



# KCWATER

# TODD CREEK WASTEWATER TREATMENT PLANT

Environmental Impact Review

June 24, 2025

# AGENDA

- Purpose of Meeting
- Purpose and Need for Project
- Environmental Setting / Location
- Future of Environment without Project
- Alternatives to the Project
- Description of Proposed Project
- Financial Impact of Project
- Evaluation of Impacts
- Short-term impacts
- Long-Term Impacts
- Irreversible and Irretrievable Commitment of Resources
- Intergovernmental Review
- Next Steps

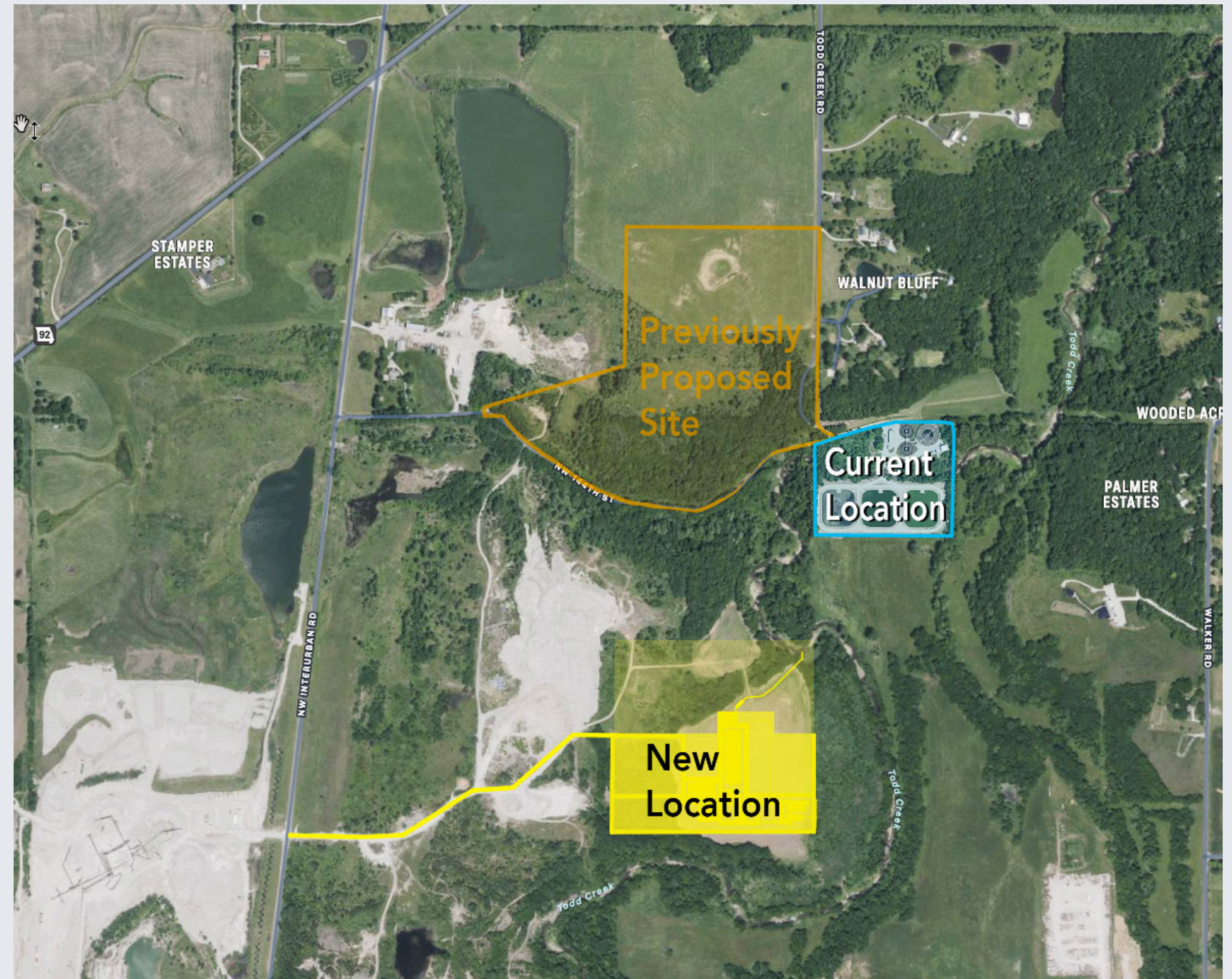
# Purpose of Meeting

- **This meeting is required for projects supported by the Clean Water State Revolving Fund (CWSRF)**
  - **Described in CW 10 CSR 20 – 4.050(4)(B) "Guidance for Environmental Information Document Requirements"**
- **After public disclosure, 30-day public comment period**

# Purpose and Need for the Project

- Existing plant built in 1968 plus multiple upgrades
- Major plant assets beyond their design life, in need of replacement
- Current water quality requirements set by the EPA and MDNR are more stringent
- Changes to the flood plain along Todd Creek





# Future of Environment Without Project

- **Water Quality**
  - Inability to remove nutrients (nitrogen/phosphorus) and meet permit as watershed grows
- **Facility Reliability**
  - Failure of critical assets beyond service life, resulted in untreated wastewater
- **Floodplain**
  - Revisions by FEMA to the area FIRM map now show plant underwater during the 100-year and 500-year storm event



# Future of Environment Without Project





# Alternatives to the project

- **Technologies Considered**

- Regionalization
- No Discharge
- Onsite Upgrade with MBR
- 3 Greenfield Alternatives

- **Locations Considered**

- Property Southeast of the current facility
  - Landowner uninterested in selling property
- Property to the Northwest

\*Cost estimates in 2021 dollars

- *All Alternatives considered for the project including estimated cost of each alternative. This can be broken out like the proposed project description with each specific project and its own description of the project. This section should also include the reasons for the selected alternatives. The alternatives not selected for the project should be provided with the reasons why they weren't selected.*

# Onsite Alternative - MBR with A2O

- Onsite retrofit and expansion plus nutrient removal
- MBR tank replacing clarification
  - Small footprint
  - Larger energy consumption
- Estimated cost of \$87.8M in 2021 dollars
- Protection of floodplain makes this infeasible





# Greenfield No. 1 Conventional A2O

- Relies of gravity separation in clarifiers instead of membrane
- Larger footprint, large open basins
- Estimated cost of \$82.6M in 2021 dollars





# Greenfield No. 2 Oxidation Ditch

- **Three (3) Oxidation ditches for biological treatment**
- **Largest footprint**
  - **Hard to maximize property setbacks**
- **Low energy cost**
- **Estimated cost of \$84.0M in 2021 dollars**





# Greenfield No. 3 Aerobic Granular Sludge (AGS)

- Smallest greenfield footprint
- Low energy cost
- Estimated cost of \$76.4M in 2021 dollars



# ALTERNATIVE SELECTED

- **Technology Selected**

- Aerobic Granular Sludge

- **Locations Selected**

- Property to the Southwest of current facility

# DESCRIPTION OF PROPOSED PROJECT

- **New Wastewater Treatment Facility**

- Coarse Screen Structure
- Influent Pump Station
- Headworks Building
- AGS Basins
- Blower Building
- UV Disinfection Building
- Cascade Aeration Effluent Structure
- Solids Holding and Processing Building
- Administration Building

- **Increase treatment capacity to support development**
- **Improved reliability of Wastewater Infrastructure**

# FINANCIAL IMPACT OF PROJECT

- **Current user charge: \$81.55/5000 gal**
- **Project construction cost has been incorporated in KCMO capital improvements plan and proposed rates**



# EVALUATION OF ENVIRONMENTAL IMPACTS - Land

- Minor increase in impermeable area
- Loss of usable farming and grazing land
- Tree and brush clearing on west side of property
- Wetlands/endangered species – none identified
- Cultural resources – none identified
- Improvement in floodplain



# EVALUATION OF ENVIRONMENTAL IMPACTS - Water

- Improvement of water quality in Todd Creek





# EVALUATION OF ENVIRONMENTAL IMPACTS - Air

- No significant emissions
  - No onsite power generation
  - Odor control



# SHORT-TERM IMPACTS DURING CONSTRUCTION

- **Large construction vehicles entering and leaving the site from Interurban Rd.**
  - **No access off Todd Creek Road or NW 144<sup>th</sup> St**
- **Increased traffic from personal vehicles of construction workers**
- **Earthwork / altered landscape during construction**
  - **Deep foundation excavation and drilling**
- **Erosion control measures**



# IMPACTS DURING OPERATION

- **Operations**

- Traffic off Interurban Road (no access off Todd Creek Rd or NW 144<sup>th</sup> St)

- **Yard maintenance**

- Mowing
  - Erosion control

# IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

- **Construction Phase**

- Construction materials (e.g. steel, concrete)
- Fuel for vehicles, generators
- Power

- **Operation**

- Chemicals
- Fuel / power
- Operating cost

# INTERGOVERNMENTAL REVIEW

- **Army Corps of Engineers**
- **Department of Conservation**
- **United States Fish and Wildlife**
- **Federal Assistance Clearing House**
- **KCMO Planning Department**
- **KCMO Code Enforcement**
- **DNR Division of Geological Survey**
- **DNR Historic Preservation Office**
- **DNR Division of State Parks**
- **DNR Financial Assistance Center**
- **Osage Nation**
- **Pawnee Nation**

# Contact Information

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## UP NEXT

- Design Finalized End of the Year 2025
- Permitting and Construction beginning 2026



# THANK YOU

## Todd Creek WWTP Upgrade

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