



Council Agenda Item Cover

MEETING DATE: May 22, 2017

AGENDA ITEM TITLE: Metropolitan St. Louis Sewer District – Wastewater Storage Facility Proposal

AGENDA SECTION: Study Session

CAN THIS ITEM BE RESCHEDULED?: YES

BACKGROUND: The Metropolitan St. Louis Sewer District (MSD) has approached University City since November 2015 with a proposal of constructing a wastewater storage facility in the area bounded by 82nd Blvd., the River Des Peres Main Channel and Olive Blvd. The project aims to alleviate surcharges of the sewer system during wet weather under MSD's service area-wide Project Clear program.

Initially the MSD's method for wastewater storage was an underground tunnel. This method was later revised to above ground storage tanks due to engineering concerns. The City asked MSD to consider other alternative locations for locating above ground storage tanks and MSD looked at the south side of Olive Blvd. from 81st St. to the River Des Peres Main Channel. MSD came back to University City with results from that investigation in November 2016. The alternative location was found infeasible because:

- Constructability concerns for bringing sewer discharge from the sewer collection area to south of Olive Blvd., which would require moving more flow into the storage location.
- A retaining wall adjacent to 81st St. being too close for construction clearances and a restaurant need to be removed.
- Large pump house required to pump sewer from north of Olive Blvd. to south of Olive Blvd.

MSD is currently presenting two options as outlined for a geographic location of the proposed storage facility (see attachment – MSD Study Session material).

City of University, in Federal Fiscal Year 2016, applied for Federal Emergency Management Agency (FEMA) Flood Mitigation Assistance grant funding for buyout of all the properties on Hafner Ct. and FEMA chose this project for funding under this grant. The grant agreement documents have not yet been executed (see attachment – University City FEMA grant Study Session material).

MSD has requested University City's recommendations as input to their project development process for the proposed Wastewater Storage Facility project.

ATTACHMENTS: 1) MSD Study Session material
2) University City FEMA grant Study Session material

**MSD Project Clear
University City Wastewater
Storage Facilities**



May 2017

Agenda

- ⑥ Who is MSD?
- ⑥ What is Project Clear?
- ⑥ What is a Wastewater Storage Tank?
- ⑥ Why is this Project Needed?
- ⑥ Why Build them Here?
- ⑥ Site Options

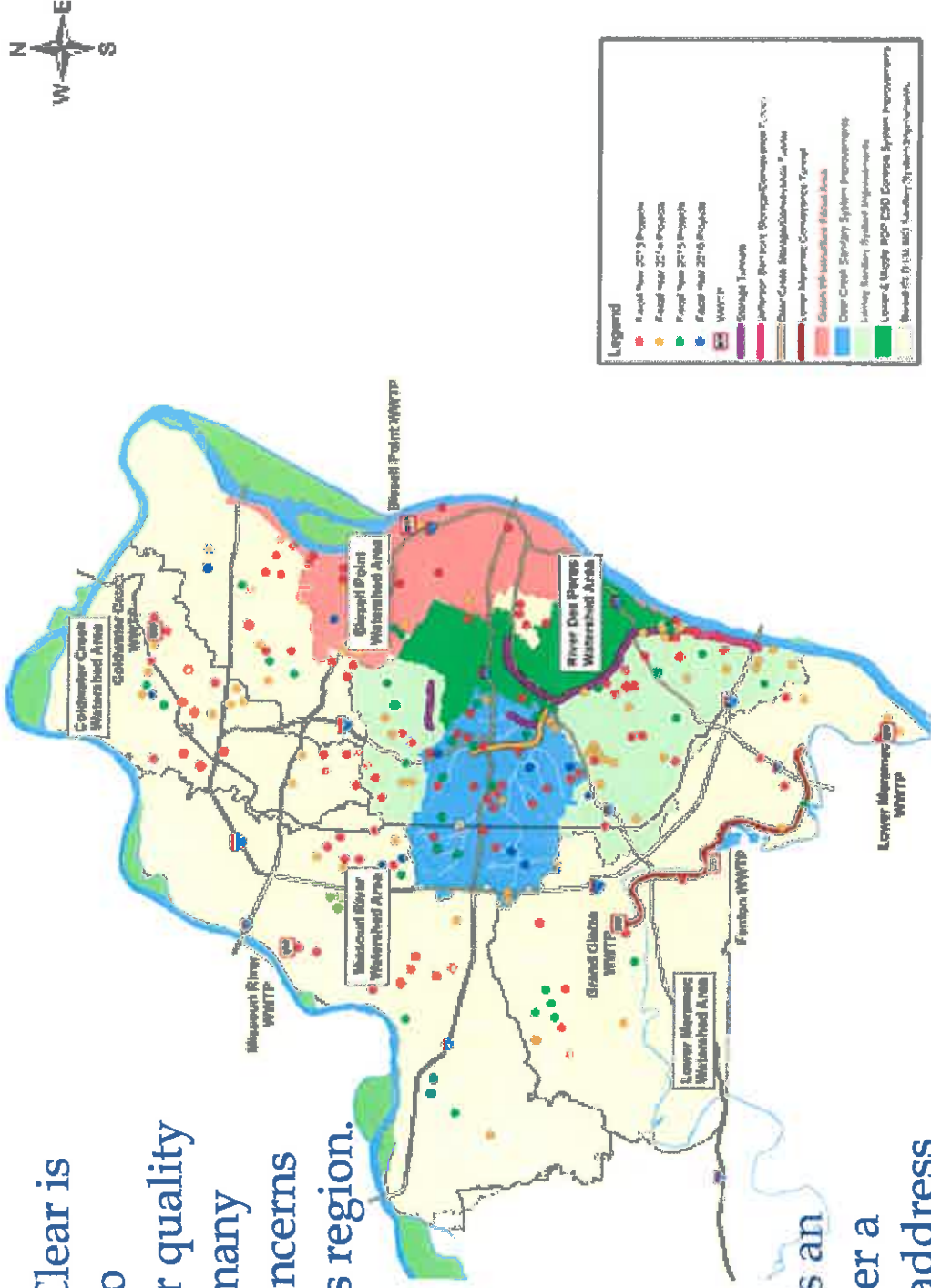
Who is MSD?

- 🌀 Serving customers for six decades
- 🌀 Covering 525 square miles
 - 90 municipalities
 - 1.3 million customers
- 🌀 Collecting and treating wastewater
 - 7 treatment plants
 - 356 MGD average total flow
- 🌀 Managing stormwater



What is Project Clear?

MSD Project Clear is the initiative to improve water quality and alleviate many wastewater concerns in the St. Louis region.



Project Clear is an investment over a generation to address infrastructure needs for the future.

Get the Rain Out

Repair & Maintain

Build System Improvements

- Stormwater Disconnections
- Rainscaping
- Citysheds
- Combined Sewer Separations

- System Maintenance
- System Inspection
- System Rehabilitation and Replacement
- Fats, Oil and Grease Control Program
- Emergency Response

- Tunnels
- Storage Tanks
- Relief Sewers
- High-Rate Treatment

What is a Wastewater Storage Tank?



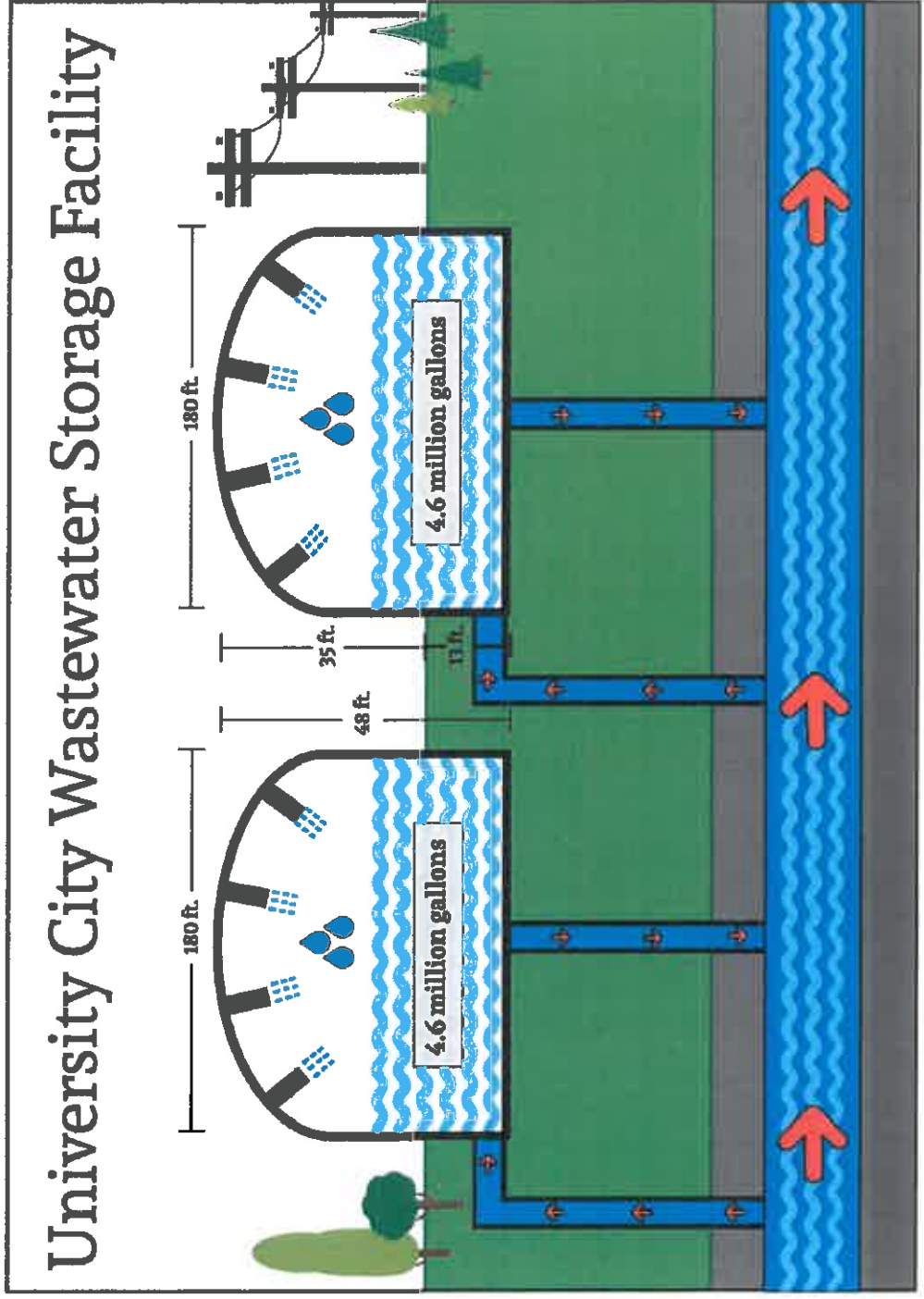
Why is this Project Needed?

This project will:

1. Reduce wastewater overflows (SSOs)
2. Reduce basement backups
3. Increase the reliability of our system



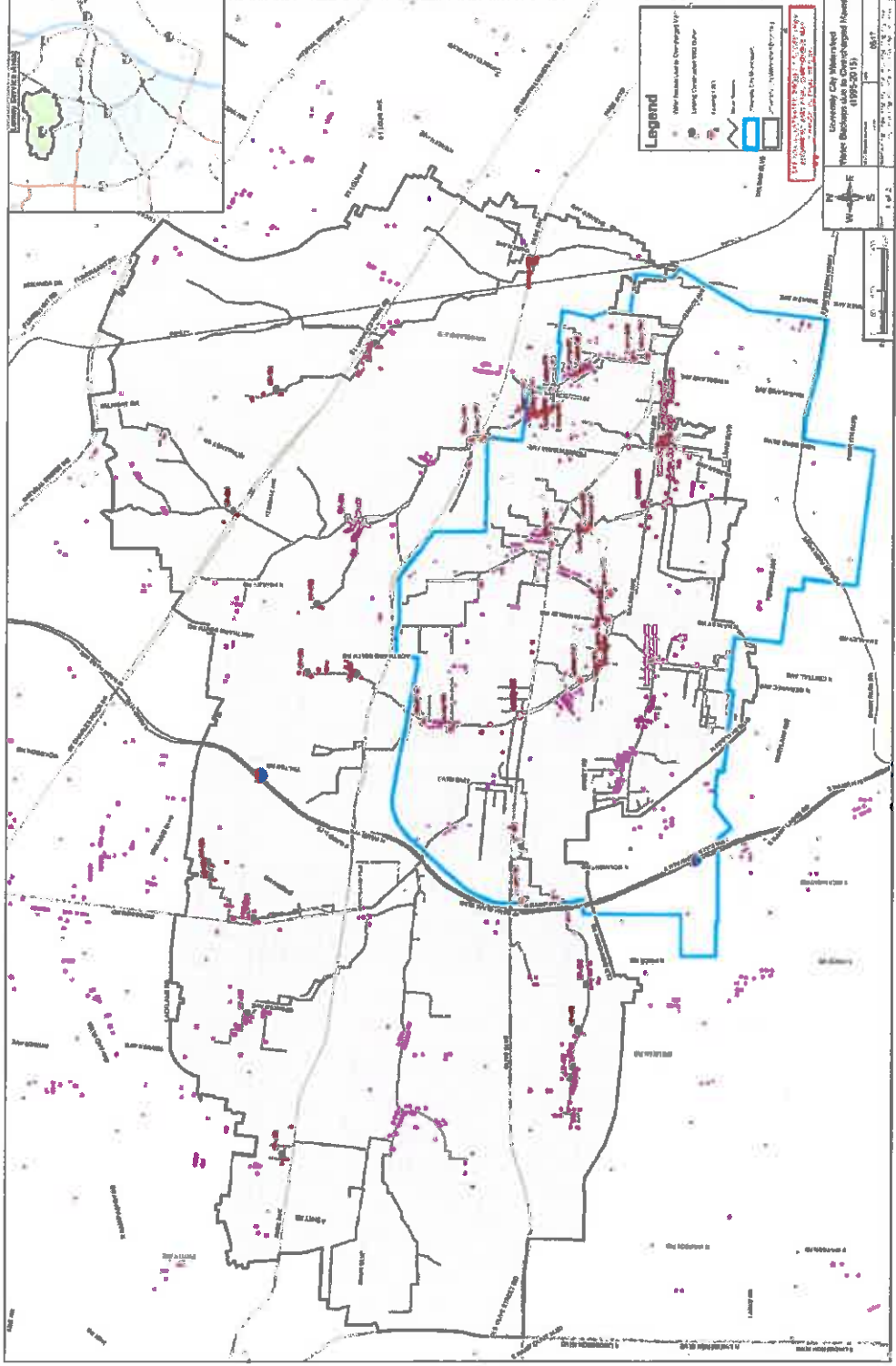
Project Components



Project Components (Continued)

- ④ Two tanks – 4.6 million gallons each
- ④ Connecting sewers
- ④ Pump station
- ④ Control building
- ④ Odor control

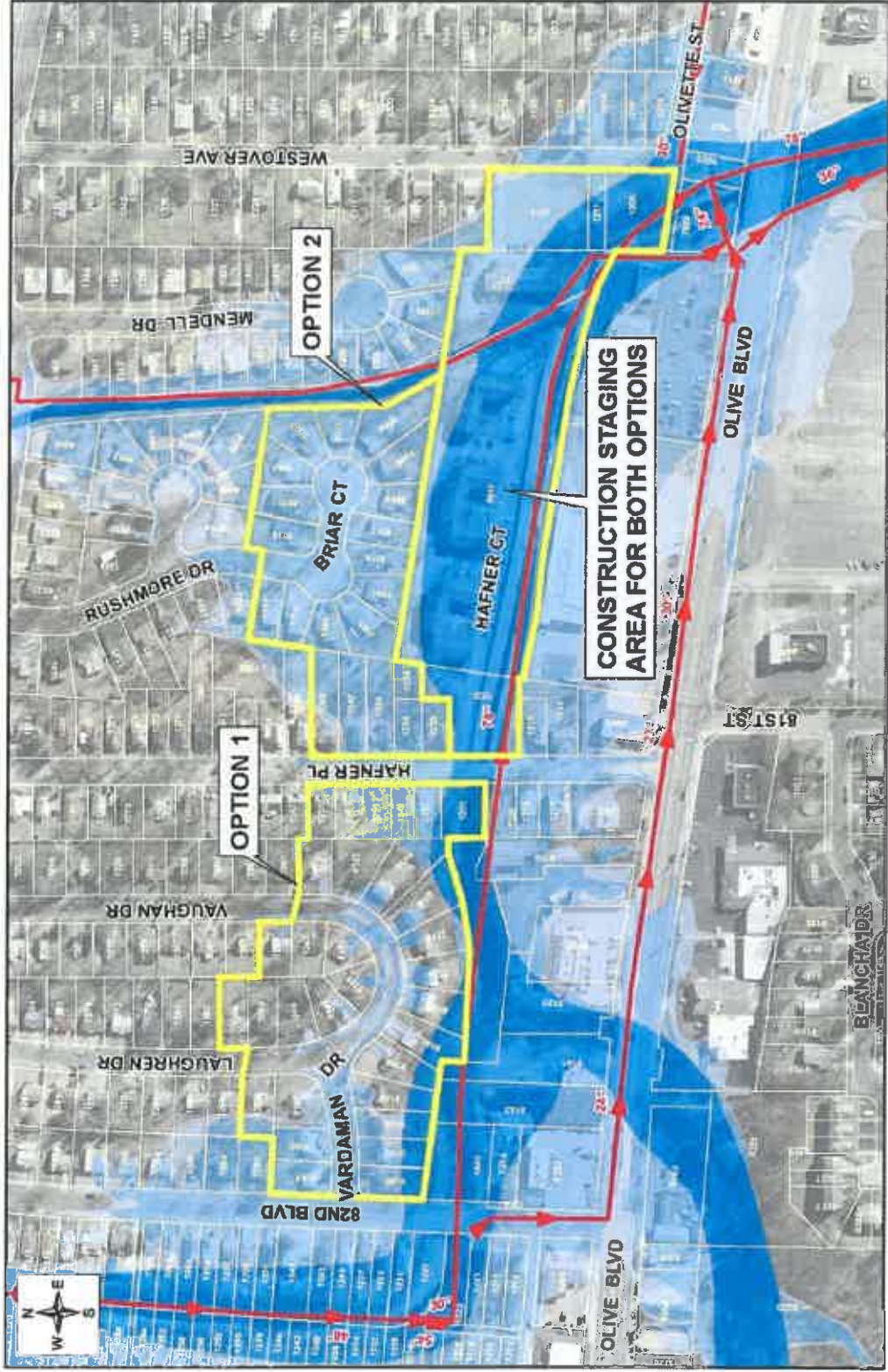
Why Build Them Here?



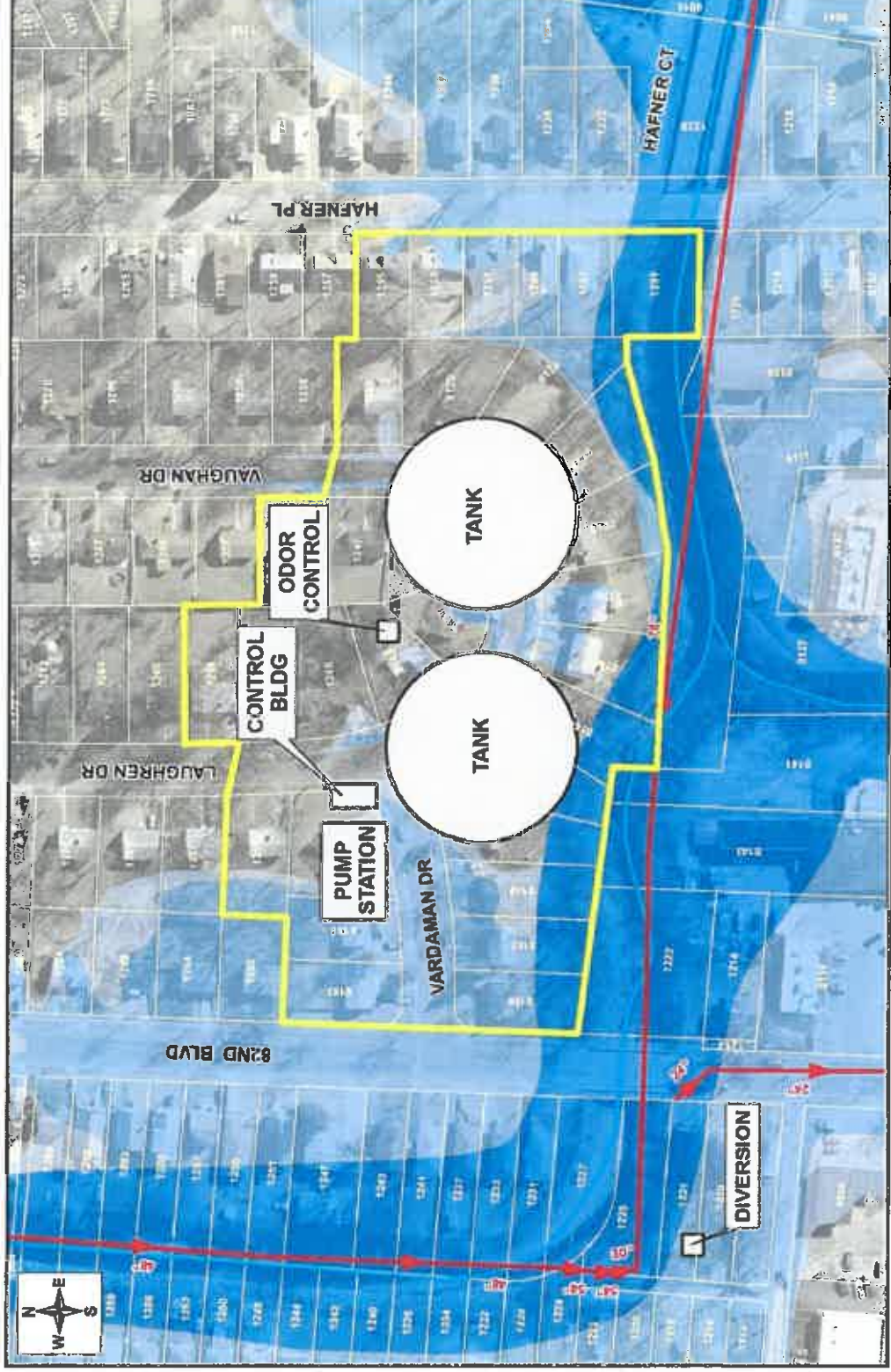
Why Here and Why Now?

- ④ Why Here?
 - Geographic junction of 3 large trunk sewers
 - Identified by computer modeling as the optimum location
 - Will utilize several properties with historical flooding problems
- ④ Why Now?
 - Required as part of MSD's Sanitary Sewer Overflow Plan submitted to EPA
 - To be completed prior to 82nd Street to I-170 (UR-08 and UR-09) Sanitary Relief

Site Options



University City - Option 1



Property view with possible facility location

University City - Option 1

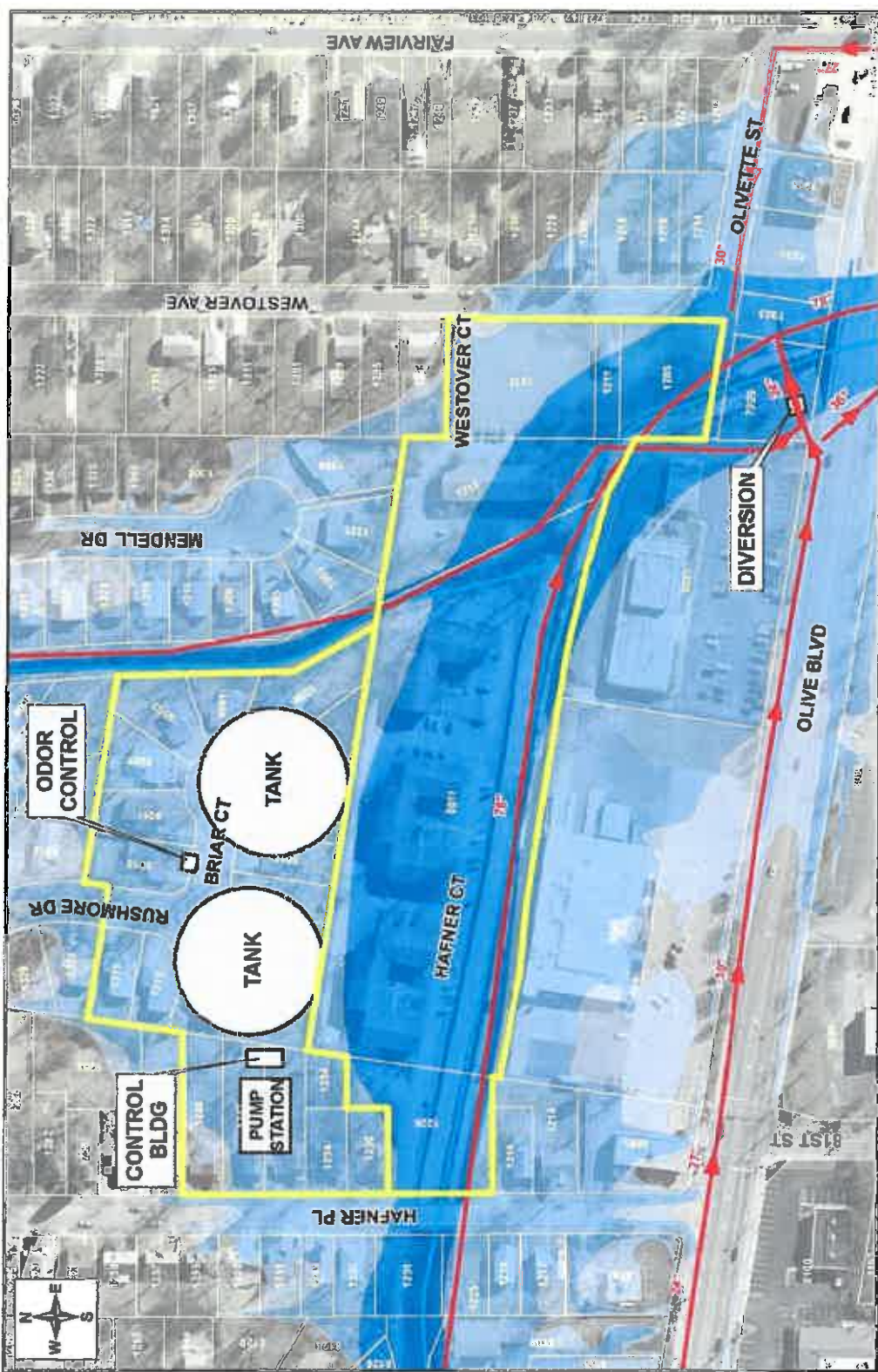


Aerial view

University City - Option 1

- ⑥ Area = 5.98 acres
- ⑥ 31 residential parcels
 - 14 Rental
 - 16 Owner occupied
 - 1 Vacant
- ⑥ 41% of area within 100-year floodplain
- ⑥ 18 homes within 100-year floodplain
- ⑥ 13% of area within floodway
- ⑥ Assumes Hafner Court Apartments would be acquired and the property used for construction staging

University City - Option 2



Property view with possible facility location

University City - Option 2



Aerial view

University City - Option 2

- ⑥ Area = 3.97 acres
- ⑥ 20 residential parcels
 - 8 Rental
 - 12 Owner occupied
- ⑥ 97% of area within 100-year floodplain
- ⑥ 19 homes within 100-year floodplain
- ⑥ 0.1% of area within floodway
- ⑥ Assumes Hafner Court Apartments would be acquired and the property used for construction staging

Hafner Court Area - Both Options

- 🕒 Area = 5.86 acres
- 🕒 2 residential parcels
- 🕒 2 medium density residential parcels
- 🕒 1 general commercial parcel
- 🕒 99% of area within 100-year floodplain
- 🕒 73% of area within floodway
- 🕒 Apartments are within the floodway
- 🕒 Apartments property would be restored to green space following construction

Advantages/Disadvantages

Option 1

- ④ Larger area for facility layout
- ④ Displaces 30 homes - 18 in the floodplain
- ④ More connecting sewers required
- ④ Converts flood prone properties to a beneficial use
- ④ Supports University City's FEMA buyout

Option 2

- ④ Smaller area for facility layout
- ④ Displaces 20 homes - 19 in the floodplain
- ④ Less connecting sewers required
- ④ Converts flood prone properties to a beneficial use
- ④ Supports University City's FEMA buyout



Thank You!

Federal FY16 FEMA Flood Mitigation Assistance Grant

Voluntary Buy-Out



Background

06/2013	Flood	Approximately 135 properties damaged, including basement flooding and loss of mechanical and electrical appliances. 2 losses of life during the event, approximately 250 properties damaged, including basement flooding, first floor flooding, loss of mechanical and electrical appliances and damage to exterior of homes. 24 homes were bought and demolished as part of the HMGP.	\$780,000
09/2008	Flood	Flooding of basements and damage to mechanical equipment as well as property damage, including trees, outdoor furniture, etc.	\$1,700,000 \$4,000,000 buyout
1979	Flood	Flooding of basements and damage to mechanical equipment as well as property damage, including trees, outdoor furniture, etc.	unknown
1973	Flood	Flooding of basements and damage to mechanical equipment as well as property damage, including trees, outdoor furniture, etc.	unknown



Location

- ▶ 8033–8056 Hafner Ct.
- ▶ 8011–8024 Hafner Ct.
- ▶ 8061–8082 Hafner Ct.



Map 1



Map 2



Grant Award

- ▶ \$3,331,000.00
 - Appraisal and title services
 - Purchase property
 - Move tenants
 - Demolition property



Current status of the grant

- ▶ Federal FY16 FMA grant has been awarded to the City
- ▶ Chris Kalter (Project Manager) attended grant orientation at SEMA HQ in Jefferson City.
- ▶ SEMA has given the City the go ahead to move forward with the project.
- ▶ City is waiting for grant agreement paperwork from SEMA.



Can the City use the grant funding to purchase other properties in the City?

- ▶ No – during orientation this question was asked of SEMA.
- ▶ This money can only be used for the 3 Hafner Ct. properties.
- ▶ If the City declines the grant the money goes back into the FEMA grant pool.
- ▶ Declining the grant does not affect the City's ability to get future grants.
- ▶ SEMA stated that entities turn down the funding regularly.



Thoughts

- ▶ MSD needs to commit to purchasing the property.
- ▶ This would limit the City's liability.
- ▶ The FMA grant requires property purchased with this funding to be placed in a land easement for perpetuity.
- ▶ No building on the property at any point in the future.

