Figure 3.7.1

THORN CREEK SUBWATERSHED OVERVIEW

Little Calumet River DWP

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding
- Problem Area Identified Through Modeling
- Candidate Structures for Floodproofing/Acquisition
- Project Alternative Location
- River/Stream
- Municipal Boundary
- County Boundary
- DWP 100-year Inundation Area

FEMA Floodplain
- Zone A; Zone AH; Zone AO
- Zone AE

N

1 inch = 5,500 feet

0 1 2
Inches

CDM

December, 2009

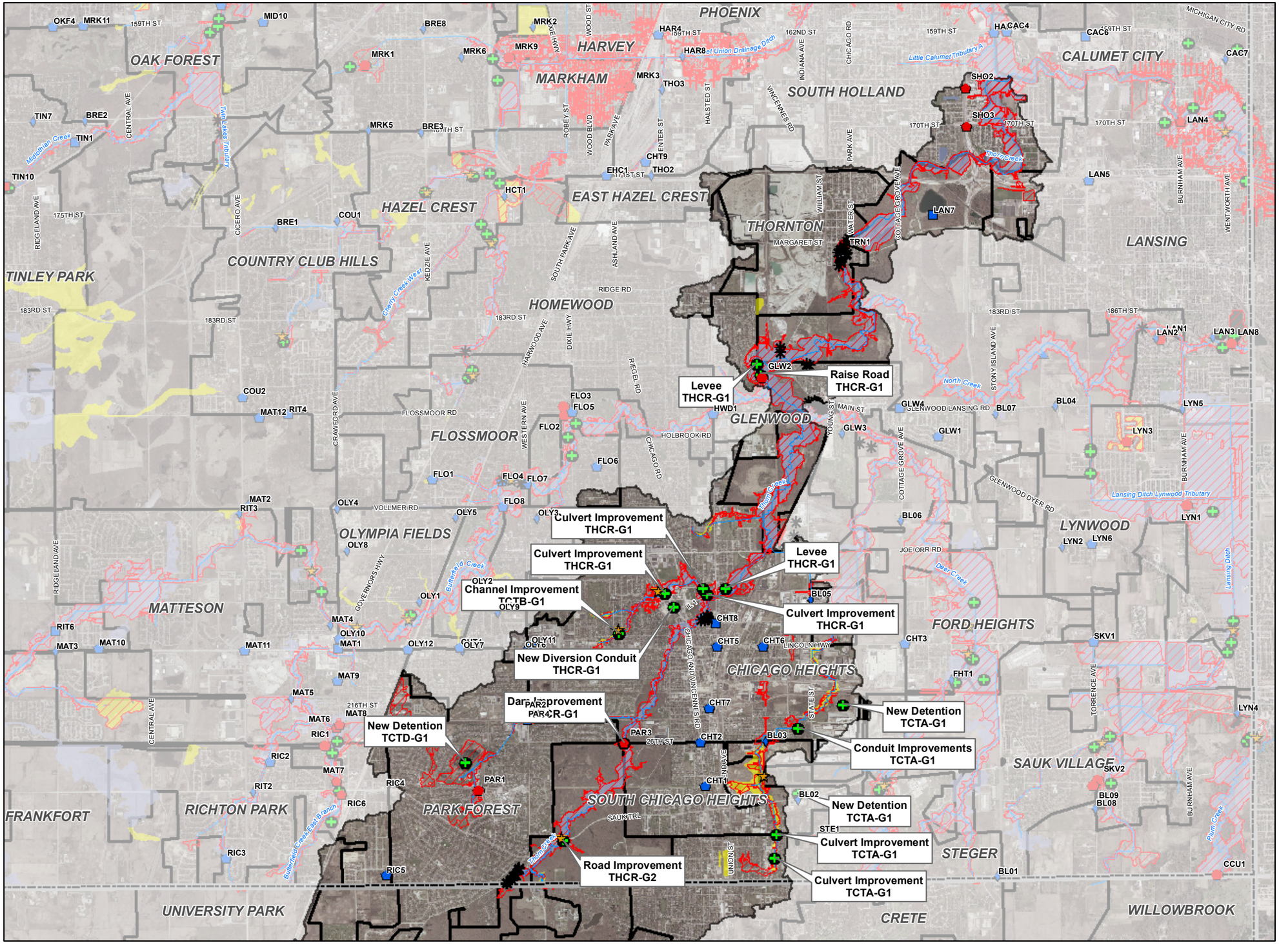


Figure 3.7.6a

THORN CREEK
ALTERNATIVE
THCR-G1 (1 of 3)
Little Calumet River DWP

Alternative Description:
Channel capacity improvements along Thorn Creek Tributary B, levees along Thorn Creek, a diversion conduit and modifications to Sauk Lake Dam

Conceptual Level Cost:
$37,660,000
Benefit: $717,000
B/C Ratio: 0.02

- Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

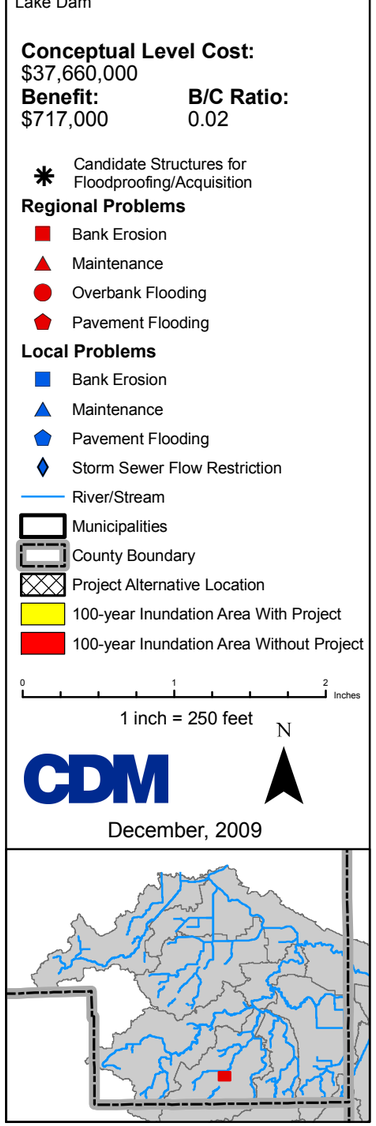
0 1 2 Inches

1 inch = 250 feet

N

CDM

December, 2009



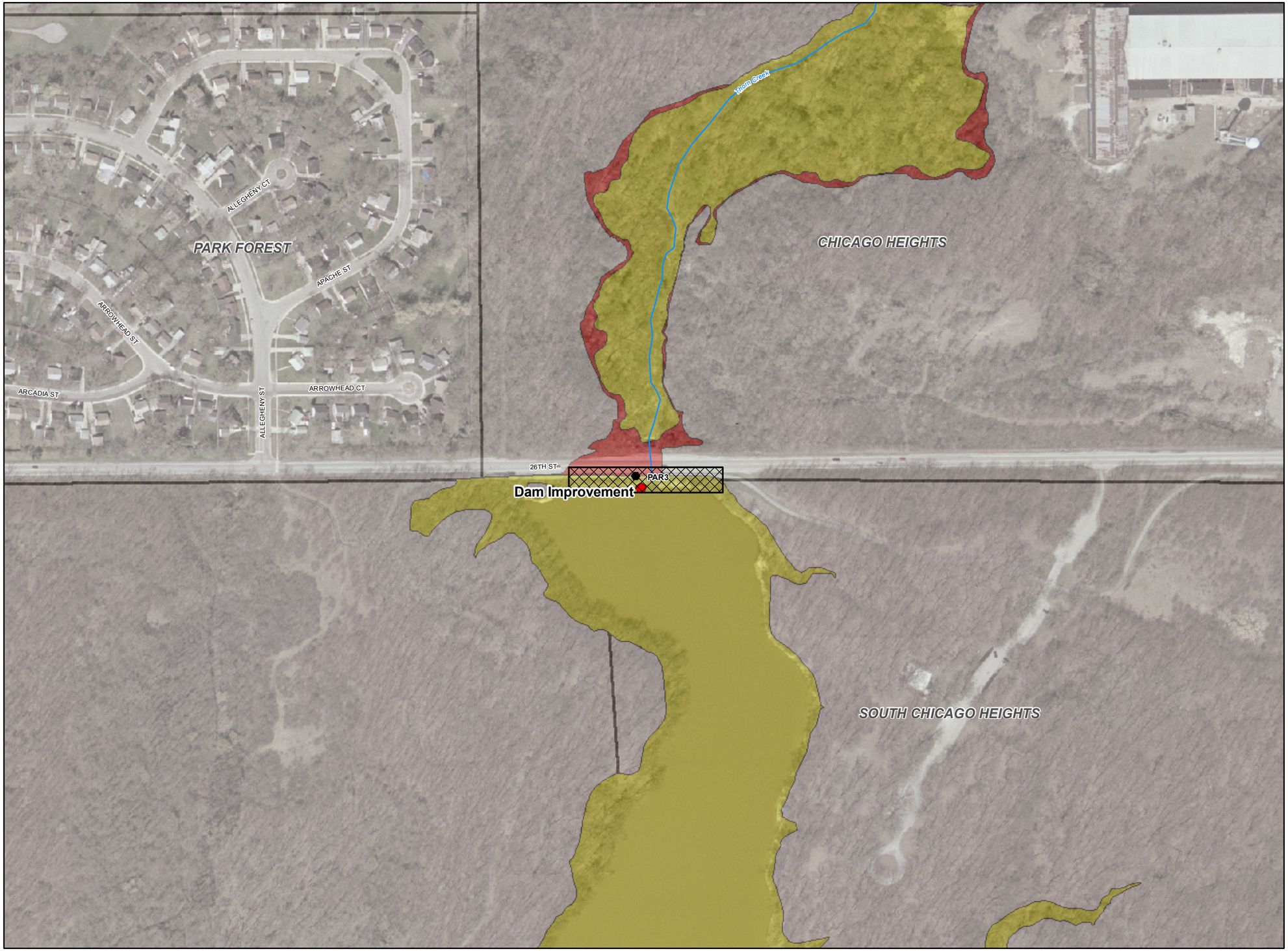


Figure 3.7.6b

THORN CREEK
ALTERNATIVE THCR-G1 (2 of 3)
Little Calumet River DWP

Alternative Description:
Channel capacity improvements along Thorn Creek Tributary B, levees along Thorn Creek, a diversion conduit and modifications to Sauk Lake Dam

Conceptual Level Cost:
$37,660,000

Benefit: $717,000

B/C Ratio: 0.02

Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

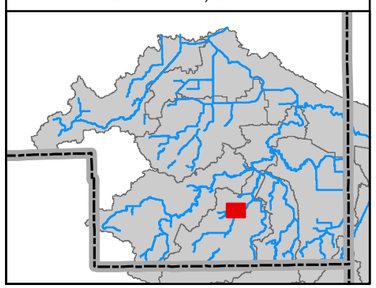
0 1 2 Inches

1 inch = 400 feet

N

CDM

December, 2009



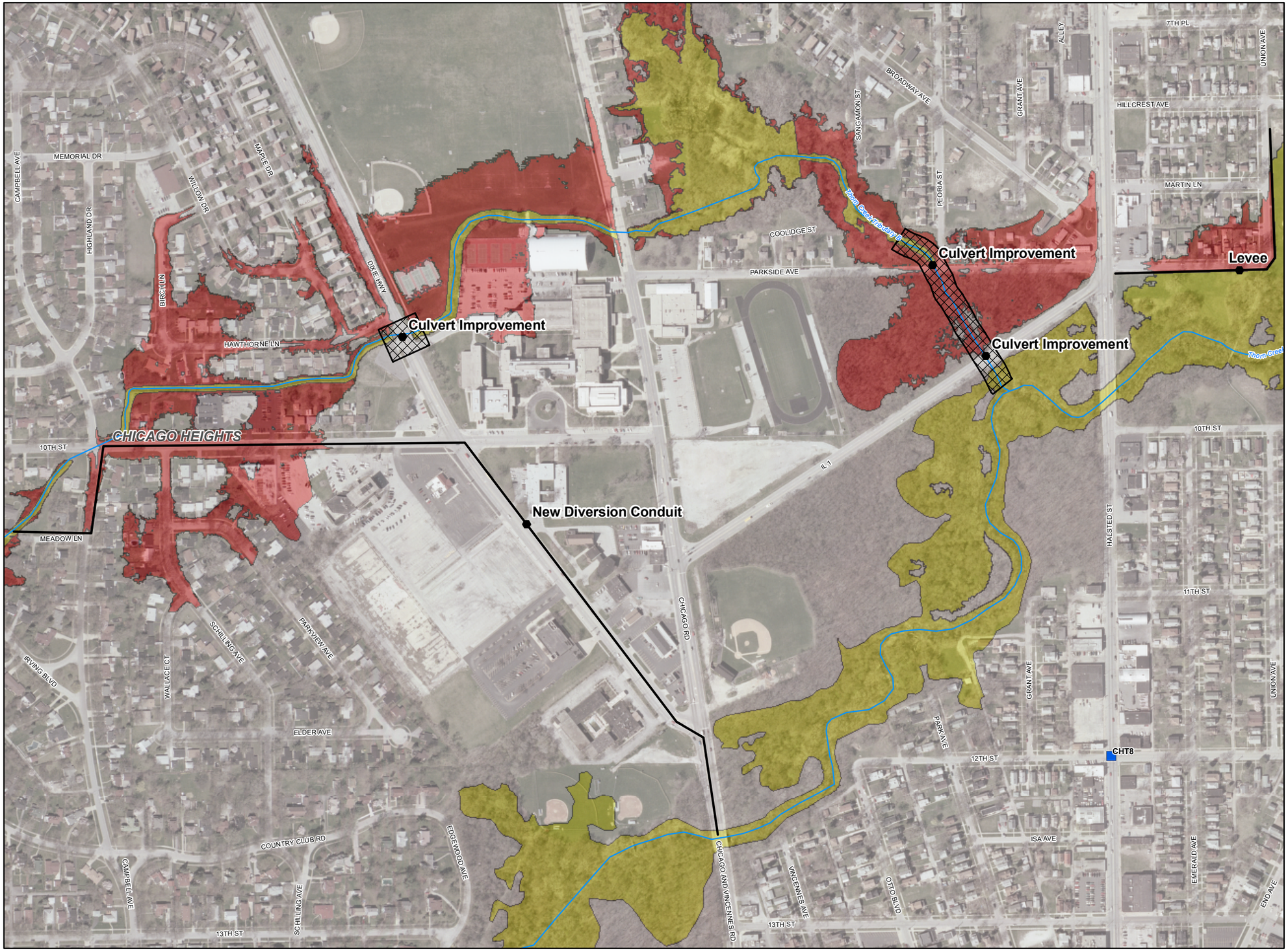


Figure 3.7.6c

THORN CREEK
ALTERNATIVE
THCR-G1 (3 of 3)
Little Calumet River DWP

Alternative Description:
Channel capacity improvements along Thorn Creek Tributary B, levees along Thorn Creek, a diversion conduit and modifications to Sauk Lake Dam

Conceptual Level Cost:
$37,660,000

Benefit: $717,000

B/C Ratio: 0.02

Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

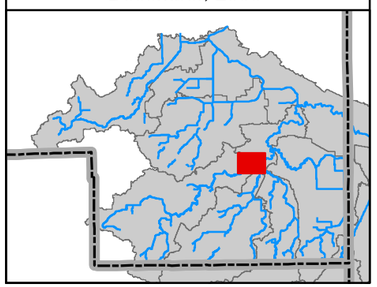
0 1 2 Inches

1 inch = 600 feet

N

CDM

December, 2009



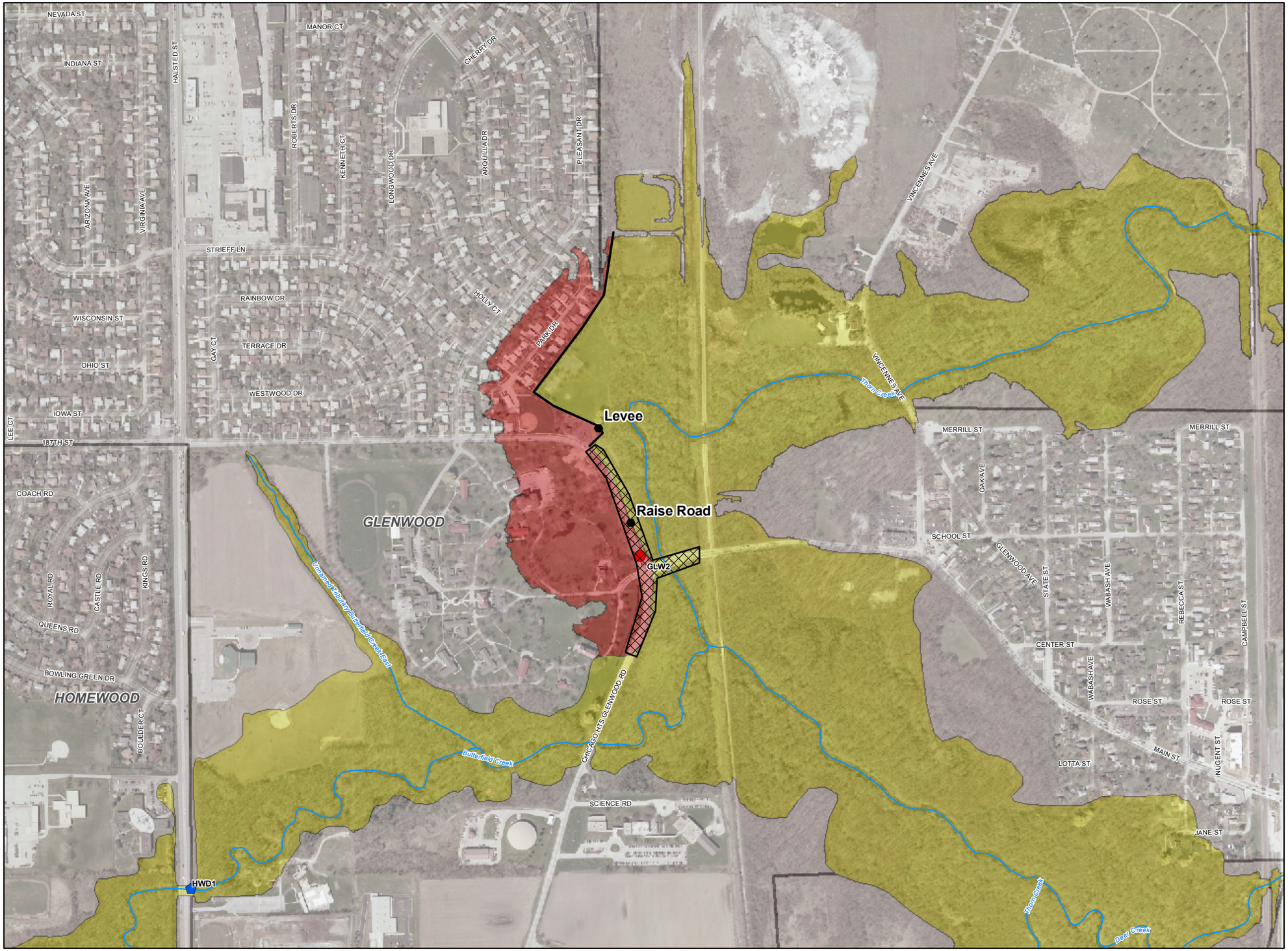


Figure 3.7.7

THORN CREEK
ALTERNATIVE
THCR-G2
Little Calumet River DWP

Alternative Description:
Modify the roadway profile of Sauk Trail Road

Conceptual Level Cost:
$2,543,000
Benefit: **B/C Ratio:**
$1,600,000 0.63

Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

0 1 2 Inches

1 inch = 250 feet

N

CDM

December, 2009

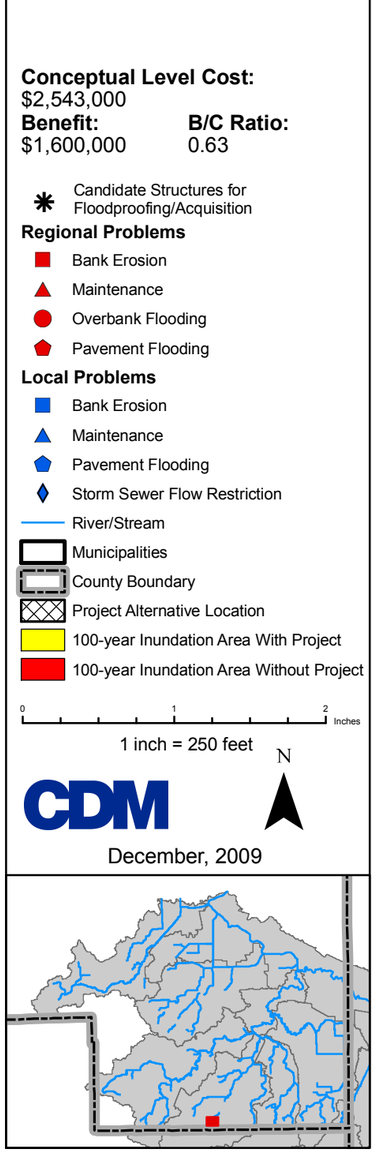


Figure 3.7.8

THORN CREEK
ALTERNATIVE TCTA-G1
Little Calumet River DWP

Alternative Description:
Replace culvert from 26th Street and Stewart Avenue to State Street and 22nd Street

Conceptual Level Cost:
$89,000,000

Benefit: $1,415,000

B/C Ratio: 0.02

✱ Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

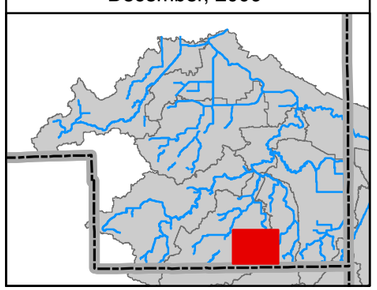
0 1 2 Inches

1 inch = 1,000 feet

N

CDM

December, 2009



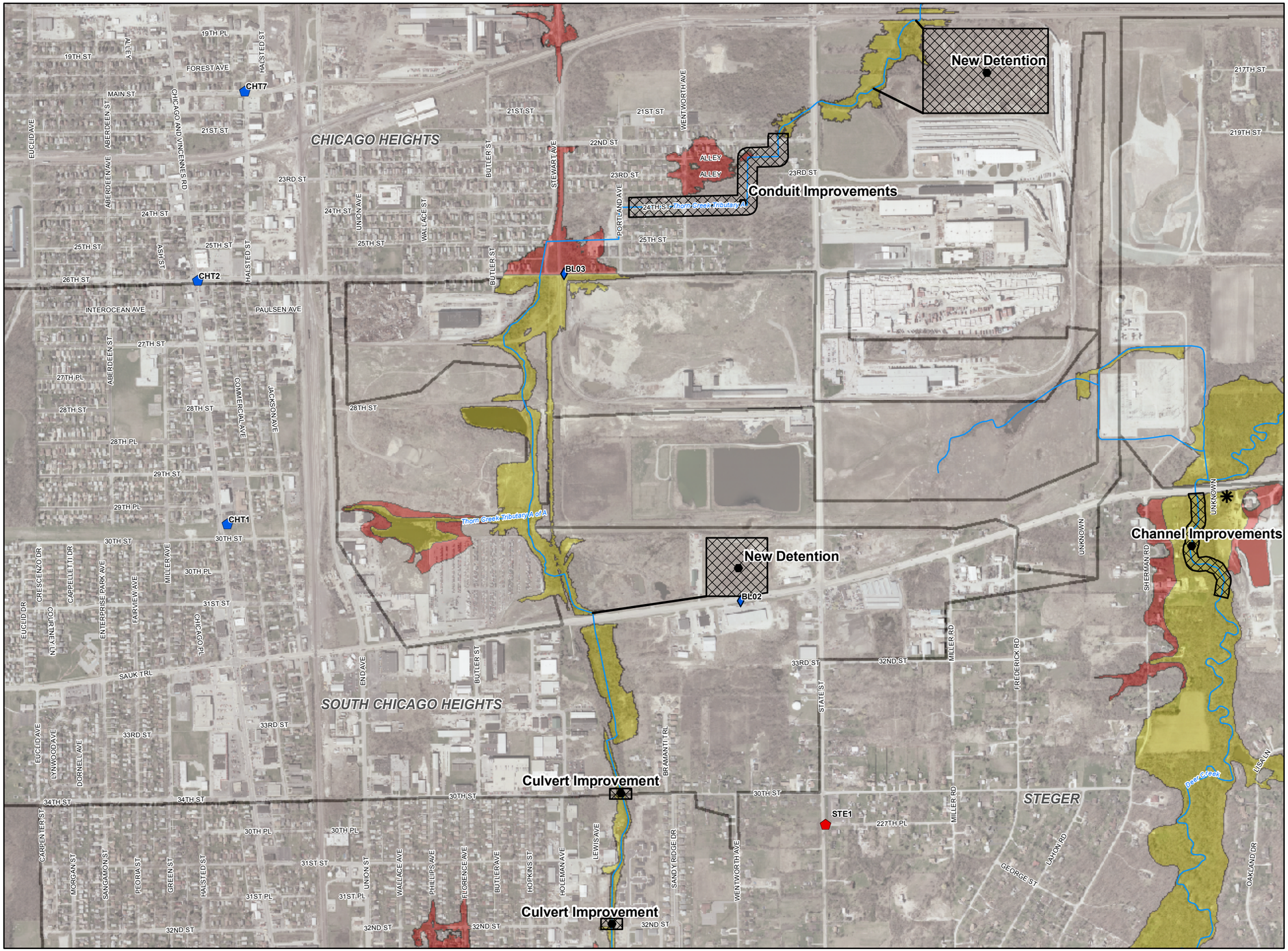


Figure 3.7.9

THORN CREEK
ALTERNATIVE TCTB-G1
Little Calumet River DWP

Alternative Description:
Channel improvements along Thorn Creek Tributary B

Conceptual Level Cost:
$6,900,000

Benefit: $8,000

B/C Ratio: < 0.01

✱ Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

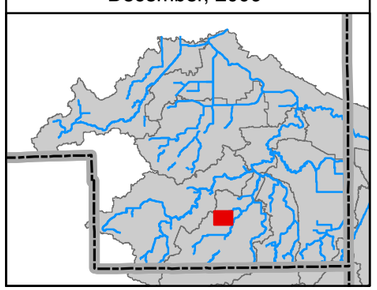
0 1 2 Inches

1 inch = 400 feet

N

CDM

December, 2009



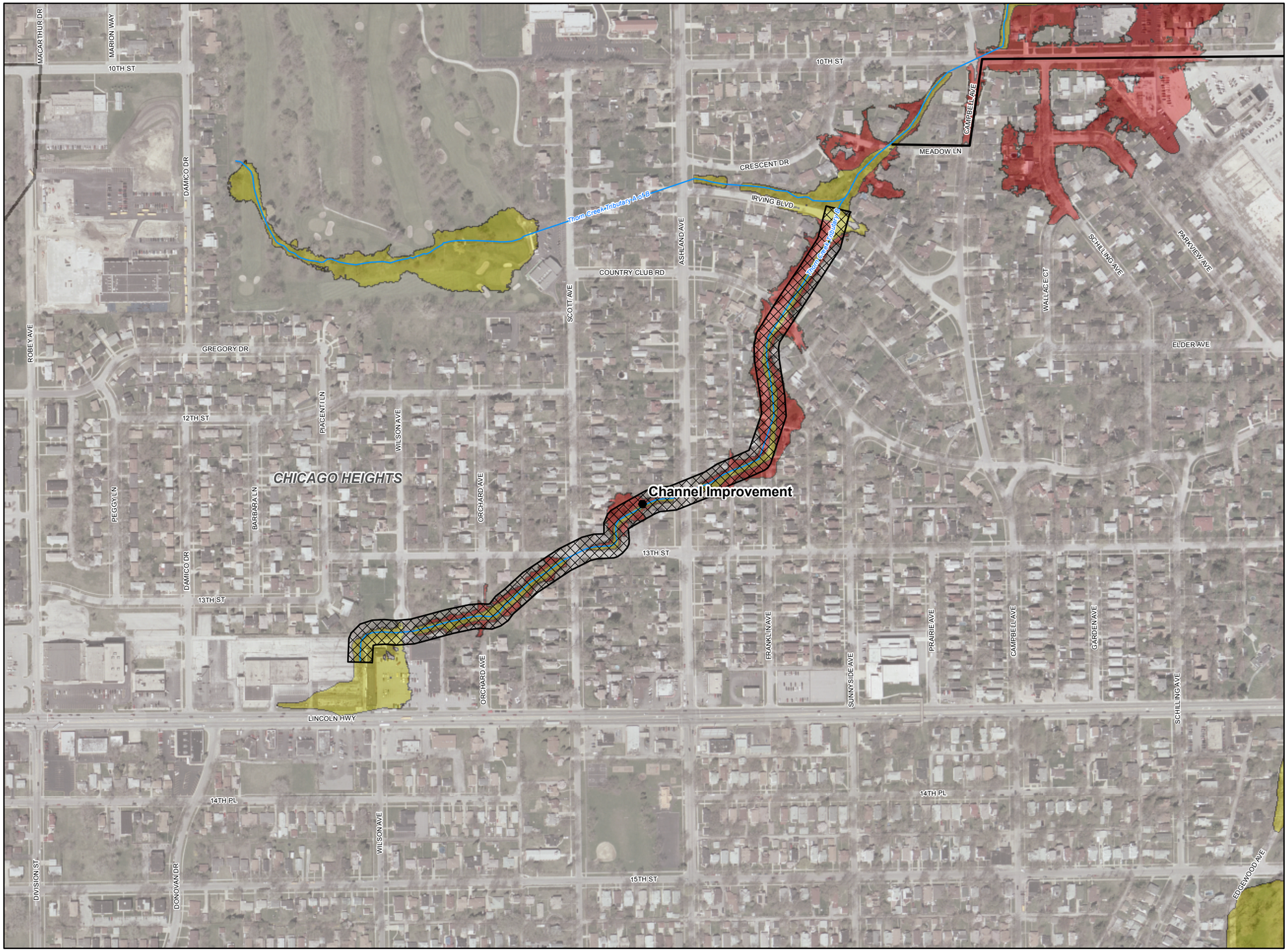


Figure 3.7.10

THORN CREEK
ALTERNATIVE TCTD-G1
Little Calumet River DWP

Alternative Description:
Construct 530 ac-ft detention facility and replace culverts at Lakewood Bouldevard and East of Gold Street and East Rocket Circle

Conceptual Level Cost:
$65,442,000

Benefit: $5,500,000

B/C Ratio: 0.08

- Candidate Structures for Floodproofing/Acquisition

Regional Problems
- Bank Erosion
- Maintenance
- Overbank Flooding
- Pavement Flooding

Local Problems
- Bank Erosion
- Maintenance
- Pavement Flooding
- Storm Sewer Flow Restriction
- River/Stream
- Municipalities
- County Boundary
- Project Alternative Location
- 100-year Inundation Area With Project
- 100-year Inundation Area Without Project

0 1 2 Inches

1 inch = 400 feet

N

CDM

December, 2009