



Todd Creek Wastewater Treatment Plant

Public Meeting #2

November 13, 2023



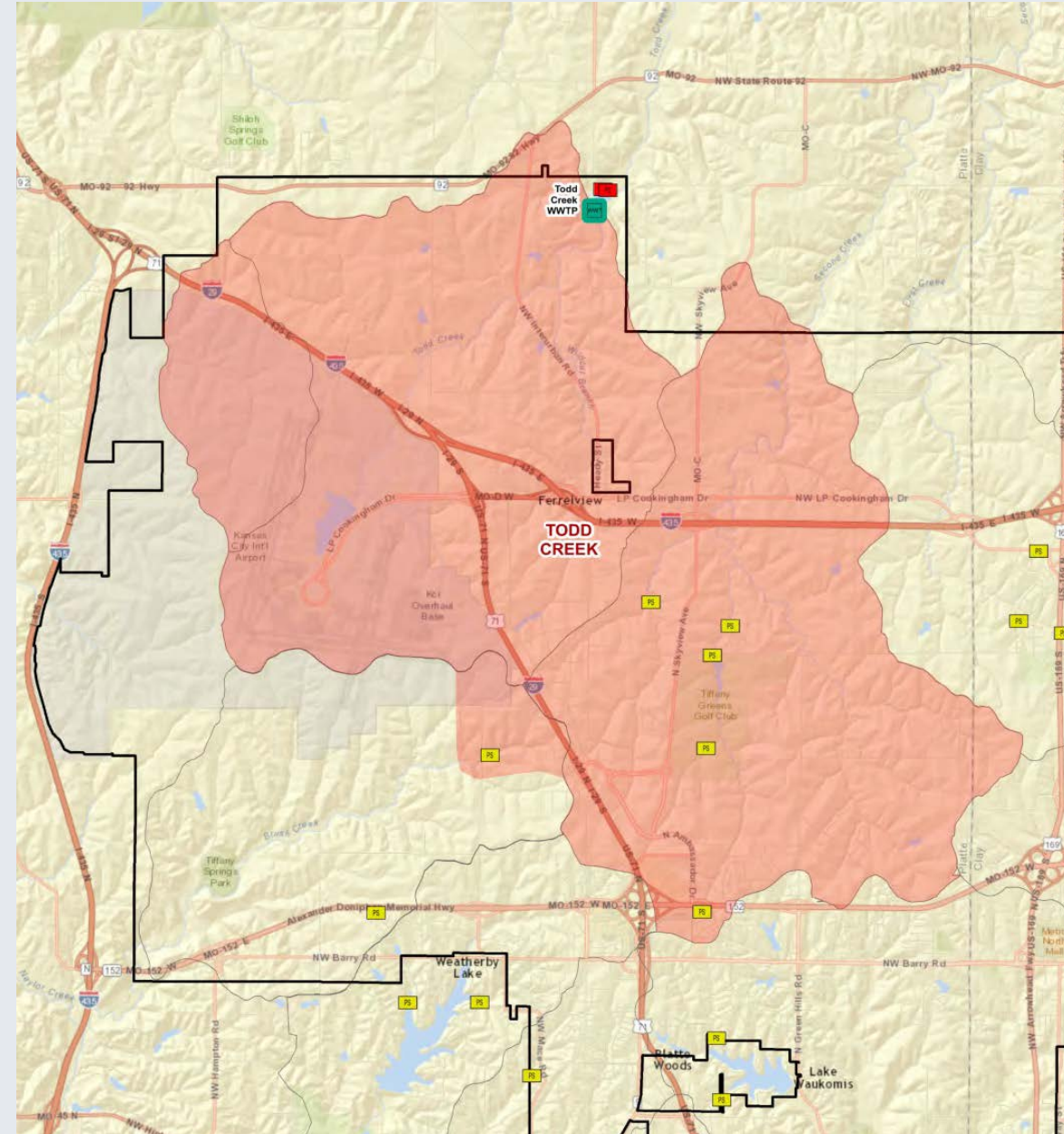
Agenda

- Reasons for the Project
- Current Location and Sewer Network
- Proposed Sites/Findings
- Minimizing Project Impact
- QA Session

Project Drivers

Project Drivers

- Existing Plant is in a floodplain
- Economic growth and development in the watershed
- Updated state regulations to protect the environment and water quality



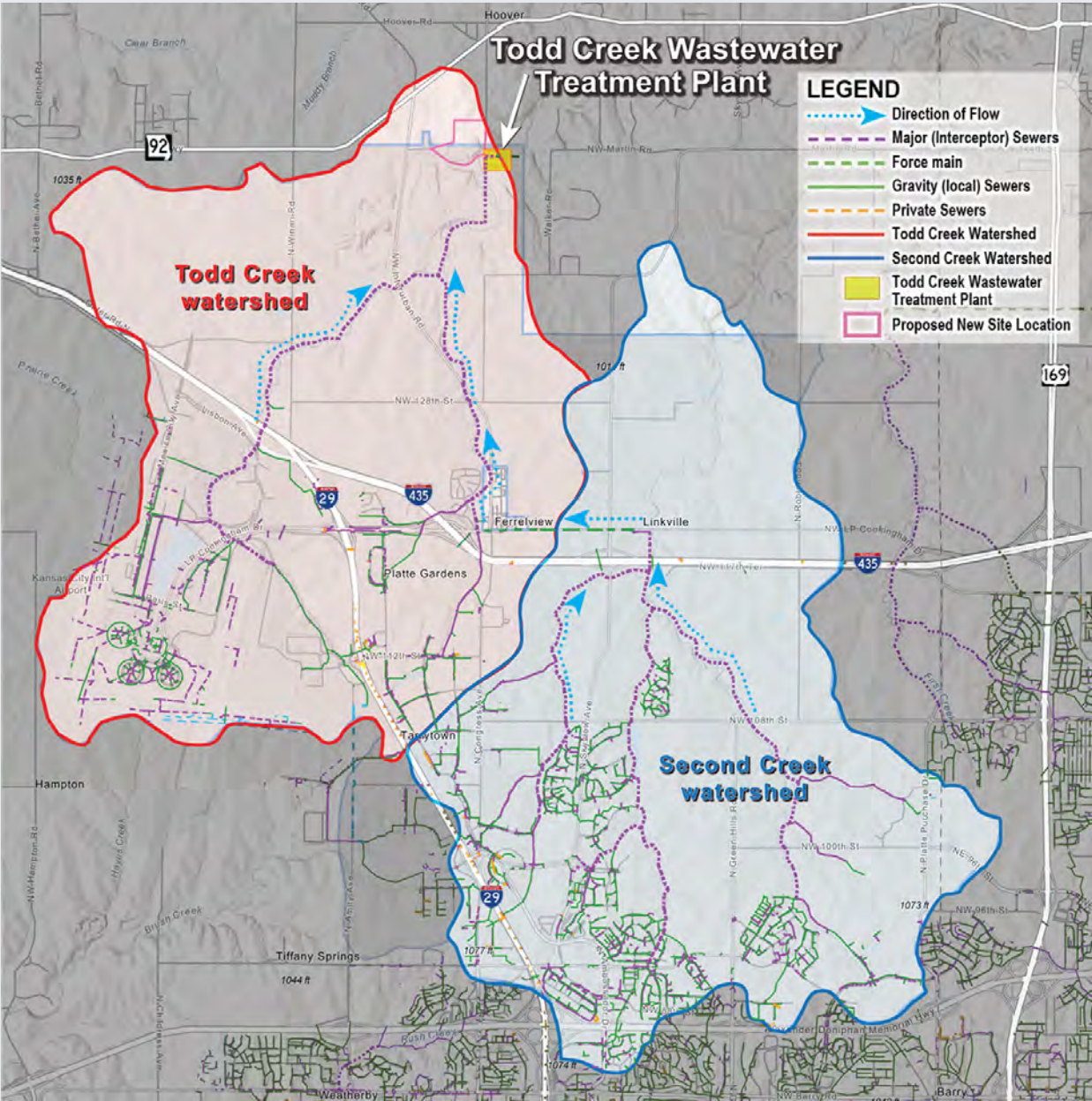
Community Benefits

- **Improved Plant Performance**
 - Supports increased stream flow to Todd Creek
 - New odor control systems
- **Environmentally Responsible**
 - Process does not rely on chemicals for nutrient removal
 - Lower energy consumption
- **Supports Growth in the watershed**
 - More jobs and homes in the area
- **Small footprint**
 - Selected process does not need specific settling tanks
 - Modular to prevent overbuilding

Project Location

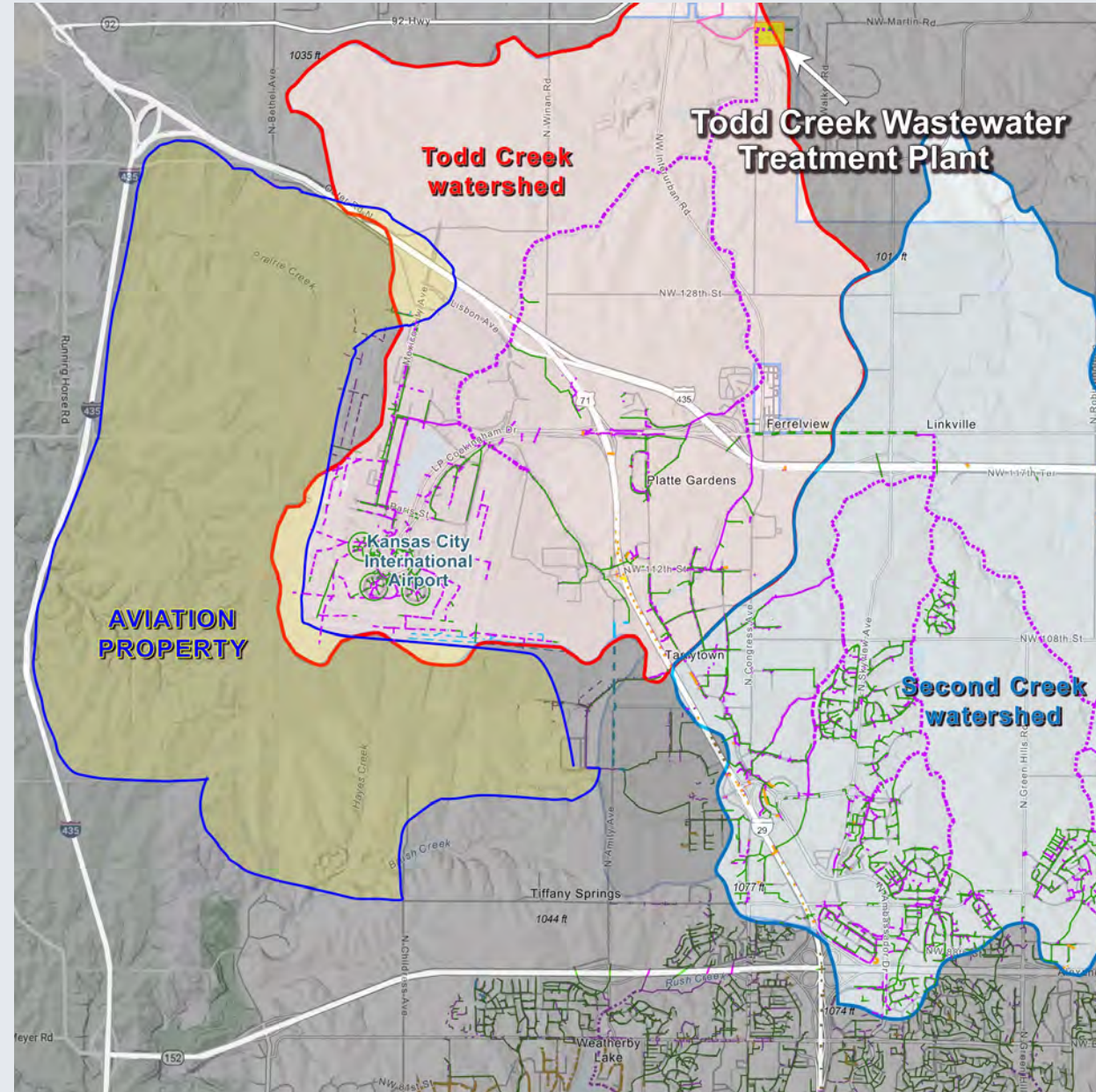
Sewer Network

- Serves Todd Creek watershed, most of Second Creek watershed, and Hoover Heights (Platte County)
- Sewer network powered by gravity
 - Nearly 75 miles of buried pipeline
 - Lines run downhill from high areas
- Wastewater Treatment Plant receives all this flow at the downstream end for treatment.



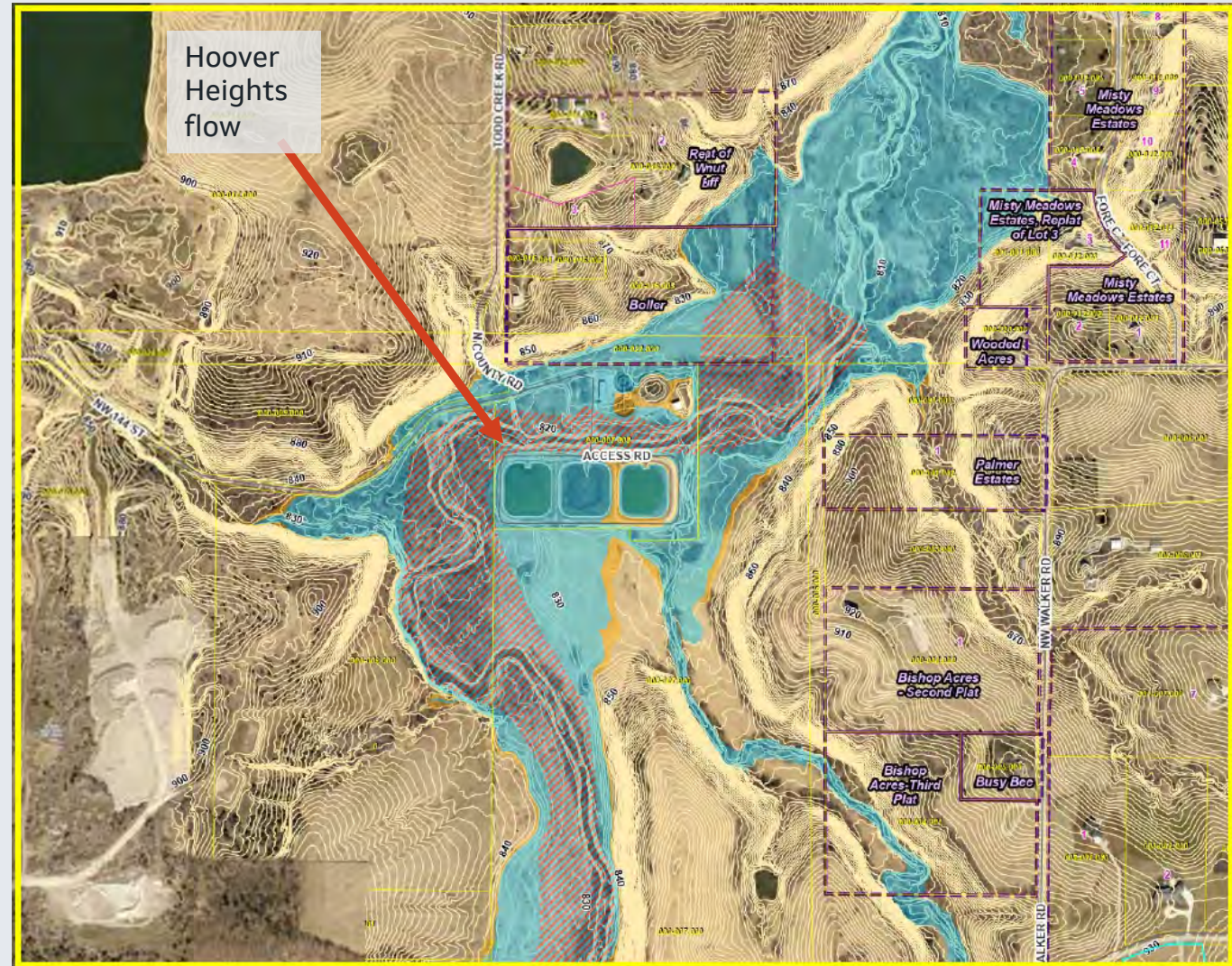
Aviation Property

- Wrong end of the watershed
- Would require complete re-work of existing 75-mile collection system or massive pumping system
- Opposite of best practices for wastewater treatment plant siting



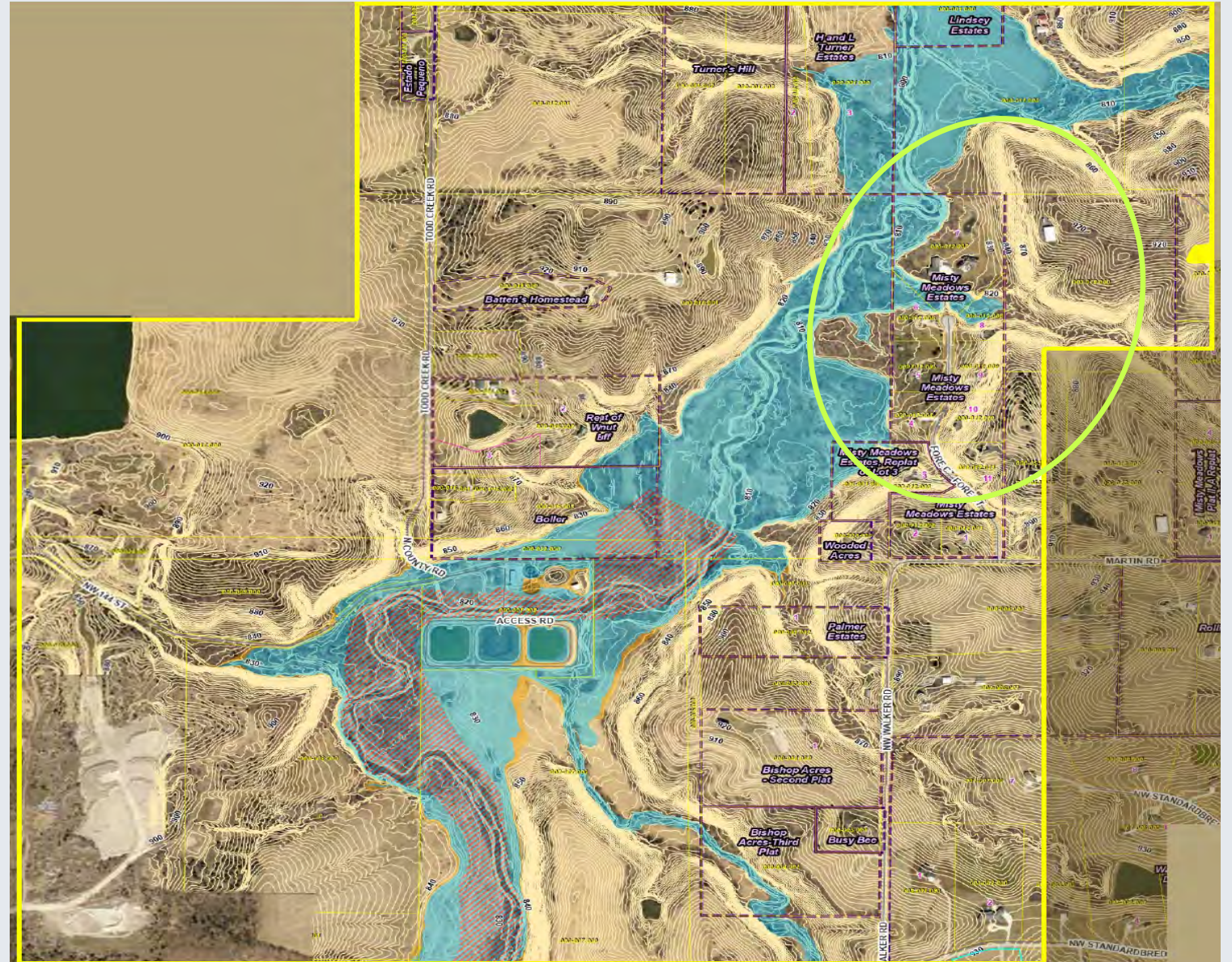
Current Plant Site

- At the edge of Kansas City
- Centralized location
- New floodplain includes entire Todd Creek valley at the existing plant



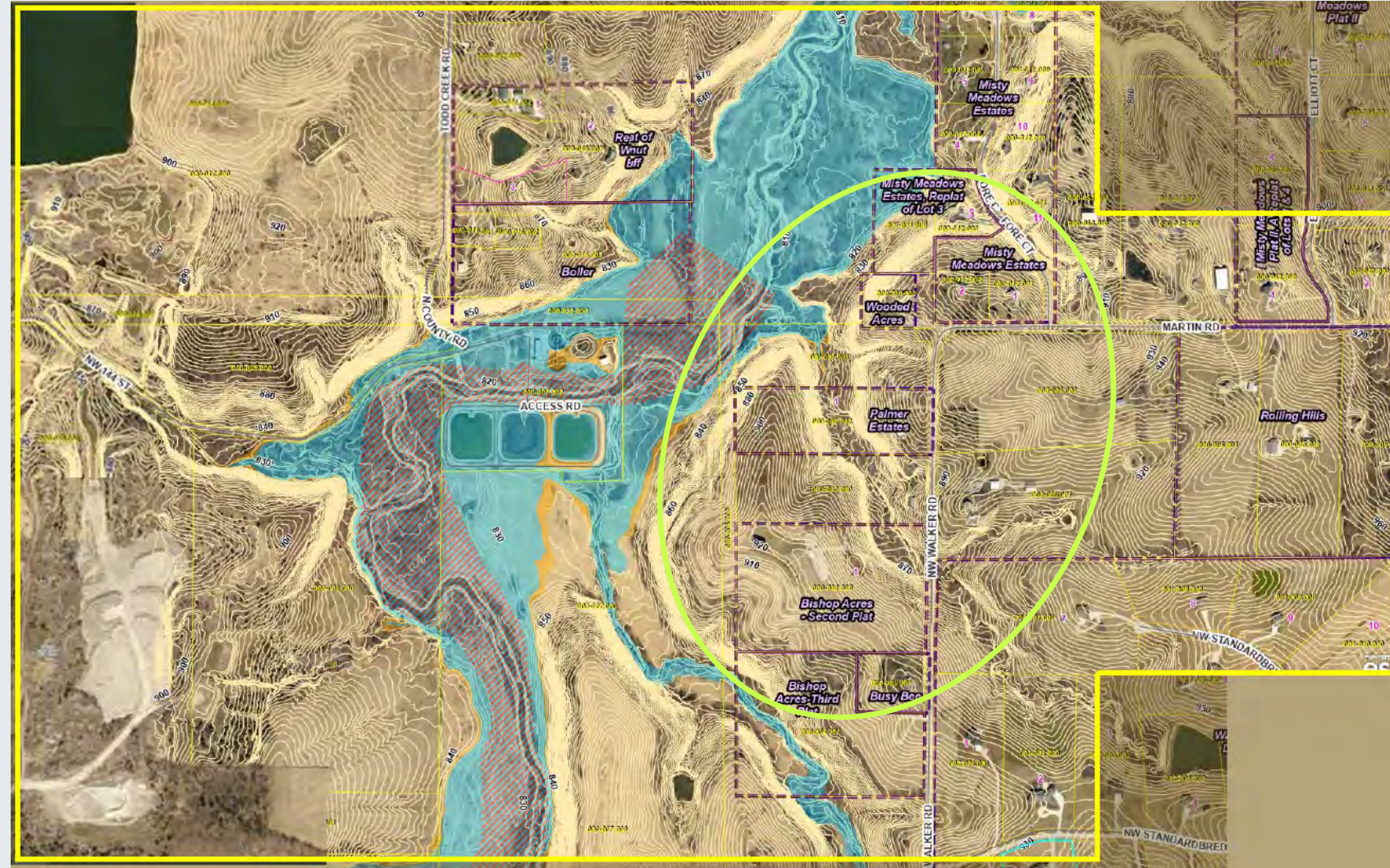
Land Northeast of Existing Plant

- Existing Homes
- Flood Plain



Land East of Existing Plant

- Rough Terrain
- Existing Homes



Land Southeast of Existing Plant

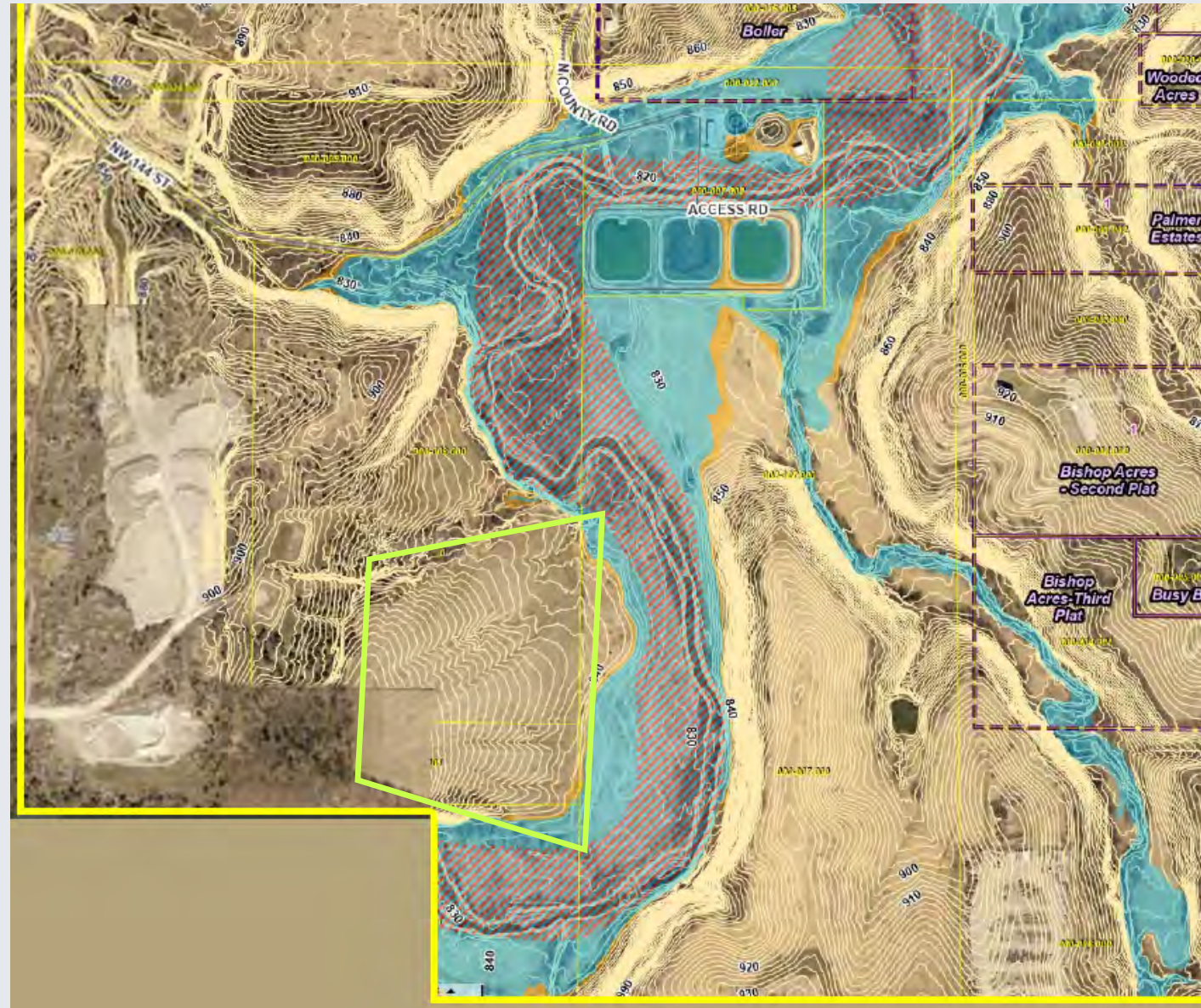
- Uninterested Seller



Alternative Sites - SE

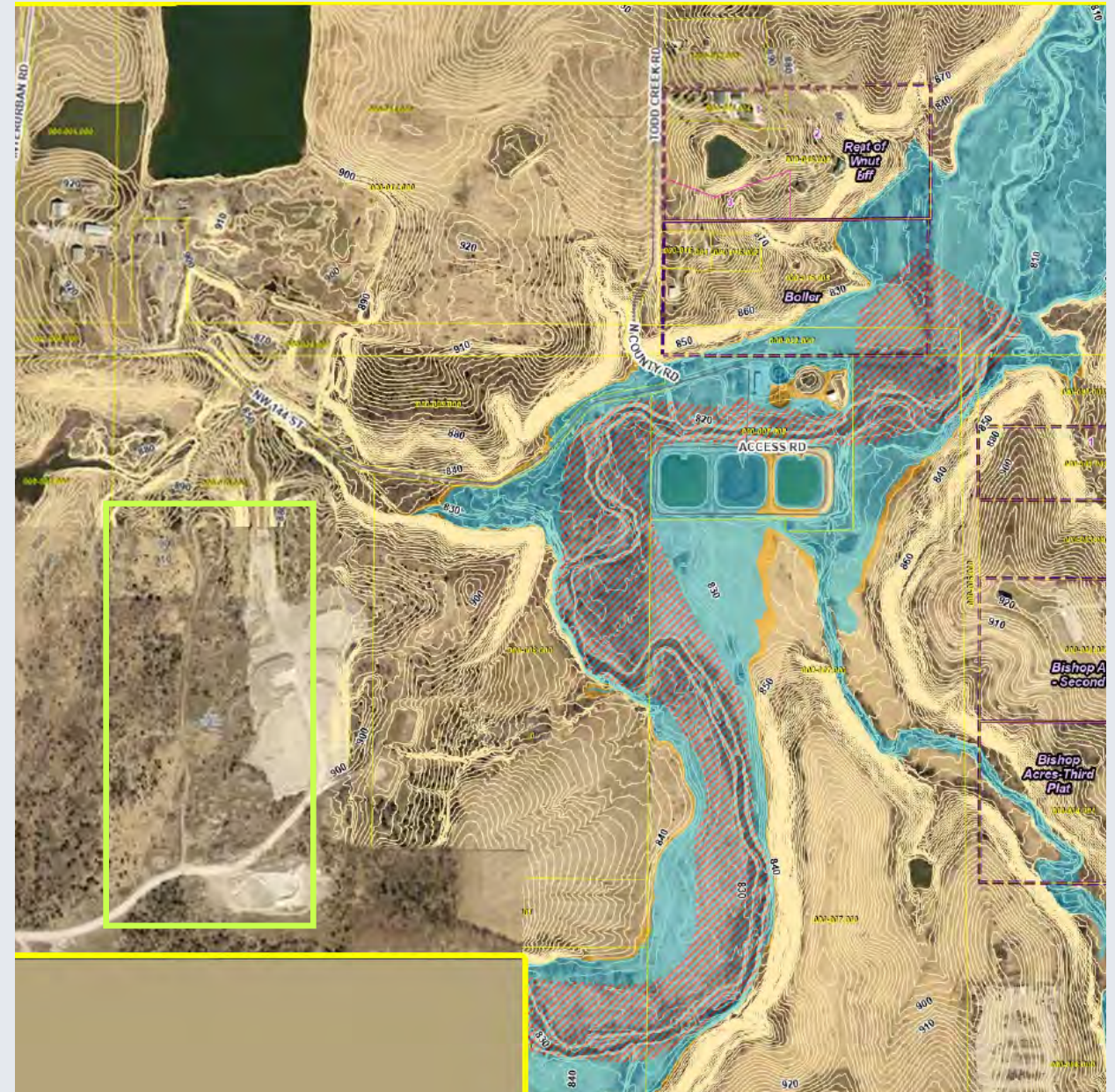
• Results

- Strongly sloping site, requiring major cut/fill
- Major civil regrading, reroute of all utilities, risk of shallow rock
- \$14M cost impact
- 21-month schedule impact
- 63,000 cu yards of cut and fill



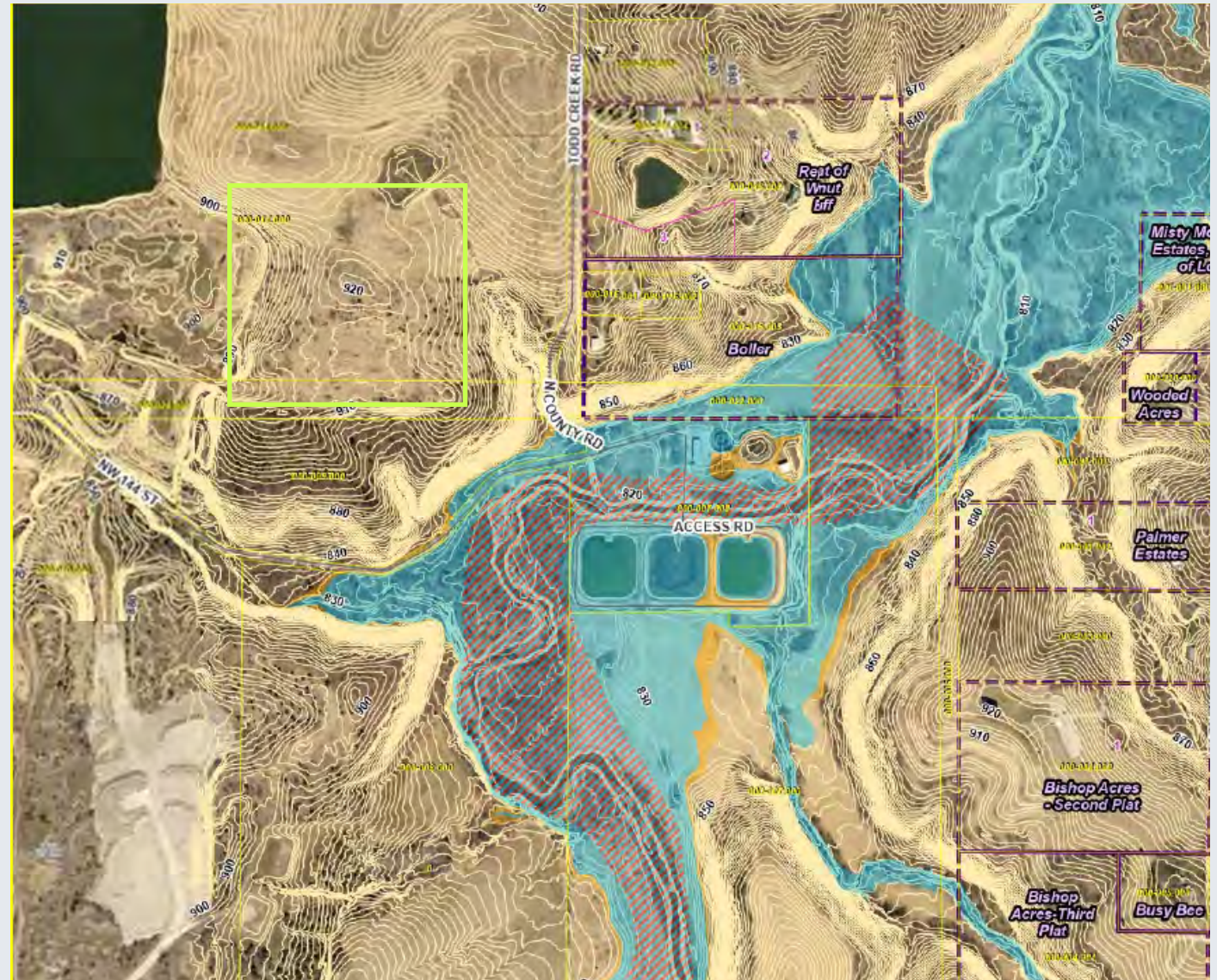
Alternative Sites - SW

- Results
 - Very rough terrain, large active gravel mining operation to avoid
 - Major civil regrading, reroute of all utilities, risk of shallow rock
 - \$11.9M cost impact
 - 26-month schedule impact



North Site

- North of NW 144th Street and West of Todd Creek Road
- Near the existing plant
- Similar distance from residences
- 61 acres for full build out and buffer
- Minimal need for new/deep pipe construction



Risk Profile on Alternatives

	Southeast Site	North Site
Cost	\$14 Million	Baseline
Time	21 Months	
Topography	Significant Site Work	Relatively Flat
Site Expansion	Constrained	Feasible Expansion to the West
Condemnation	Unlikely	No

Recommendation & Next Steps

- Recommendation: Proposed project on North site
 - (seeking approval from council via Ordinance)
- Alternative: Redesign of plant on new SE site
- KCMO City Council Transportation, Operations and Infrastructure Committee
 - November 29, 2023, at 9 AM
 - 412 E 12th Street, Kansas City, MO 64106 - 26th Floor
 - Opportunity for public to testify

Minimizing Project Impact

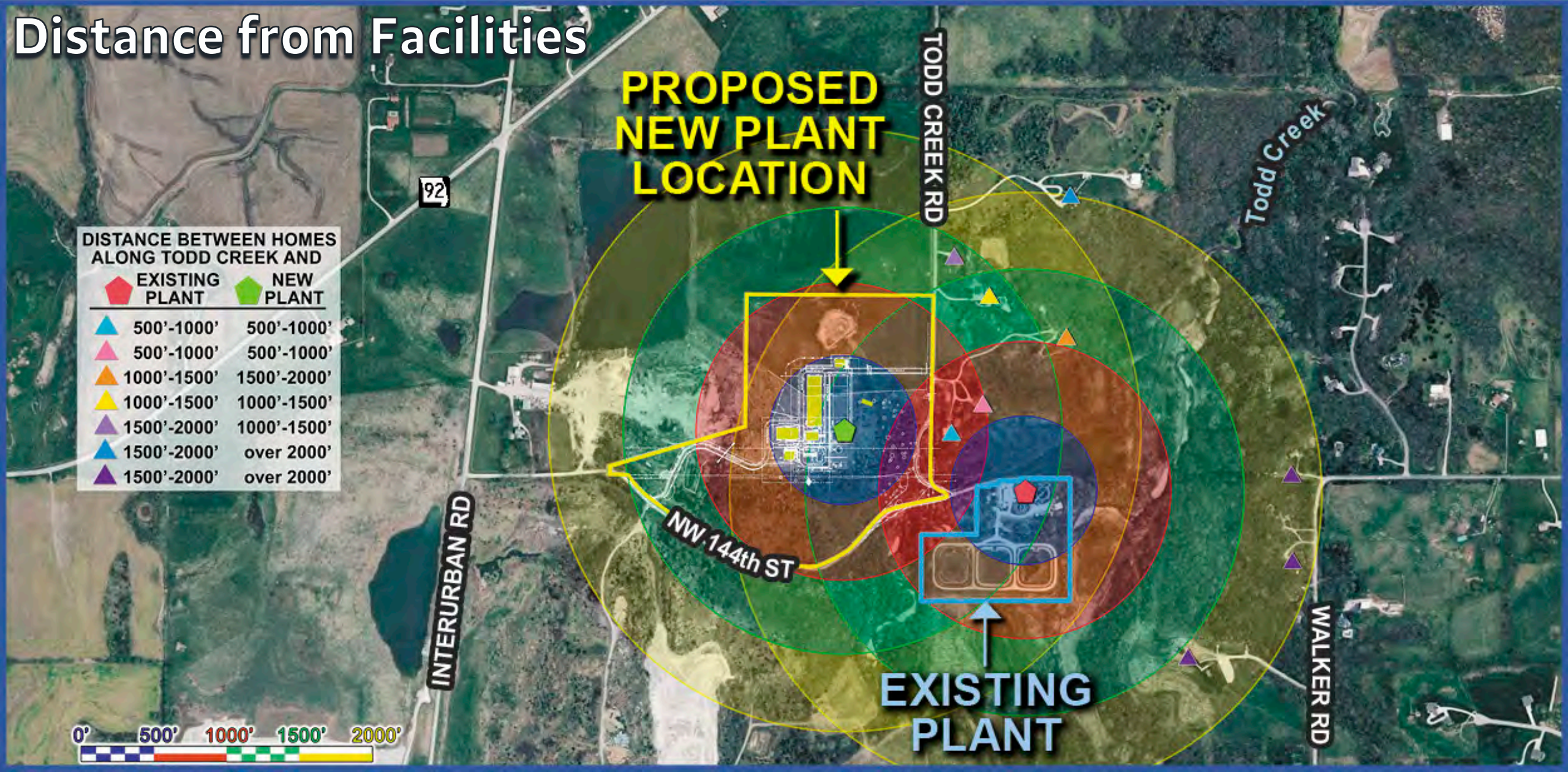
Distance from Facilities

**PROPOSED
NEW PLANT
LOCATION**

**EXISTING
PLANT**

DISTANCE BETWEEN HOMES
ALONG TODD CREEK AND

EXISTING PLANT		NEW PLANT	
▲	500'-1000'	▲	500'-1000'
▲	500'-1000'	▲	500'-1000'
▲	1000'-1500'	▲	1500'-2000'
▲	1000'-1500'	▲	1000'-1500'
▲	1500'-2000'	▲	1000'-1500'
▲	1500'-2000'	▲	over 2000'
▲	1500'-2000'	▲	over 2000'



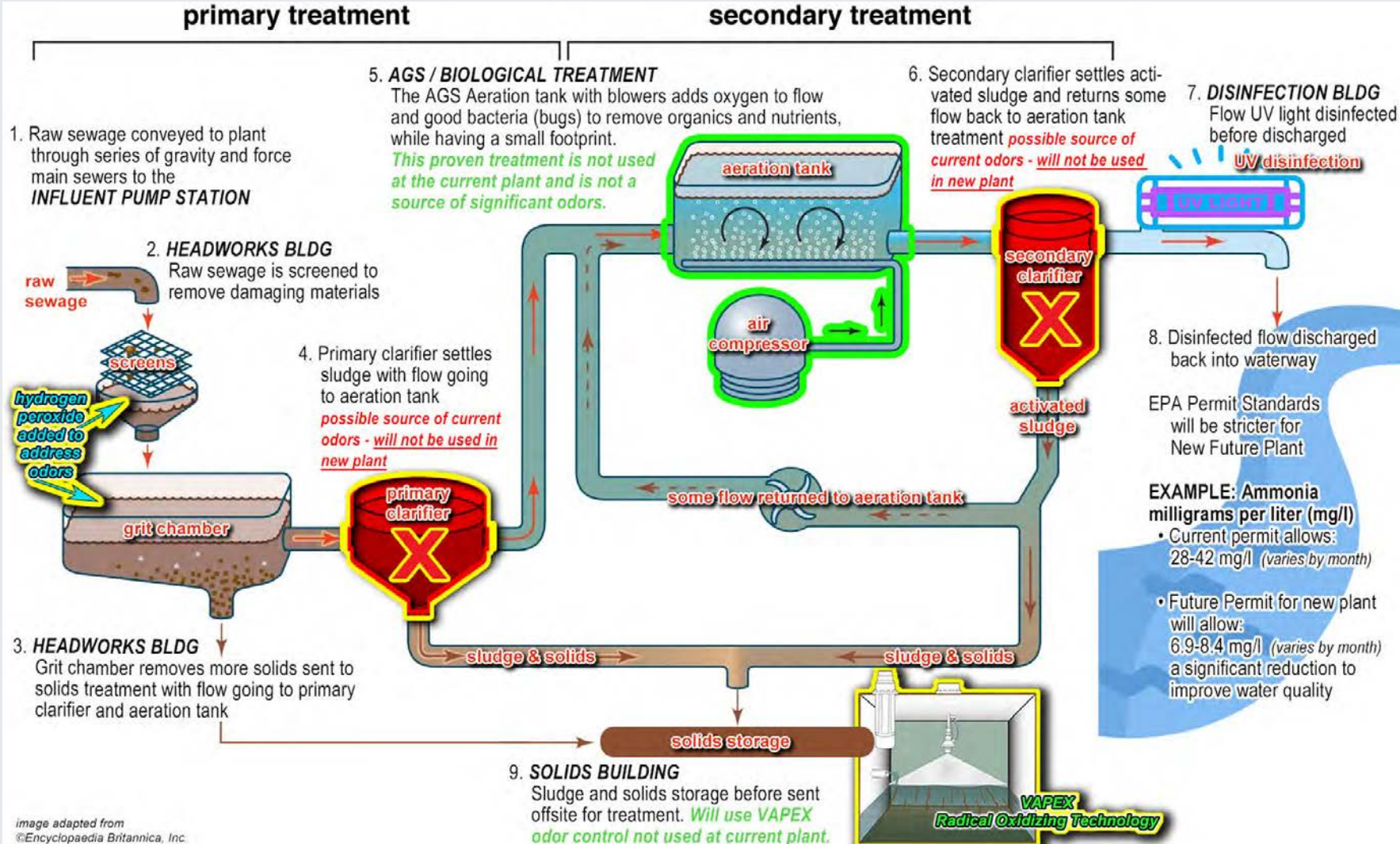
Community Concerns

- Odor
- Noise and Light
- Traffic
- View / Visual Aesthetics
- Additional Concerns

NEW Odor Control - None at Current Plant

Where can odors originate?

- Clarifiers
- No Clarifiers
- Solids storage
- Vapex
- Grit and Screening
- Hydrogen Peroxide



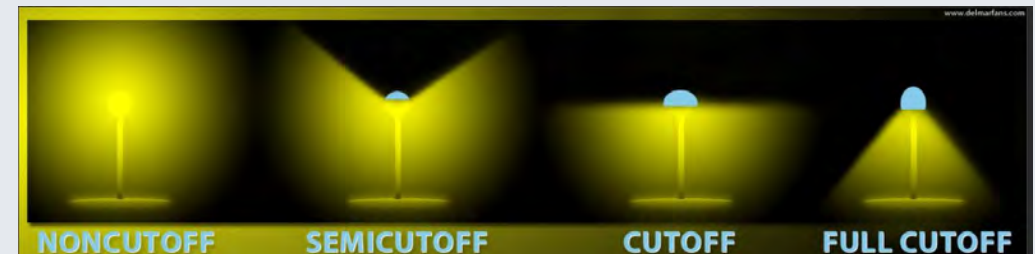
Noise and Light Pollution

- **Noise**

- Sound Enclosures around Blowers
- White noise backup alarms for on-site construction equipment

- **Light**

- Dark Sky Technology
- Light as needed
- Year-round vegetative screening



Community Concerns – Traffic

- All regular traffic on Interurban Road & 144th
- Todd Creek is only an emergency access/egress point
- Locked gate, unpaved road



Additional Concerns

- **Why didn't we reach out to Office of Environmental Quality?**
 - KC Water must comply with state and federal laws and Missouri Department of Natural Resources and U.S. Environmental Protection Agency regulations.
 - The City's Office of Environmental Quality focuses on sustainability, assistance on environmental compliance of existing City facilities on issues such as asbestos and lead paint inspections, and energy and water consumption benchmarking.

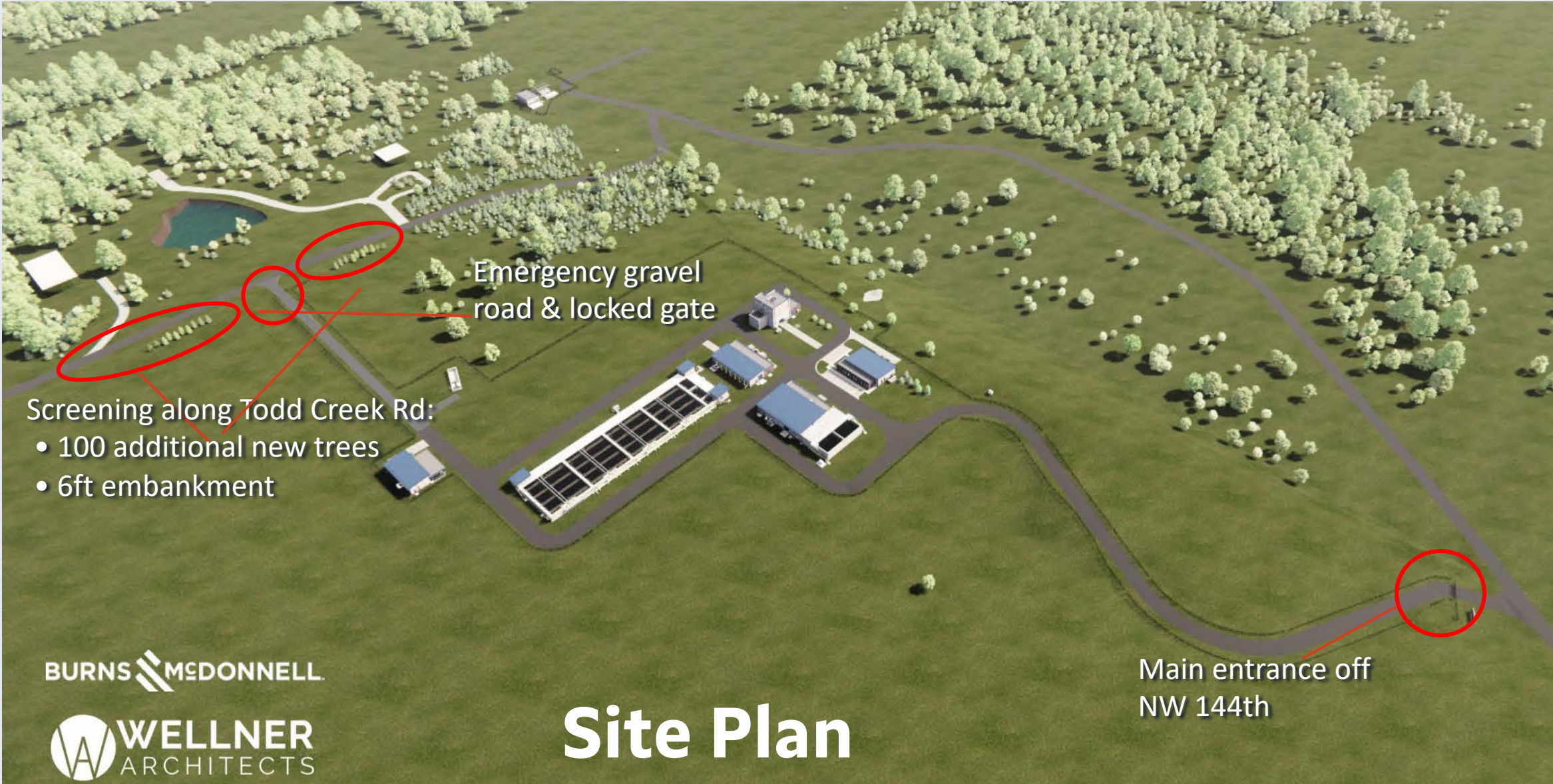
Additional Concerns

- **Public Health**

- The current Plant meets older regulation standards which may account for reported smells by some neighbors downstream. However, the new Plant will be built to meet or exceed the proposed new environmental regulation standards which will improve water quality in the creek.
- Missouri Department of Natural Resources doesn't regulate odor emissions from plants because they are not dangerous to public health

- **H2S Health Concerns**

- The department follows industry best practices for buffer zones
- OSHA PEL is 10ppm for 8 hours. Dangerous levels occur in enclosed spaces with poor ventilation and no odor control.



Emergency gravel road & locked gate

Screening along Todd Creek Rd:
• 100 additional new trees
• 6ft embankment

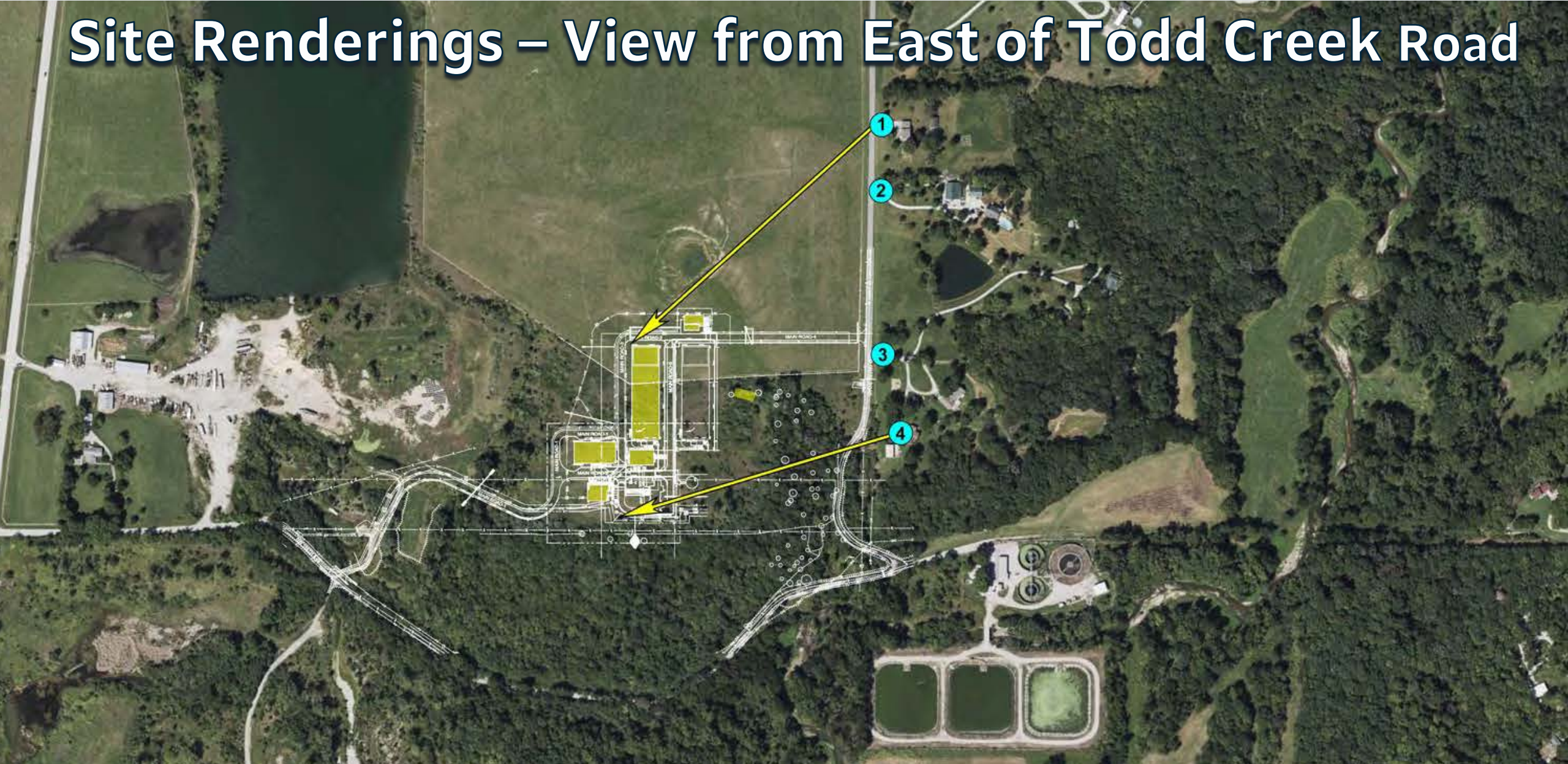
Main entrance off NW 144th

BURNS & MCDONNELL

WELLNER ARCHITECTS

Site Plan

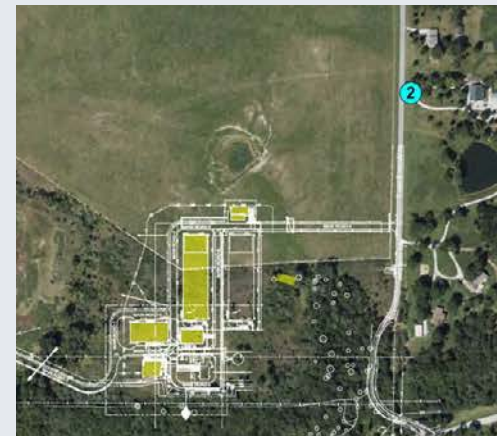
Site Renderings – View from East of Todd Creek Road



Site Renderings – 1 Todd Creek Road



Site Renderings – 2 Todd Creek Road



Site Renderings – 3 Todd Creek Road



Site Renderings – 4 Todd Creek Road



Contact Information

- Website: www.kcwater.us/todd-creek
- Email: water.projects@kcmo.org
- Phone: 816-513-0234

Questions?

- Please line up at the microphone
- State name and address
- Please make your question clear and concise

THANK YOU

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