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Problem Definition

There is a proposal to divert the Gila River near Silver City, NM. That means the riparian territory around it would suffer from the immediate loss of water from the Gila. Because only 2% of New Mexico is riparian habitat and 90% of animals with vertebrates need a riparian habitat it would seriously damage the Gila's ecosystem, resulting in endangered species. The ecosystem's main water source that is the Gila the surrounding terrain will be severely altered therefore harm the whole wilderness and manipulating the life that lives in that habitat. This is why we feel the need to expose the harm this will cause to New Mexico's ecosystem. There is a public debate over the fate of our river, and we want to add our voices by using computing and data to make a strong point.

Problem Plan

The reason why we are making our presentation on the Gila River by using the Grand Canyon model as a base is because the engineers are building a diversion through the middle of the Gila River. We are making a demonstration of the Gila River and the paths of how water is flowing down using the Grand Canyon model, which we will modify to represent the Gila valley in NetLogo. The diversion will affect the path of the Gila River, and cover riparian habitat with water. We will use NetLogo to model how much and where water will rise.

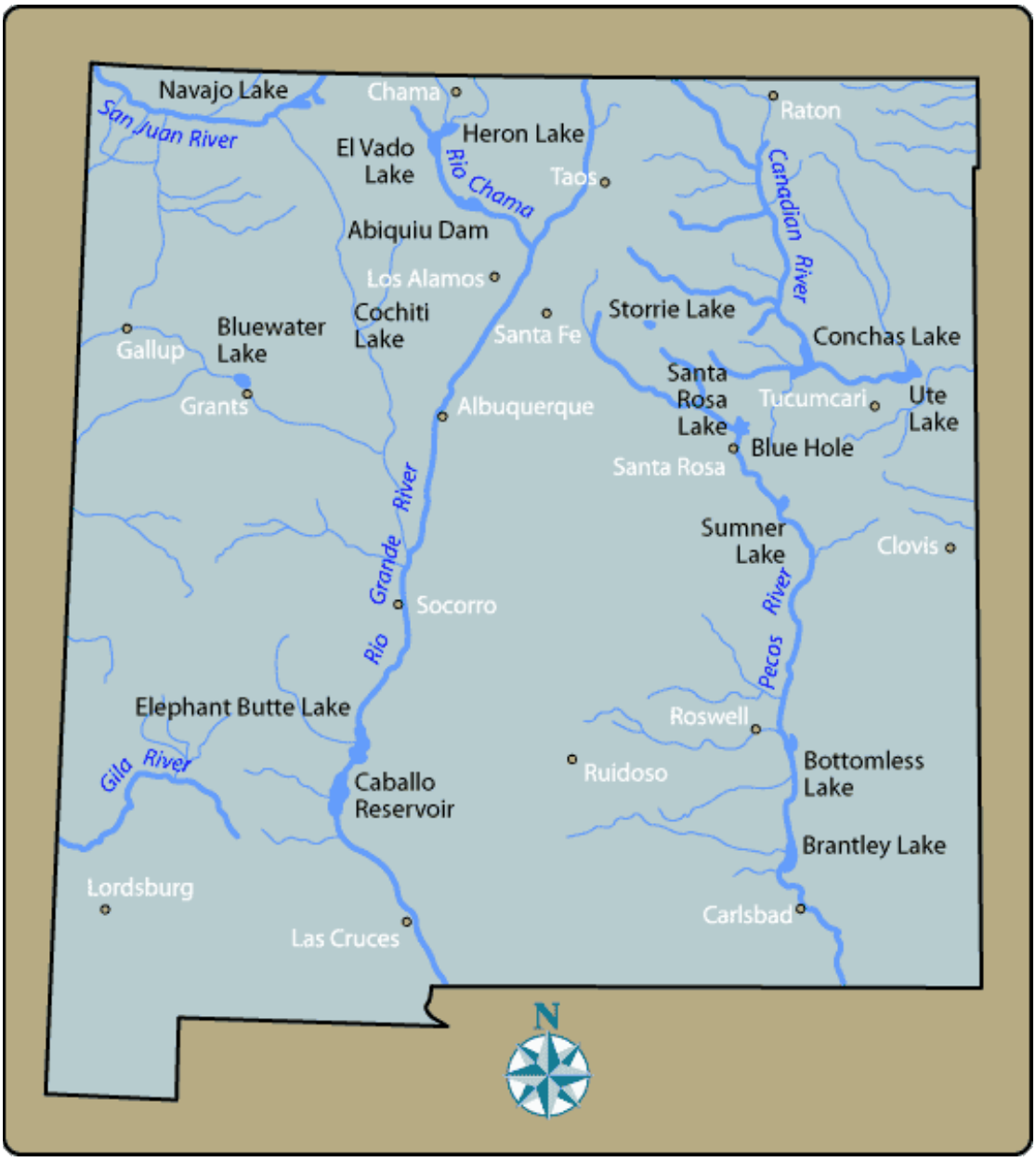
Progress

So far our group has accomplished many great feats. We have been mainly familiarizing ourselves with the Grand Canyon code, altering it to our specific terrain. We are very close in figuring out how to can make a dam in the program. This, once accomplished, will complete our design overall and will allow us to code the finer details. We have gathered a lot of valuable information from Dona Stevens and Alison Sivic who are active in the Gila River Project. We will utilize this knowledge to formulate the dam aforementioned and display how the land will develop through time. Although we have a great deal of work left ahead of us, the end is in sight

Results

The results we hope to accomplish are a clear model of the changes in the environment and how it will look if the diversion pipe is built. We predict it will look like lakes in the middle of the woods instead of the beautiful flowers and trees we now see in today's riparian habitats. If

the diversion is built it will also hurt the animals and their food chain. River animals will also be endangered because it will disrupt their food chain. Some of the animals in the wilderness will also go extinct because of where the water will be which mean it will wipe out the animals and creatures around the river and river animals.



Citations

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