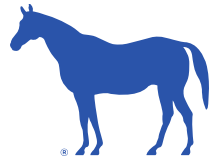


# MINT LANE PUMP STATION RELOCATION STUDY

*Charles H. Martin, P.E.*

*Environmental Quality and Public Works*

*Council Work Session - 4/14/2026*



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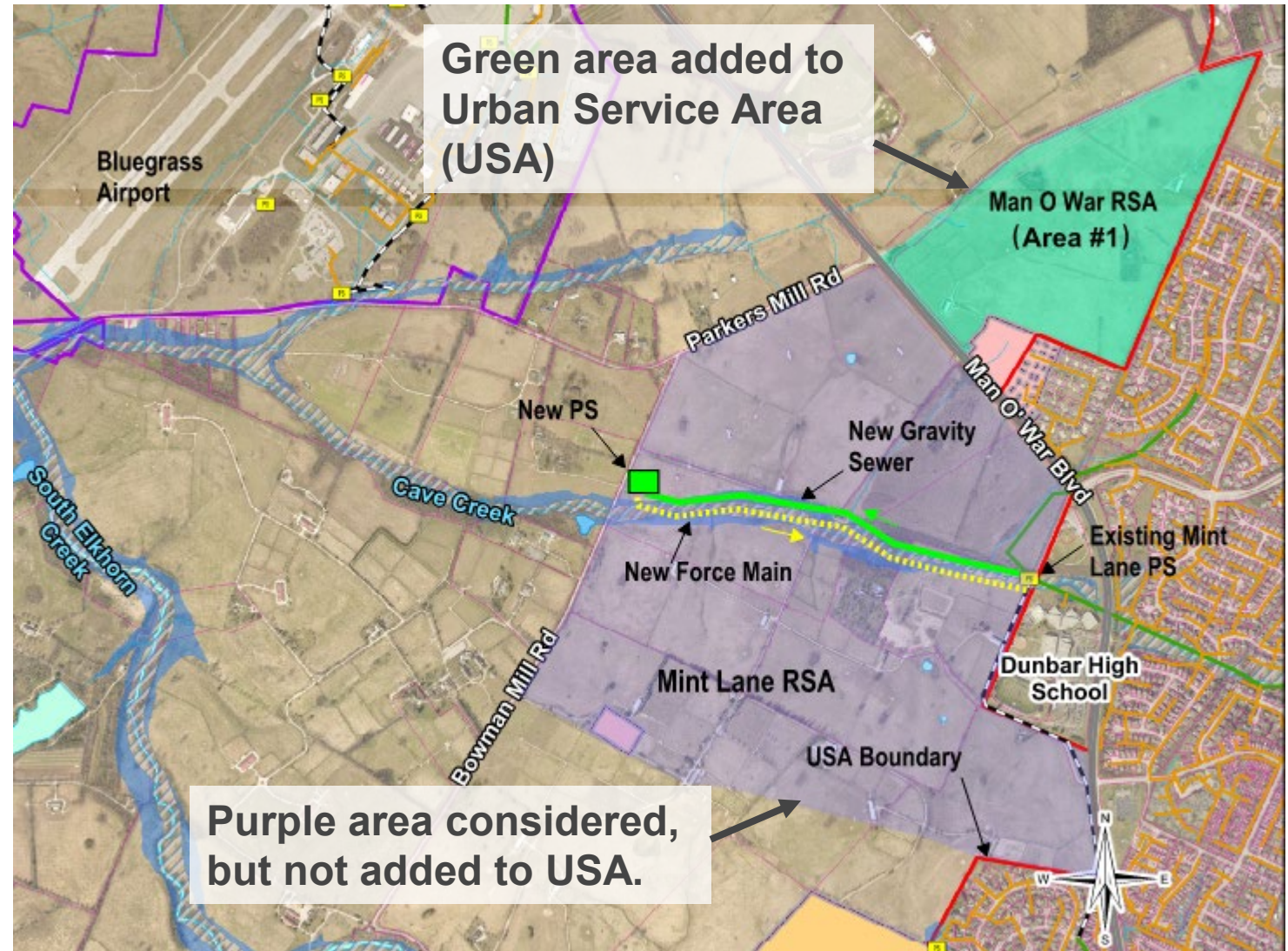
## INSTRUCTIONS GIVEN IN 2025

*Division of Water Quality to expand the scope of its analysis related to the proposed Mint Lane sewer project to include a complete site analysis and cost feasibility study of both the existing location and a site located downstream at Bowman's Mill Road and a site located on parcels owned by the Bluegrass Airport Board . The analysis should account for future growth in the region (per the Master Plan for Area 1), geotechnical issues, and costs of acquisition and is to be delivered to the Council at a regularly scheduled work session by no later March 1, 2026.*



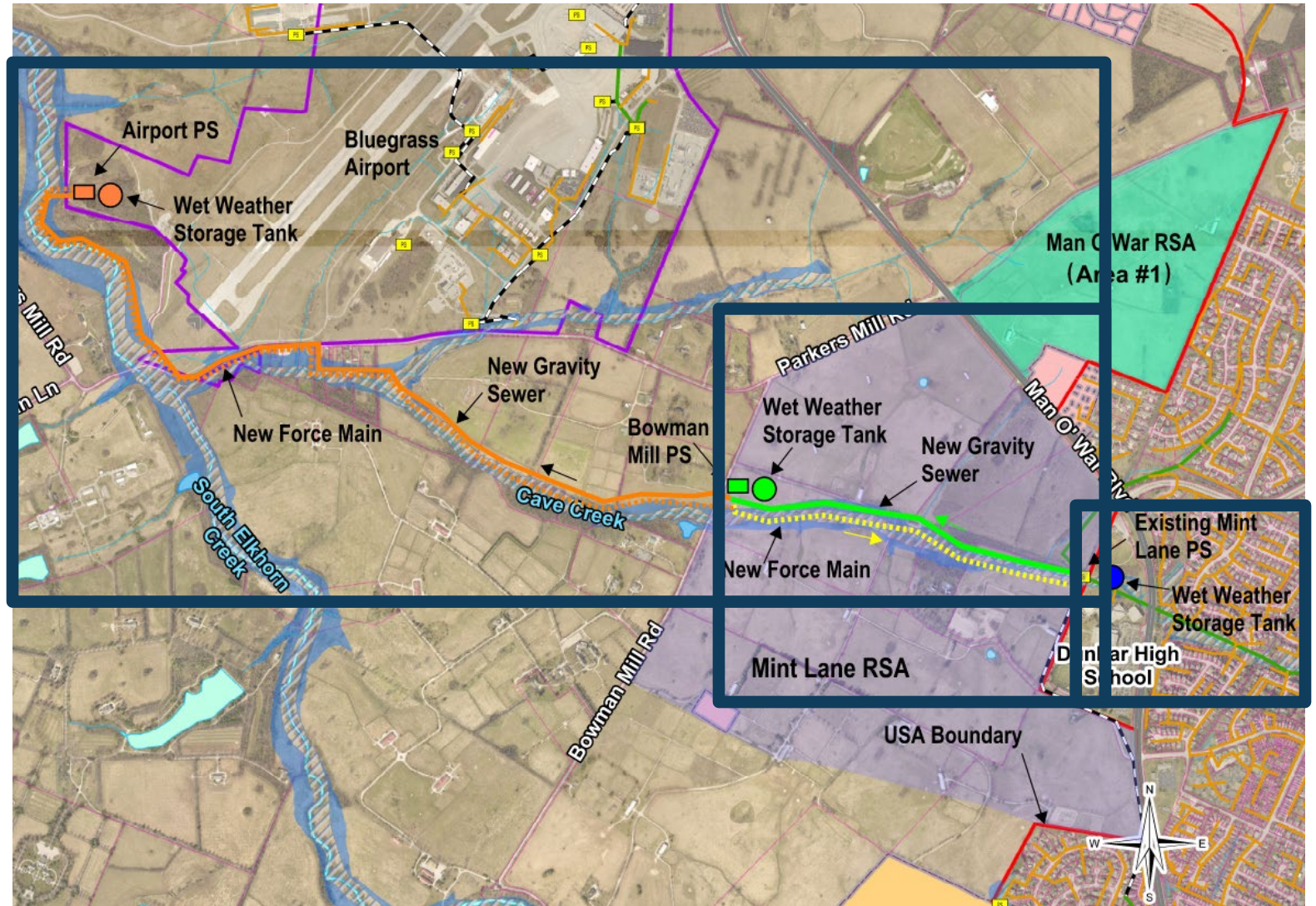
## Background

- **2023** - Sewerability Study
  - Considered Mint Lane RSA ~ 572 gross acres (**purple**)
  - New PS at Bowman Mill Rd that better serves Area #1 (**green**)
  - Revised location of RMP project (storage tank)
- **2023** - Urban Service Area (USA) Expansion Decision
- **2025** - DWQ directed to further evaluate Mint Lane RSA & potential location at Bluegrass Airport



# Pump Station Location Alternatives

1. Existing PS Site (at Dunbar HS)
2. Bowman Mill Road
3. Bluegrass Airport





## Siting Considerations

### ▪ Wetland Bank by KY Fish & Wildlife

- Planned conservation easement along Cave Creek
  - Extends from Dunbar High School to Bowman Mill Road
  - Easement boundary generally coincides with 100-year floodplain
  - Several gaps to allow utilities\access to cross over creek
- After easement established, utility construction not permitted
- If sewer installed before easement, KY F&W project no longer viable
- F&W agreed to temporarily suspend easement acquisition

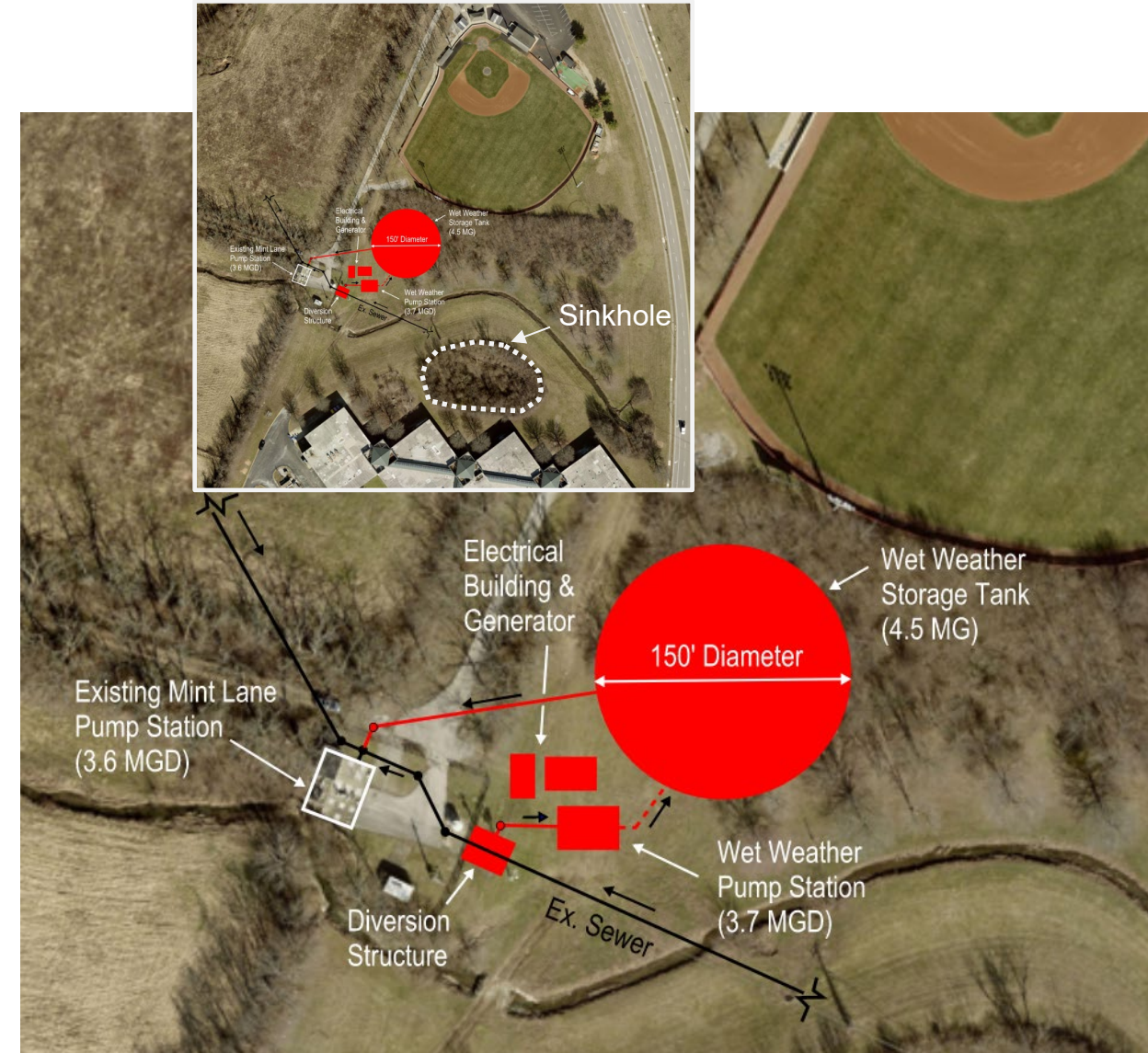
### ▪ Two Underground Springs (2601 Old Cave Hill Lane)

- North side of creek (higher producing)
- South side of creek (lower producing)



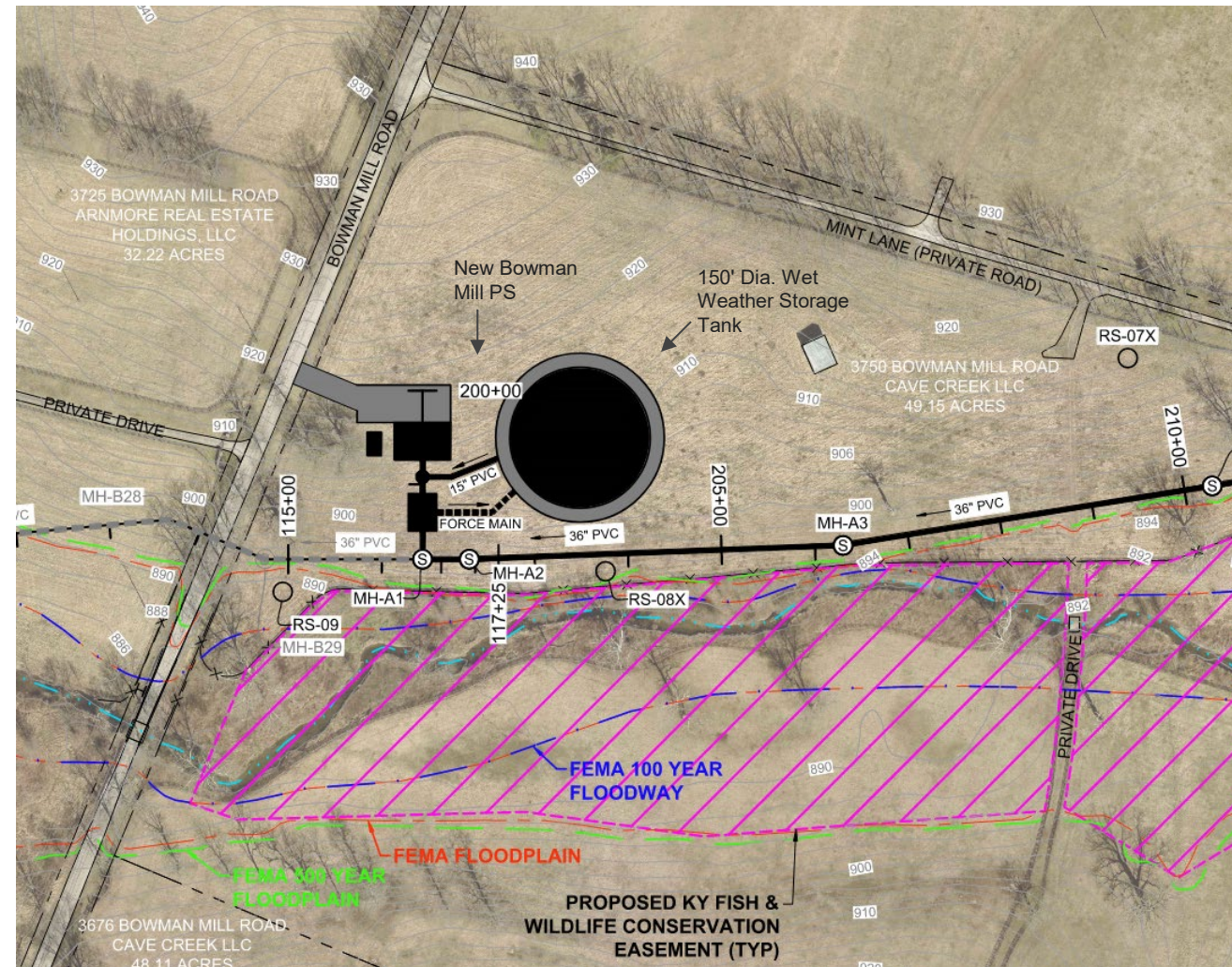
## Existing Mint Lane PS Location

- Wet Weather Storage (WWS) Tank
  - RMP project
  - In-service deadline = Dec. 2030
- Capital Cost Opinion = \$19.6M
- Features:
  - Single easement (FCPS)
- Perceived Risks:
  - Constructability concerns
  - Karst features
  - Potential floodplain impacts
  - New pump station needed to serve recent USA expansion (Area #1)



## Bowman Mill Road PS Location

- New 3.6 MGD PS
- Eliminates existing Mint Lane PS
- 4.5 MG WWS tank (or 6.8 MG)
- ~ 0.8 miles of gravity sewer
- ~ 0.8 miles of force main
- Capital Cost Opinion = \$24.9M (\$27.3M)
- Features:
  - Easements from a single entity/owner
  - Area #1 served by gravity solution
  - Infrastructure located outside floodplain and proposed F&W conservation easement
- Perceived Risks:
  - Potential impact to high producing spring at 2601 Old Cave Hill Lane
  - Karst potential



## Airport PS Location

- Same size as Bowman Mill Road
- Eliminates existing Mint Lane PS
- ~ 3.0 miles of gravity sewer & force main
- Capital Cost Opinion = \$48.4M
- Features:
  - Site identified by airport
  - Area #1 served by gravity solution
  - Potential future elimination of three existing PS's at airport
  - No new connections d/s of Bowman Mill Rd.
- Perceived Risks:
  - Schedule (larger project)
  - 11 easements b/w Bowman Mill & Airport
  - Temporary closure of Parkers Mill Road during construction (state-owned road)
  - Karst potential



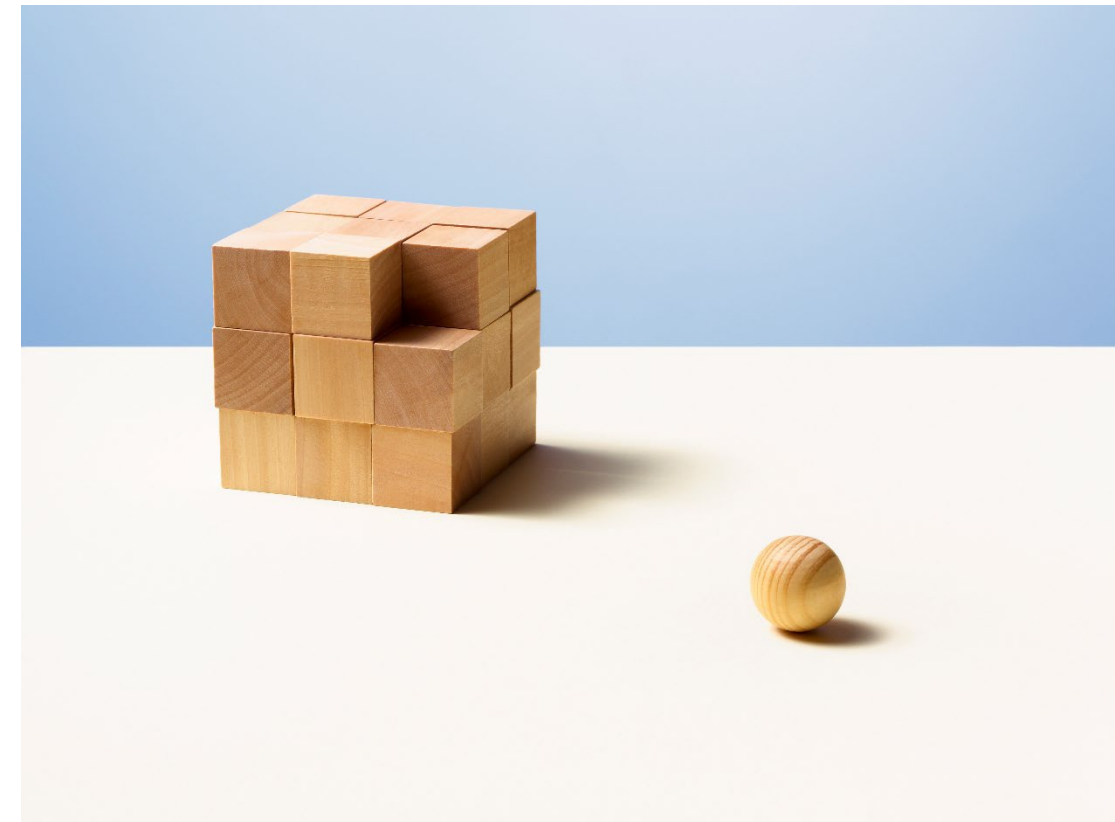


## **Airport WWTP**

- LFUCG should consider acquiring additional property for a future WWTP if a major PS at Airport is considered further.
- Future WWTP
  - Allows for the future elimination of Mint Lane PS and S. Elkhorn PS
  - Long-term operational savings & risk reliability (avoids pumping 6.9 - 8.8 miles to West Hickman WWTP)
  - Would require 5.8 miles of trunk sewer to eliminate Mint Lane PS & S. Elkhorn PS
  - Long-term outcome eliminates capacity restriction created by South Elkhorn pump station.
- “All in” estimated cost for a WWTP on airport property = \$863 M.
- General timeline for a new WWTP ~ 15 years
  - Beyond RMP completion timeline in Consent Decree
  - Not feasible for short-term Mint Lane solution, but should not be ignored as long-term alternative to servicing an expanded South Elkhorn service area

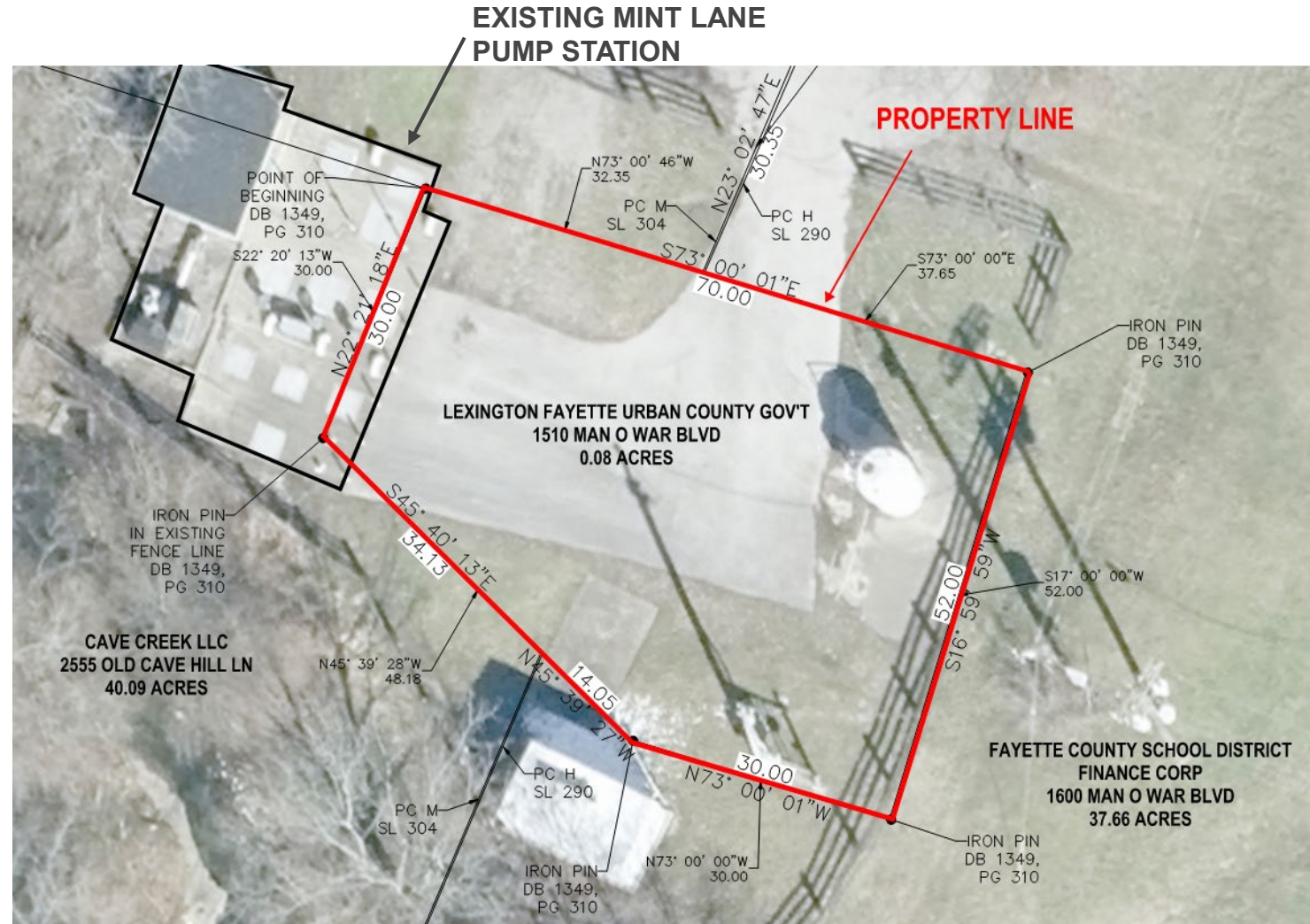
## Further Challenges

- **New Mint Lane PS Location**
  - Existing PS currently on 0.08 acre site (~ 1 acre needed for improvements)
  - Land-locked site with no direct frontage road, confined worksite and karst features.
- **New Bowman Mill Rd. Location**
  - Wastewater infrastructure outside current USA boundary
  - Potential impact to underground spring
- **New Airport Location**
  - Location is in heavily wooded & upland area (deep sewer)
  - Considered unlikely to complete by Dec. 2030



## Further Challenges (cont'd)

- Existing Mint Lane PS is located outside LFUCG-owned parcel
- Property boundary confirmed in 2025 (Banks Engineering)



## Probable Schedule

Phase	Existing PS Location	Bowman Mill Road	Bluegrass Airport
Advertise\Award – Design Consultant	3 months	3 months	3 months
Design & Permitting	9 - 12 months	12 -15 months	15 - 18 months
Property Acquisition\Easements	3 - 6 months	3 - 6 months	12 - 15 months
Bidding\Award – Construction	3 months	3 months	3 months
Construction	18 months	15 months	15 - 18 months
<b>Totals =</b>	<b>3.0 – 3.5 yrs</b>	<b>3.0 – 3.5 yrs</b>	<b>4.0 – 4.75 yrs</b>

## SUMMARY

### Dunbar Site

- More constrained building site.
- Lower capital cost.
- Requires a developer built pumping station to serve 2024 Expansion Area 1.A.
- Adds no additional land for near-term expansion.
- Rehabilitation of existing station is lost investment if expansion comes later. Tank and diversion structure would remain in service.

### Bowman Mill Site

- Less constrained building site.
- Higher capital cost (with or without expanded service area).
- Developer built pumping station technically unnecessary to serve 2024 Expansion Area 1.A.
- Potential to add 500+ acres to Urban Service Area.

# Questions?



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