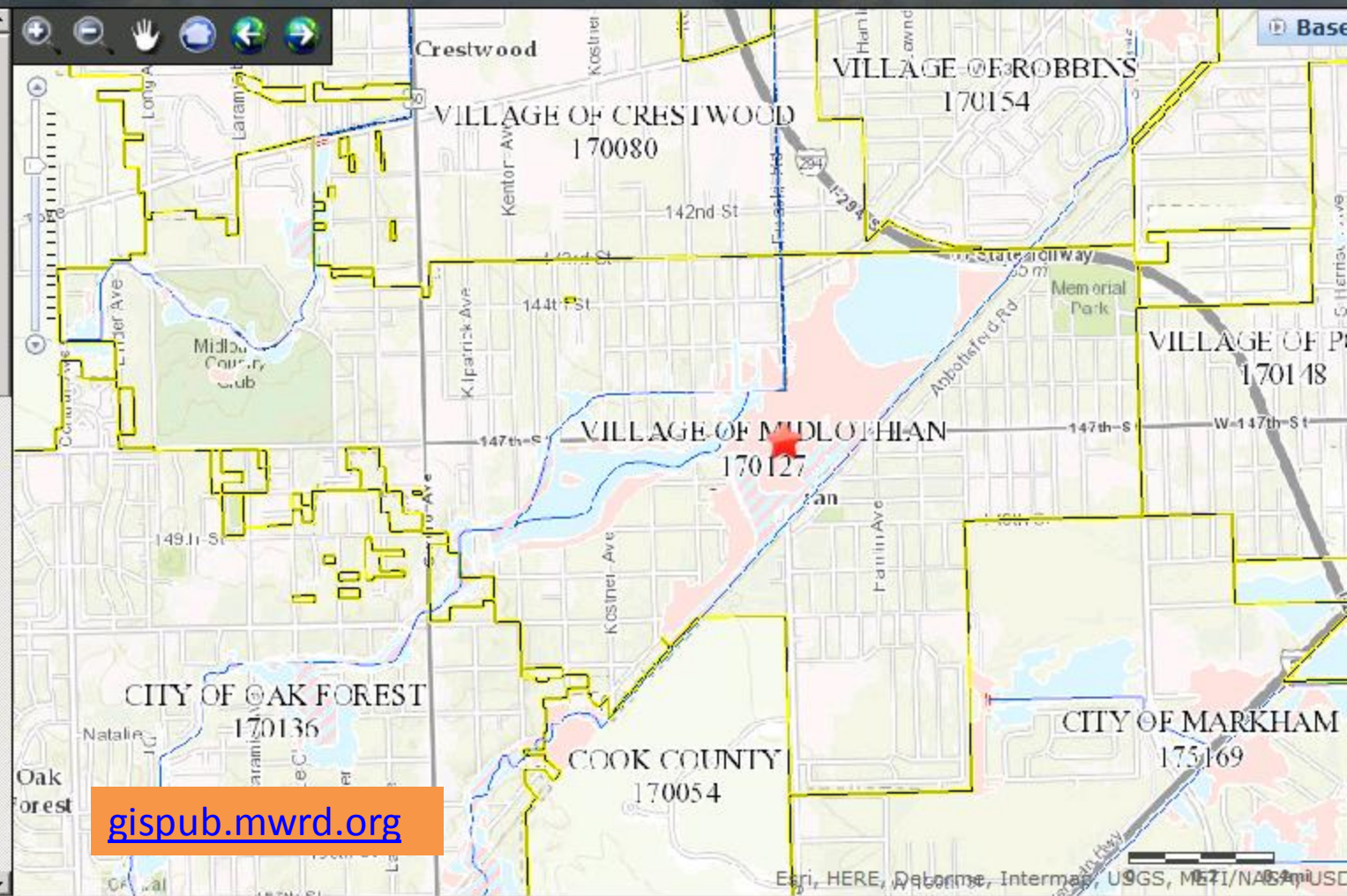


Stormwater Inundation Mapping Application

Metropolitan Water Reclamation District of Greater C

Map Content

- FIRM Panels
- MWRD Stormwater Data
- Modeled Waterways
- MWRD 100-yr Cross Sections
- MWRD 100-yr Inundation Area
- FEMA FIS Information
- NFHL Availability
- LOMRs
- LOMAs
- FIRM Panels
- Base Index
- PLSS
- Topological Low Confidence Areas
- River Mile Markers
- Datum Conversion Points
- Coastal Gages
- Gages
- Nodes
- High Water Marks



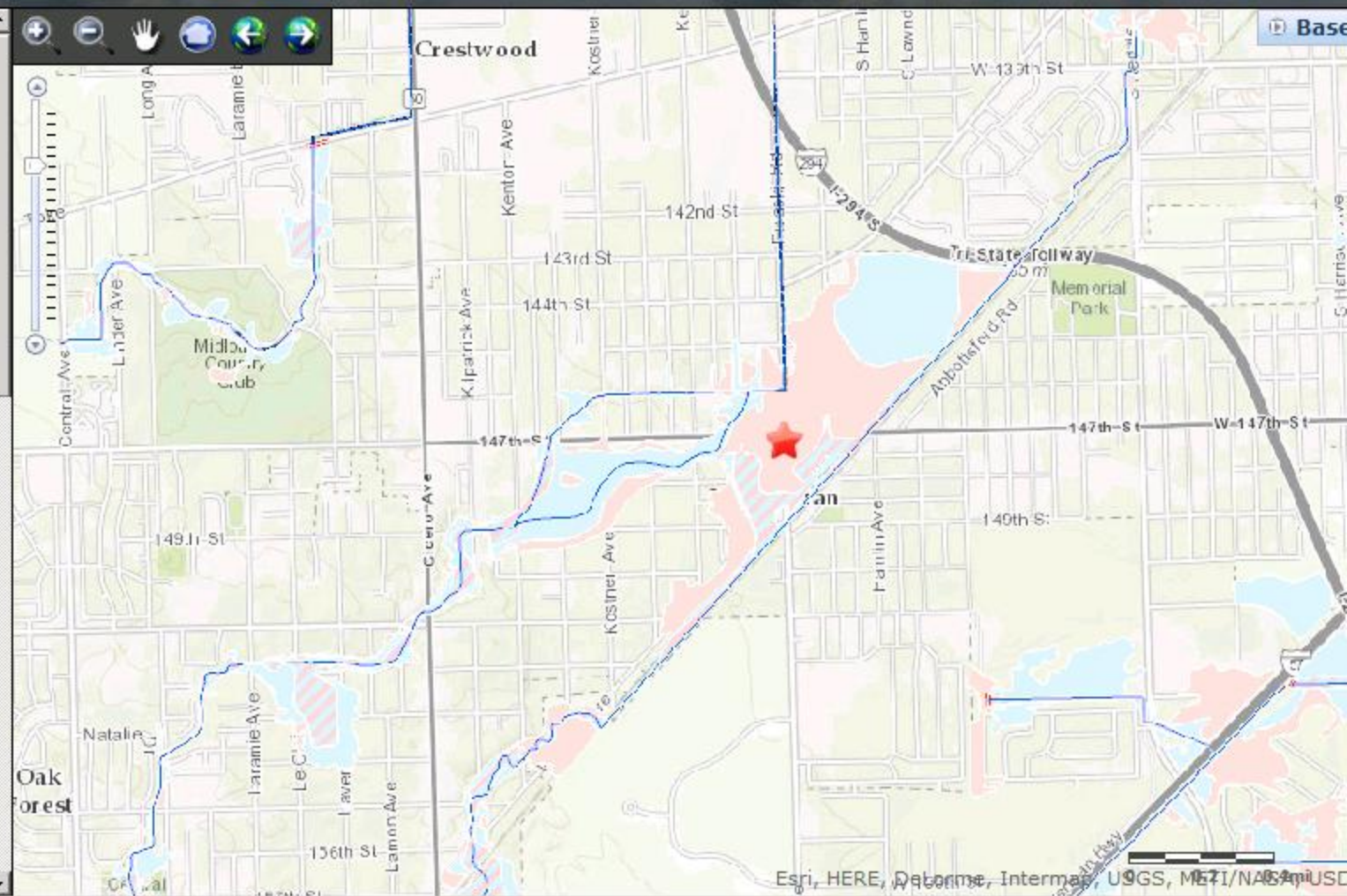
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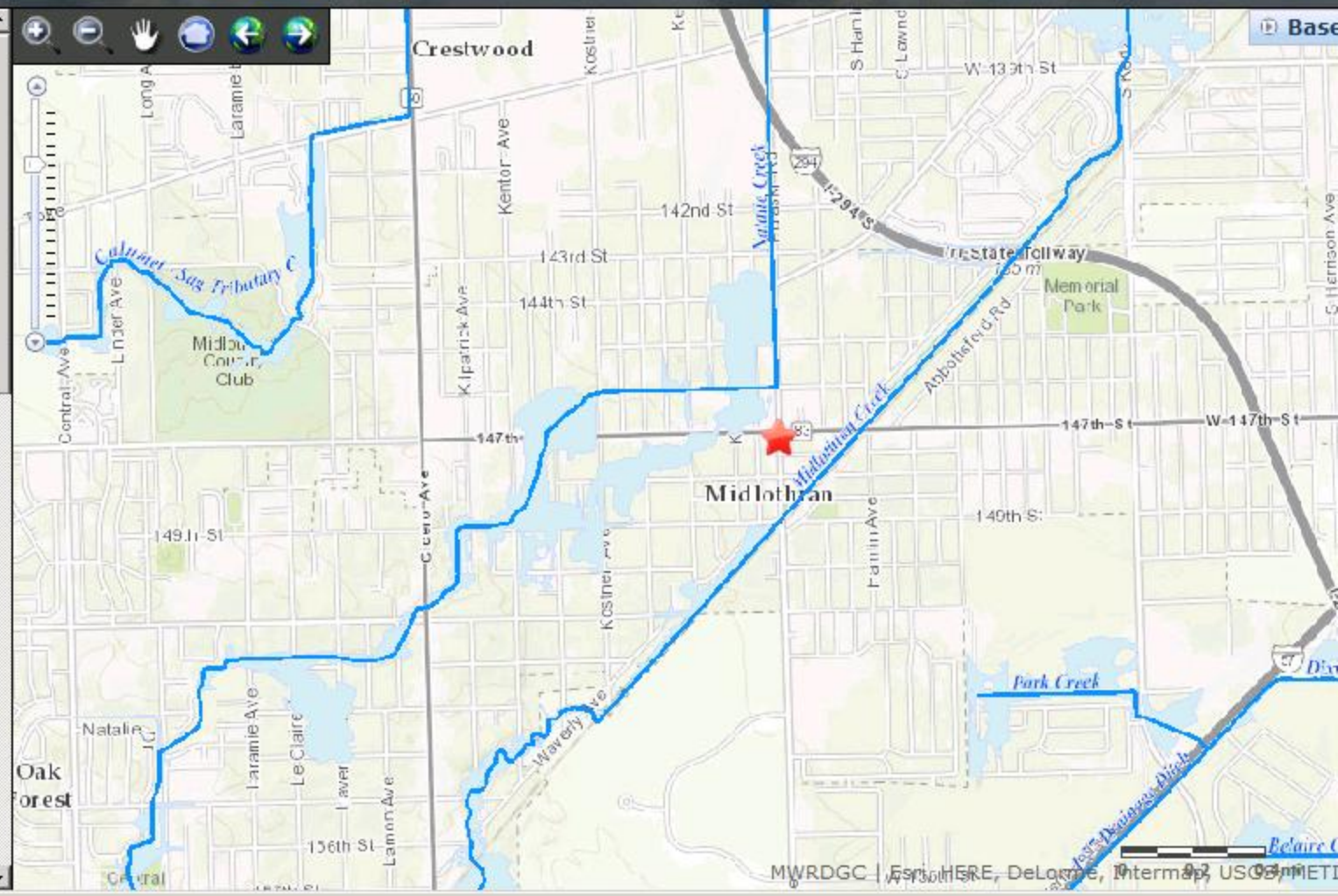


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Metropolitan Water Reclamation District of Greater C

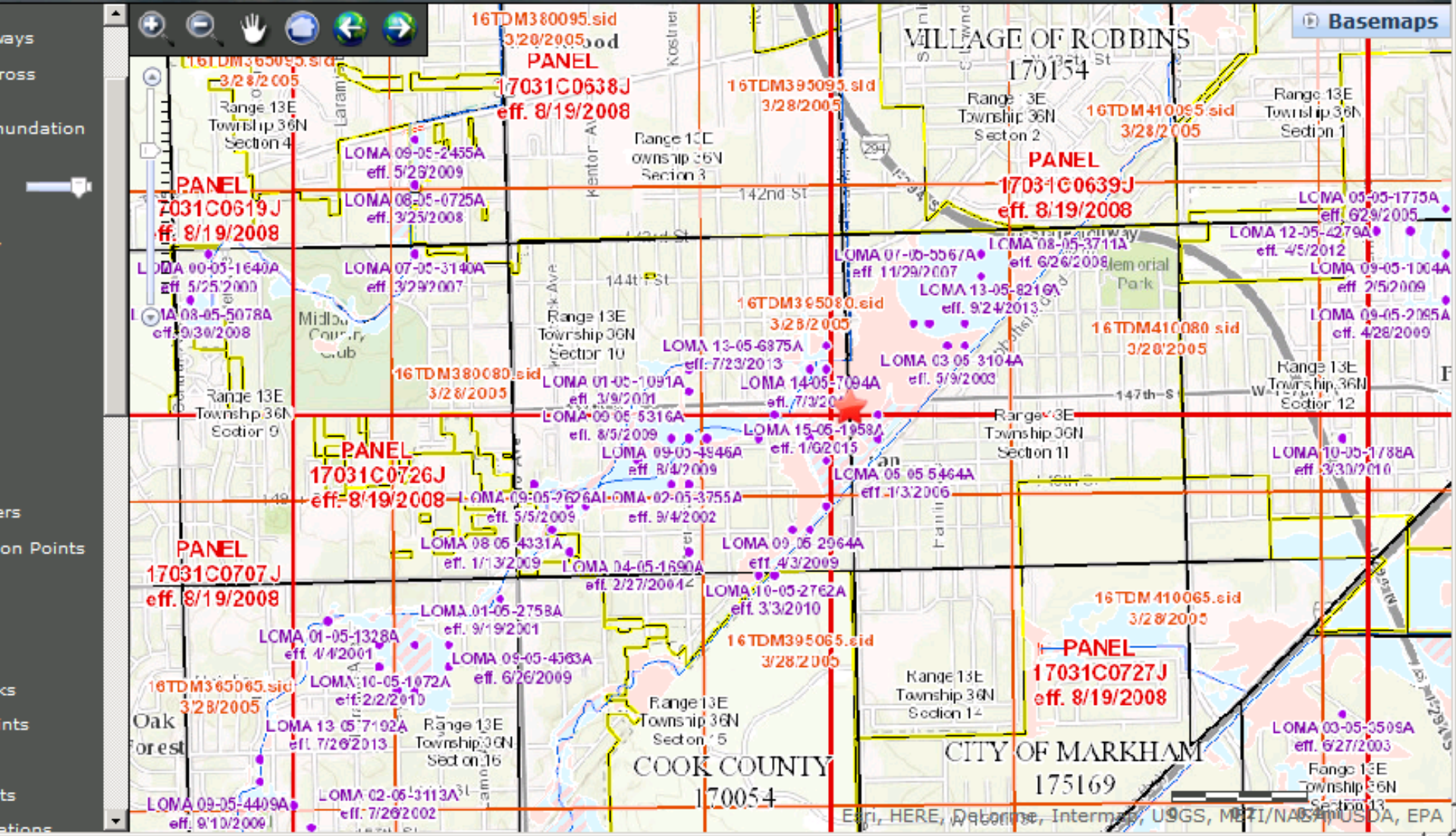
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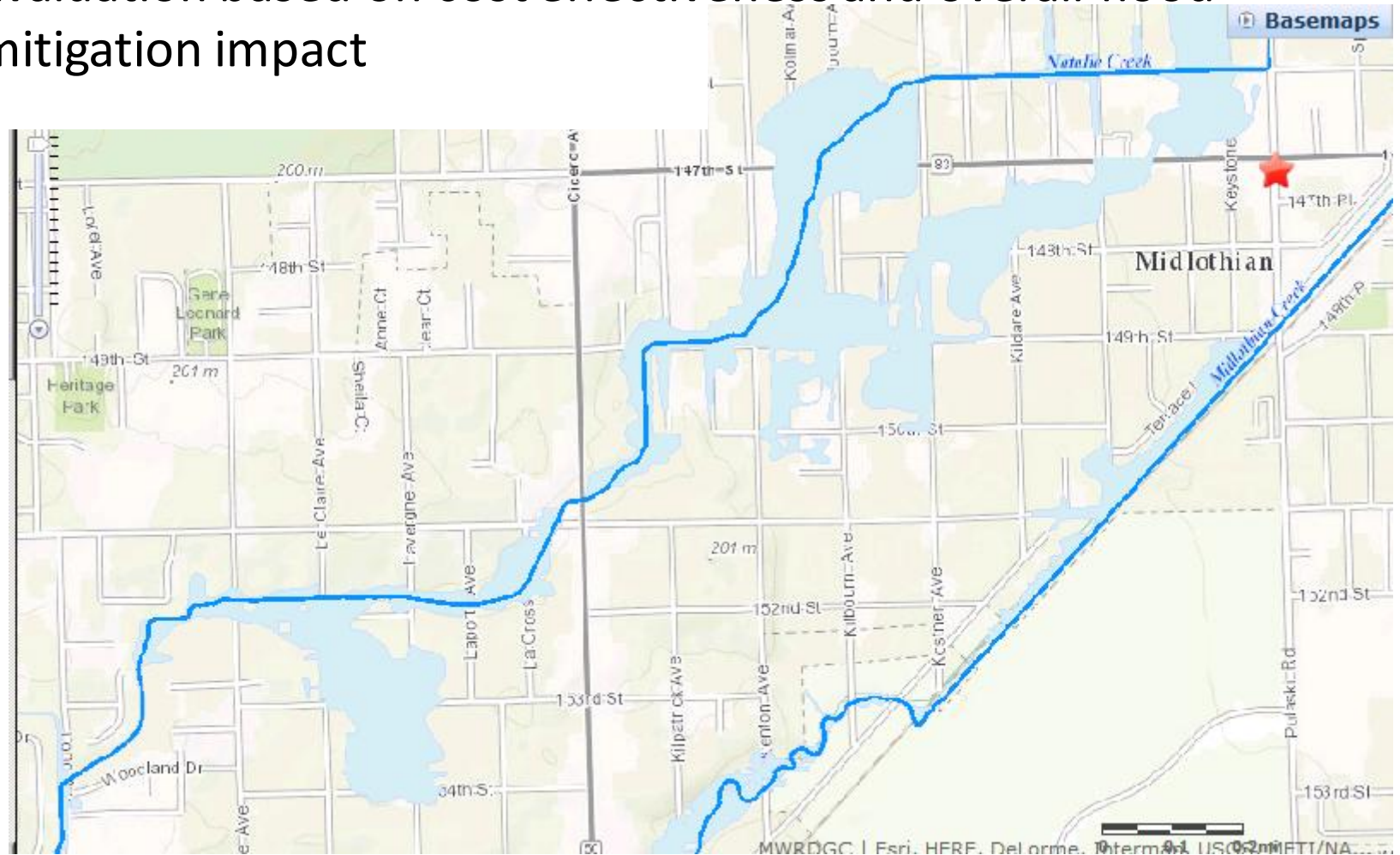
Inundation Mapping Application

Metropolitan Water Reclamation District of Greater Chicago



Natalie Creek

- Evaluate from 153rd and Lavergne to 146th and Pulaski
- Compare alternatives and develop others to be considered for implementation. (See potential alternatives on next slide.)
- Evaluation based on cost effectiveness and overall flood mitigation impact



Natalie Creek Alternatives

From DWP:

- New detention basin facility at LeClaire Avenue and 153rd Street, including a pump station and a control structure at Lavergne Avenue.
- Culvert improvements (to increase the hydraulic capacity of Natalie Creek at LeClaire Avenue) consisting of increasing existing twin box culverts
- Culvert improvements to increase the capacity of Karlov Avenue consisting of increasing the opening
- New diversion conduit from 149th Street and Kilpatrick, along 149th Street, to Keystone Avenue, then north on Keystone Avenue to 146th Street, and then east along 146th Street to Pulaski Road, where the new diversion conduit will join the existing Natalie Creek diversion conduit.
- Concrete lined channel from Keystone Avenue to Pulaski Road.
- Floodwall upstream of LeClaire Avenue

New:

- “Oak Creek Plaza” detention basin modifications (near 159th Street and Central Avenue)
 - upstream of affected area, see if can be increased in effectiveness
- Potentially other alternatives.

Some potential alternatives, & potential improvements *based on modeling*

Figure 3.4.11

MIDLOTHIAN CREEK ALTERNATIVE NTCR-G1
Little Calumet River DWP

Alternative Description:
Construct a 190 ac-ft detention facility at Ledale Avenue and 153rd street and a 6800 LF diversion conduit from Kilpatrick to Keystone Avenue

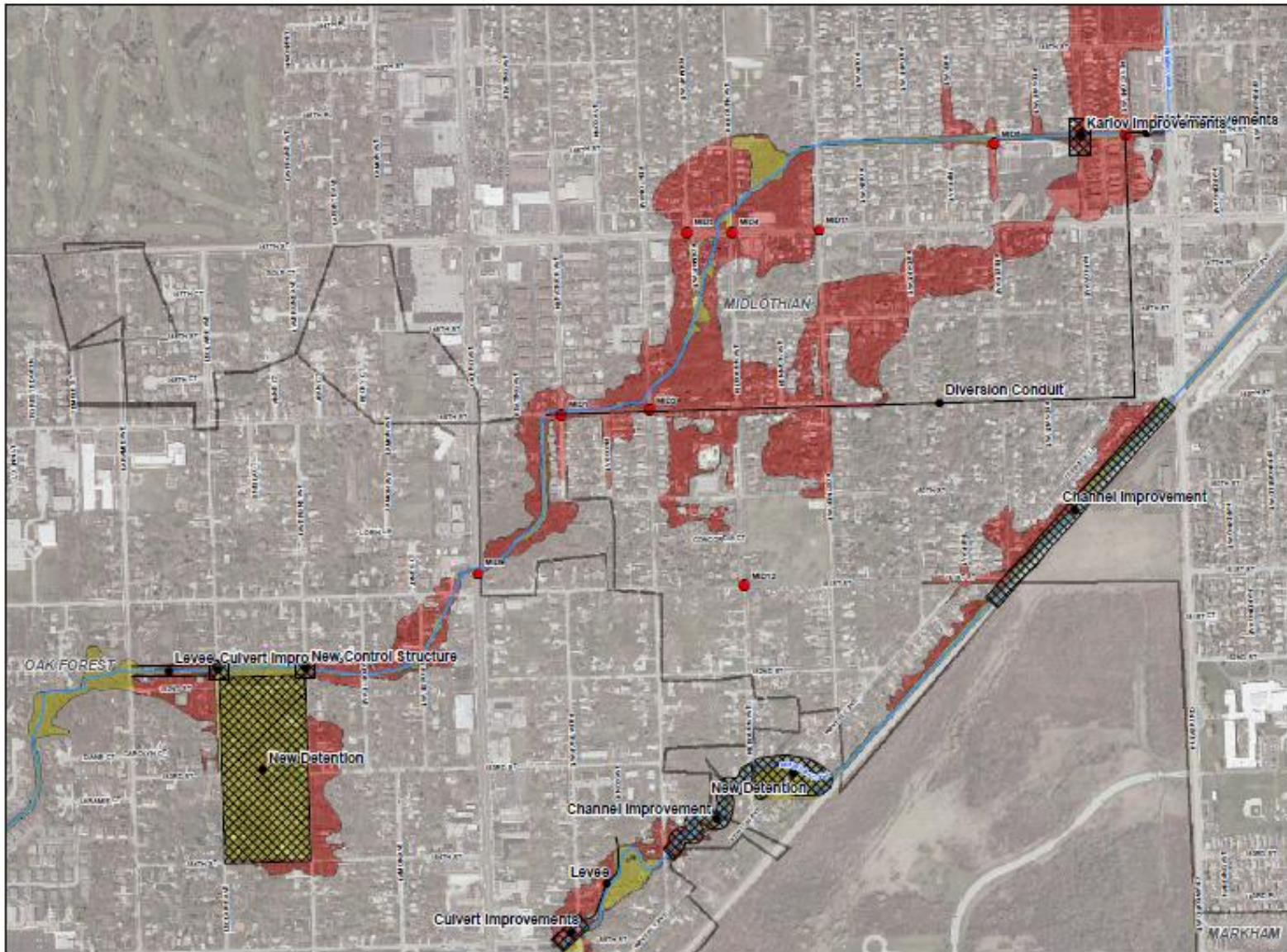
Conceptual Level Cost: \$61,940,000
Benefit: \$14,700,000
B/C Ratio: 0.24

Legend:

- Candidate Structures for Floodproofing/Acquisition:** * (star symbol)
- Regional Problems:**
 - Bank Erosion (red square)
 - Maintenance (red triangle)
 - Overbank Flooding (red circle)
 - Pavement Flooding (red diamond)
- Local Problems:**
 - Bank Erosion (blue square)
 - Maintenance (blue triangle)
 - Pavement Flooding (blue circle)
 - Storm Sewer Flow Restriction (blue diamond)
- Other Symbols:**
 - River/Stream (blue line)
 - Municipalities (black outline)
 - County Boundary (grey outline)
 - Project Alternative Location (hatched box)
 - 100-year Inundation Area With Project (yellow fill)
 - 100-year Inundation Area Without Project (red fill)

1 inch = 750 feet

CDM
December, 2009



Natalie Creek Status and Process

- Currently starting the preliminary engineering
- Will ID & evaluate alternatives, start with DWP
 - Investigate most effective alternatives
- Find preferred solution, take to 30% design stage
- District will decide how to move forward from there