

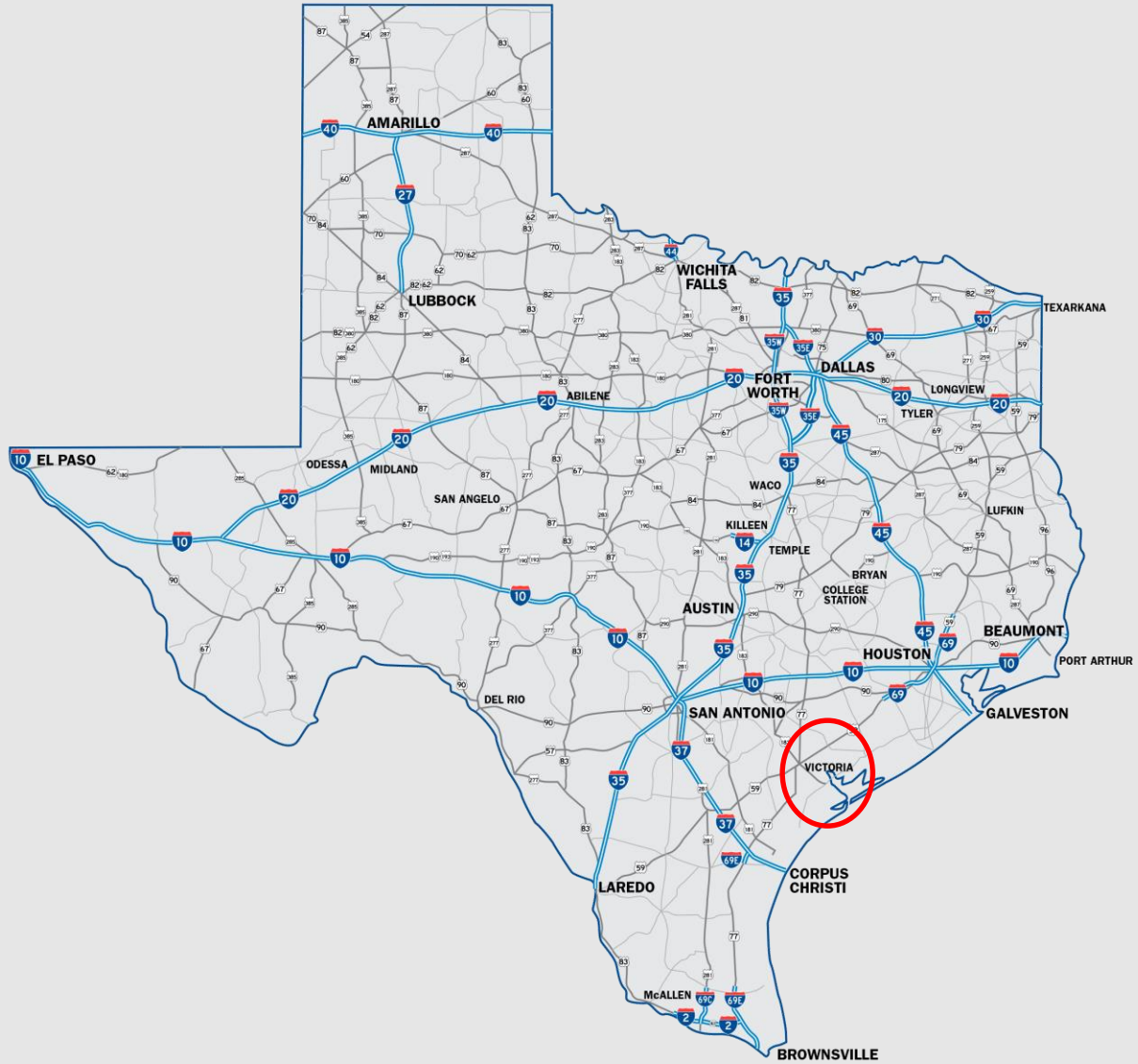


VICTORIA COUNTY GUADALUPE RIVER PROJECT

Overview, Challenges and Victories



Texas Transportation System



Guadalupe River Basin



Guadalupe River



The Guadalupe River runs from Kerr County, Texas, to San Antonio Bay on the Gulf of Mexico. It is a popular destination for rafting, fly fishing, and canoeing. Larger cities along it include Kerrville, New Braunfels, Seguin, Gonzales, Cuero, and Victoria.

The Guadalupe River is 230 miles long and hosts millions of visitors each year. Most rent tubes, rafts, kayaks, and canoes to float a 20 mile section of the river between the Canyon Lake Dam and New Braunfels.



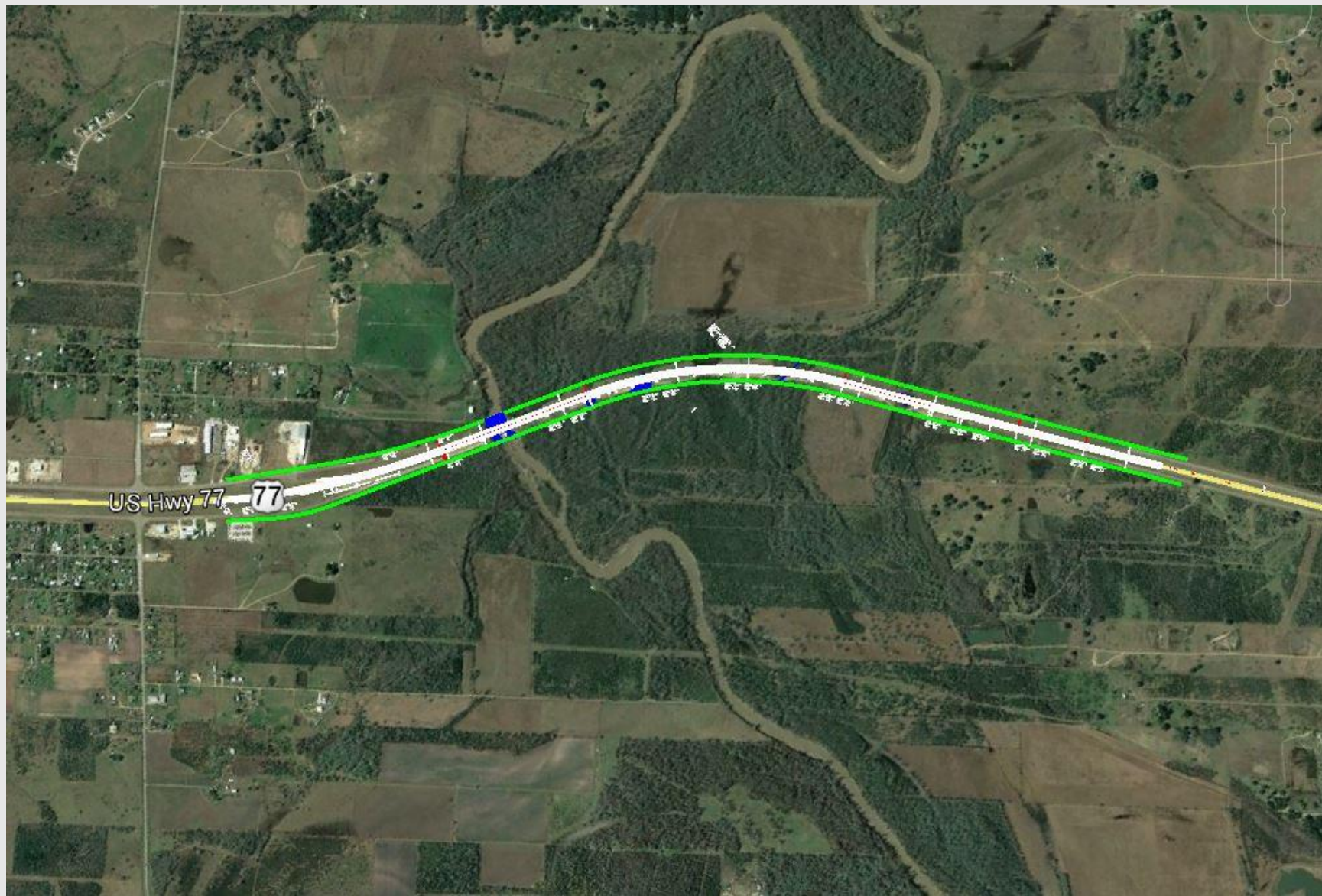
Guadalupe River in Victoria



Guadalupe River in Victoria



Google Earth Location Map



Project Overview

Cost

- **\$21,651,522.16**

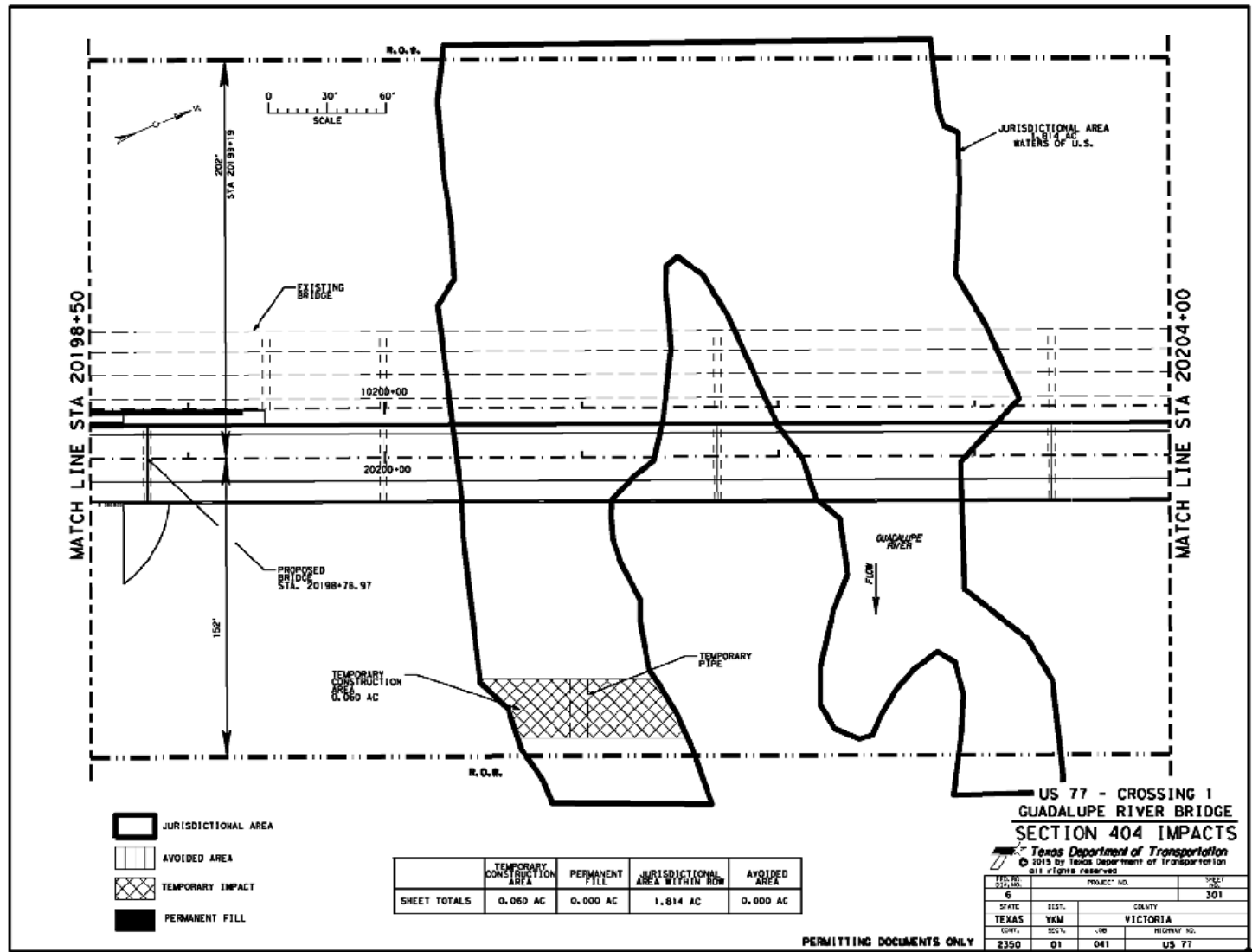
Project Description

- Project site is located over the Guadalupe River and associated wetlands northwest of Victoria, Texas along US Highway 77
- Additional bridge structure built adjacent to the existing bridge to carry higher volumes of traffic
- Bridge piers constructed from drilled shafts with cast-in-place-concrete

Need and Purpose

- Provide two additional travel lanes
- Divided traffic to increase safety

Project Challenges – Environmental - Wetlands



Project Challenges - Environmental



Project Challenges – Environmental – River Crossing



Project Challenges – Environmental - Wetlands



Project Challenges – Environmental – Endangered Species



Golden Orb

- Twenty freshwater mussel species have the potential to occur within the lower Guadalupe River drainage area in the vicinity of Victoria, Texas (Howells, 2004).
- Of these 20 species, the Texas Parks and Wildlife Department (TPWD) lists the following three as state threatened: the false spike (*Quadrula mitchelli*), golden orb (*Quadrula aurea*), and Texas pimpleback (*Quadrula petrina*) (TPWD 2015).
- The golden orb and the Texas pimpleback are also considered federal candidate species (U.S. Fish and Wildlife Service [USFWS] 2015).



Texas Pimpleback

Project Challenges – Environmental – Endangered Species



Collected mussels were stored in mesh bags and small corrals along the river's edge until all impact areas were searched.



Biologists collected a total of 2,279 freshwater mussels from areas of impact. Approximately 50.25 person hours were spent searching and removing mussels.

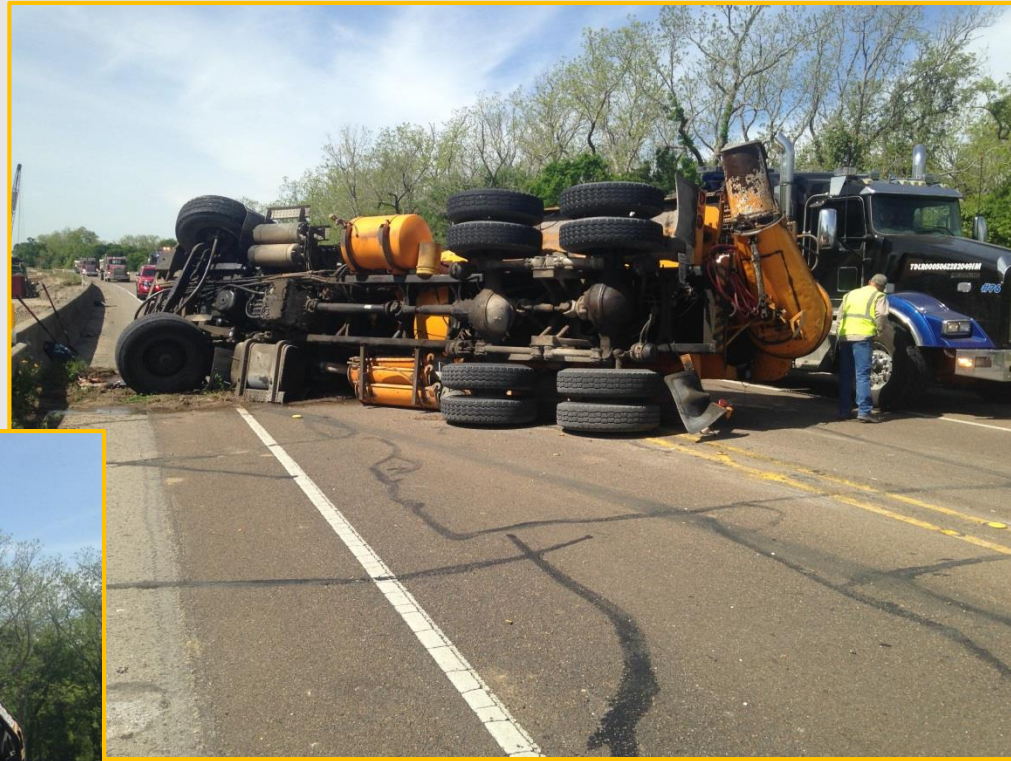
Project Challenges – Traffic Control



Project Challenges – Engineering – Traffic Control



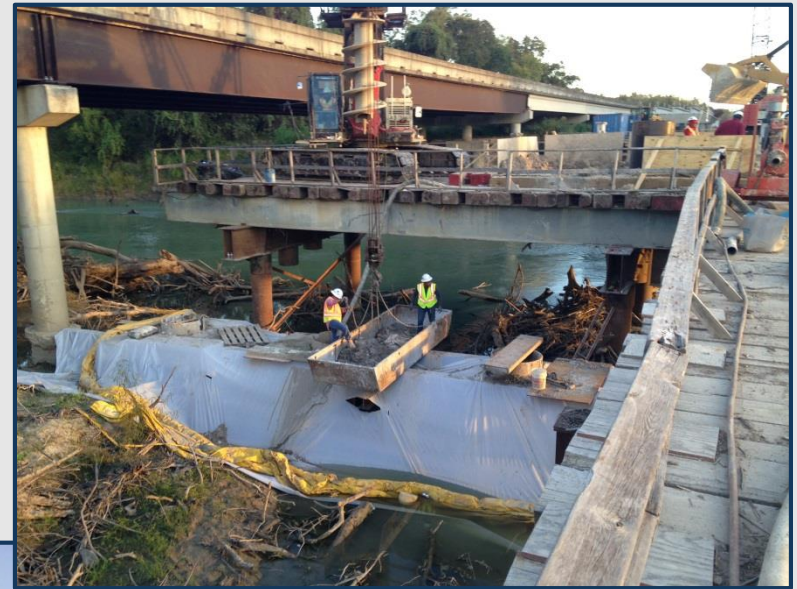
Project Challenges – Alternative Material Delivery



Project Challenges – Engineering – Temporary Bridge



Project Challenges – Engineering – Temporary Bridge



Project Challenges – Engineering – Concrete Paving



Project Challenges – Engineering – Concrete Paving



Project Challenges – Engineering – Removing Old Striping



Project Challenges – Engineering – Snake on a Bridge



Project Challenges – Weather – Debris Flow



Project Challenges – Weather – Debris Flow



Project Challenges – Weather – Bank Erosion/Flooding



Project Challenges – Weather – Bank Erosion/Flooding



Project Challenges – Weather – Bank Erosion/Flooding



Conclusion

