

# CONSENT DECREE REMEDIAL MEASURES PLAN UPDATE

Environmental Quality & Public Works  
Committee

January 19, 2021



**LEXINGTON**



# AGENDA

- Overall status (physical and cost)
- Recent Wins
  - UK Trunks
  - Upper Cane Run WWS
- Near-term challenges
  - Schedule modification requests
  - Specific projects for 2021
- Questions

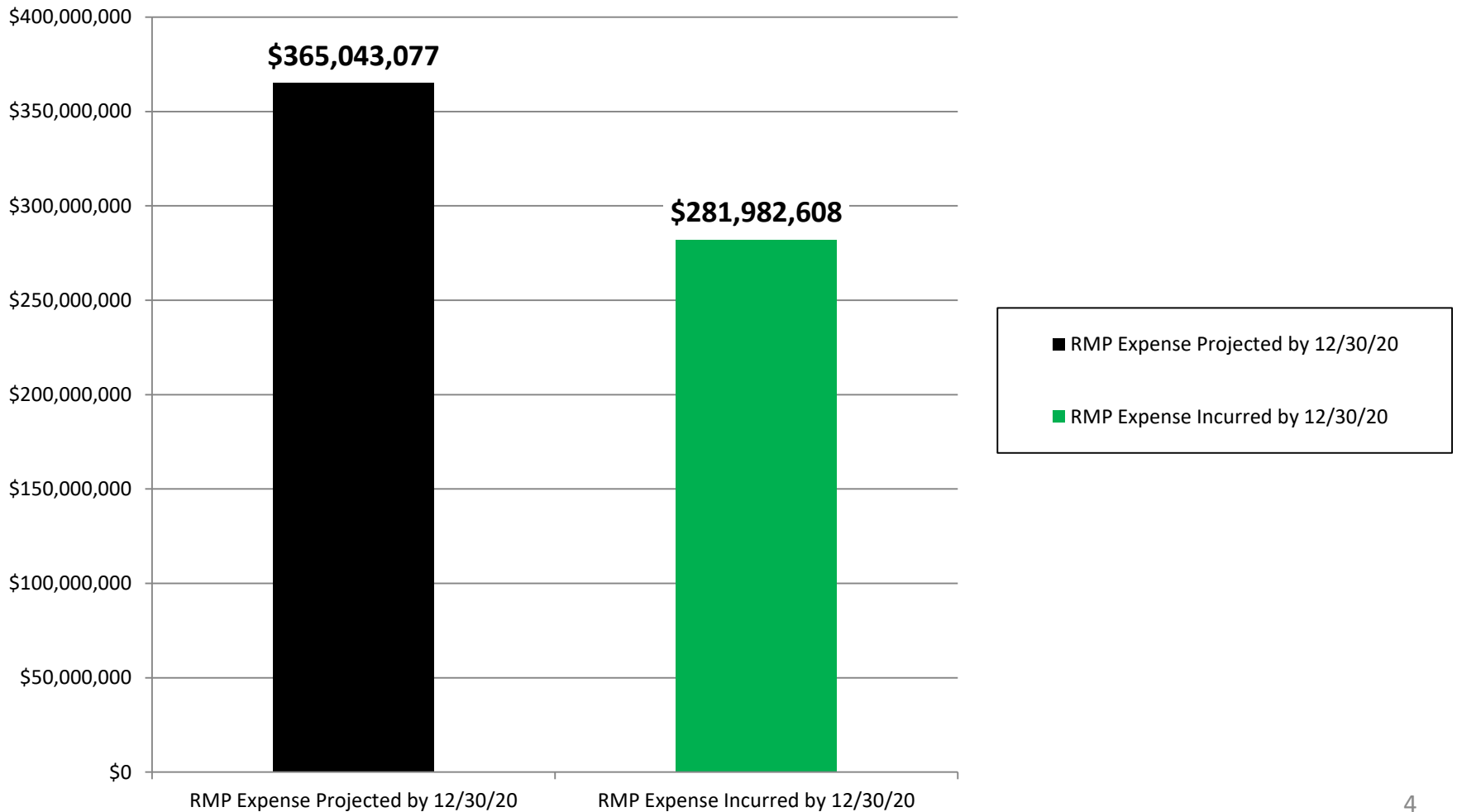
# STATUS

## Complete / Active / Pending Projects 2020 Q3 Report

Projects	Complete	Design/ Construction	Pending	Total
Conveyance/Storage <sup>1</sup>	40	13	33	86
WWTP Reliability Upgrade <sup>2</sup>	18	5	15	38
<b>Totals</b>	<b>58</b>	<b>18</b>	<b>48</b>	<b>124</b>

<sup>1/2</sup> Actual number of projects fluid due to on-going schedule modification discussions with Kentucky and EPA.

### Consent Decree Sanitary Capital Expense Comparison to Date Contractual Projection vs. Contractual Actual December 30, 2020



## RECENT WINS

UK Trunk Sewers (Bolivar, S. Upper, AOC & Euclid):  
finished **ahead of schedule, under budget and award winning!**

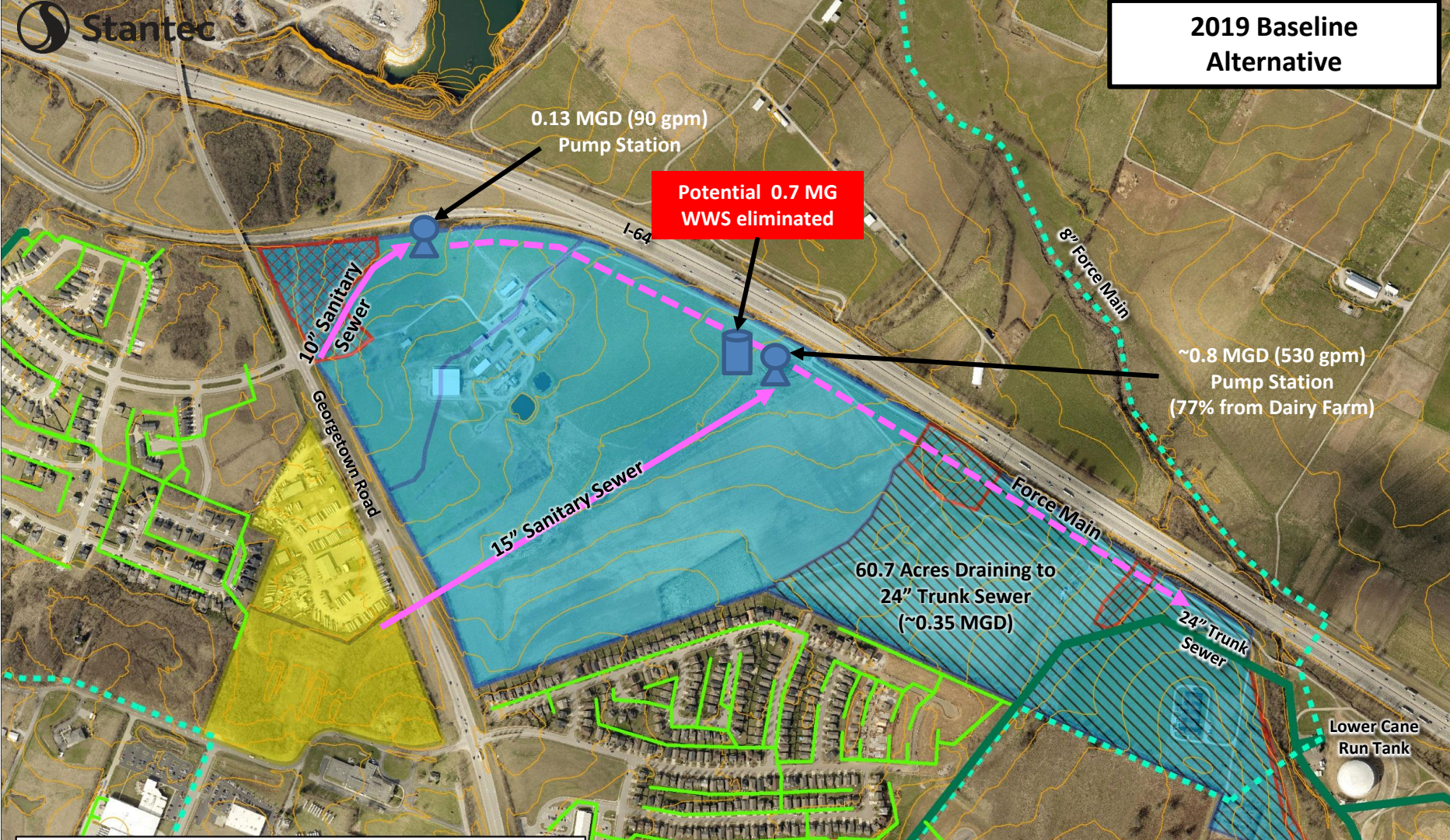




## RECENT WINS

- Design modification of Upper Cane Run WWS Tank eliminated the need for a separate storage tank on the UK Dairy Farm.
- Upper Cane Run tank volume increased from 800,000 gallons to 2,000,000 gallons.





**Legend**

**Sanitary Pipe**

- Collection
- Force Main
- Trunk
- Contour (10')

Dairy Farm

Other

Not Developable

Drains to Ex. Sewer

Not to Scale

Land Type	Acres	Population	Groundwater Infiltration (gpd)	Sewage (gpd)	WWF, $Q_{peak}$ (gpd)	Total (gpd)
Dairy Farm	201.1	1,810	27,148	117,644	964,275	1,109,067
Other	31.1	280	4,199	18,194	149,125	171,518
Not Developable	11.9	-107	-1,607	-6,962	-57,061	-65,630
<b>Total Developable</b>	<b>220.3</b>	<b>1,983</b>	<b>29,740</b>	<b>128,876</b>	<b>1,056,339</b>	<b>1,214,955</b>





# NEAR-TERM CHALLENGES

## Schedule Modification Requests

- Three requests submitted in 2020.
- Most recent request under regulatory review based on presentation made January 8, 2021.
- Other two requests have been approved by EPA and Kentucky. Most significant approval affected 2022 – 2024 RMP capital construction on / around Overbrook Farm.

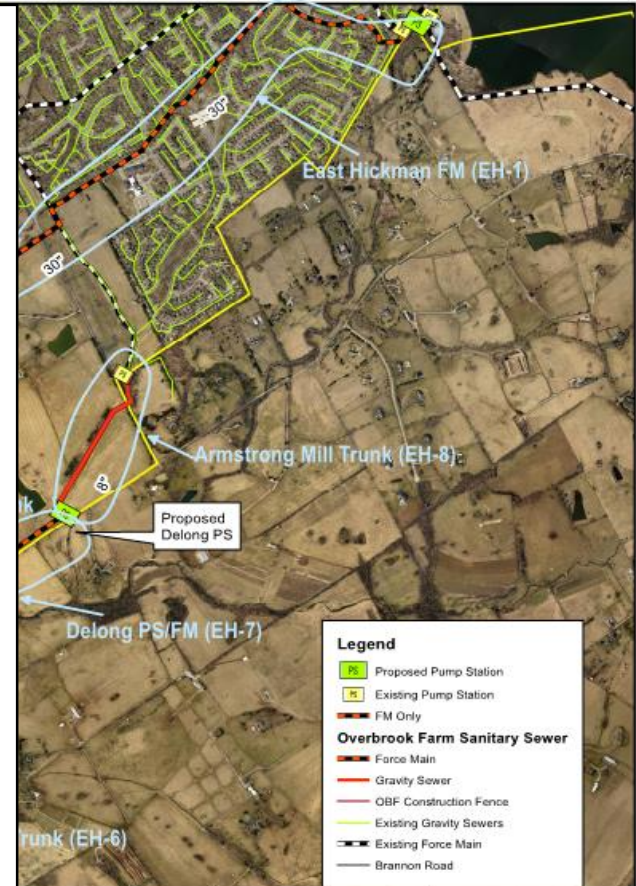


# Original OBF and EH Force Main RMP Projects “thru the farm”



### Eight (8) RMP Projects:

- **EH-1 East Hickman Force Main**
- **EH-4 Overbrook Farm Force Main**
- **EH-5 Overbrook Farm Pump Station**
- **EH-6 Overbrook Farm Trunk**
- **EH-7 Delong Road Pump Station and Force Main**
- **EH-8 Armstrong Mill Trunk**
- **EH-9 Hartland 2 and 3 Trunk**
- **EH-10 Hartland 1 Trunk**



Legend	
	Proposed Pump Station
	Existing Pump Station
	FM Only
<b>Overbrook Farm Sanitary Sewer</b>	
	Force Main
	Gravity Sewer
	OBF Construction Fence
	Existing Gravity Sewers
	Existing Force Main
	Brannon Road

		PROJECT ENGINEER:
		DESIGNED BY: (OR MODELED BY): DCO
		DRAWN BY: DCO
		CHECKED BY: KAZ

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT (LFUCG)	OVERALL LAYOUT EXHIBIT OVERBROOK FARM TRUNK SEWER CONFIGURATION	DATE: JULY 2020
EXPANSION AREA 1 (EA1) ALTERNATIVE EVALUATION		HAZEN NO.: 50005-104
		CONTRACT NO.:
		SHEET/EXHIBIT NO. <b>PRELIM.</b>

REFERENCE: INCLUDE REFERENCES IF APPLICABLE



# Amended OBF and EH Force Main RMP Projects “around the farm”



**Six (6) RMP Projects:**

- **Re-aligned EH-1 East Hickman Force Main**
- **East Hickman Pump Station Pump Upgrade**
- **Armstrong Mill Trunk, Pump Station and Force Main**
- **Modified Hartland 1 Pump Station**
- **Modified Hartland 2 Pump Station**
- **New Hartland 3 Pump Station**



**Legend**

- Pump Stations
- Wastewater Treatment Plant
- Proposed East Hickman Force Main

**Existing Sanitary Sewers**

- COLLECTION
- FORCE MAIN
- STUB

2,500 1,250 0

PROJECT ENGINEER  
DESIGNED BY (OR MODELED BY):  
DRAWN BY: MRG  
CHECKED BY: KAZ

LEXINGTON-FAYETTE  
URBAN COUNTY  
GOVERNMENT (LFUCG)  
EXPANSION AREA 1 (EA1)  
ALTERNATIVE  
EVALUATION

UPDATED EAST HICKMAN  
FORCE MAIN  
ALTERNATIVES MAP

DATE: DECEMBER 2020  
HAZEN NO.: 50005-015  
CONTRACT NO.:  
SHEET/EXHIBIT NO.  
**EXHIBIT ALT.**



# PROS AND CONS

## “around the farm”

### PROS

- Improved control over schedule creep and cost escalation.
- Lower total project estimated cost compared to updated “thru the farm” estimates.

### CONS

- Three Hartland pump stations remain until Overbrook develops.
- Construction impacts to Hartland, Kenesaw Village and Canterfield neighborhoods.

# THE BOTTOM LINE ESTIMATES

## Overbrook Schedule Modification

### THRU THE FARM

- 2012 RMP Total Cost Estimate – **\$28.75 M**
- 2016 Revised Cost Estimate – **\$49 M**
- May 2020 Updated Cost Estimate – **\$54 M**

### AROUND THE FARM

(August 2020 Estimate)

**\$20.7 M**

### ADDITIONAL LFUCG COST WHEN THE FARM DEVELOPS

(August 2020 Estimate)

**\$11.1 M**







---

# NEAR-TERM CHALLENGES 2021 CONSTRUCTION

- Upper Cane Run WWS Tank
- Wolf Run Trunks D&E
- Southeastern Hills Trunk
- Liberty Road Trunk
- New Circle Trunk A&B
- West Hickman WWTP WWS Tank P2

## **PROJECT FACTS**

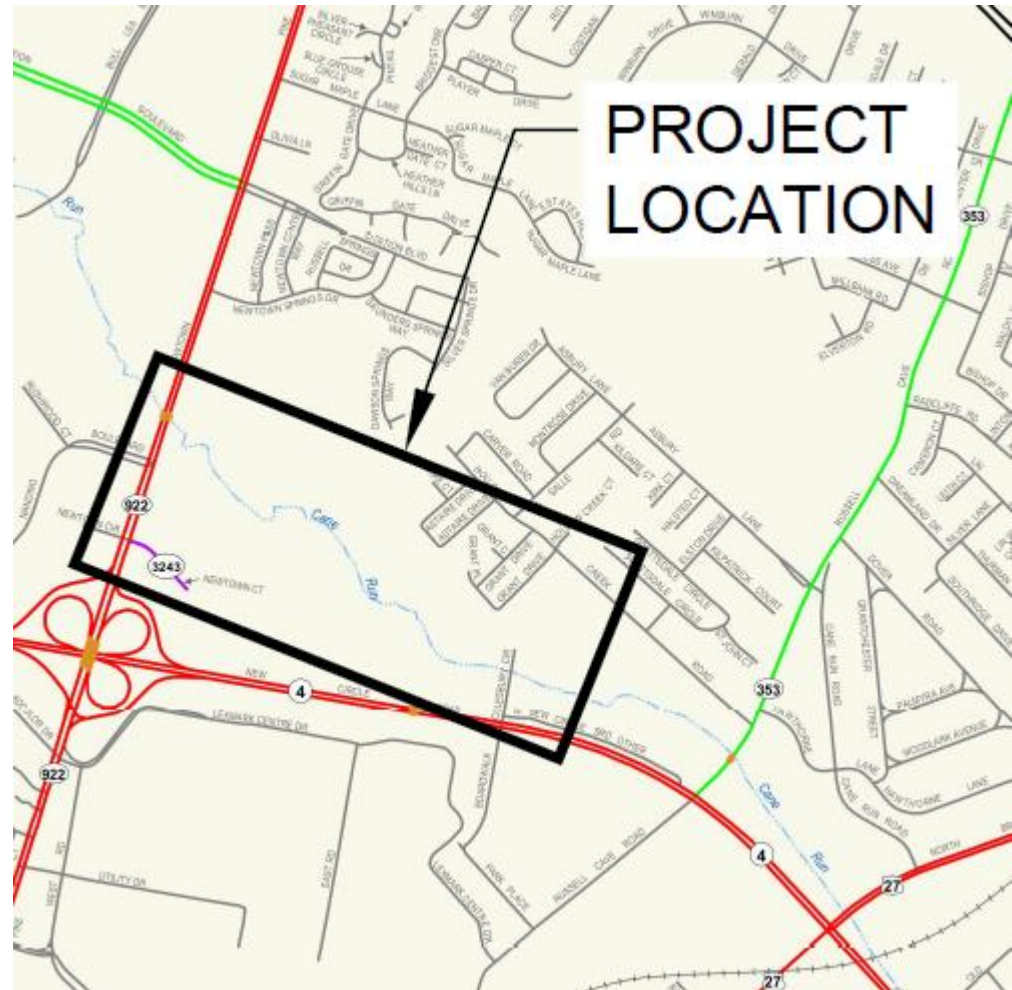
Project Name: Upper Cane Run 2.0 MG Wet Weather Storage Tank

Project Schedule:  
1/1/21 to 6/30/22

Estimated Cost: \$6.55 M

Council District: 1st

Citizen Impact: Low



### **PROJECT FACTS**

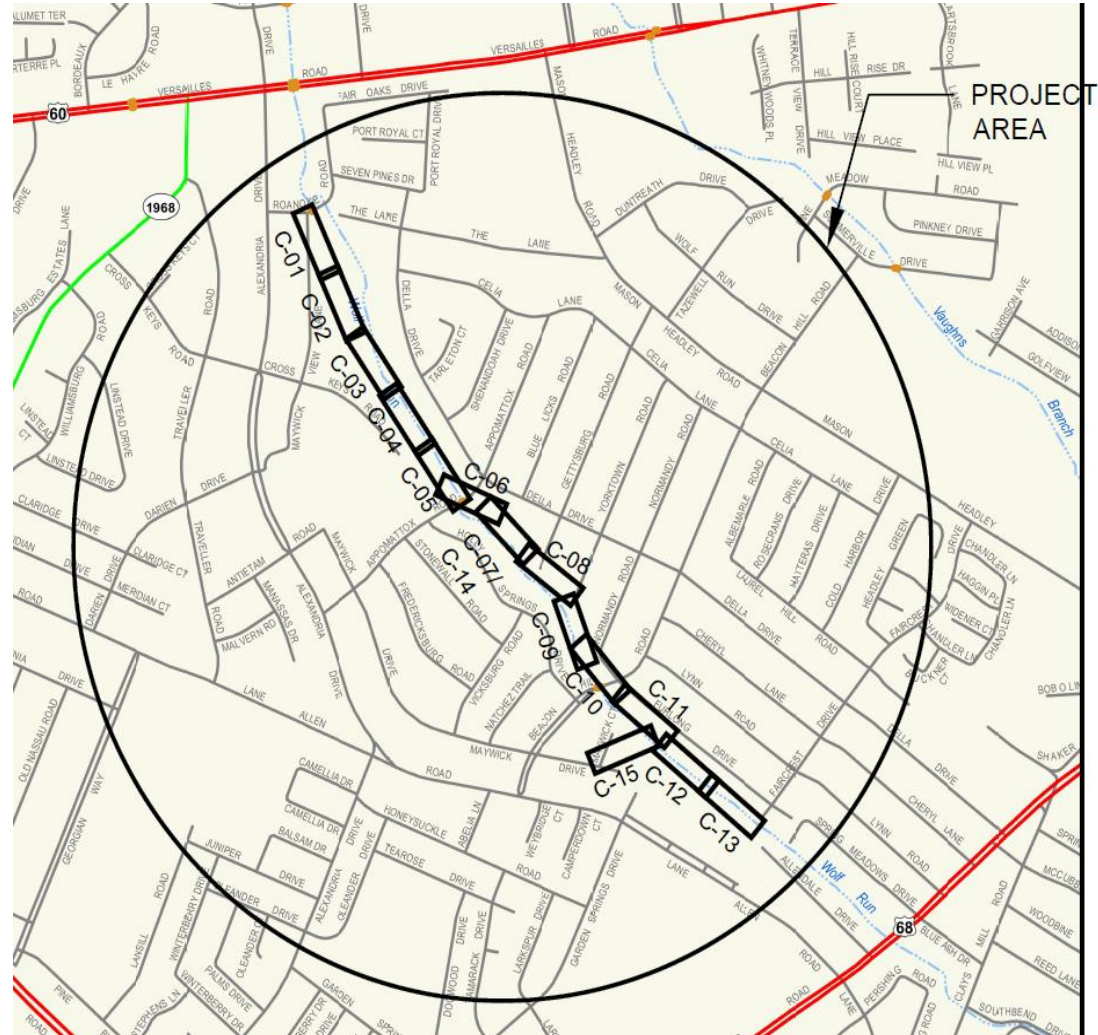
Project Name:  
Wolf Run Trunk Sewers  
D&E

Project Schedule:  
3/1/21 to 12/31/22

Estimated Cost: \$6.5 M

Council District: 11th

Citizen Impact: High







## PROJECT FACTS

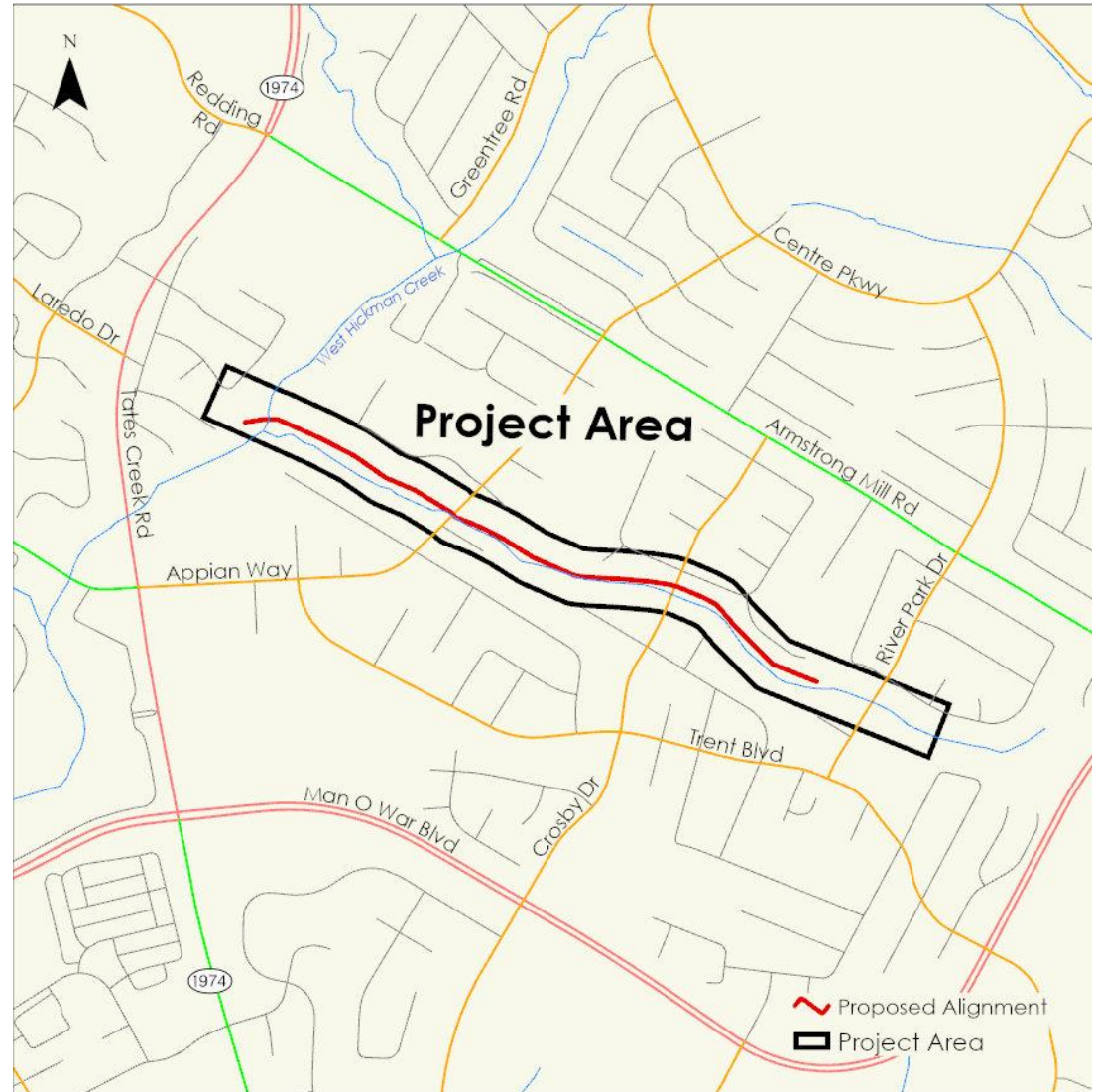
Project Name:  
Southeastern Hills Trunk  
Sewer

Project Schedule: 3/1/21  
to 10/31/22

Estimated Cost: \$3.8 M

Council District: 8<sup>th</sup>

Citizen Impact: High





**PROJECT FACTS**

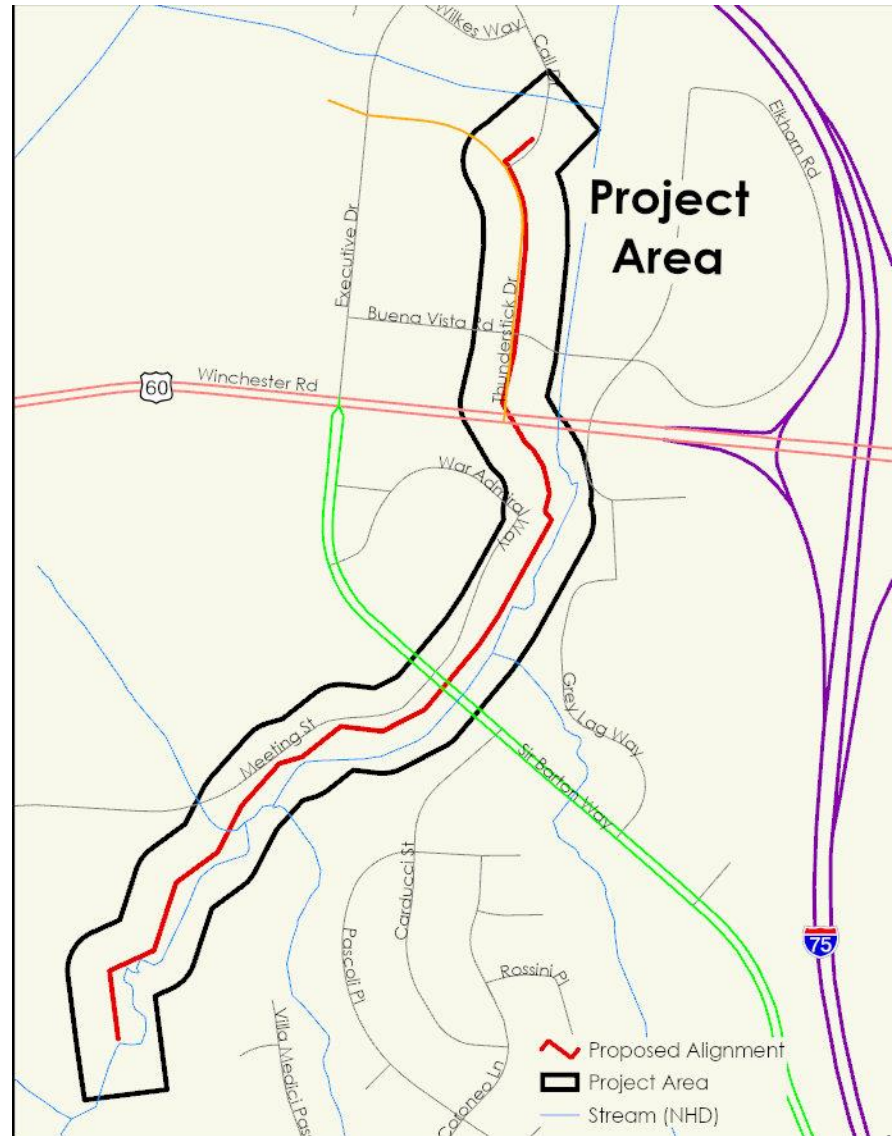
Project Name:  
Liberty Road Trunk  
Sewer

Project Schedule: 6/1/21  
to 10/31/22

Estimated Cost: \$3.9 M

Council District: 6<sup>th</sup>

Citizen Impact: Medium



## PROJECT FACTS

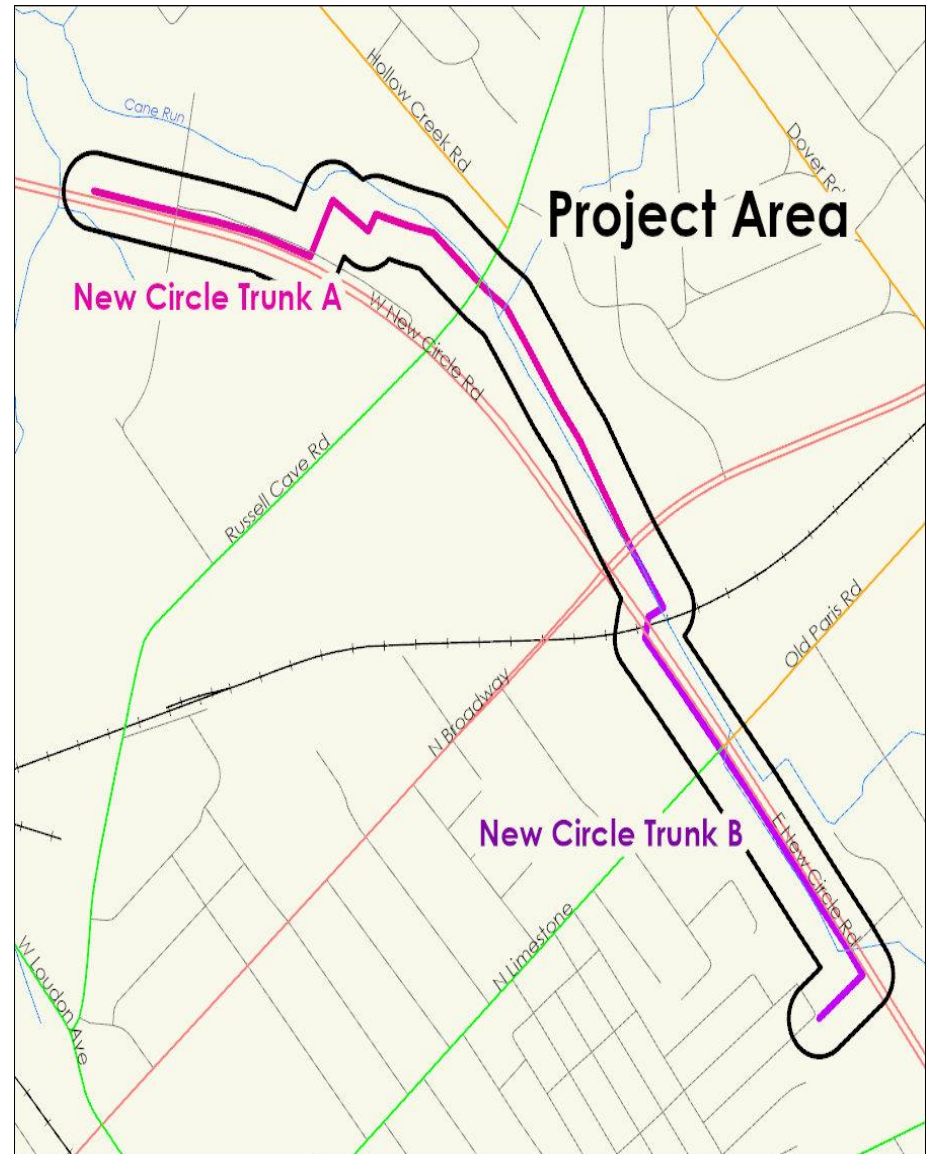
Project Name:  
New Circle Trunk A&B  
Sewer

Project Schedule: 11/1/21  
to 5/1/23

Estimated Cost: \$7.5 M

Council District: 1<sup>st</sup> & 6<sup>th</sup>

Citizen Impact: High







## PROJECT FACTS

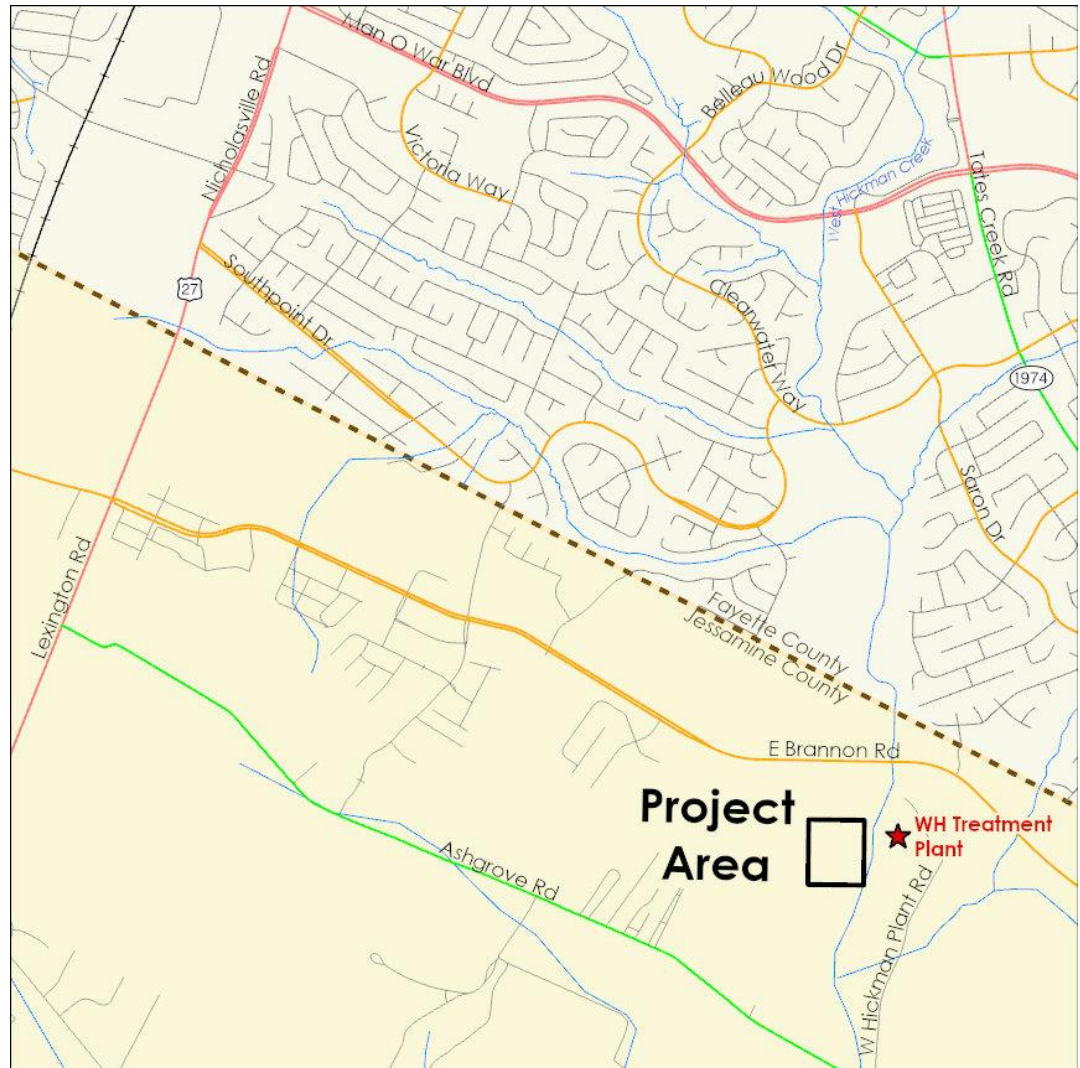
Project Name: West  
Hickman WWTP 18.0  
MG Wet Weather  
Storage Tank

Project Schedule:  
7/1/21 – 6/30/23

Estimated Cost: \$21 M

Council District: 12th

Citizen Impact: Low







## SUMMARY

- Overall status:
  - Outlook remains positive.
  - 2020 had some wins but also presented challenges that undermined momentum.
- Near-term challenges
  - 2021 projects in que but pace of future project production still at risk.
  - Even with approved schedule modifications, full compliance must be met by 12/31/26.
  - Math says eight projects per year for another six years.

# Questions

