

Geog river engineering

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Does river engineering have the potential to make floods worse? This essay will involve explaining whether or not different types of hard and soft engineering make floods worse. I will go through each type of engineering and explain their advantages and disadvantages to see if they are each capable of making a flood worse or not. Levees Levees are an example of hard engineering and are basically just big piles of either concrete, rocks or soil that have been piled up to increase the height of the rivers banks therefore increasing its full capacity.

In some cases levees can be very helpful as they decrease the risk of flooding to an extent. However if a levee for some reason breaks then it has the potential to make a flood a lot worse. This is because if the levee breaks then it does not only carry the water through it takes the rubble with it therefore making the flood more powerful. Levees are also very costly and they take up room as if you want to build one then the levee has to get thicker and thicker as it gets taller, this then takes up a lot of room and you would have to buy the surrounding land to enable the levee to be built which builds up the costs as well.

All along the Mississippi river levees can be found mainly made of rock, however a lot of them broke during the course of 1993 flood as many of them were temporary and could not withstand the pressure of the water. Dams Dams are again a hard engineering technique and are giant structures often several meters thick made of concrete. Dams can be good in some ways again as they can provide renewable energy sources to surrounding towns and cities also they are very long lasting also dams can provide water

for some places for example the Hoover dam supplies water for a lot of places Vegas roughly 25, 000, 000 people that it supplies water to.

The Hoover dam is a very famous dam and has been successful but it came with its costs. It is estimated that it cost \$49, 000, 000 for the Hoover dam to be built taking 5 years to actually be built, dams have many more disadvantages such as the costs and the length of time they require to be built. I would say the main disadvantage is however that many small towns and villages upstream have to be evacuated as their land has to make way for the area to be flooded.