Story Map Creation Workshop

Create Condition Web Map

1. For the required content, download the agol folder here: https://goo.gl/A1WHFY

2. Open a web browser and navigate to http://www.arcgis.com (external link). I found that Chrome works better than Internet Explorer or Firefox, but any browser will work.

3. Click **Sign In** at the top right.

4. If you **do not have** an ArcGIS Online account (Personal or Organizational), sign up for one for free by clicking on CREATE A PUBLIC ACCOUNT and following the instructions.

   OR

   If you **do have** an ArcGIS Online account, sign in.

5. Click **Map** from the top menu items.

   Your map may or may not zoom to Pennsylvania, depending on if you have a free account, an organizational account with an extent setting, etc. Zoom into Pennsylvania so you can see the full extent of the state.

6. Save your map by clicking **Save > Save As.**

7. Name the map, **Condition Map.** Give the map some **tags** that are useful for others to locate the map upon a search and/or elements about the map. Give the map a useful **description** and save it either in a specific folder or in your default folder as shown below.
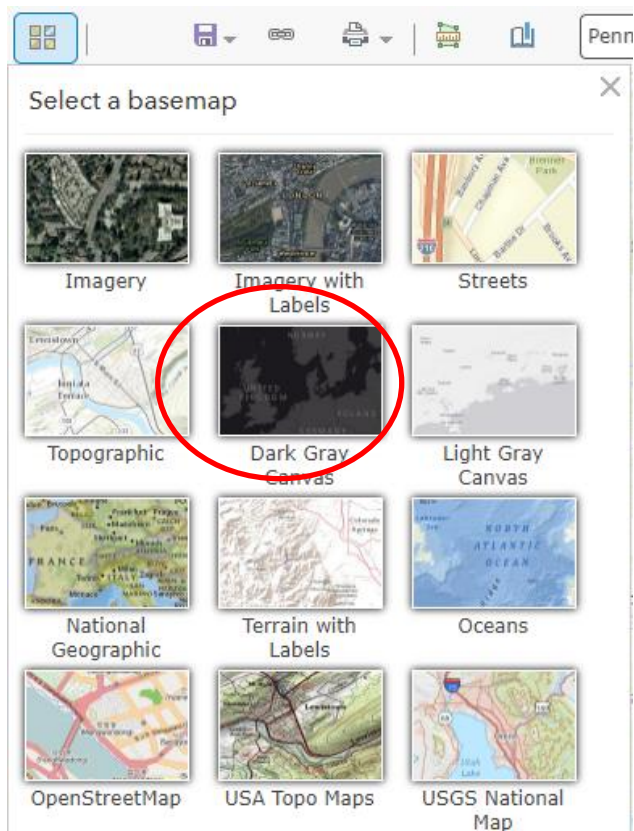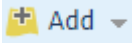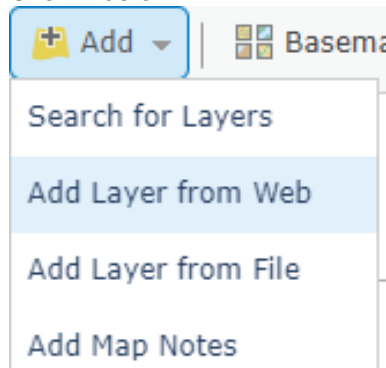

8. Change the default **basemap** (Topography) to **Dark Gray Canvas** by clicking on the **Basemap button** in the top map navigation bar, and then click on Dark Gray Canvas as shown below.

9. Next, we will add data to the webmap. Navigate to the **Add Data** button ![Add] in the top navigation bar of the map.

10. Choose **Add Layer from web** as shown below

11. Make sure the option **An ArcGIS Server Web Service** is chosen. Copy and paste the following for the service address:

    https://services5.arcgis.com/bykQ7FaL2oSIxFNa/ArcGIS/rest/services/Biological_Condition/FeatureServer/0

    Do not check the box for Use as Basemap. You could have also searched for the layer in ArcGIS Online for BiologicalCondition.

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12. After the data is added, you should have something that looks similar to below.
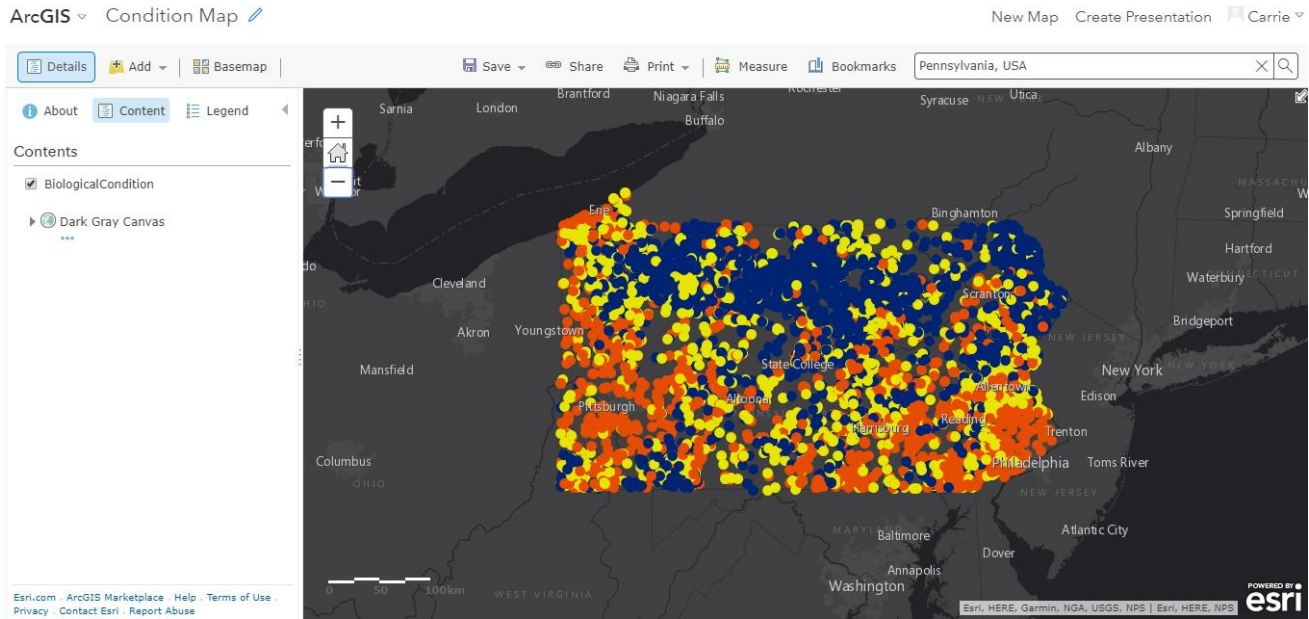

We will not spend too much time manipulating maps in ArcGIS Online. This session is going to focus more on the visual elements of an ArcGIS Online story map template. However, you could spend time in here changing symbols, changing popups, etc.

13. **Save** your map

Create Story Map using ESRI's Cascade Template

We will take elements that we've created and seen in the first part of the session, as well as adding in existing YouTube videos, an interactive chart, and other online web applications to create an example of an immersive cascade story map.

1. If you are not signed into your ArcGIS Online account – Sign in (See step 3 above).

2. Click on the **Content** menu at the top. Click on **Create > App > Using a Template** as shown below.
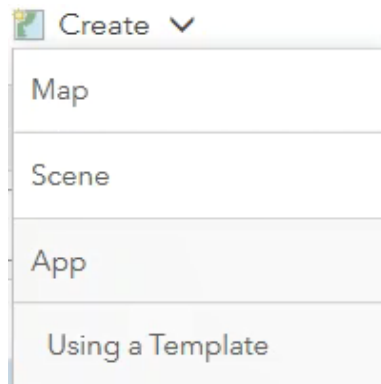
3. Click on **Build a Story Map** and then Click on **Story Map Cascade** as shown below.

Create a web app

What do you want to do?   Select a configurable app. ?   Search

| Show All |
| Build a Story Map |
| Collect/Edit Data |
| Compare Maps/Layers |
| Display a Scene (3D) |
| Explore/Summarize Data |
| Make a Gallery |
| Map Social Media |

Combine maps with narrative text, images, and multimedia content to tell your story

Story Map Basic   Story Map Cascade   Story Map Crowdsource (beta)

Story Map Journal   Story Map Series   Story Map Shortlist (beta)

Cancel

4. Click on **Create Web App**

Story Map Cascade

Present a narrative with 2D and 3D maps and other media as a full-screen, scrolling, immersive experience.

CREATE WEB APP

DOWNLOAD

5. When the Create Web App window appears, fill out the form similar to the following, only save it in one of your folders.

Create a web app   ✕

Title:

Visualizing Water Quality with Bugs

Tags:

Water quality ✕   Macroinverterbrates ✕

Add tag(s)

Summary: (Optional)

This is a story map about water quality condition and macroinverterbrates.

Save in folder:

c_tropasso   ▼

‹ Back   **Done**   Cancel

6. The Cascade story map opens to the **Cover section**. Notice, it used the **Title** and **Summary** from when you created the web app in the previous step. You can change the title and subtitle, by clicking on the text interface and changing it to whatever you want.

7. Change the subtitle to the following: PA DEP's macroinvertebrate dataset for stream assessments
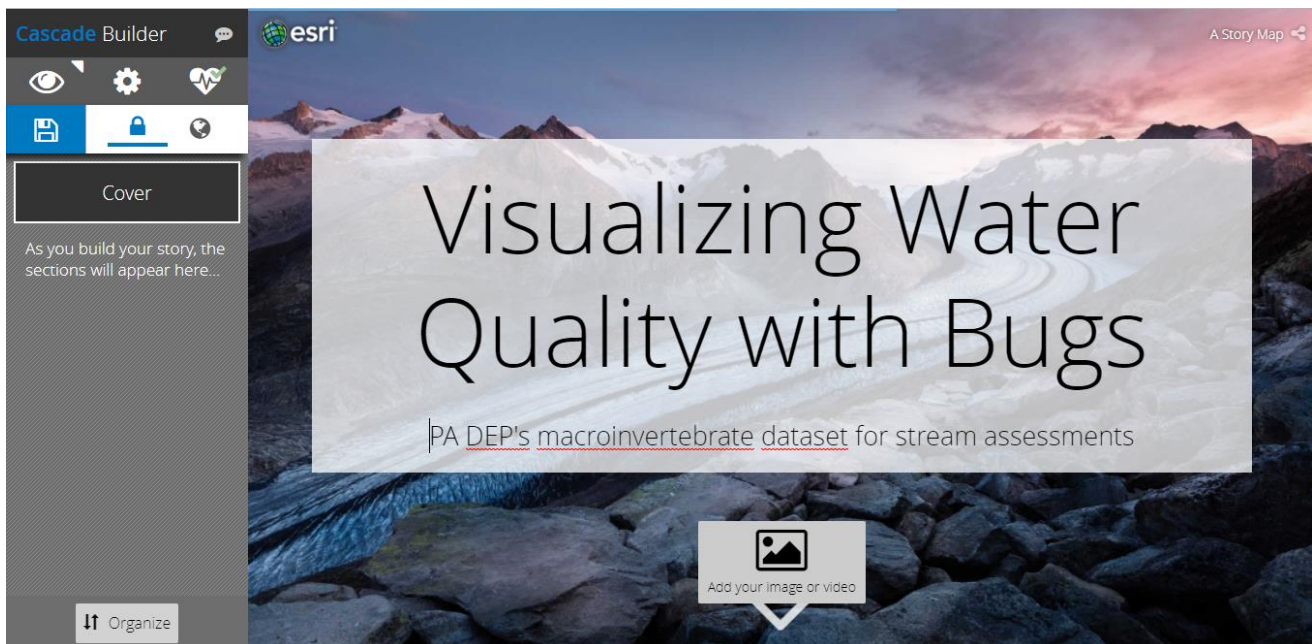
Up until now, we haven't specified any pictures, videos or other media for the cover. Your background image may look different than the one shown above. Next, we will add a video for the opening cover.

8. My default background appearance is **Black**. If you want your story map to have black elements instead of white elements, click on the **Settings** button, which is the middle button on the top left that looks like a gear.

9. Click on the Appearance tab, and choose **Dark** as shown below**.**
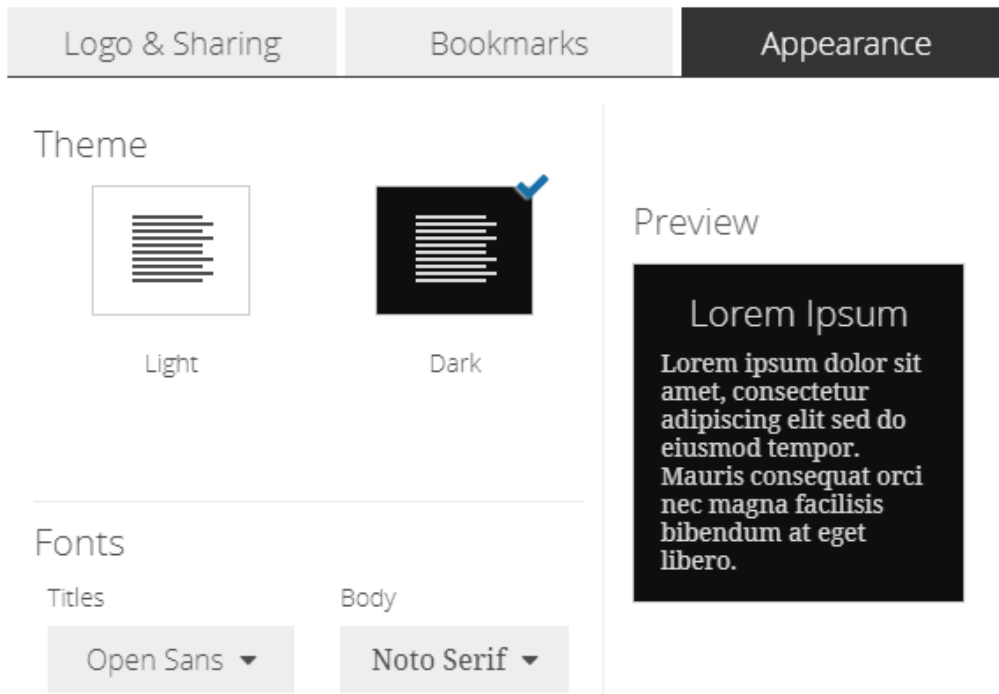
10. Click on the box under the **Title Add your image or video**.
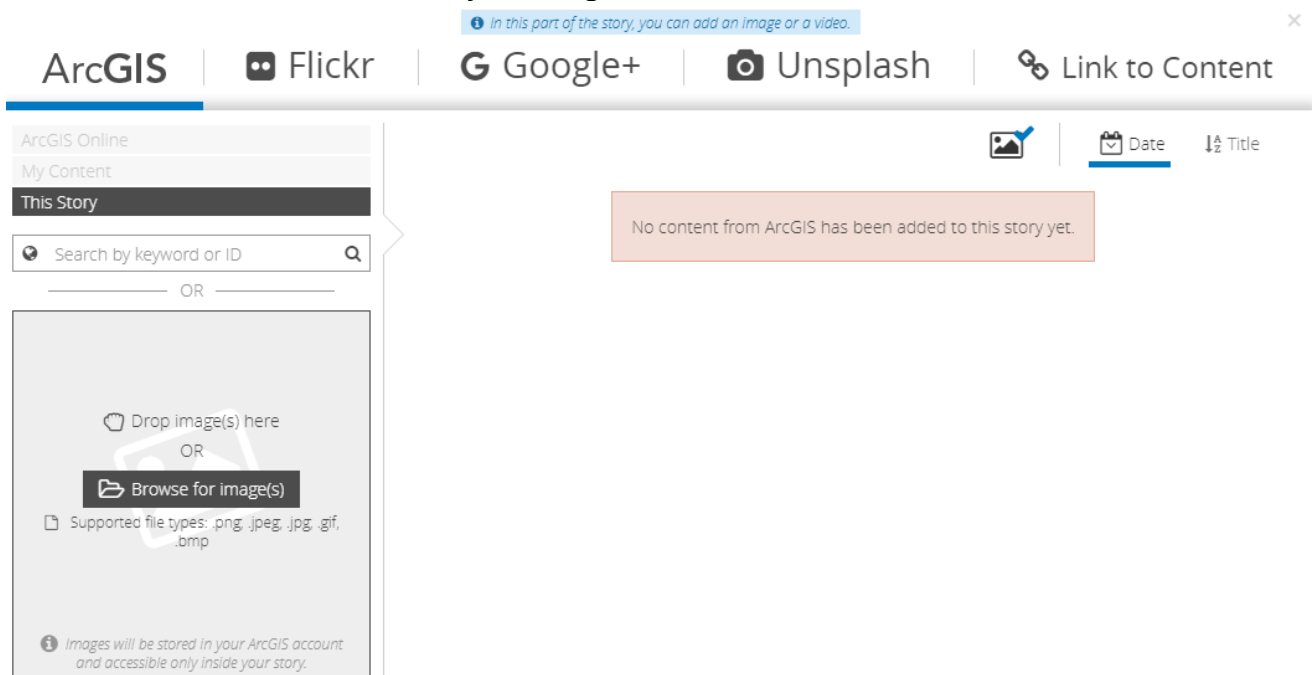
There are many options for working with and embedding media into story maps. You can add things from your ArcGIS Online content, public ArcGIS Online, you can drag and drop images, search for and connect to images from Flickr, Google, and Unsplash, and you can also Link to Content. The **ArcGIS Online – This Story** and the **Link to Content** are the two I use most frequently, and the ones that will be demonstrated in this session. Feel free to experiment with the other media types outside of this session.

11. Click the **Link to Content** tab. Copy and paste (or type) the following link www.youtube.com/embed/9UjSQhdURR8?wmode=opaque&rel=0 Your window should look like the image below.
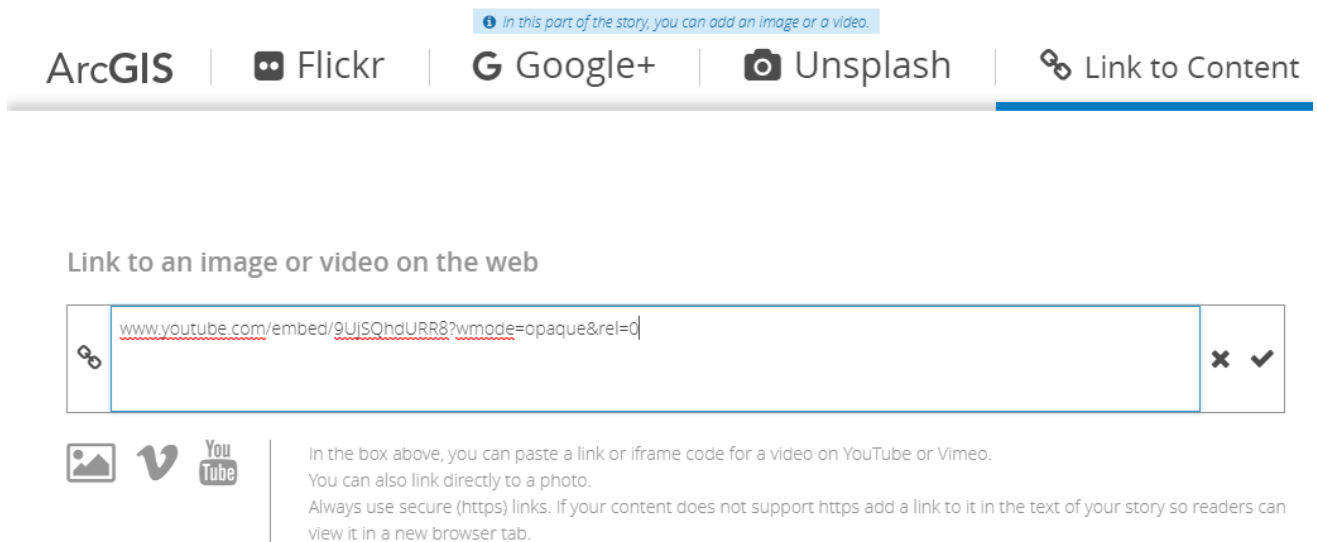
YouTube is a popular way to share videos, and they embed into story maps seamlessly. However, sometimes they have content, behavior or length that you might wish to alter. For example, by default, YouTube videos will display a collage of similar videos based on tags and keywords at the end of the video. However, sometimes this is not appropriate. To prevent this from happening, the constructor &rel=0 is added to the end of the YouTube URL. If the constructor is &rel=1 the collage will be displayed when the video plays through its entirety. There is a whole website and community dedicated to developing against YouTube content. If you wish to see how to manipulate URLs and other ways to work with YouTube, check out this website https://www.youtube.com/yt/dev/ (external link).

12. Click the **Checkmark** at the end of the window. Your video loads and starts to autoplay.
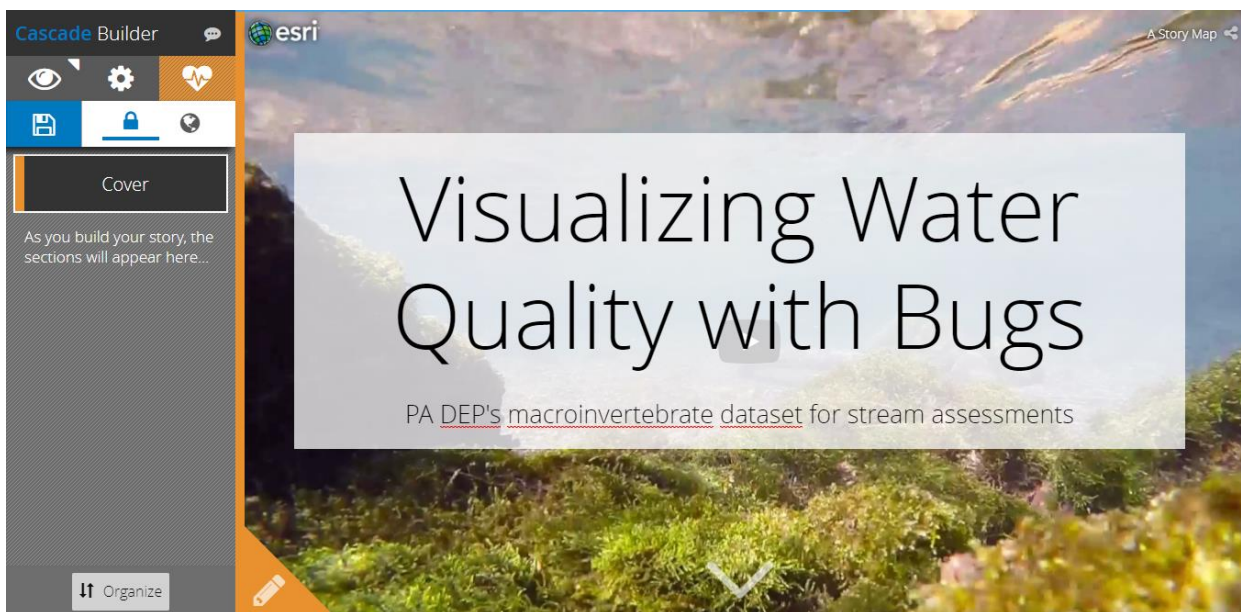
The cascade story map will autosave as you add content, but we will save periodically. Notice the orange border on the left of the video, as well as the orange marking on the Cover section, as well as the

orange section behind the heart at the top as show below. All of these things indicate there is some sort of problem. Next we will investigate this problem and see if we can correct it.

13. Click on the white pencil with the orange triangle background in the lower left of the video pane. You receive the below message.
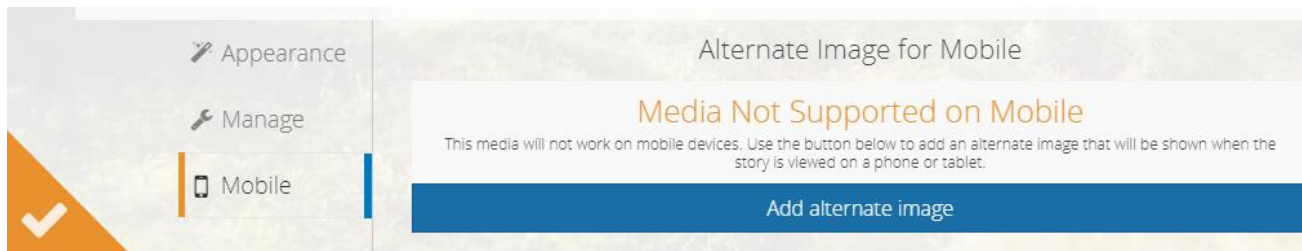
All story map templates are responsive, meaning, they work on all devices (phones, tablets, computers). This video is not supported on mobile devices, we need to upload an alternative image. Otherwise, if someone is viewing the app on a device, the screen will be black with no media content. Text will still appear.

14. To correct this issue, click on the **Add alternate image button**. Click the **ArcGIS tab** at the top, make sure **This Story** is selected, and click **Browse for images**. Navigate to the folder in Step 1 – i.e., **c:\agol** and choose **mobilepicture1.png**.

15. Click the **Orange checkmark** in the lower left of the video pane. Notice, the orange warning indicators disappear and the heart at the top now has a **green checkmark**.
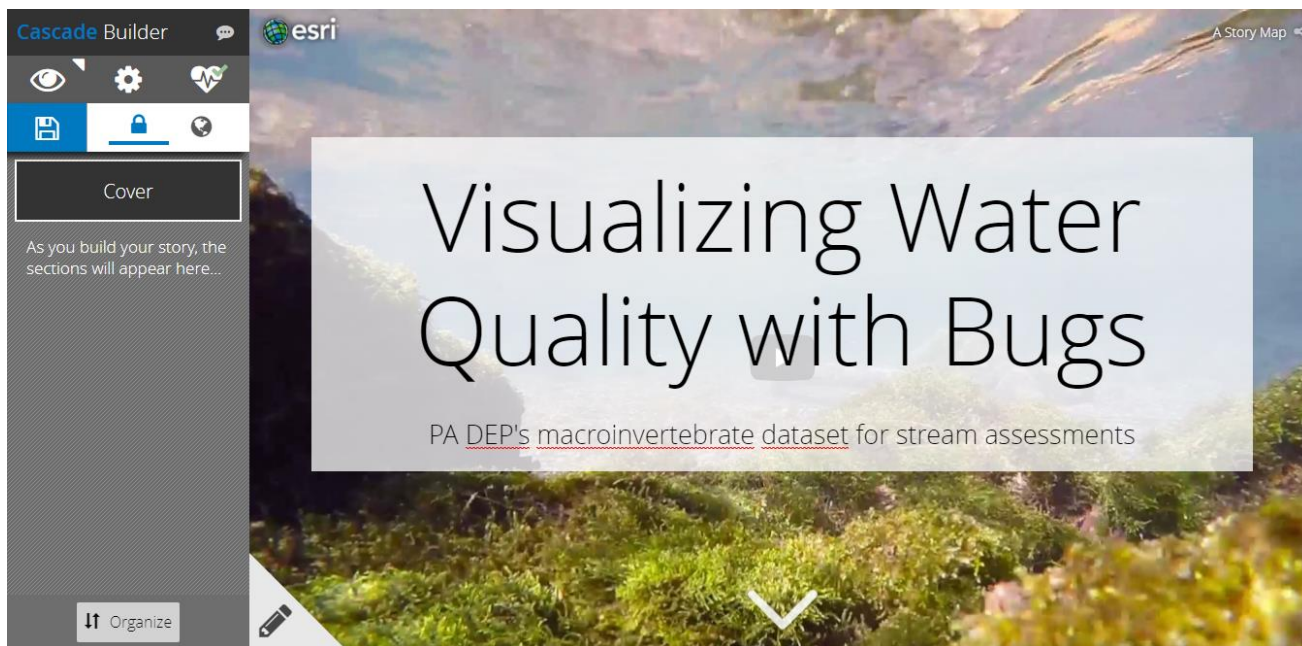
The **heart** in the top left indicates the **health of the story map**. This is designed to give you a quick glance if your story is having issues, which could be similar to what we just did with media. Other times, it could indicate a bad link. Sometimes I've found this to occur if my images are too large.

16. If you do not like the **white box background** behind the title, there are a few other options. Click the **gray pencil** in the lower left corner and click **Appearance**. Click on each of the options and choose the one you like best. Click on the **blue checkmark** to exit out of the options.

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17. Similarly, you can **change the focal point of pictures** and videos so they appear a certain way on devices. Click the **gray pencil** in the lower left corner and click **Mobile**. A **blue dot** appears on the full screen version of the image. Move the blue dot around the image and you will notice the image changes on the device simulators. Choose a spot you like and click the **blue check mark** to save your options.

    Next, we will start building the rest of the story map.

18. **Click the arrow** (looks like a triangle) in the middle bottom of the **Cover** screen to add your first section. A **white section** with a **plus sign** is added. It is not intuitive what to do next.

19. Click the **plus sign** and options popup allowing you to choose which kind of **section** you want to add. Each type of section is describe below.


    Text: A text section is simply a section for words. You can have media sections embedded within text sections.

    Media: A media section is an area where you can specify an ArcGIS Online map, pictures and videos. Options for the media added in this type of section are small, medium and large. The large does not reach full screen. If you want full screen media, you need to add an immersive section describe below.

    Title: A title section is a small introductory section that is used to break content and move smoothly from one topic to the next. You cannot adjust the size and width of the introductory sections. You can modify the text and add pictures to the backgrounds of sections. However, this is sometimes odd due to the size contraints.

    Immersive: This section is the most powerful of the four options. This type allows text to be viewed in a scrolling fashion over pictures, videos and other media and applications which can be viewed at full screen resolution. You can repeat these sections allowing for powerful transitions and animations. This is the type of section I use most frequently to do its flexibility to have pictures and text.

20. Add an **Immersive type** section. You might end up with an extra section on the left. If you do, hover over that section on the left and click the **trash can**. Your screen should look similar to the image below.
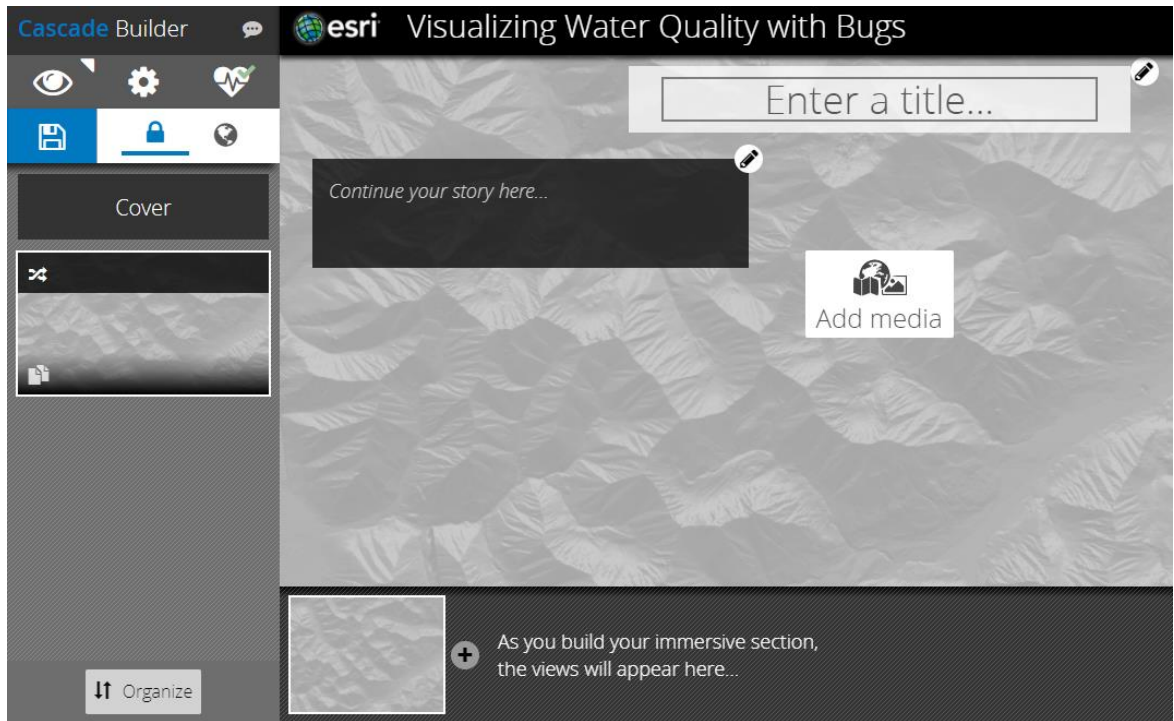
21. Click on the **Add media** button. Make sure the **ArcGIS tab** at the top is selected, make sure **This Story** is selected, and click **Browse for images**. Navigate to the folder in Step 1 – i.e., **c:\agol** and choose **1.jpg**.

22. In the **black box** that appears over the image, click in the box and copy and paste (or type) the following text: Macroinvertebrates are the very important link that connects aquatic plants and algae to fish species in streams, rivers, ponds, and lakes. Their presence helps create a healthy ecosystem.

   Your screen should look similar to the image below.
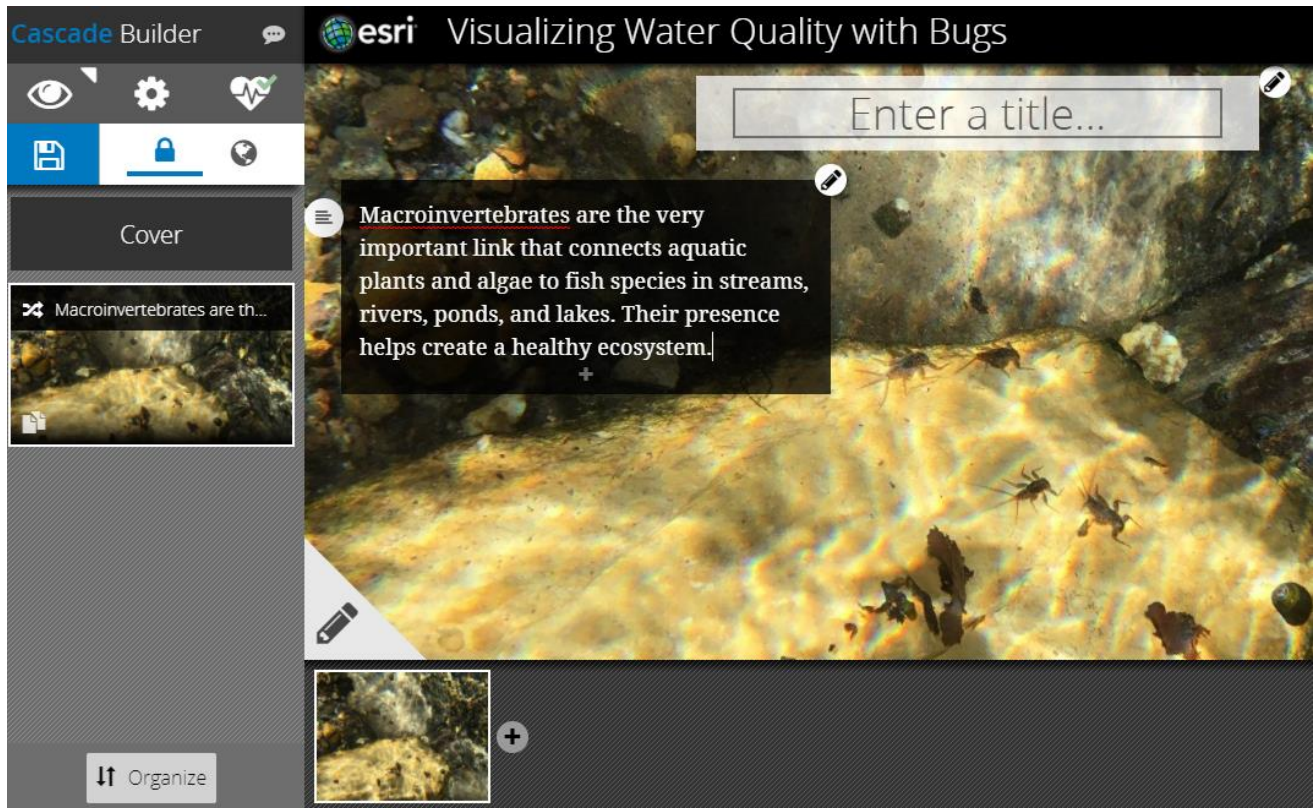
Note: You can add all of the section types above within one of the scrolling black text boxes. Follow Step 15 above to add and we will do this later in the session.

23. You can **change the location** (left, center, right), **size** (width), **scrolling behavior** and **background color** (white or black), by clicking on the pencil at the top right of the black text box. For now, leave everything as is.

24. You can also change the **type of font** within the text box, as well as the **justification** (left, center, right) by clicking the lines in the **circle on the top left**. Feel free to experiment with these features outside of this session. For now, leave everything as is.

25. Start **scrolling up slowly with your mouse**. You will slowly start to see a **gray + sign** and area appearing at the bottom of your screen. Add a new **Immersive section**. Note – your options are a bit different than described in Step 15 above. The Title and Immersive sections are the same. There is now a Narrative type that combines Text and Media moving forward.

26. **Change media to c:\agol** and choose **2.jpg**.

27. **Copy and paste** (or type) the following text into the **black text box**: Macroinvertebrates are the very important link that connects aquatic plants and algae to fish species in streams, rivers, ponds, and lakes. Their presence helps create a healthy ecosystem.

28. **Move** this text box to the **center location**. Click on the pencil, and check the **Center Position** as shown in the image below
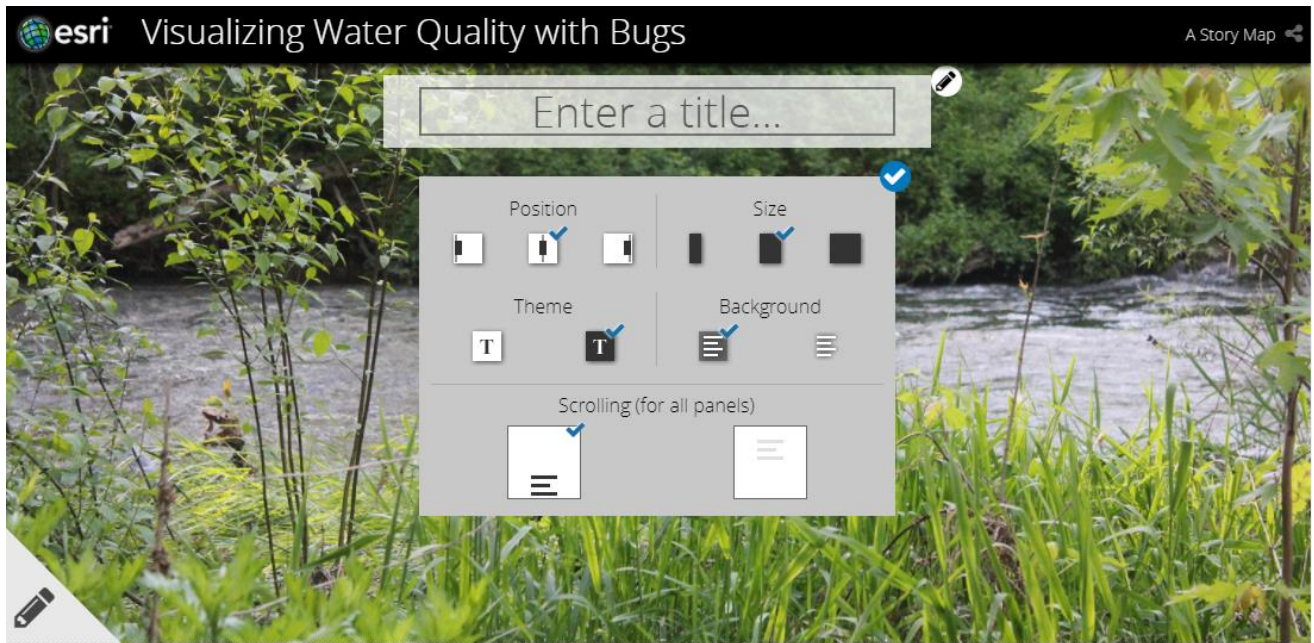
29. Click the **blue checkmark** to close the text box options.

30. In the **gray panel** across the bottom, hover over the picture with the egret and click on **Duplicate** in the top right corner. Your panel across the bottom should look the image below.

You could have two pictures, apps, etc here. However, we want the effect that the background doesn't move, but the text keeps scrolling. We will talk about transitions next and what each means.

31. Hover over the **open circle** on the right most picture, but to the left of that image. When you hover over it, the tooltip will say Choose Transition. Click **Choose Transition > None.**
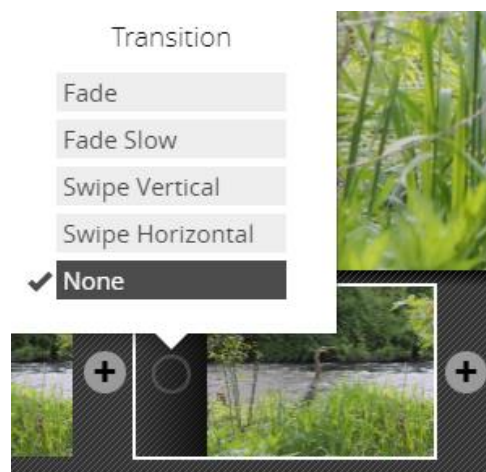
Feel free to experiment with the different types of transitions depending on the effect you are trying to achieve.

32. Copy and paste (or type) the following text into the **text box**: Macroinvertebrates spend all or most of their lives in the water, and they are relatively easy to collect and identify in the laboratory. Consequently, they are used throughout the world as indicators of water quality.

33. Move the text box to the **Right** of the screen.

34. Add a new **Immersive section** and **Link to Content** the following:
https://www.depgis.state.pa.us/timeaware/index.html

This is a custom web application, built on the ArcGIS Online Time Aware template. The template was downloaded, customized and hosted internally. Feel free to experiment with building, customizing and embedding other types of ArcGIS Online templates. We will not go into details of building those applications in this session.

Notice we get the orange warnings, indicating an issue. For now, ignore the warnings.

35. Copy and paste (or type) the following text in the **text box**: DEP's current macroinvertebrate collection methods started in 1999. Additional samples have been collected every year since.
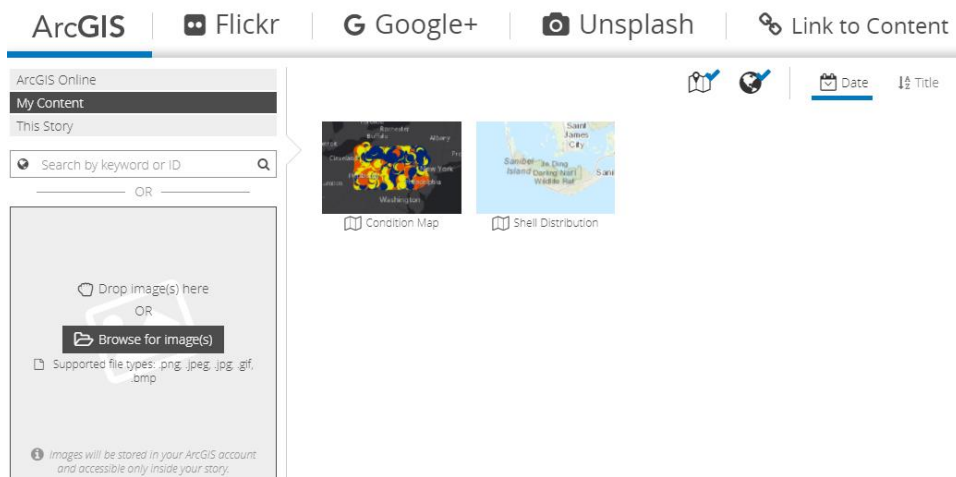
Leave the text box in the **Left position**.

36. Add a new, **Duplicate** panel in this immersive section (see step 26 above), with **No Transition**.

37. Copy and paste (or type) the following text in the **text box:** The high number of samples allow for a more refined view of biological conditions across the commonwealth.

Move the text box to the **Center position**. Your screen should look similar to the image below:

38. Add a new **Immersive section**. Click **Add media**. Make sure the **ArcGIS tab** is selected and that **My Content** is selected as shown in the image below.

39. Choose **Condition Map** (or whatever you called your map created in step 7). Your content will likely look different than mine.

40. Copy and paste (or type) the following text in the **text box**: DEP and its partners have collected approximately 7,500 samples which indicate a range of biological conditions.

    Leave the **position at the left**.

41. Add a new, **Duplicate** panel in this immersive section (see step 26 above), with **No Transition**.

42. Copy and paste (or type) the following text in the **text box**: Higher scores indicate better environmental quality. These numeric scores can be further summarized onto a generalized condition score (good, fair, poor), as depicted in the map.

    Position the text box in the **center.**

43. Add another new, **Duplicate** panel in this immersive section (see step 26 above), with **No Transition**. Your panel across the bottom should look like the following image.

44. By default, the text boxes have text in them **Continue your story here….**To get that text to disappear so that you can add other types of media to the text box, **click somewhere off the black text box.**
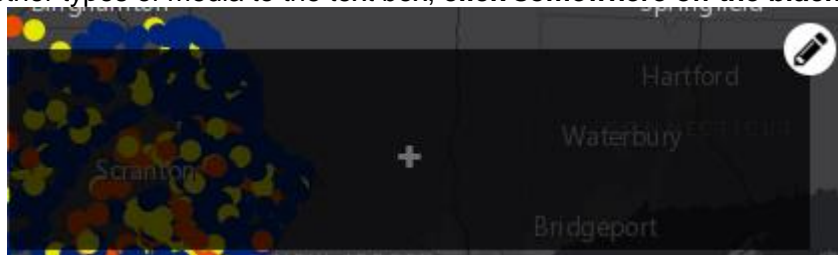

45. Click the **plus sign**, add a **Media section** and **Link to Content** the following:
    http://www.depgisdev.state.pa.us/plotly/conditions.html Click the

46. Add a **new section** (not Duplicate!!) in the same immersive panel, by clicking on the **plus sign** immediately to the right of your third box. Choose **Fade** as the transition. Your panel should look similar to the image below

47. **Add media**, make sure the **ArcGIS tab** is selected, search **ArcGIS Online** for **Biological End Use Model** as shown in the image below.
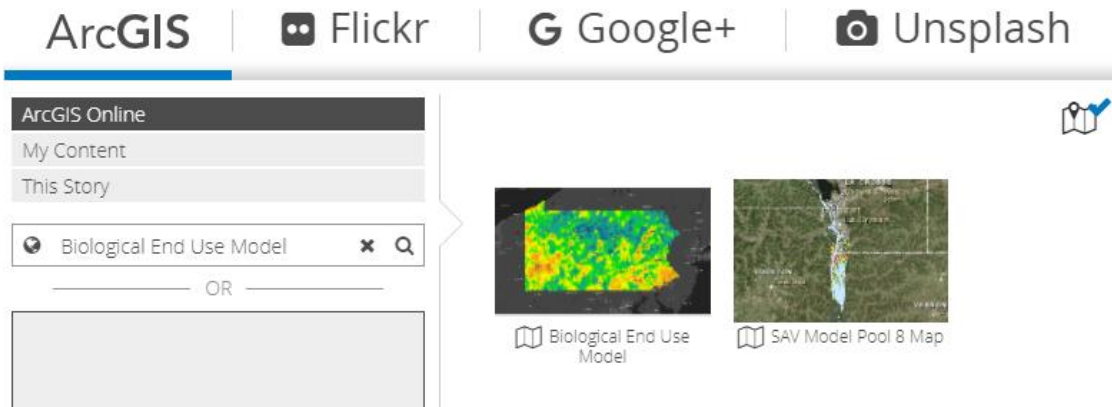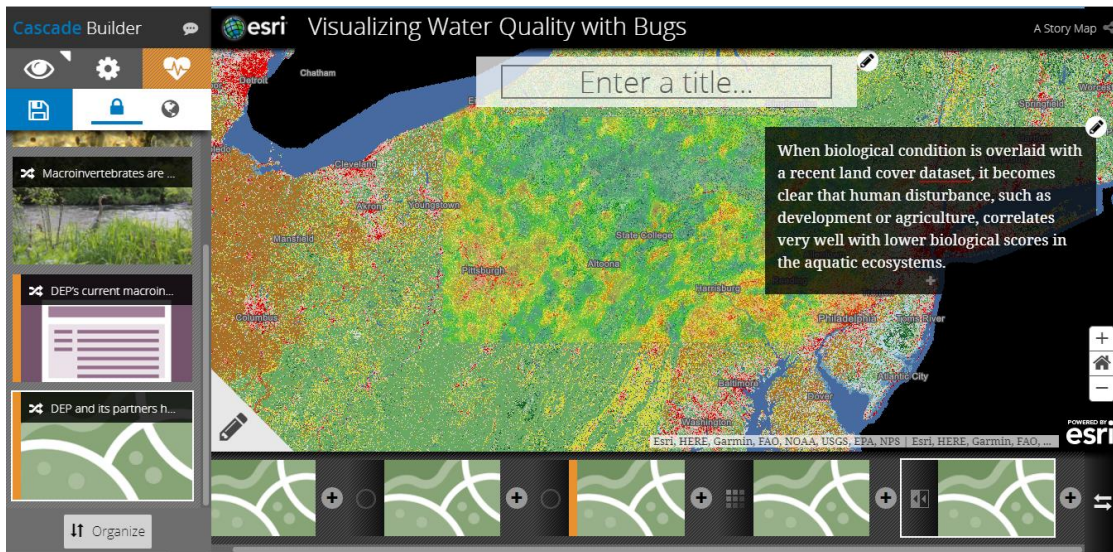

48. Copy and paste (or type) the following text in **the text box**: Taken one step further, this information can be modeled, which gives DEP an understanding of biological condition across the entire commonwealth.

    Position the text box to the **left.**

49. Add **another new section** (not Duplicate!!) in the same immersive panel, by clicking on the **plus sign** immediately to the right of your fourth box. Point the Media to **End Use Land Model** from **public ArcGIS Online Content**. Choose **Swipe Horizontal** as the transition.

50. Copy and paste (or type) the following text in the **text box**: When biological condition is overlaid with a recent land cover dataset, it becomes clear that human disturbance, such as development or agriculture, correlates very well with lower biological scores in the aquatic ecosystems.

    Position box to the **right**. Your screen should look similar to the image below.

51. **Save** your story map by clicking **Save** in the top left. Ignore the orange warnings for now.

52. Scroll up and add a new **Immersive section**. **Add media** to be **c:\geodev\5.jpg**. Center the text box and copy and paste (or type) the following **text**: DEP continues to collect more data and develop new biological methods. To view and download DEP's current set of macroinvertebrate data, click here.

53. Within the **text box**, select and highlight the word **here**. When you do this, several formatting options appear as shown below.
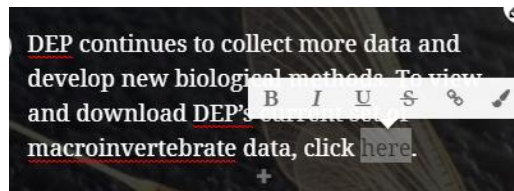
54. Choose the **link button** and add the following link https://www.depgis.state.pa.us/macroviewer/index.html

55. **Save** your story map. Click the **eyeball** in the top left of your map to view your finished product.

56. **DO NOT DO THIS FOR THIS SESSION's EXAMPLE**. Right now, your story map is still only available in your content within ArcGIS Online. To share the story map so that others may see it, **click on the globe** just under the heart.

57. There are a few more formatting things you can do in order to further customize the story map interface including changing the logo, add Bookmarks at the top, which in essence act as category headings, etc. To access these settings, click on the settings button (center button that looks like a gear) as shown in the image below.