

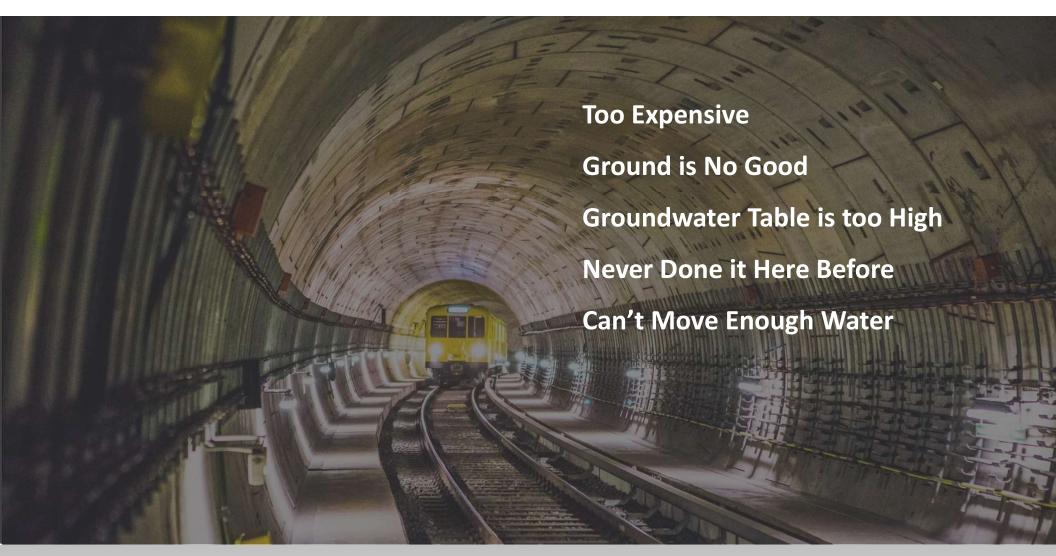
USACE Houston Flood Control Plan ~ 1940





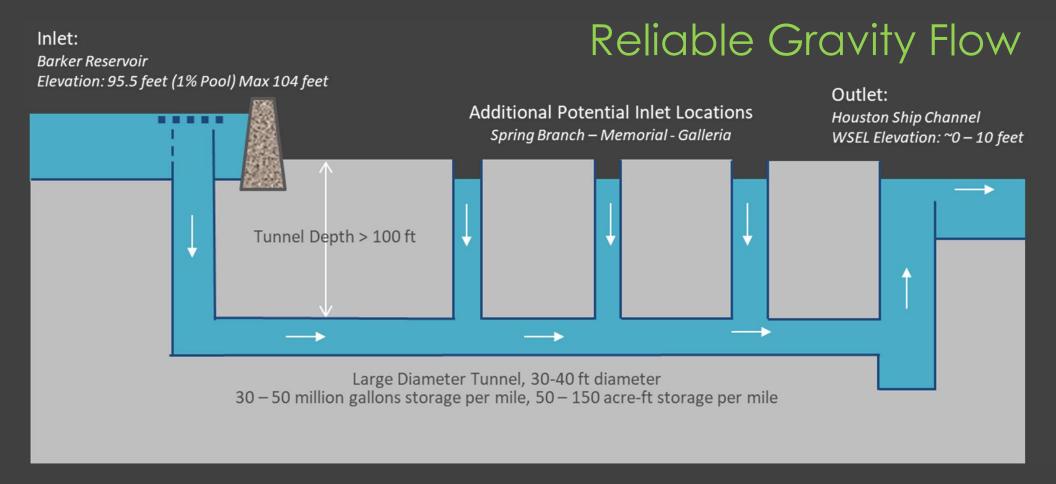
Why Now?





Why Not? Disproving the Myths





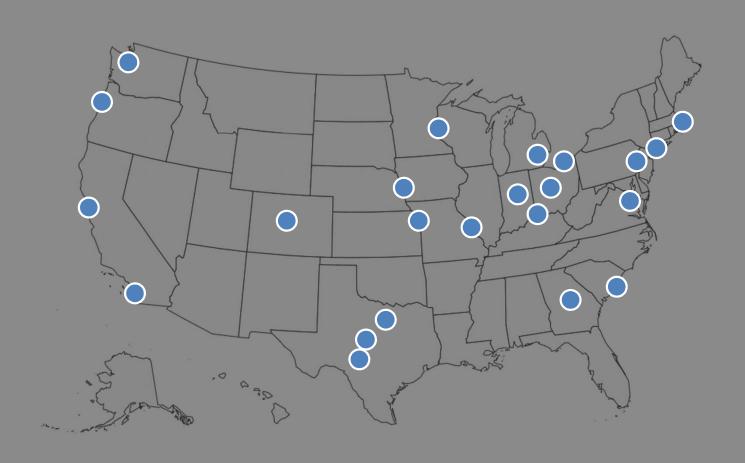






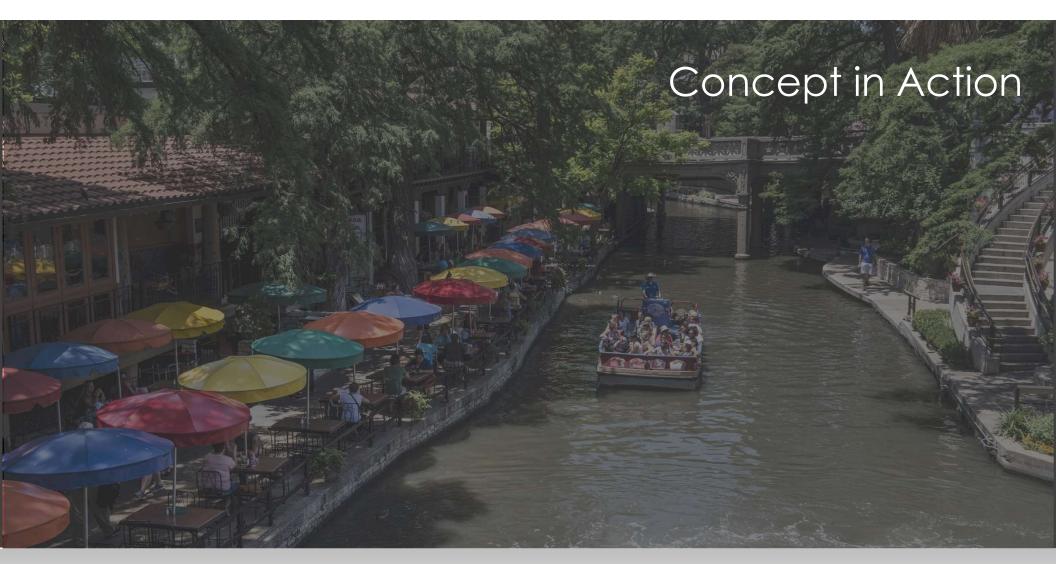
Tunneling: The Future is Now





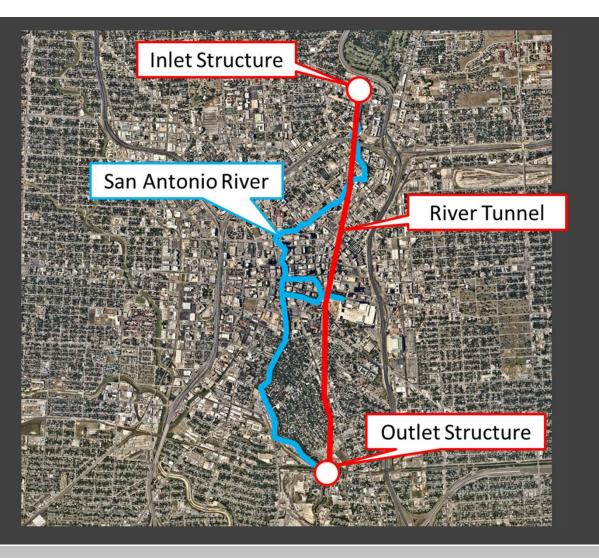
Tunneling is a Proven Solution

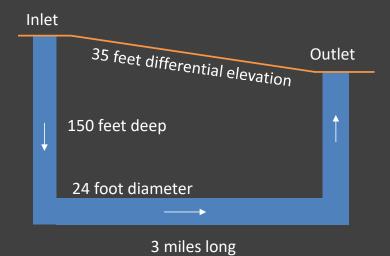




San Antonio River Tunnel



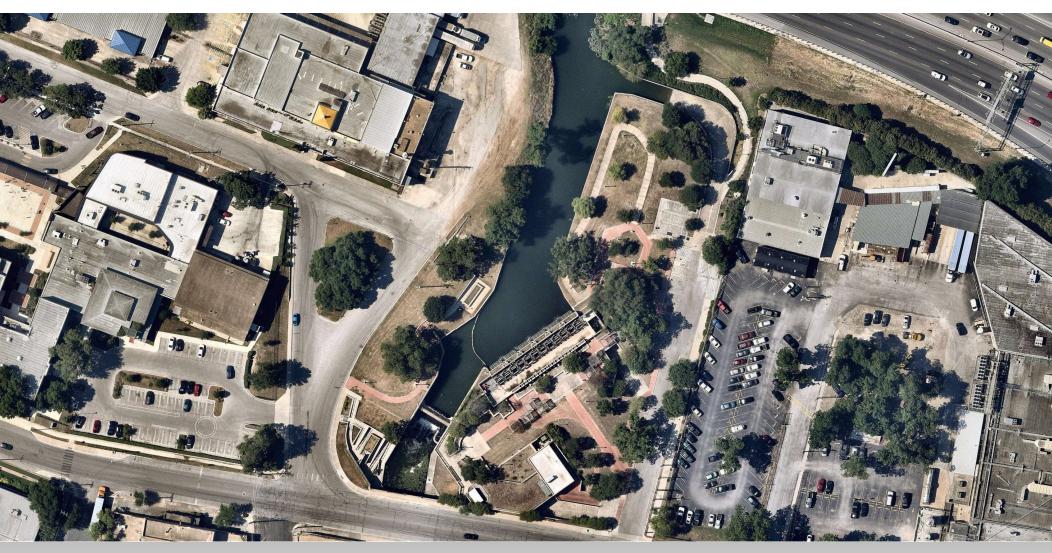




- Built by SARA and USACE in 1997
- 6,700 cfs flow rate

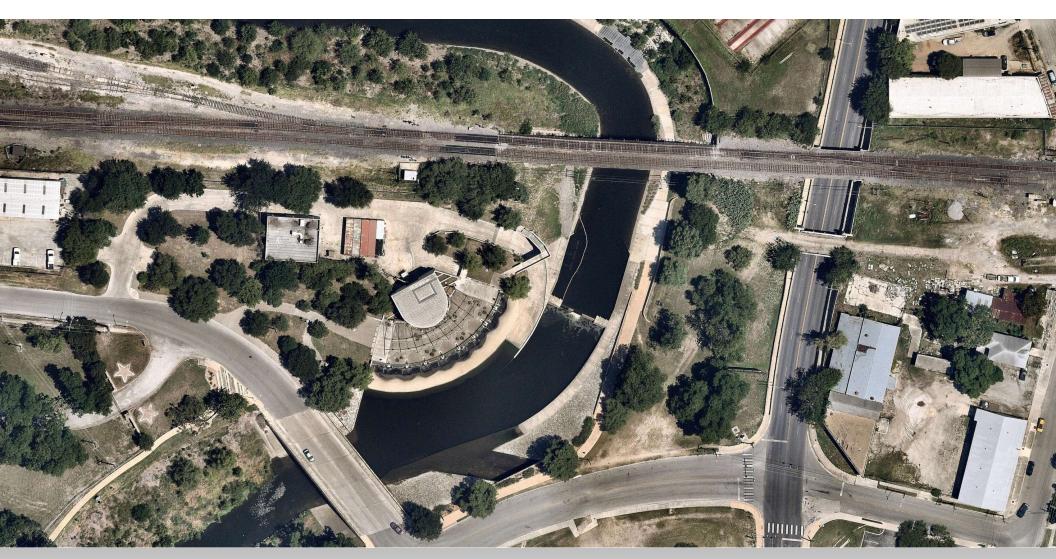
San Antonio River Tunnel





San Antonio River Tunnel - Inlet





San Antonio River Tunnel - Outlet





How is it built?







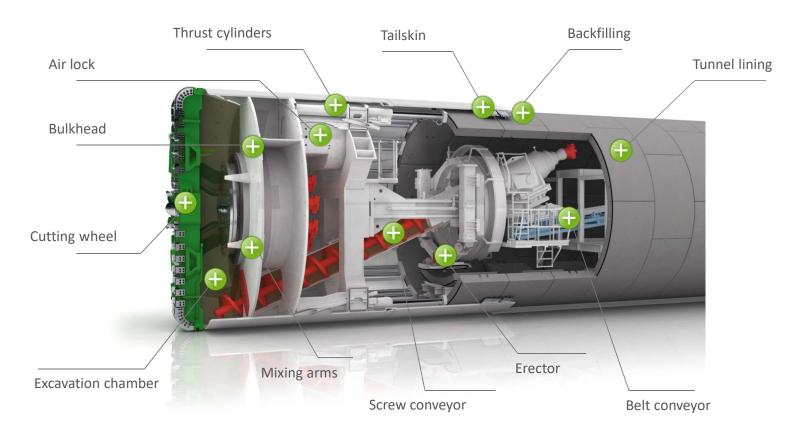








State-of-the-Art Excavation Methods



Earth Pressure Balance TBM





Typical Tunnel Shaft





Mill Creek Tunnel

5 miles long 35 foot diameter \$206 million



San Antonio River Tunnel

3 miles long 24 foot diameter \$230 million (2018\$)

San Pedro Creek Tunnel

1 mile long 24 foot diameter \$110 million (2018\$)



Waller Creek Tunnel

1.1 miles long20-26 foot diameter\$163 million

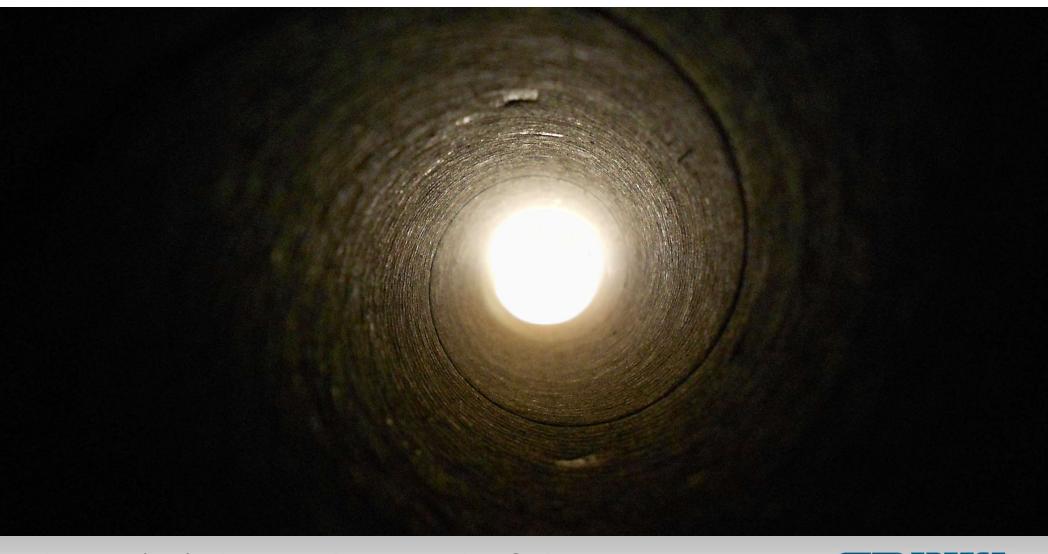
What do similar projects cost?





The **Super Tunnel** Alternative





There is light at the end of the tunnel



