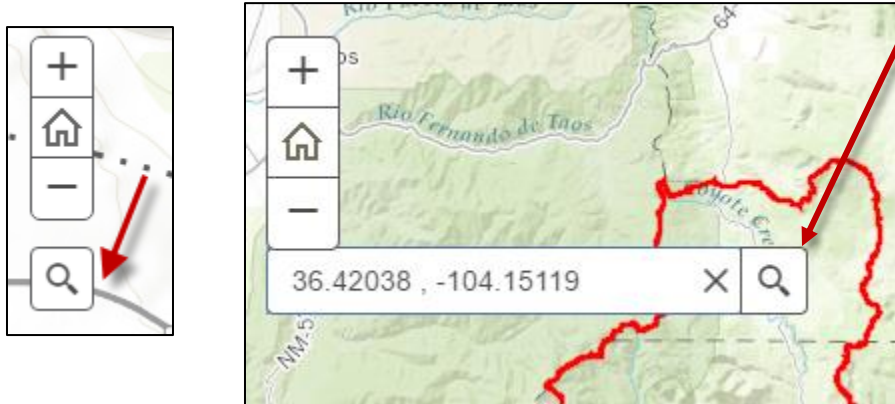
This will add a new section where we will need to define the **Main Stage Content (1)** and the **Floating Pane Content (2)**.

For the Main Stage Content Add a Section Title. Type “**Point of Rocks**”. For Location we will use the same Map “Main Overview Map” but we will change the location of the map.

For Location Click on **Custom Configuration**.

Next open your Excel Spreadsheet and go to the second record, Point of Rocks Copy this locations Latitude and Longitude (Highlight the numbers and then right click "Copy". Next go back to your story map window

Click on the search tool, it looks like a magnifying glass. After you click on the magnifying glass it will expand and then you can "Paste" the Lat/Long location and the hit **Enter** on your keyboard.



It will then show you that location.

Take a minute to zoom in to find the point of rocks. It should look similar to this graphic.

Click **Save Map Location**. When the next menu appears

Click **Next**.

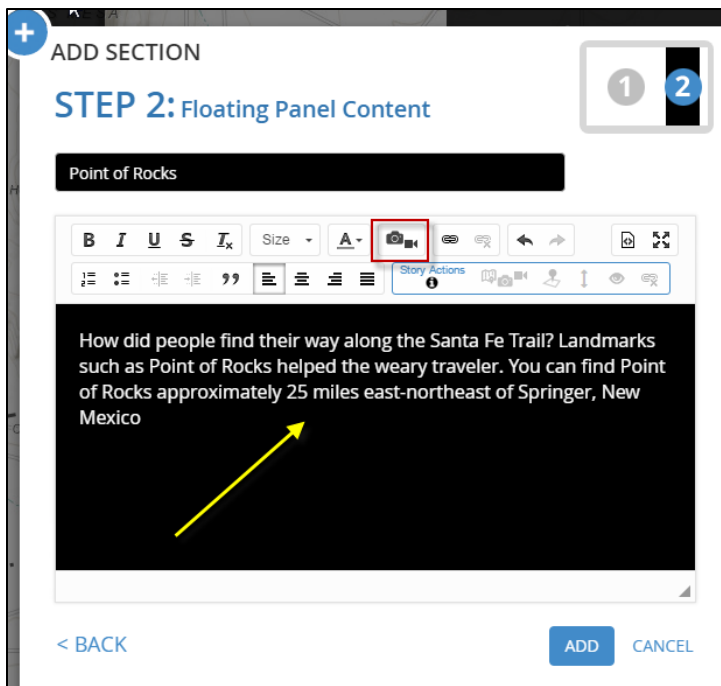


After clicking Next, it will take you to Step 2: Floating Panel Content

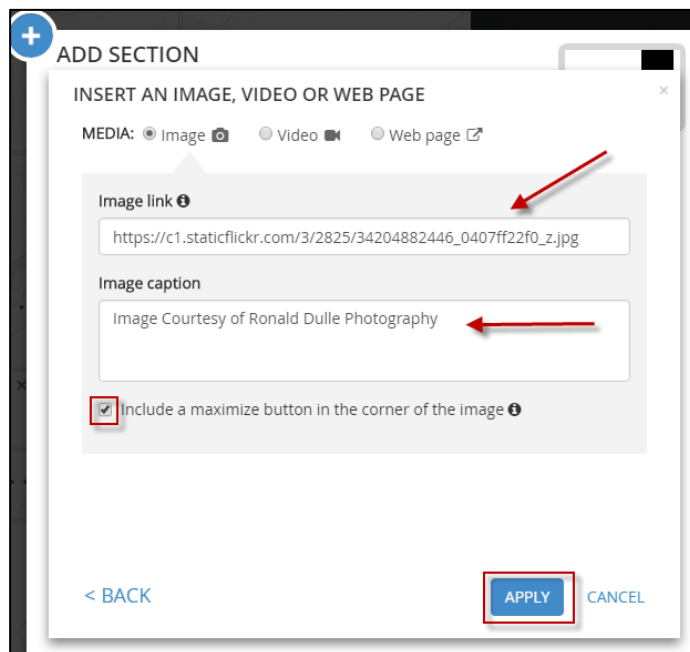
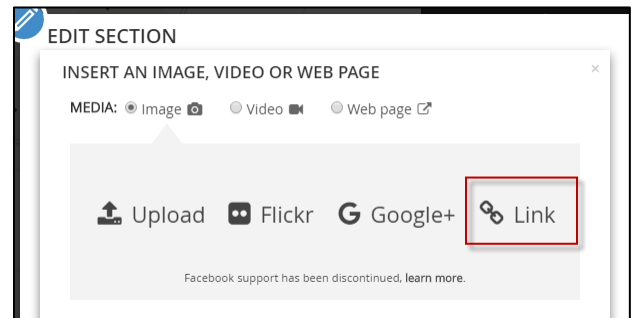
For Step2: Floating Panel Content we add text and then we will link to a photograph.

Go to the Excel Worksheet and copy the Text that is in the same row as The Point of Rocks the text into the window as shown below. (*Note, Select the text in excel, right click “copy” then go back to your story map and right click in the black area and click “paste”). ***After entering the text be sure to hit an extra return

to give some space for the photograph, otherwise the text disappears as the photo is inserted on top of the text.



After pasting the text we will link to a photograph. Click on the **Camera icon** and then click on **Link**.



Go back to your Excel Sheet and look for the URL for Point of Rocks, copy the URL and then paste the URL into the image link.

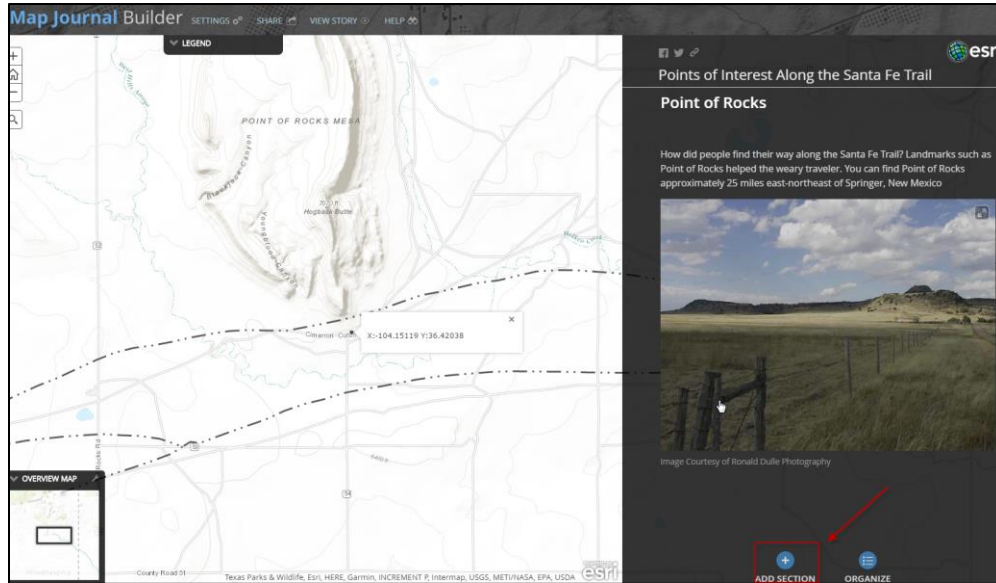
Under image caption, copy and paste the image source credits found in the Excel Sheet under Caption.

Click to check the box to include maximize button in the corner of the image. Then click **Apply**.

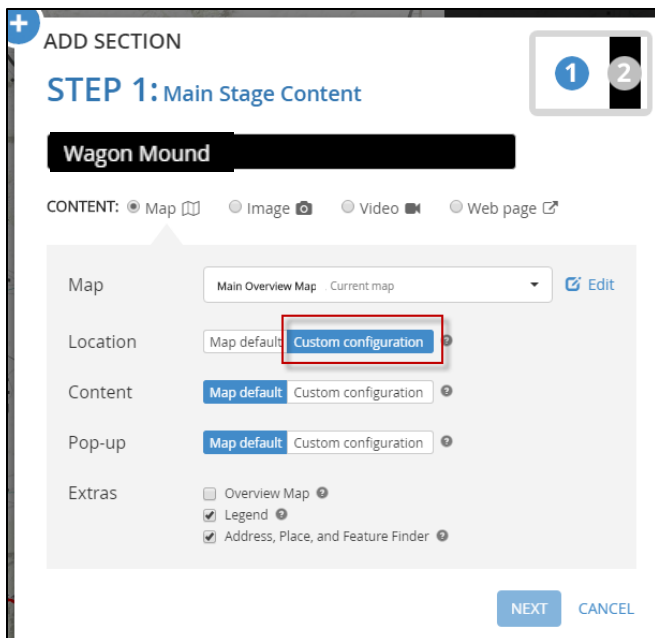
If you do not see your text you may need to Paste that again. Then Click **ADD**.

Adding another Section, Wagon Mound

In the next section, we will add will be a photo of Wagon Mound. Wagon Mound is a town but was a famous landmark recognized by travelers along the Santa Fe Trail.

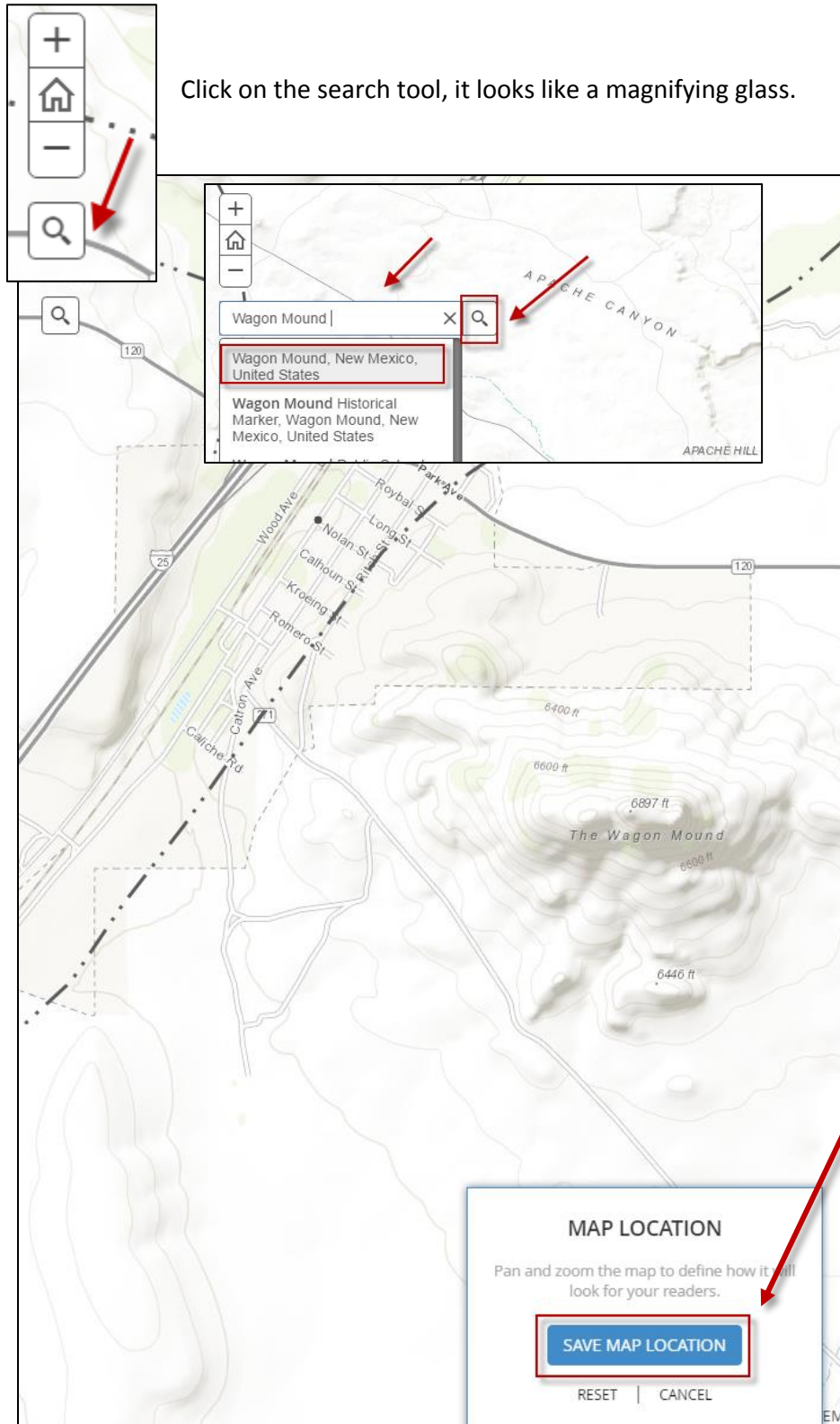


Next Click on
Add Section



For the Main Stage Content Add a Section Title.
Type **“Wagon Mound”**. For Location we will use
the same Map “Main Overview Map” but we will
change the location of the map.

For Location Click on **Custom Configuration**.



Click on the search tool, it looks like a magnifying glass.

Then it will expand and you can type “**Wagon Mound**” and it will zoom to that location.

Once you have found Wagon Mound, zoom out a bit so you can see the wagon Mound on the map as shown on the graphic

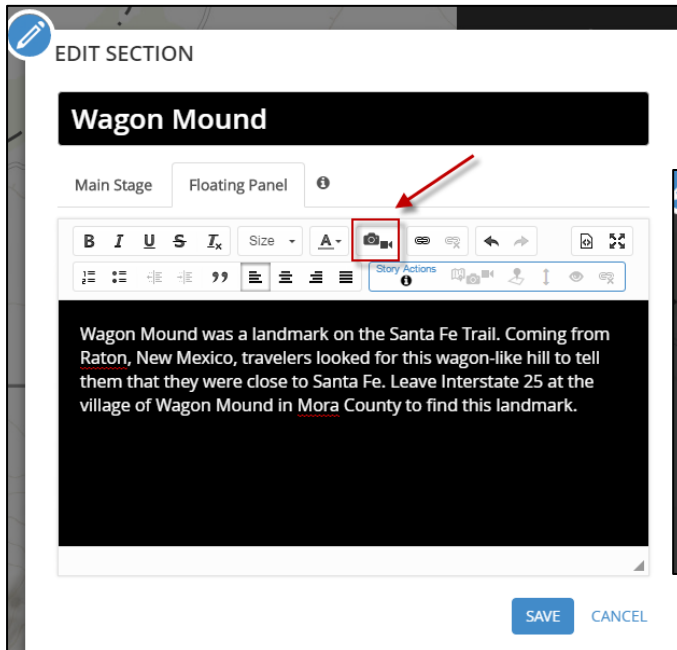
Next Click
Save Map Location.

When the next menu appears Click **Next.**

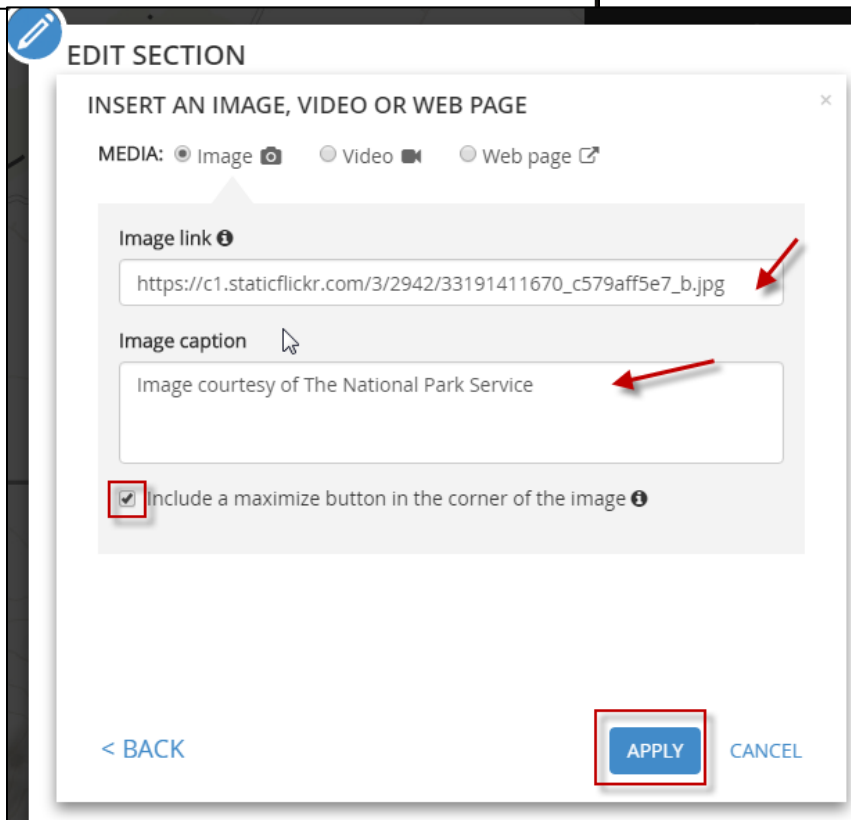
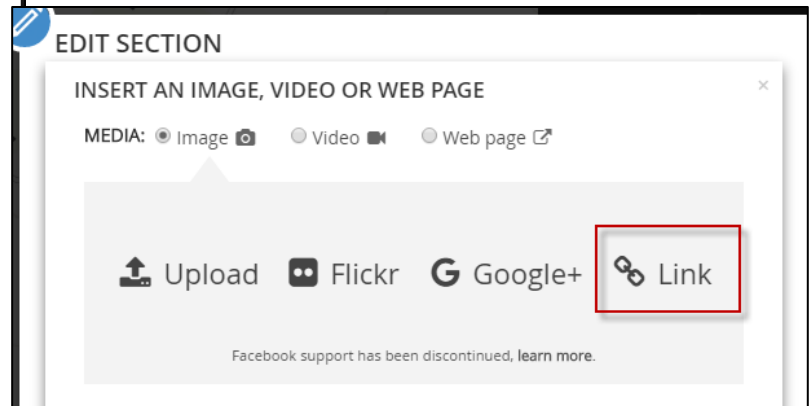
For Step2: Floating Panel Content we add text and we will link to a photograph.

For the title type the text “Wagon Mound”

Go to the Excel Worksheet and copy the Text Content in the row for Wagon Mound. Right click on the black area and Paste the text. Hit an extra return to provide some extra space for the photograph to be below the text.



After pasting the text we will link to a photograph. Click on the **Camera icon** and then click on **Link**.



Go back to your excel sheet and look for the URL for Wagon Mound. Copy and paste into the image link. Then copy the Caption text to give proper credit for the photograph.

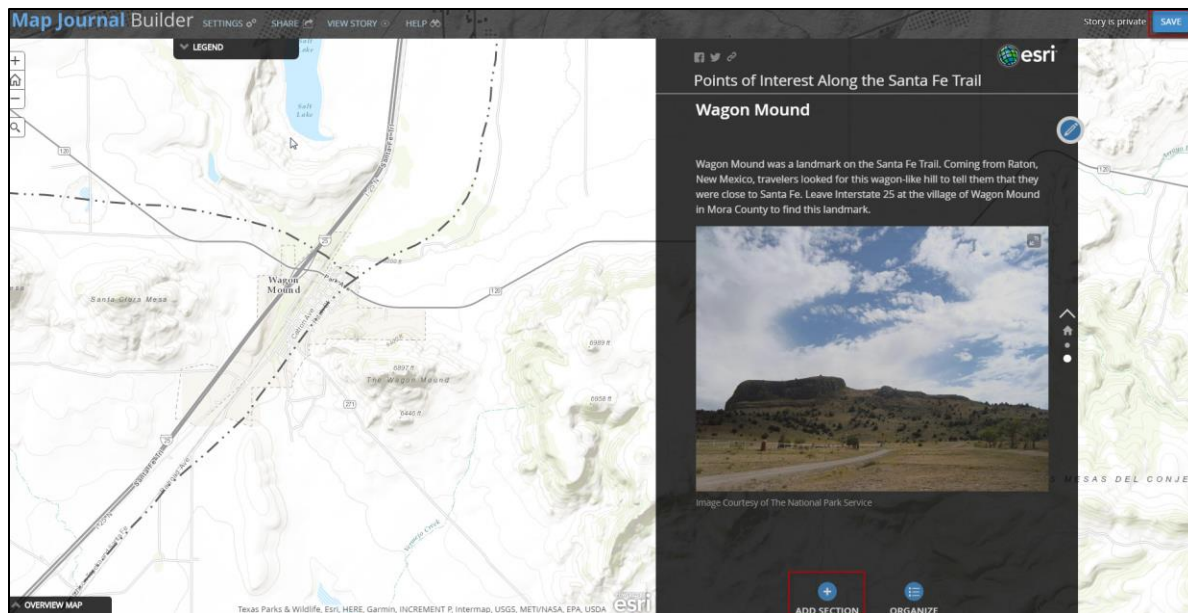
Check to include maximize button and then **click Apply**.

Next click **ADD** and it will finish adding this section to your story Map

Adding another Section with a Different Base map, Fort Union

In the next section, we will adding a section for Fort Union New Mexico. Fort Union began as a small outpost in 1851 near the Santa Fe Trail. It then became the central point of supply for several military posts spread over a vast territory. Its garrison participated in a few Indian campaigns in the 1850s, helping to make the region safer for travelers and settlers.

First let's save our map, to make sure we don't lose what we have already completed. At the top right part of your screen click on **SAVE** and keep this window open.

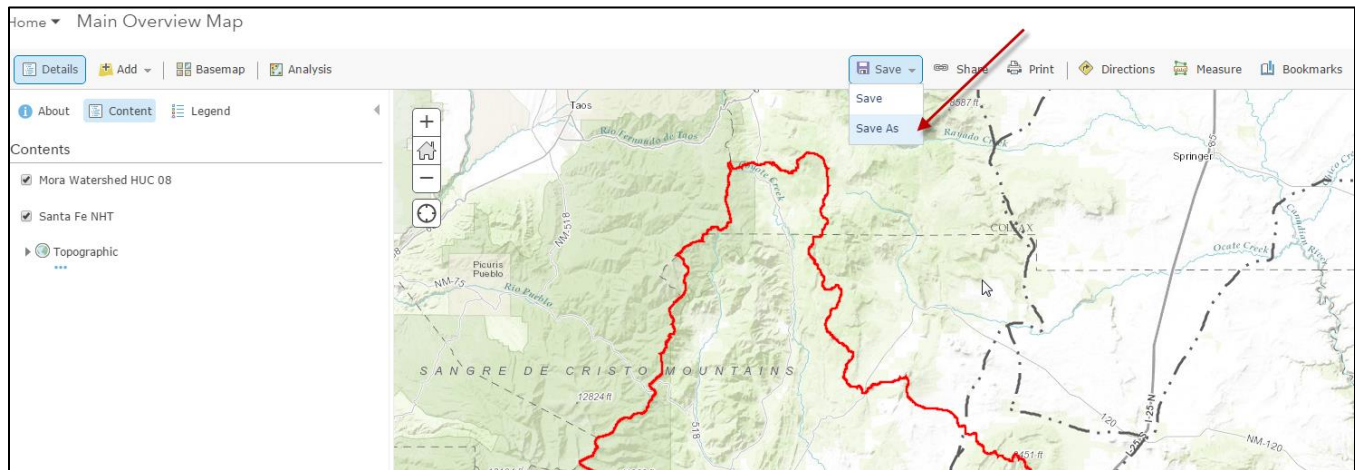


After saving your Story Map we need to create a new map to use as the background in our next Fort Union Section. Open a new webpage, but don't close your open webpage) and go to the Story Map webpage: <https://storymaps.arcgis.com/en/my-stories/#Story Maps>

If you are not logged in, go ahead and login. Otherwise you should see your story map. Click on the title so you can see more details about your map. Click on the globe to make it Public, then click on **EDIT MAP**.



This will open a new window where you can see your **Main Overview Map**. From the Top Menu Click on the arrow next to the Save Button and it will expand. Click on **Save As**.



Next give this new map the Title: **Main Overview Map – Imagery**.

Save Map

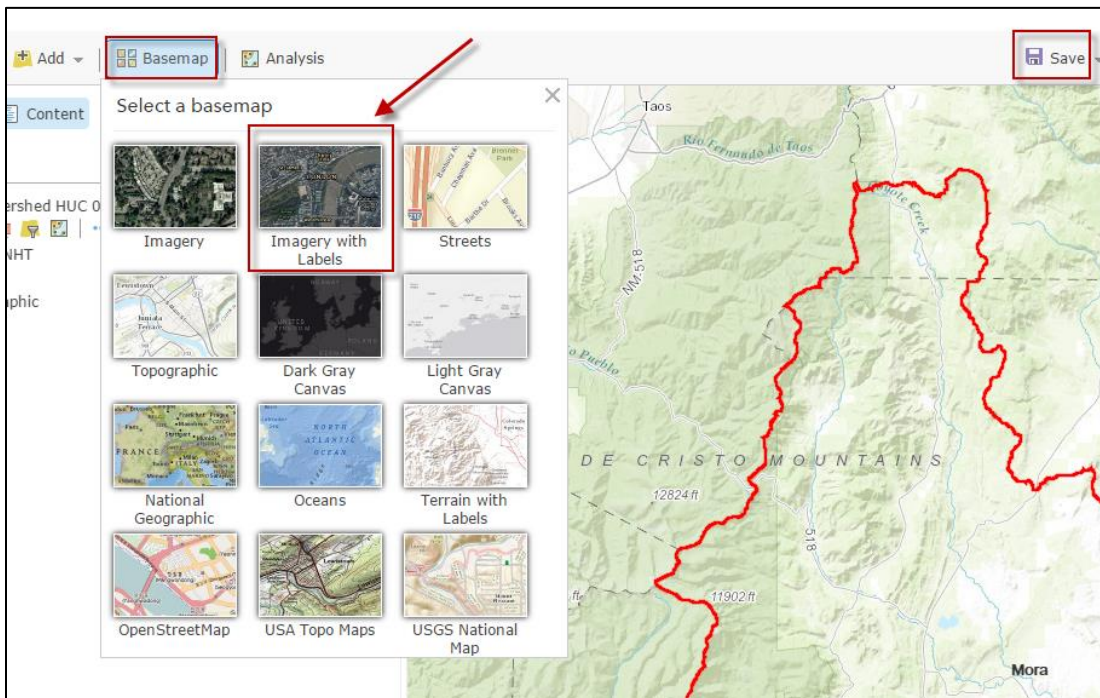
Title:

Tags:

Summary:

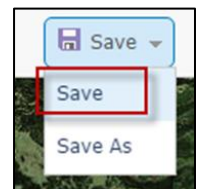
Save in folder:

SAVE MAP **CANCEL**



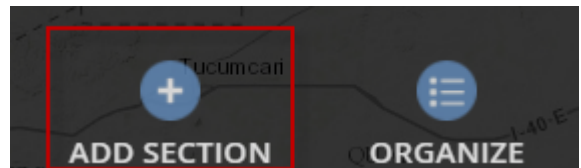
Next Click on the **Basemap** Icon and then select **Imagery with Labels**. After doing that the basemap will change from Topographic to Imagery (Aerial Photography).

Then Click **Save**.

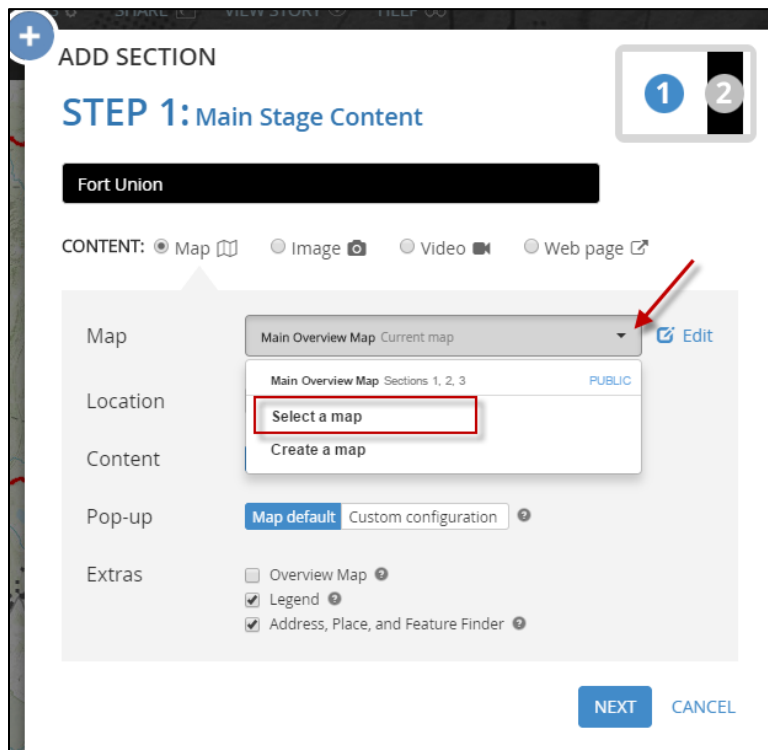


You have now created another map to use in our story map with a different basemap. Close this window and go back to your Story Map window. (If have you accidentally closed you window just go back to: <https://storymaps.arcgis.com/en/my-stories/> Then find our story map and click on the **Edit Story** button).

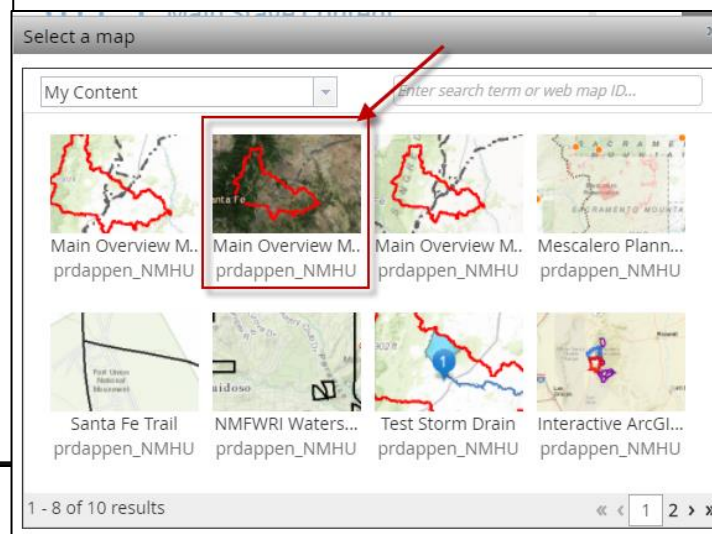
At the bottom on the gray floating panel click on **Add Section** :



Your next section title will be **“Fort Union”** so type that at the top of the box. Click on the arrow next to the Main Over view map and click on **Select a Map**.



Choose **Main Overview Map – Imagery** as your Map and double click on it to select this map.



ADD SECTION

STEP 1: Main Stage Content

Fort Union

CONTENT: ☒ Map ☐ Image ☐ Video ☐ Web page

Map: Main Overview Map - Imagery Newly selected map

Location: **Map default** Custom configuration

Content: **Map default** Custom configuration

Pop-up: **Map default** Custom configuration

Extras: ☒ Overview Map ☒ Legend ☒ Address, Place, and Feature Finder

NEXT **CANCEL**

Next for **Location** click on **Custom configuration**.

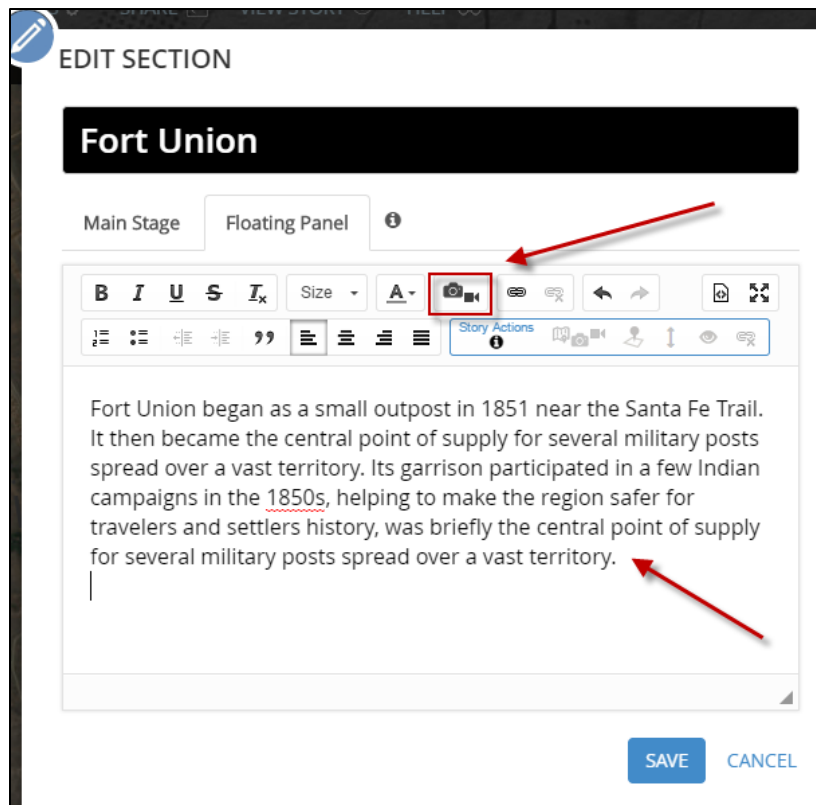
Refer back to your excel sheet and look for Fort Union.

Copy the **Latitude and Longitude** Location **and paste it in the Search Menu** as show below.

Zoom to the Fort Union extent as shown below then Click **Save Map Location**.



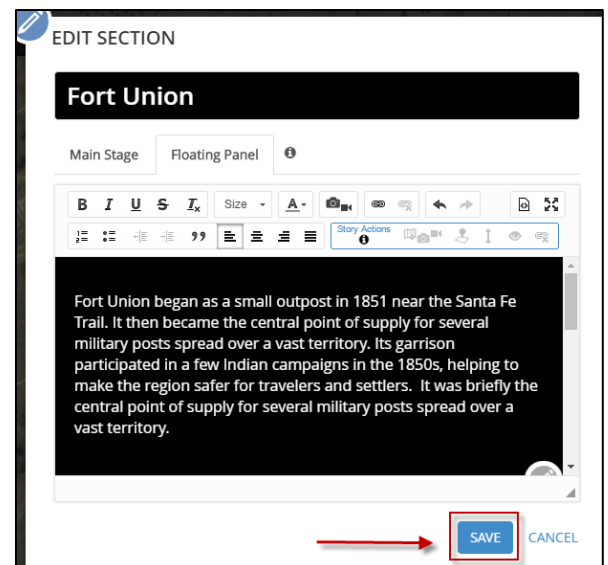
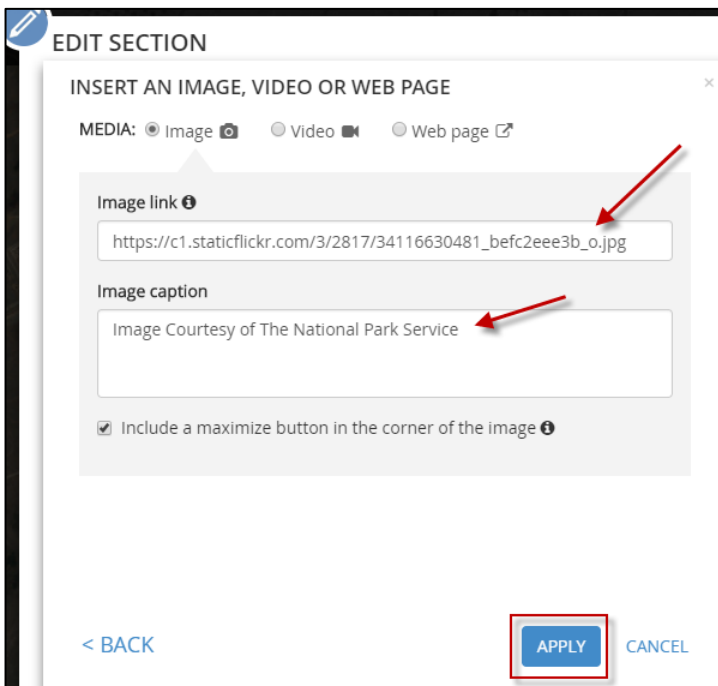
(If you don't see the search icon, just save your section and then go back and edit your Location. The Search icon on the map should appear after you have added and saved the section.)



Next for the Floating Panel, go back to the excel worksheet and copy the text for Fort Union and Paste it in the section below. Be sure to hit an extra return after the text before inserting the photo.

Click the **camera icon** and then enter the link for the photo. (Copy the URL address from the excel worksheet and paste in the window.

Click **APPLY**, then **SAVE**



Adding the Rest of the Sections On Your Own.

For the next part of the exercise you will be adding the rest of the sections of the Story Map on your own. Using the Excel worksheet at your guide, keep adding the location information for the **Main Stage** content. Feel free to use either the Imagery or Topographic basement and then zoom to the XY location of the feature. For the **Floating Panel** content copy the URL of the photograph and the image text and caption information. You will be adding 12 more sections and all of the source information will be contained in the Excel worksheet. After adding each section be sure to save your Story Map, the save button is located in the top right hand corner of your view.

Finishing Touches

After you have finished adding all of the sections, your last section will be La Junta (Watrous), **SAVE** your Story Map and make sure your **Story is Public**.



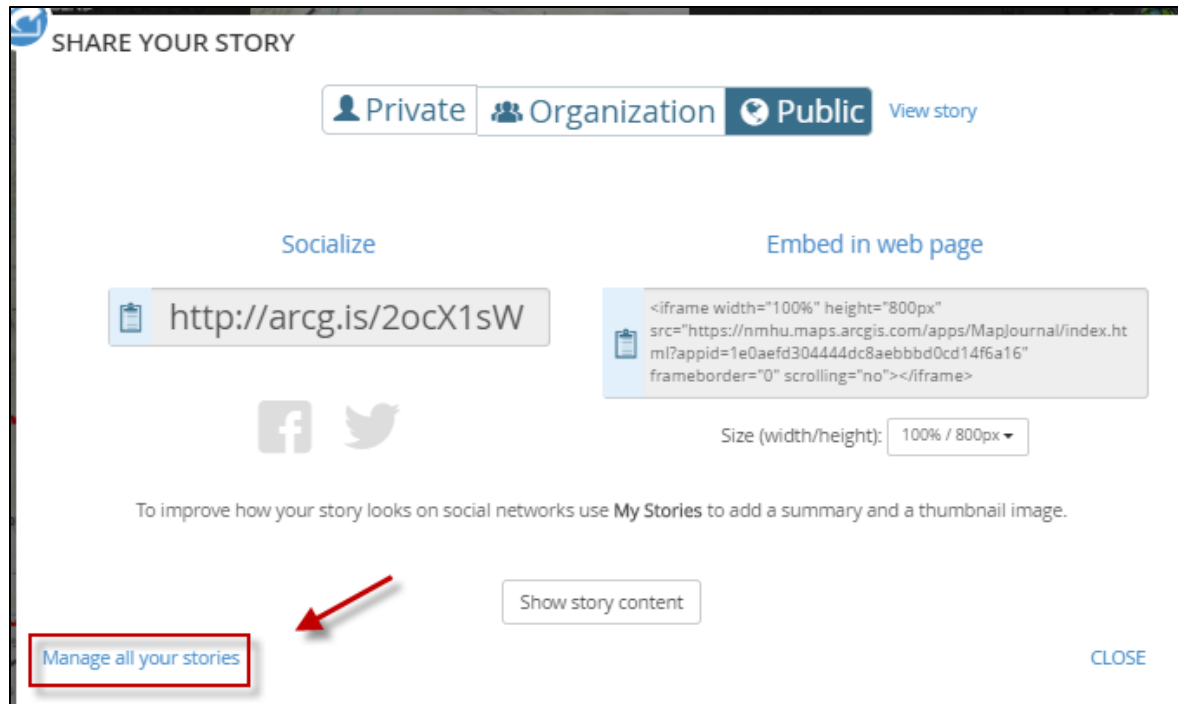
Click on **View Story** to see a preview of your Story Map



Next let's improve the way your Story Map looks when you share it by updating the Thumbnail Icon and by providing a summary. Click on the **Share** button.

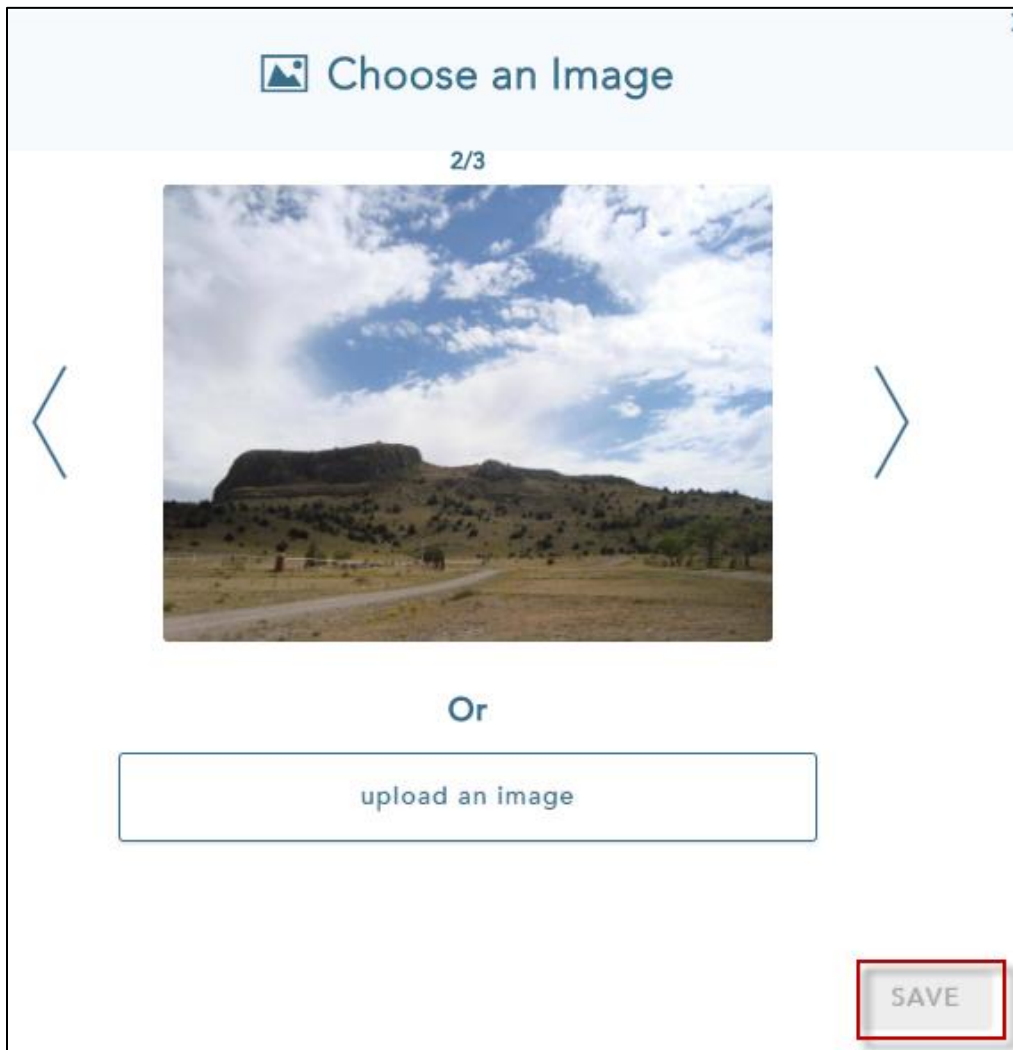


From this menu you can share a link to your Story Map or Embed it into a web page. Before we do that we need to add a few things to our finished Story Map. On the bottom left part of your screen click on **Manage all your stories**.



Find your story map and click on **Upload Thumbnail**. This will upload a small image of your Story Map but you have to tell it where to find the story map.





You can view the different images by clicking on the arrows to pick a picture that is already included in your Story Map. Pick a photo by double clicking on it and then click Save.

Next we will add a short summary of our Story Map. The summary can be very similar to your title. Click on the space below the word Summary and then enter text similar to what is shown below.



Now your Story Map is ready to be shared with the world. Click on the Link Icon to get the URL of your Story Map. Copy the URL and share it with someone you know to show them what you have done!



The screenshot shows a Story Map interface. On the left is a thumbnail image of a landscape with a camera icon. The title is "Points of Interest Along the Santa Fe Trail". Below the title, it says "Map Journal | Public | Modified April 30, 2017 | 107 views". A "Summary" section follows, stating "Story Map of Points of Interest Along the Santa Fe Trail in the Mora Watershed, New Mexico". Below the summary are three icons: a person, a group of people, and a globe, with the text "Shared: Public" above them. At the bottom are four buttons: "EDIT STORY", "VIEW STORY", "DELETE", and a link icon (a chain link). To the right of the link icon are Facebook and Twitter social media icons. A red arrow points to the link icon.



The screenshot shows a dialog box titled "Share your story with the world!". It has a red border and a red arrow pointing to a text input field containing the URL "http://arcg.is/2ocX1sW". Below this is a section titled "Embed your story" with four options: "small" (640px / 480px), "medium" (800px / 600px), "large" (100% / 800px), and "custom" (with input fields for width and height). Below these options is a code block containing an iframe snippet:

```
<iframe width="100%" height="800px" src="https://nmhu.maps.arcgis.com/apps/MapJournal/index.html?appid=1e0aefd304444dc8aebbbd0cd14f6a16"></iframe>
```

 At the bottom are two buttons: "PREVIEW YOUR EMBED" and "CLOSE".

Try going to the URL to make sure it works. Also send the URL to yourself in an e-mail so that you can forward it on to your friends.

To Learn more about other types of Story Maps
and view more examples, go to :

<http://learn.arcgis.com/en/arcgis-book/chapter3/>



Congratulations! You have completed exercise #2