

# **Bull Hide Creek Wastewater Treatment Plant Expansion**

## **City of Waco Council Work Session**

May 21, 2024



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# Bull Hide Creek Wastewater Treatment Plant (WWTP) Expansion

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## Overview

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- Current Plant
- Expansion of the Plant
- Cost of Expansion
- Project Schedule

# Bull Hide Creek WWTP



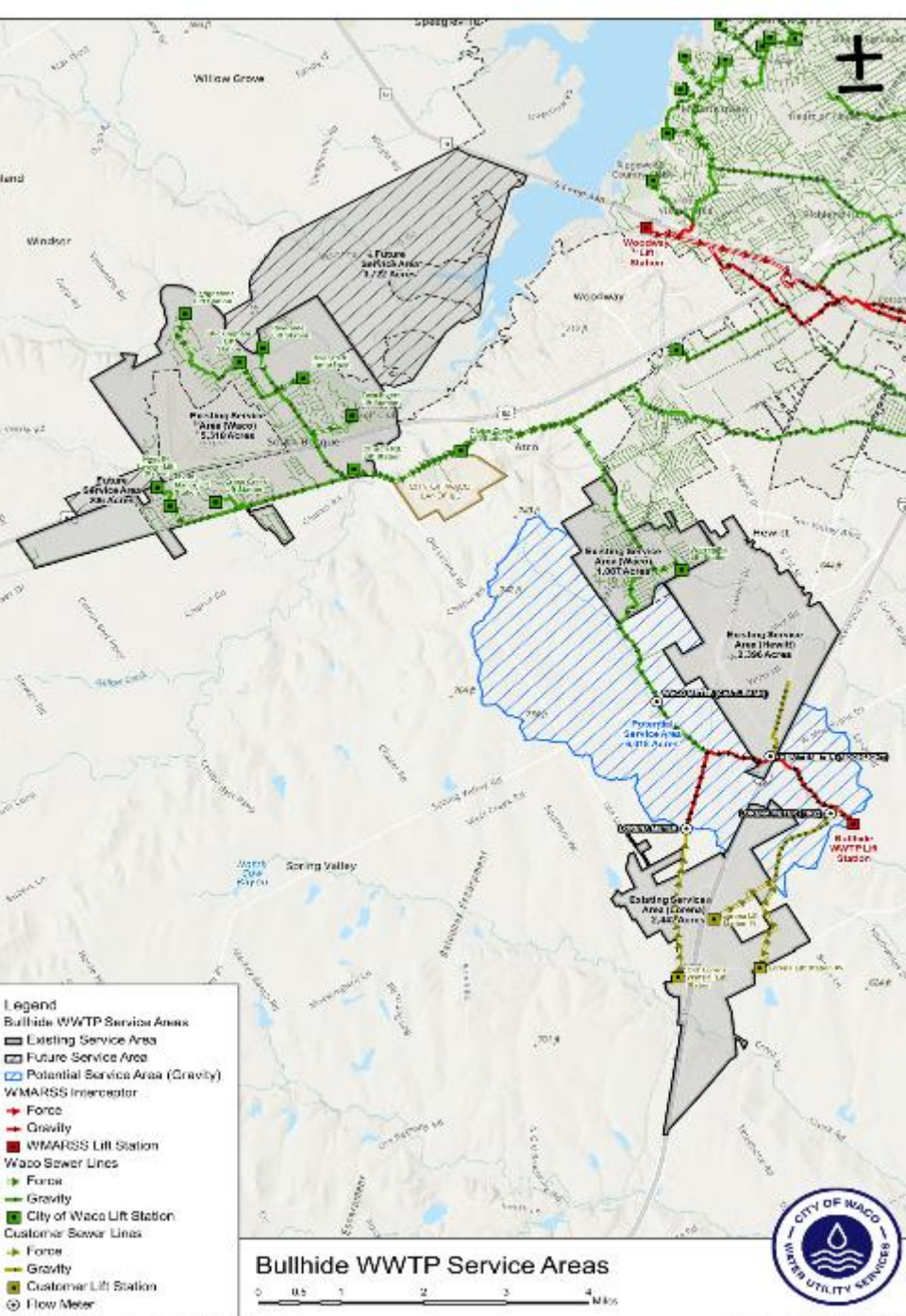


- Completed In 2011
- Construction cost - \$11,000,000.00
- Provide sewage treatment for the cities of Waco, Hewitt and Lorena
- Treatment capacity of 1.5 million gallons a day (MGD)



# Bull Hide Creek WWTP Service Area

- Current Service Area – 5,925 acres
- Future/Potential Service Area – 6,018 acres
- 2,165 Housing Starts in the last 5 years



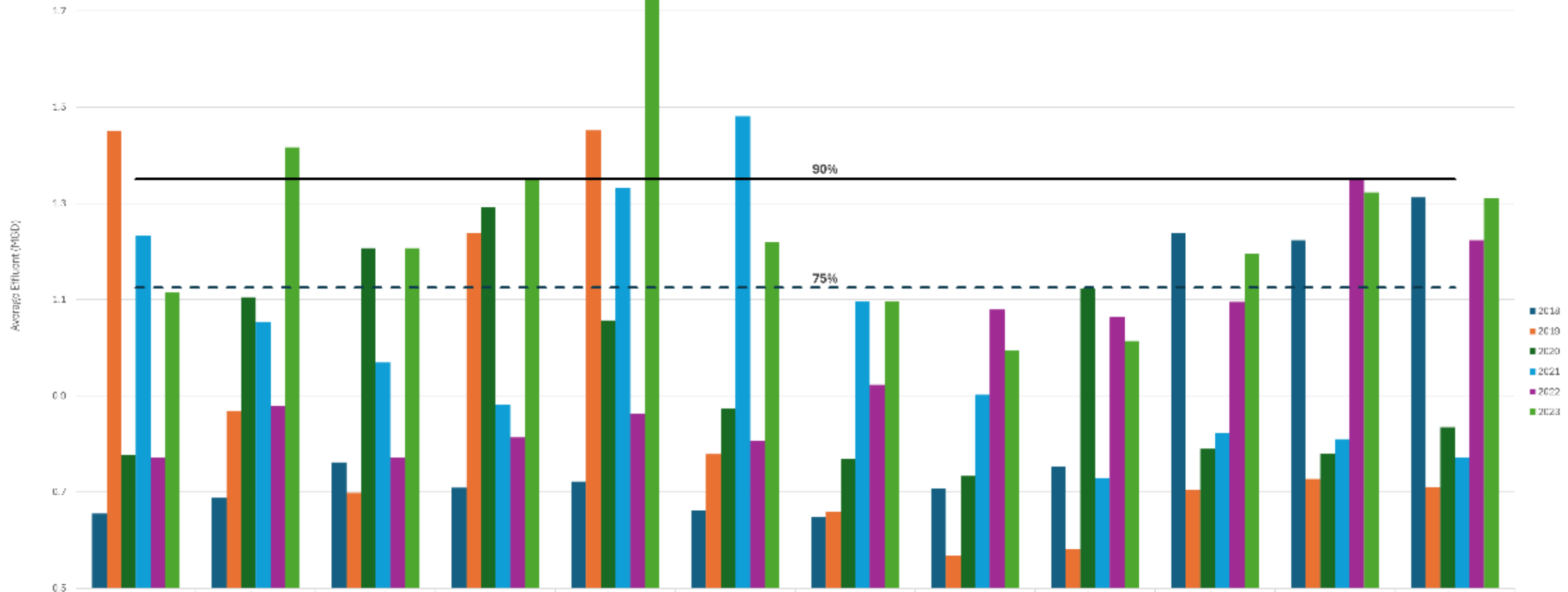
# EXPANSION OF BULL HIDE CREEK WWTP



# Why Expand from a 1.5 MGD to a 4 MGD Plant?

- Growth in HWY 84 corridor
  - Preserving capacity
  - Line size increases
  - Flows divided
- Request for additional capacity
- TCEQ's 75/90 rule

### Bullhide WWTP Average Daily Effluent By Month



	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
2019	0.666329649	0.687796214	0.762110184	0.708992267	0.72194871	0.66215707	0.647743419	0.705421806	0.752631867	1.238019806	1.223405523	1.312366129
2020	1.451257151	0.86030625	0.696117161	1.2201546	1.451848063	0.778634833	0.558077104	0.587687830	0.581238167	0.705167516	0.727480353	0.703558303
2021	0.778960413	1.105187724	1.20737871	1.2920629	1.057230503	0.972950603	0.766237335	0.733185419	1.123009733	0.798634032	0.77590245	0.834669906
2022	1.232900032	1.003331173	0.808404387	0.862377967	1.352395774	1.4812529	1.095870268	0.901796265	0.729297167	0.821962739	0.810160167	0.72173097
2023	0.770983025	0.878457857	0.772118581	0.813737267	0.862353481	0.806308533	0.822666645	1.07532571	1.053638167	1.084901161	1.3520134	1.223660366
75%	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125
90%	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35

Month



# Division of Capacity

Bull Hide Creek Wastewater Treatment Plant Capacity		
in gallons per day		
	Current	Future
Waco	460,000	2,160,000
Hewitt	720,000	1,220,000
Lorena	320,000	620,000
Total Capacity	1,500,000	4,000,000

# Cost of Expansion

# Cost of Bull Hide Creek WWTP Expansion

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# Inflation – Increasing the Cost

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## Estimates

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- \$40,000,000 – in 2021 (\$16.00 a gallon)
- Latest - \$75,000,000 (\$30.00 a gallon)
- Value Engineering \$70,000,000 (\$28.00 a gallon)
  - Delaying some items to the future
  - Looking at materials
- We continue to look for potential cost cutting opportunities

# Apportioned Cost

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## Estimates

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- City of Hewitt has requested 500,000 gallons and City of Lorena has requested 300,000 gallons of the 2.5 million gallon a day expansion.
- Both cities will begin paying for bonds issued – past and present - in October 2024.
- City of Hewitt will assume 20% of the costs and Lorena will assume 12% of the cost

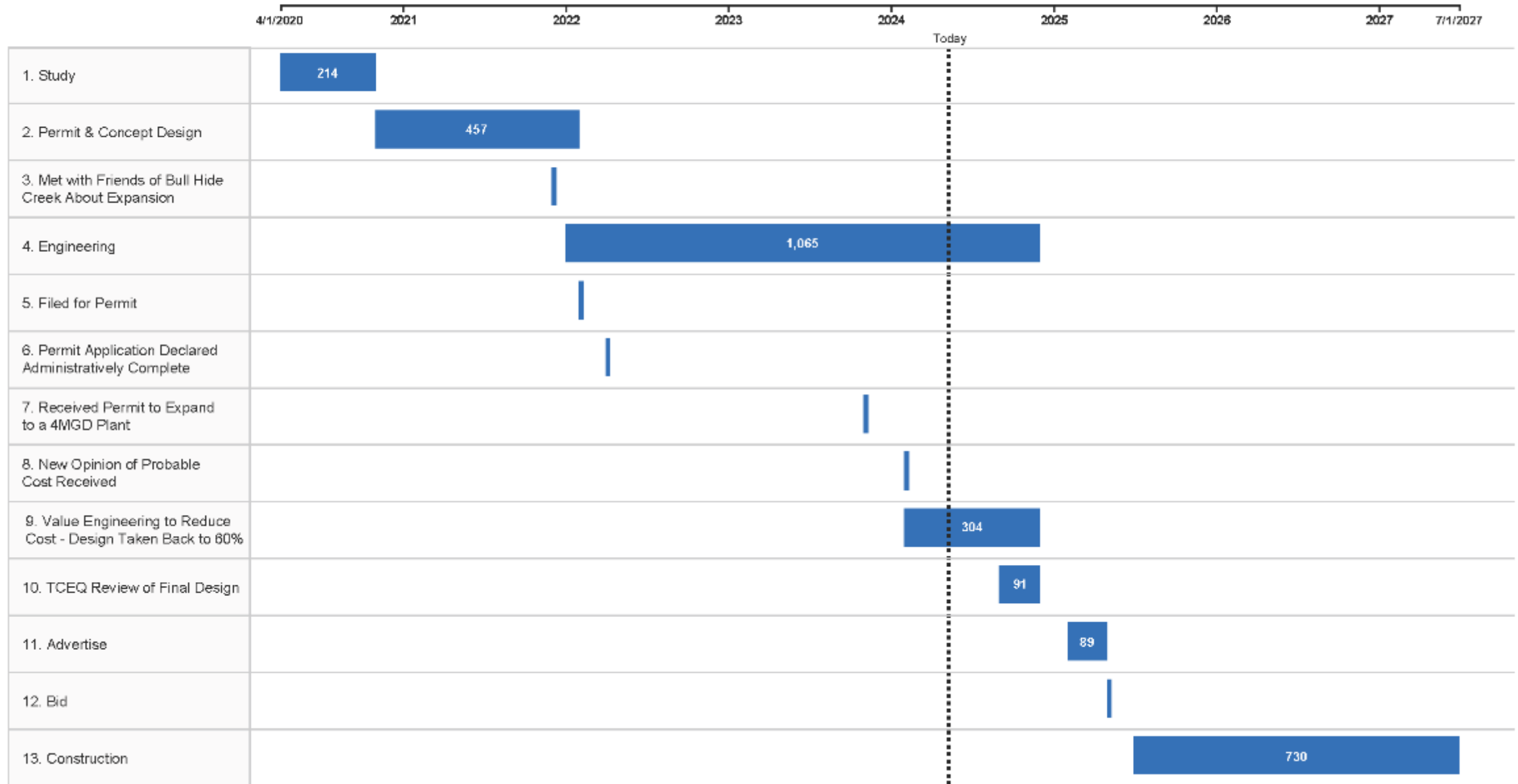
# Bonding

							Future	
Bonding	2019	2020	2021	2022	2023	2024	2025	TOTAL
Waco	\$ 1,020,000.00	0	\$ 1,866,600.00	\$ 2,213,400.00	\$ 1,360,000.00	\$ 23,800,000.00	\$ 23,800,000.00	\$ 54,060,000.00
Hewitt	\$ 300,000.00	0	\$ 549,000.00	\$ 651,000.00	\$ 400,000.00	\$ 7,000,000.00	\$ 7,000,000.00	\$ 15,900,000.00
Lorena	\$ 180,000.00	0	\$ 329,400.00	\$ 390,600.00	\$ 240,000.00	\$ 4,200,000.00	\$ 4,200,000.00	\$ 9,540,000.00
Total Bonding	\$ 1,500,000.00	0	\$ 2,745,000	\$ 3,255,000.00	\$ 2,000,000.00	\$ 35,000,000.00	\$ 35,000,000.00	\$ 79,500,000.00

# Project Schedule

# Bull Hide Creek Wastewater Treatment Plant Expansion

2,647 Days Duration





**Questions?**

