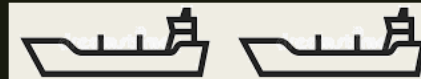




THE HOUSTON SHIP CHANNEL: AN ENERGO-ENVIRONMENTAL HISTORY

Dominic Boyer, Rice University



WHAT IS HOUSTON?

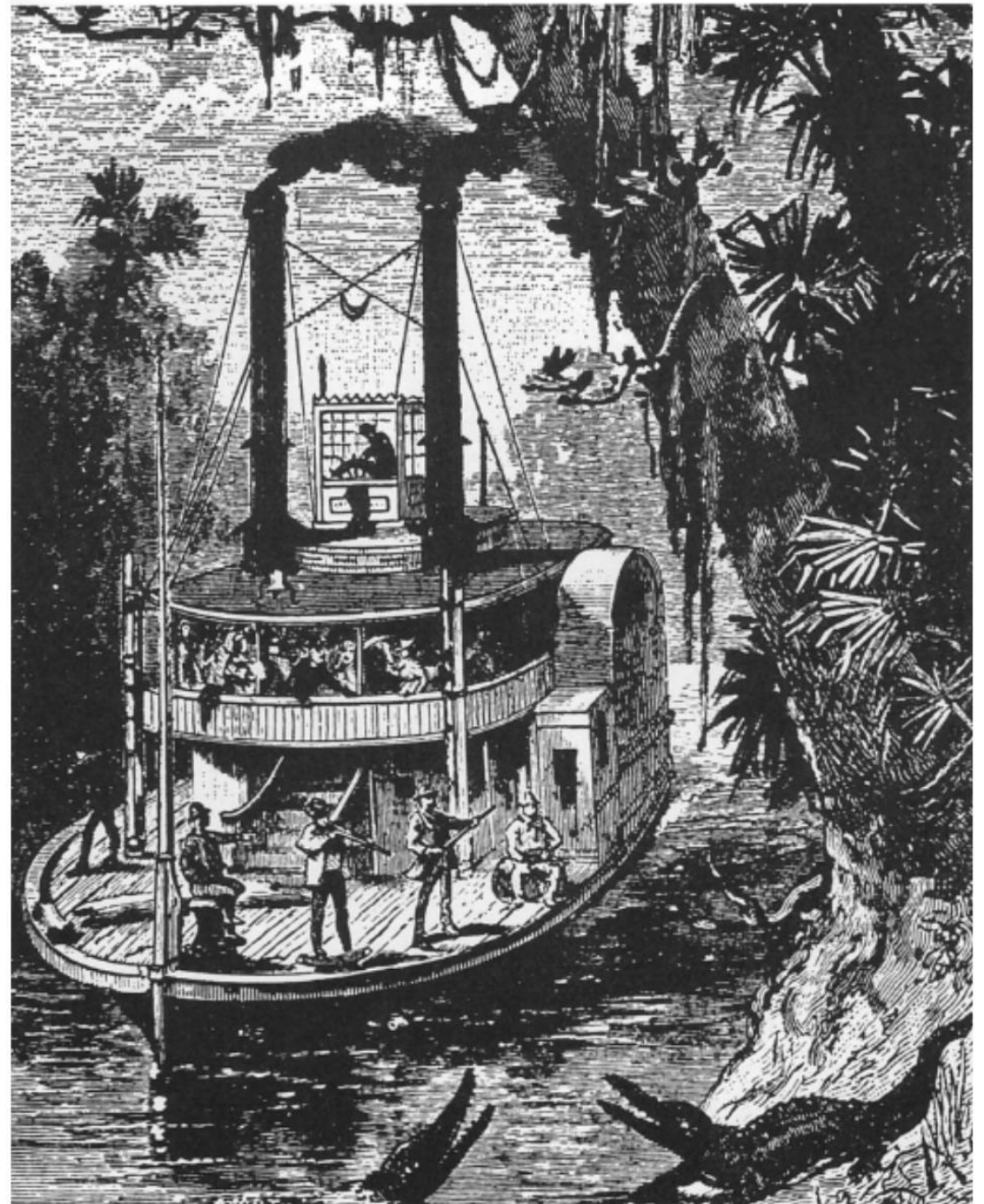
“the more seemingly placeless
Houston grows, the more it can
seem like Houston. If the generic
colonization of sprawling
settlements can be said, to
local conditions here it is”
have a hometown, here it is”
– Larry Albert, *Houston Wet*

Before there was a Houston Ship Channel...

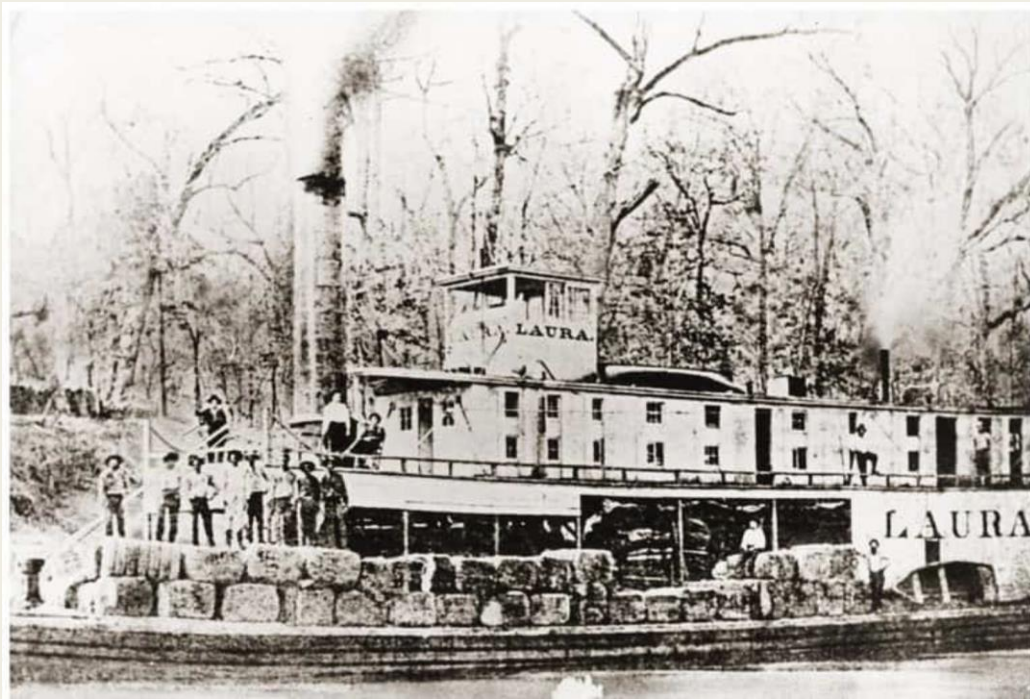
- There was swamp, coastal prairie and pine woodlands; twenty riverine bayou systems crosscut what is now Houston
- These lands and waters were home to the Karankawa, Akokisa, and other Indigenous peoples for at least 8,000 years before Spanish and later Anglo conquest
- Although nominally founded as the capitol of the Republic of Texas by a pair of Yankee real estate speculators, mosquitos, yellow fever and floods soon drove politics west toward Austin
- Still, Houston thrived because of the way its watery lands and landish waters allowed for a combination of transportation infrastructure (railroads and shipping), making it the key transit point for the proceeds of the plantation slave economies in the region
- Cotton, sugar and timber provided the initial impetus for a deepwater port in the 19th century. Oil, military manufacture and petrochemicals cemented it in the 20th.



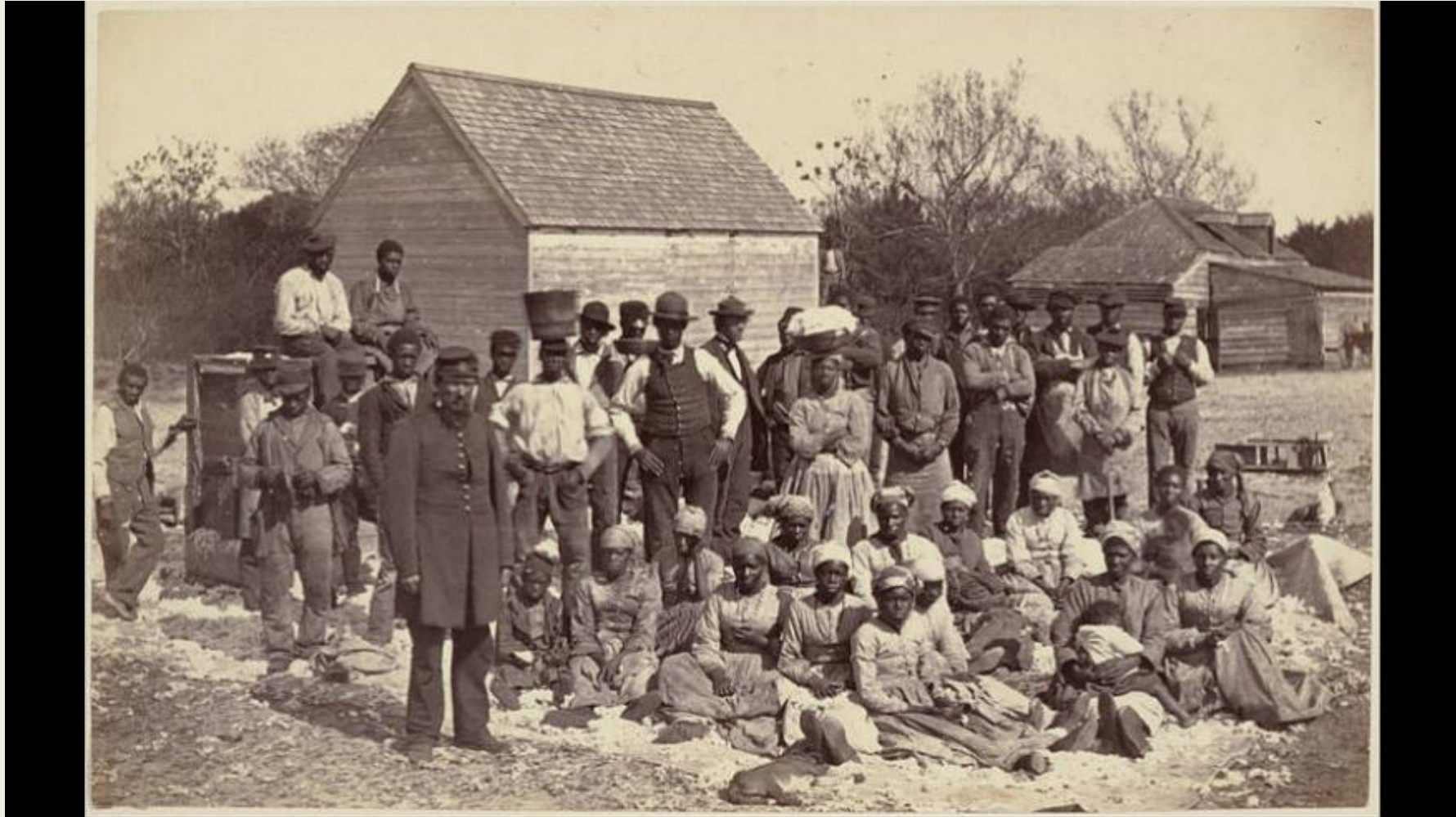
“The steamship trip to Houston is unique, and the like of it is not to be found elsewhere in the world. On discarded riverboats, condemned by the inspectors, one travels forty miles up the dangerous Buffalo Bayou, which narrows down to about 150 yards. It is lined by beautiful banks, densely covered with bushes, and finally becomes so canal-like that two boats are able to make way for each other in only a few places. Overhanging branches often brush the boat’s deck. One cannot easily imagine more luxuriant vegetation than this. All the timber and underbrush of a tropical climate—cedar, cypress, and the like—rival one another in rank growth. From among them is wafted the fragrance of the blossoms of the magnificent magnolia, which I have seen nowhere in such splendor and profusion. In late summer, however, death and horror prevail in this apparent paradise. The vapors rising from the plants and the stagnant waters produce fevers of every kind. Colonel B. E. Bee, my companion on the *Sarah*, had promptly warned me against Houston. But such arguments did not impress me at all at that time. I was too much alive to torment myself with forebodings of death.” — Gustav Dresel's *Houston Journal: Adventures in North America and Texas, 1837-1841*



Houston is a creation of settler liberalism. Its boggy beginnings, swindles, plagues, and constant flooding are erased by a teleological narrative of rising property and prosperity through hard work and technological ingenuity



Yet most of those whose hard work built the city were neither credited nor granted property let alone offered prosperity



King Cotton, Queen Sugar, the Texan Plantationocene

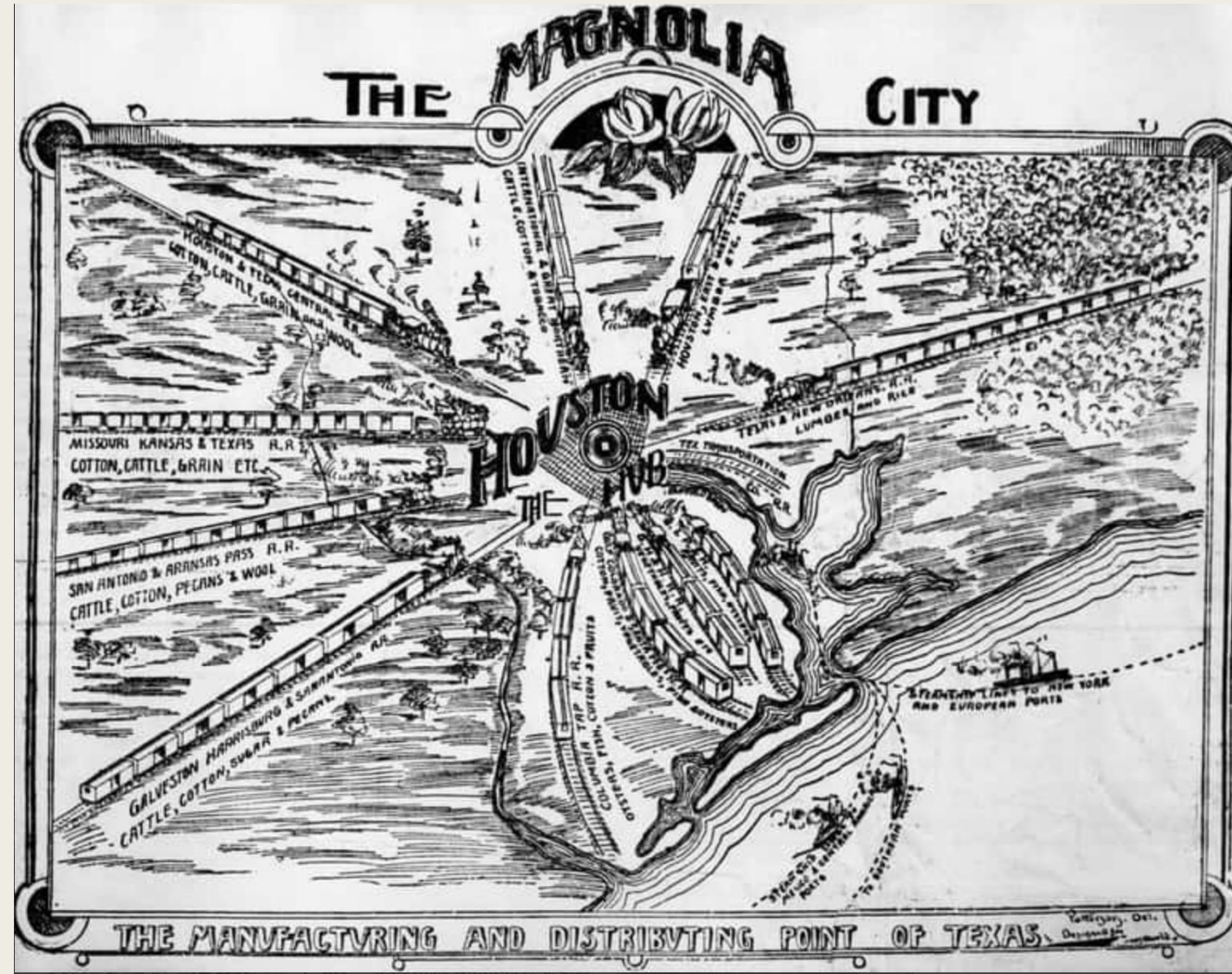
The arrival of rail infrastructure in the 1850s accelerated Houston's trajectory toward becoming "the chief cotton concentration point in the world."



- Cotton bales received in Houston from surrounding plantations : 39,923 (1854) -> 63,453 (1858) -> 115,010 (1860) -> 2.5 million (1899)
- Frederick Law Olmsted visits Houston during this period commenting, "The principal thoroughfare, opening from the steamboat landing, is the busiest we saw in Texas. Near the bayou are extensive cottonsheds, and huge exposed piles of bales."
- By 1910, Houston's six cotton compresses are capable of producing 17,000 bales per day

Houston becomes the export and manufacturing hub for Texas by the end of the 19th century

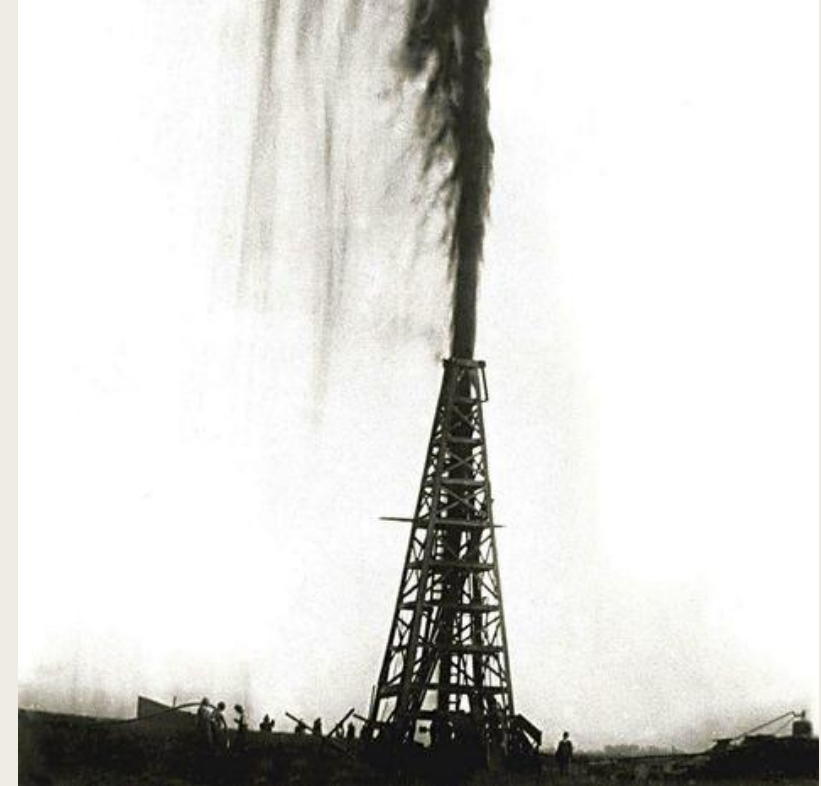
Houston's booming lumber, cotton and sugar exports attracted and concentrated other kinds of manufacturing and administrative labor—cotton compresses and cotton oil seed mills, brass and iron foundries, car wheel works, railroad shops—during the last decades of the 19th century making it the preeminent urban industrial center of Texas by 1905



Galveston 1900

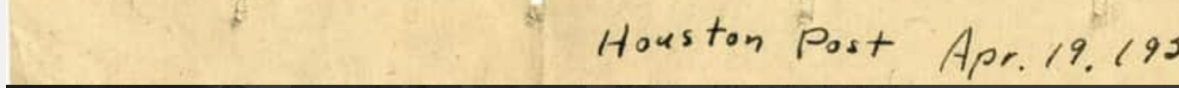


Spindletop 1901

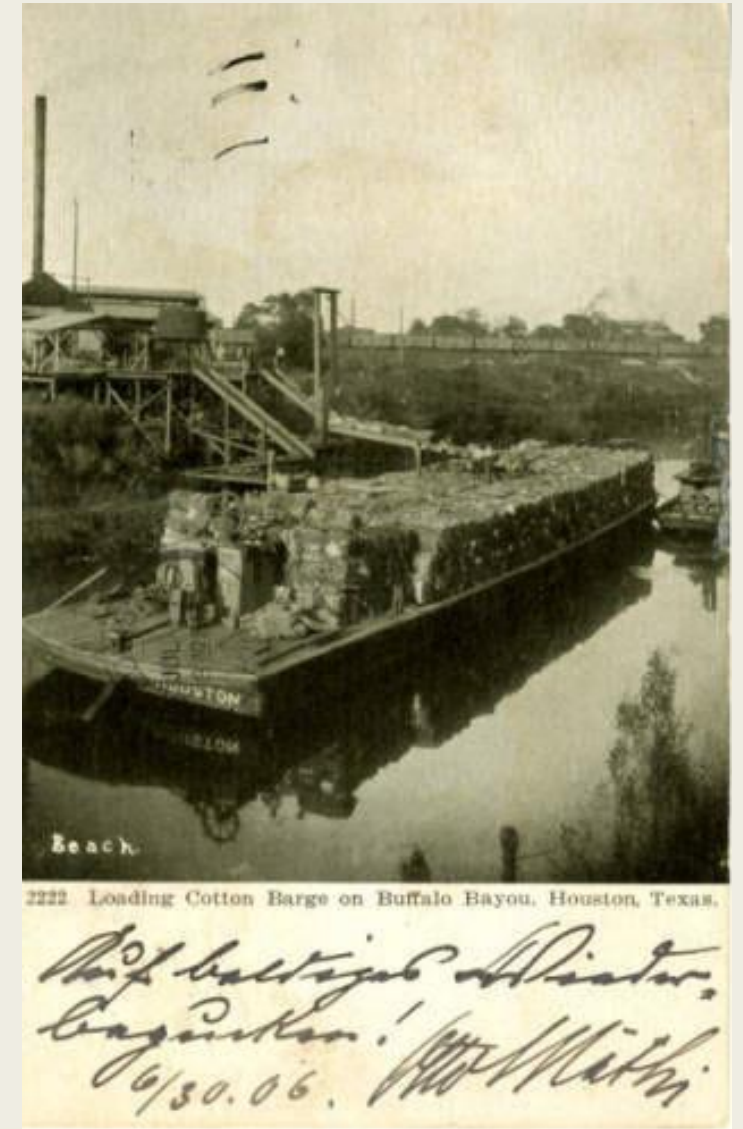


At the turn of the 20th century, Houston's identity was recast by two fateful events. The "Great Storm of 1900" left Galveston in ruins, rendering Houston by default the major port in Southeastern Texas. The discovery of massive oil resources in nearby Beaumont in 1901 then paved the way for Houston to become the nation's largest petroleum and petrochemical export hub over the course of the 20th century. Already by 1911, Houston is described by contemporaries as "the center of the oil industry."

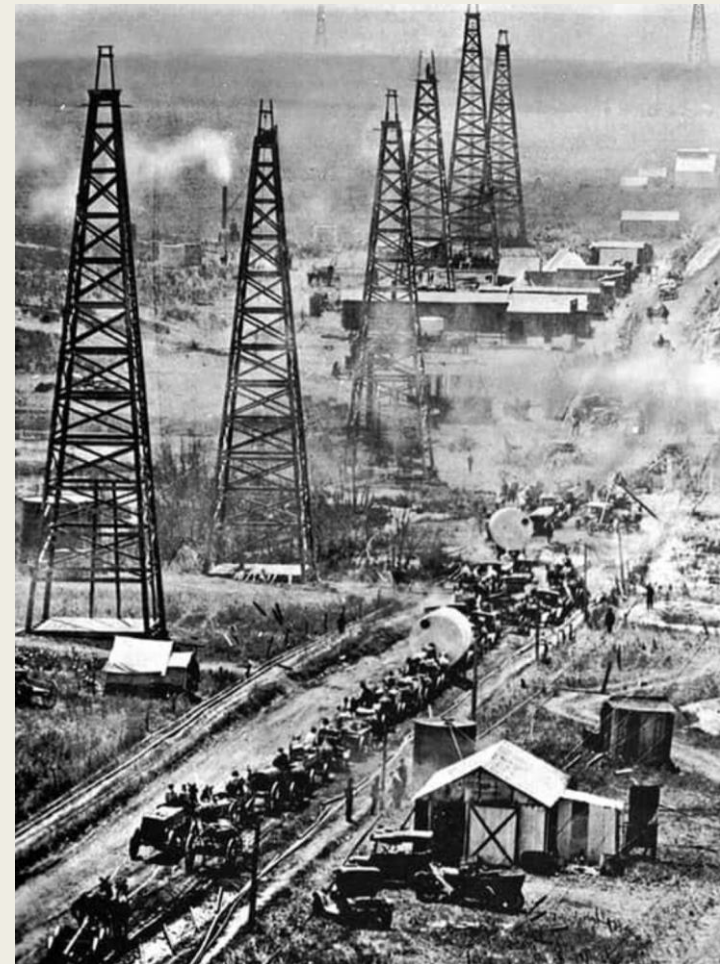
This is a historical nautical chart of the Houston Ship Channel, showing the route from Buffalo Bayou to Houston. The chart is oriented with North at the top. It features a central waterway, the Houston Ship Channel, which is flanked by land areas containing various features such as parks (e.g., Macaulay Park, Sigbee Park, Manchester), industrial areas, and residential developments. The chart includes numerous depth soundings in feet, indicated by numbers along the waterway. There are also several circular diagrams, likely representing navigational aids or buoys. A large, semi-transparent watermark reading "Historic Photo" is overlaid across the bottom half of the chart. The title "HOUSTON SHIP CHANNEL" is prominently displayed in the center, with the subtitle "CARPENTER BAYOU TO HOUSTON" below it. The chart is framed by a double-line border, and there are small text boxes and legends providing additional information about the chart's details and usage.



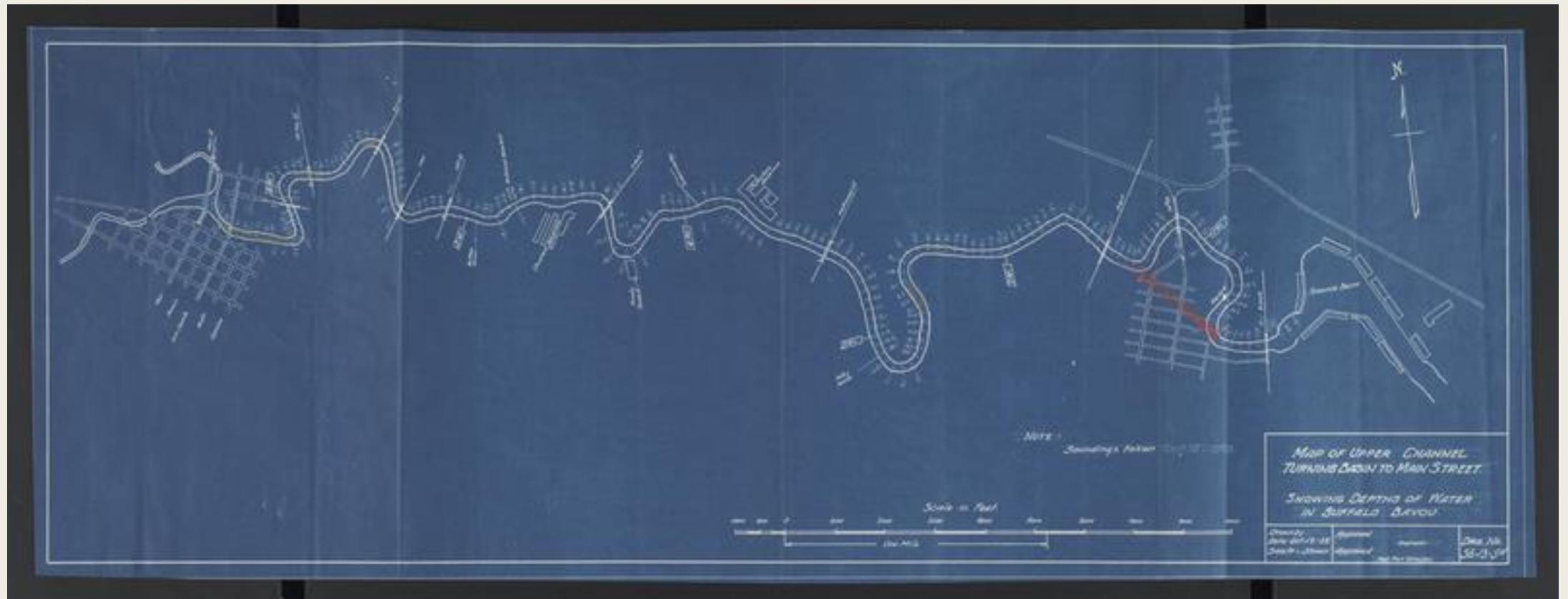
Cotton transactions continued to define the Ship Channel for many years



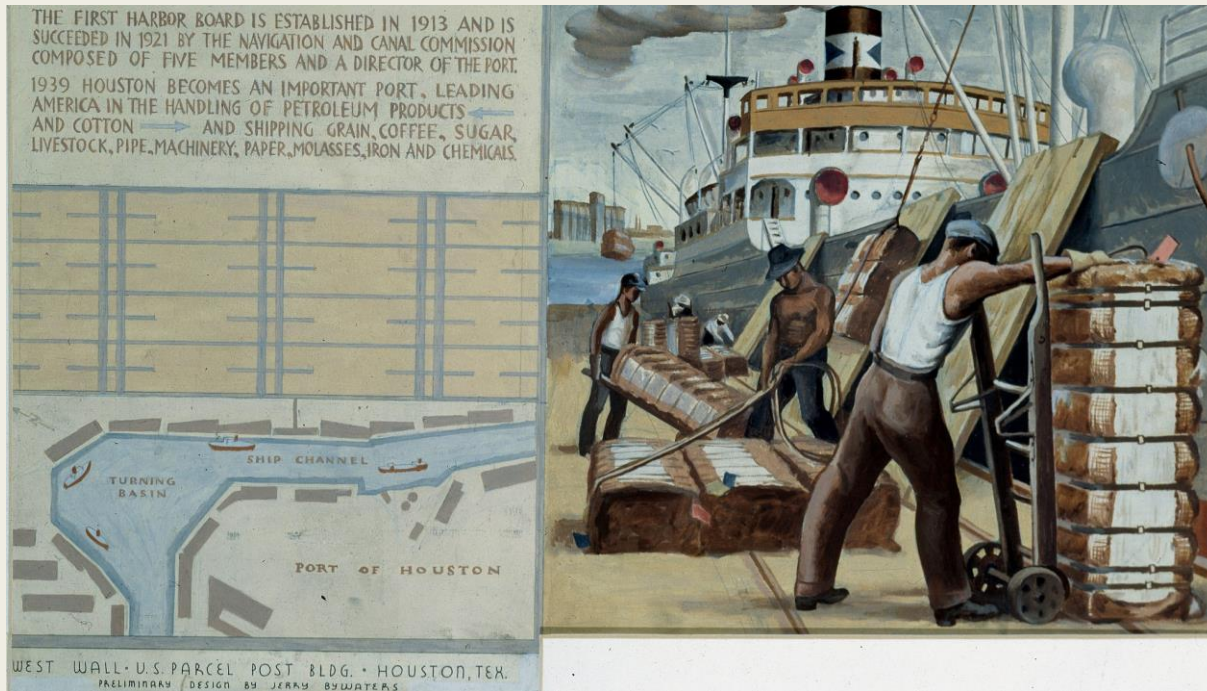
But military manufacture and petro/chemicals production rapidly increased between the 1930s and 1950s



In July 1927, the Texas Legislature authorized The Port of Houston Authority to act as an autonomous governmental entity



Eventually 45 feet (13.7m) deep and 530 feet (161.5m) wide, the Ship Channel became the dominant symbol of Houston's modernity and prosperity at least until the 1960s



When it was overtaken by the Johnson Space Center and its promise to bring settler liberalism to the stars



Meanwhile, the Ship Channel grew over the course of the 20th century into the largest complex of petroleum refining and petrochemical manufacturing in the western hemisphere. Houston became an innovator of rapid-growth petrocultural sprawl



The Ship Channel today

1st ranked U.S. port in foreign waterborne tonnage – 193.8 million short tons (2021)

1st ranked U.S. port in total foreign and domestic waterborne tonnage – 276 million short tons (2020)

3rd ranked U.S. port in terms of total foreign cargo value (\$169.7 billion) 2021

Largest Texas port with 35% of market share by tonnage

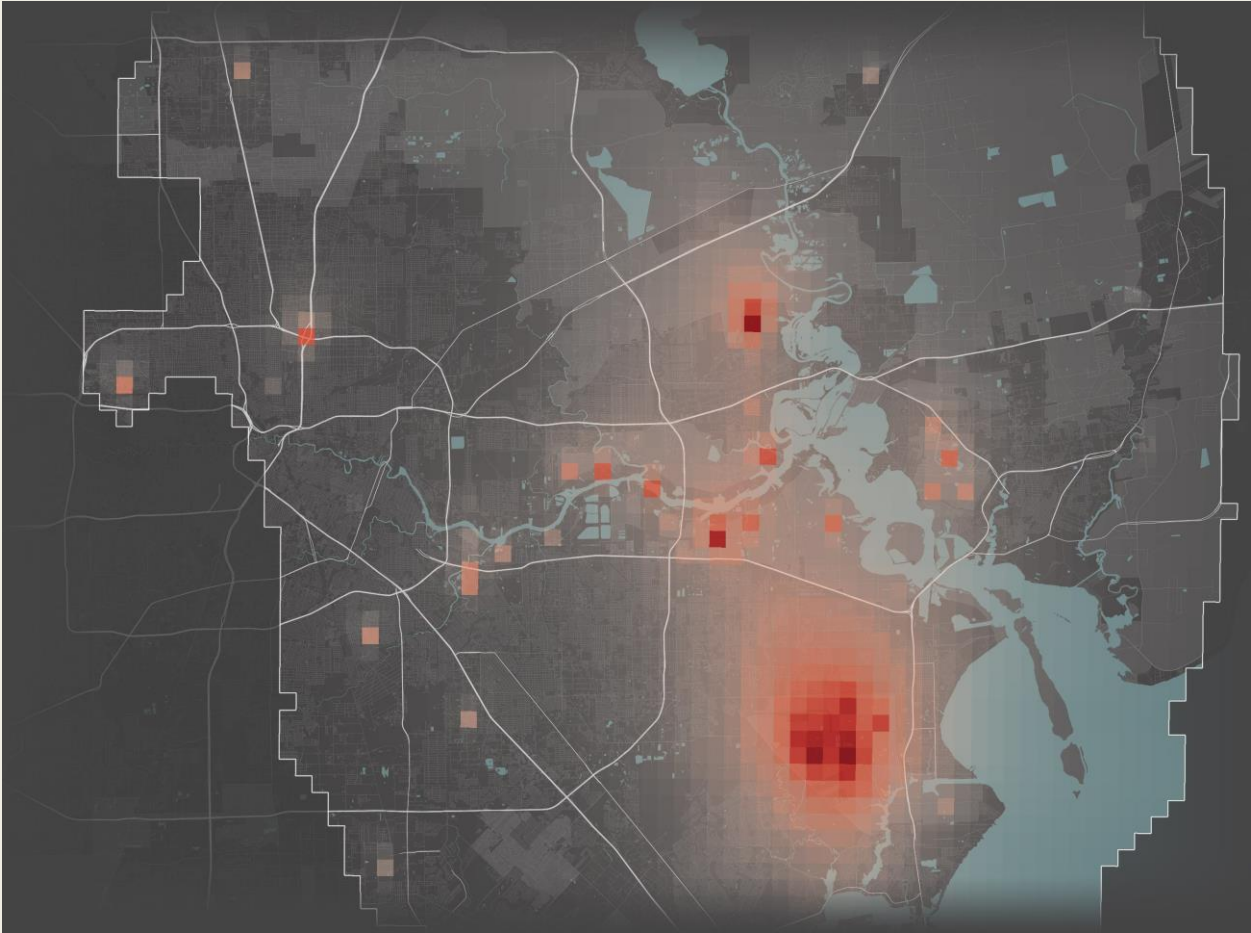


The Ship Channel is also an epicenter of toxic, unregulated industrial emissions, creating cancer clusters and sacrifice zones in low income fenceline communities like Manchester and Galena Park

TABLE 2. Total Toxic Concentration Values in East Houston Communities Are Many Times Higher than West Houston Communities

Community	Total Toxic Concentration
Galena Park	157,653
Harrisburg/Manchester	110,712
Bellaire	32,291
West Oaks/Eldridge	9,233

Source: Union of Concerned Scientists



Heat map of cancer-causing industrial air pollution, Pro Publica

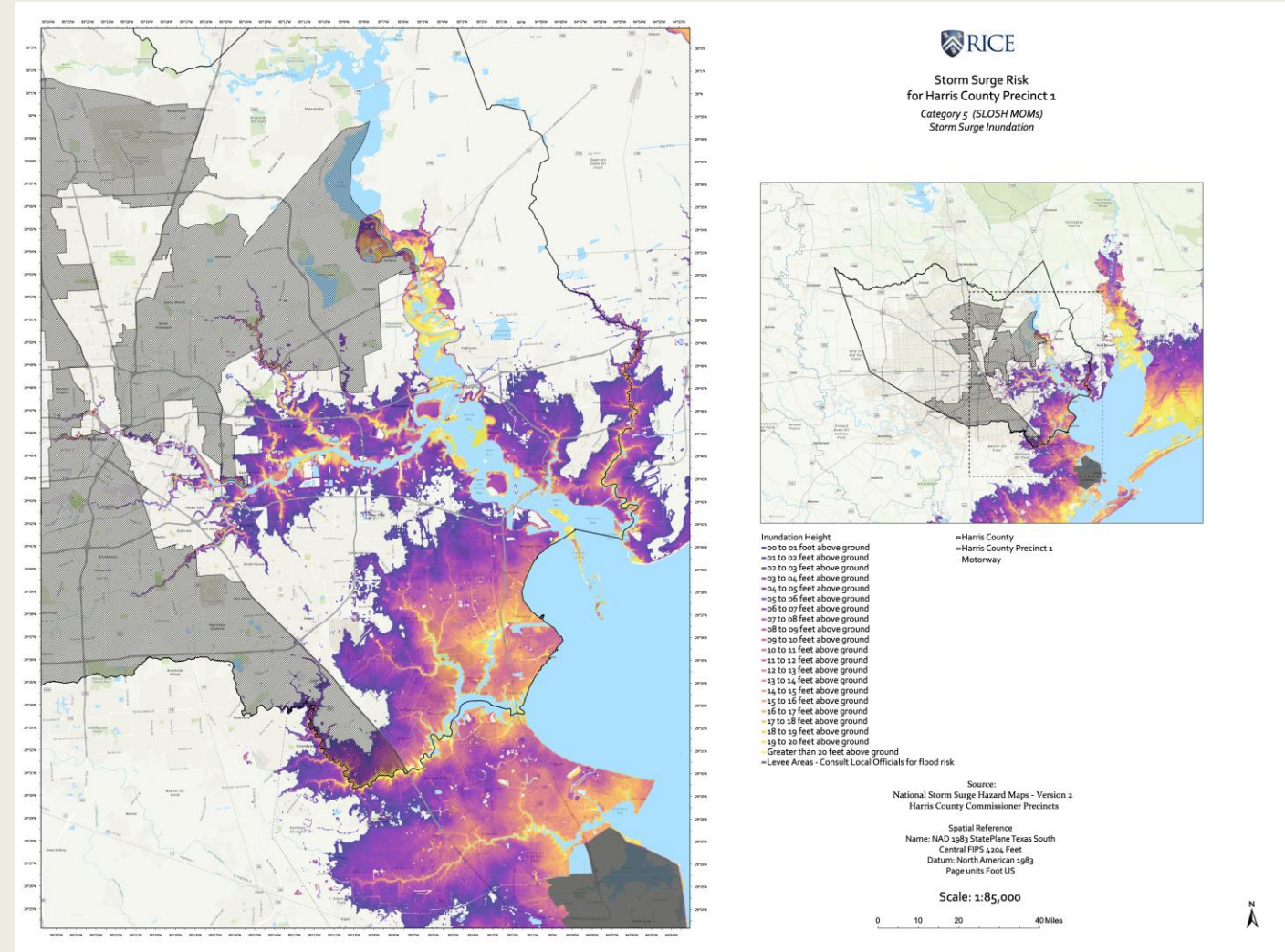
The settler liberal narrative of prosperity is increasingly unsettled by mounting signs of Anthropocene precarity

Downtown
Houston,
Hurricane
Harvey 2017



There are several thousand, unsecured, unregulated petrochemical storage containers positioned along a waterway that could receive a 6-7 meter storm surge during a major cyclone event. If only 10% of those containers failed it would be equivalent to the Exxon Valdez spill taking place inside the 4th largest city in the United States

A closing thought: The Houston Ship Channel is a time bomb



THANK
YOU!!

Deer Park
ITC fire
2019

