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Final Project Paper

My project is on pollution in the ocean and whether or not ships add to it along with what countries are near the bigger pools of pollution along with how they might affect coral reefs. I got pretty much all the data from the data portal but I got some of it from arcgis online. The data that is being shown on the first map will be shipping routes and where the pollution seems to be centered at with the ocean flow being shown to show how that affects where some of the pollution ends up along with if the pollution is ending up near coral reefs. The other map will show every country and the pollution location along with the flow of the ocean again. The legend will show what each dot represents in the number garbage in that area. It will also show the warm and cold water flow.

What I hoped to show with my map was the location of pollution in the ocean and how the currents of the ocean affect where they go along with weather or not shipping routes might also affect the location of the pollution along with if the pollution could be affecting coral reefs. The other map is used to show the different countries and how they may also affect where it ends up. However my original idea was to only show it in the Atlantic ocean however after looking at it I felt there just wasn't enough data being shown to prove anything at all so I decided just to show the whole map. However this also leads to the issue of there not being as much editing on the map.

I started by adding all my data to the map that I got mostly from the all portal, but I did find some of it on ArcGIS online. I then create a buffer around all the points on the map that represent pollution areas and then I dissolve the overlapping parts to create one shape so it's not just a bunch of dots that are overlapping each other. Then I clip out all the areas that have a zero in coral reefs so that it takes up a lot less space. I change the color for the pollution to orange. The second map I clip out all the dots that are from the range of 0-100 of pollution because there was just so much of it that It was covering up major areas of pollution that I wanted to show easier. I then also go through and delete polygons around countries that aren't touching the ocean at all. After all that was done I took both maps to the layout and added a legend, north arrow, and scale bar.

Some issues I came across was that I couldn't really figure out how to crop out part of the shipping location data. Another issue I had was with figuring out how to dissolve the buffer zones since I thought I could just merge the overlapping points however that only saved the parts that were overlapping so it took me a little while. I also was having issues with getting the data of shipping routes to pop up in the legend so I had to figure out how to get that to work. I was also having issues with getting some of the data to pop up above other points so that some of the major areas of pollution weren't being hid behind a bunch of miner issues.

I learned a little more about the dissolve tool and how to better get rid of data I don't need. Since it took me a while to figure out how to clip out countries I didn't really need to show on the map, but it became a little easier once I figured it out. It also just gave me more experience in testing out how things work and making more used to the tools. It also was a good

way to test out how much info I have retained from the other classes and help me figure out what

I need to work on more.