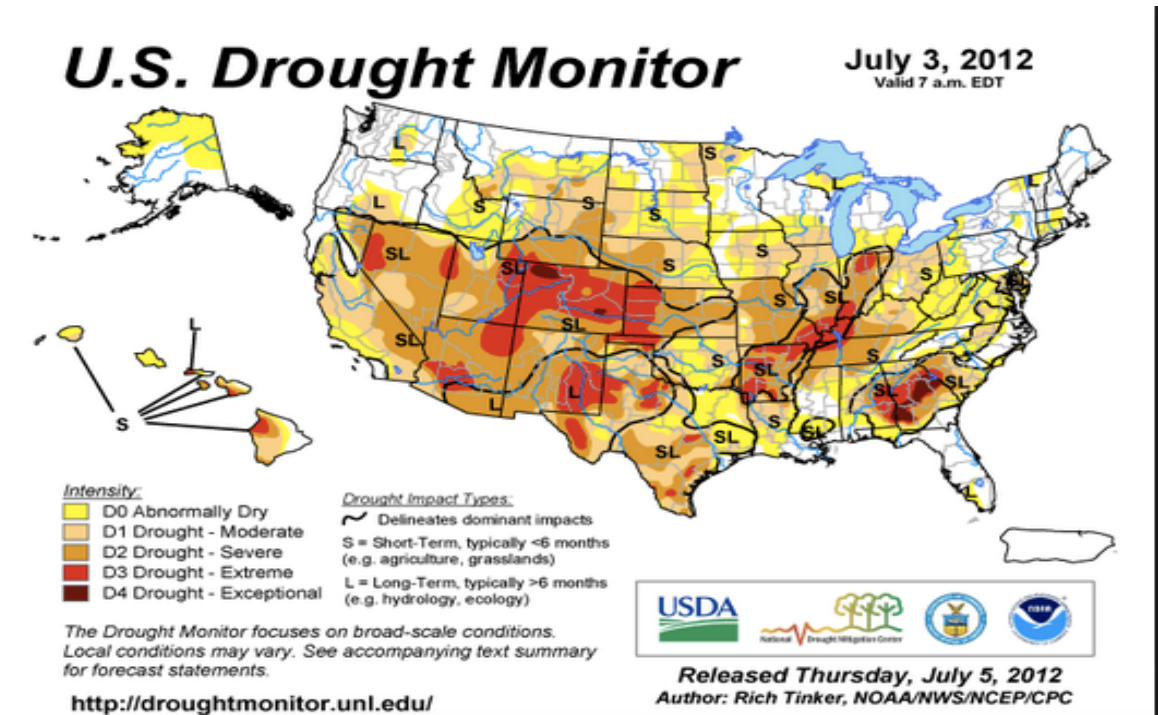


Every Drop Counts



Mesa Middle School

Team 1

Ecology/ Hydrology

Starlogo Nova

7th Grade

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Executive summary

(ES) The main idea of our project is to help the drought-ridden states get water. The way we will do that is by piping the water from states that are being flooded and bringing it to the drought-ridden states. This method will help a lot of people and business. For example, here in New Mexico, there is not much water to go around and crops are struggling everyday, so something must be done.

Problem Statement

The problem that we are trying to solve is helping the drought-ridden states get water by piping it from a flooded state to the drought-ridden state. Seeing as floods destroy buildings, houses, cars, and so many animals and objects, the cost of repairing everything is actually quite high. But the cost of destruction is no match for the cost of lives being lost. Flooded states also have lots of crops, which could easily be destroyed during a flood. The destruction of crops could easily impact the drought-ridden states, as for drought-ridden states can't support many crops, so it is crucial that the crops aren't ruined. In drought-ridden states, a ton of water has to be shipped to the states daily to meet the water demands. Drought-ridden states also require water for the crops. Because of the fact that crops do require water, drought-ridden states usually struggle to meet the crops' water demand. Because of that, the drought-ridden states also buy many crops from the states with lots of water, becoming dependable on the purchase of crops. This is also a problem in drought-ridden states which lie next to an ocean. The cost of shipping water, shipping crops, and water purifiers is quite high, and if the livestock in those states don't meet their demand, they will die. Water is a very crucial part of life, and if we have way too much or way too little, life falls apart.

Description

(DCP) What my team is planning to do is start piping the flooded states and leading the pipes to the drought-ridden states. There would be many pipes in the flooded states, all leading to a main pipe that would head to drought-ridden states. However, there will only be pipes in urban areas; we don't want to harm the wildlife. All the water collected in floods would head to a reservoir, which will most likely be used to water the plants. With less water to flood flooded states, and more water to fill drought-ridden states, the water crisis can be counteracted. Seeing as the cost of cleaning up debris in flooded is high, and the cost of trucking water is high, many economic problems are also negated. If the pipe is damaged, and spills, then, unlike an oil pipe, the spill would actually be helping the environment, not hurting it. So, in total, building a pipe from a flooded state to a drought-ridden is a very good idea.

Validating the model

Our model shows what would happen if we did start piping the flooded states. The model should be accurate; as for it depicts that there would be less water as a result from a flood. The validity of how the pipe can pump water is also supported by evidence; water and oil pipes have also had the same layout and outcome. In our drought-ridden part of the code (with the pipe), the validity is also true. The pipe has a pump which takes the water from the pipe to the reservoir, and again the pipe has evidence at which supports the pumping action. Oil and water pipes, again, can have an aquifer and reservoir, and can pump the liquid into the reservoir. And that is the validity of our team's code.

Conclusion

In conclusion, our research, facts and data will help our nation to be one day rid of drought-ridden states. One thing that we learned is how much more expensive it would be using any other way of bringing water from flooded states to drought ridden states; for example, trucking water. We also learned how precious water is, and how essential water is in drought-ridden states. So that is our conclusion.

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