A Geographic History of the Brazos River Diversion at Freeport, Texas

and the Influence of the Diversion on the Brazosport Region

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Introduction

• Port Freeport is the twelfth largest port in the United States in terms of foreign tonnage and is one of the largest employers in Brazoria County, Texas.
• The purpose of this qualitative research was to explore how the permanent diversion of the Brazos River channel influenced the overall trend of economic, regional, and industrial development of Port Freeport and the Brazosport Region.

Study Area

• Port Freeport is located in south-east Texas in the coastal region widely known as Brazosport. Brazosport is located in Brazoria County along the upper Texas Gulf Coast in the vicinity of the Brazos River.
• The Brazos River is considered the largest river in Texas. The river meanders through the center of Brazosport and makes a sharp turn to the southeast in Freeport where the channel was diverted by the Army Corp of Engineers in 1929. The river continues its course to the Gulf of Mexico where it empties approximately six miles southeast of Port Freeport.
• Subtropical riparian marsh, wetlands, and coastal prairie dominate the remainder of the physical landscape.
• The industrial landscape is dominated by chemical plants and refineries.

Outcome of the Diversion

• A population boom was prompted by the sulfur mining industry in Freeport, due in part to the relative ease in which sulfur could be shipped from the new port facility.
• Dow Chemical Company chose Freeport for the location of their plant operation. Dow purchased 800 acres of land around the new harbor. With Dow came 14,000 new workers to the region. Other chemical companies followed suit and also located their facilities in Brazosport.
• Flooding from hurricanes and tropical storms was better controlled, resulting in a reduction in loss of life and property.

History of the Brazos River Diversion

• Up until the 1920s every attempt to create a port and harbor at the mouth of the Brazos River had failed due to excessive flooding and silting.
• The citizens of Brazoria County voted in 1925 for the issuance of $1 million in tax bonds to be used to divert the river so a dependable port could be created.
• The diversion of the river was completed by 1929. It was the first time a government agency consented to divert a river this large.
• The “old” river bed was dredged and the channel was turned into a deep-water port.

Feasibility of the Diversion Today

The diversion of the Brazos River benefitted the Brazosport Region in the long-term from an economic and safety standpoint, but likely would not be feasible today due in large part to the potential environmental impacts. Immediate environmental consequences of the project are unknown. Other studies of similar river diversions found:
• Damage to nearby wetlands,
• Reduction in species population and diversity, especially aquatic plants, fish, and migratory birds,
• Change in hydrological regime, and
• Impact on agricultural production.

Today there is an environmental push to restore rivers to their original state. A river diversion project of this magnitude would likely be politically impossible.

Conclusions and Opportunities for Further Research

• Much of the growth in Brazosport occurred as a result of the presence of the chemical industry in the area.
• The chemical industry arrived to Brazosport after a dependable port and harbor were created.
• The Port and Harbor were created as a result of the diversion of the Brazos River in 1929.
• Opportunities for further research may include:
  • An evaluation of the ports best management practices to ascertain efficacy of natural hazard preparedness.
  • A quantitative study of population growth attributed to Port Freeport and/or the chemical industry.

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