



DWSD Green Infrastructure Program

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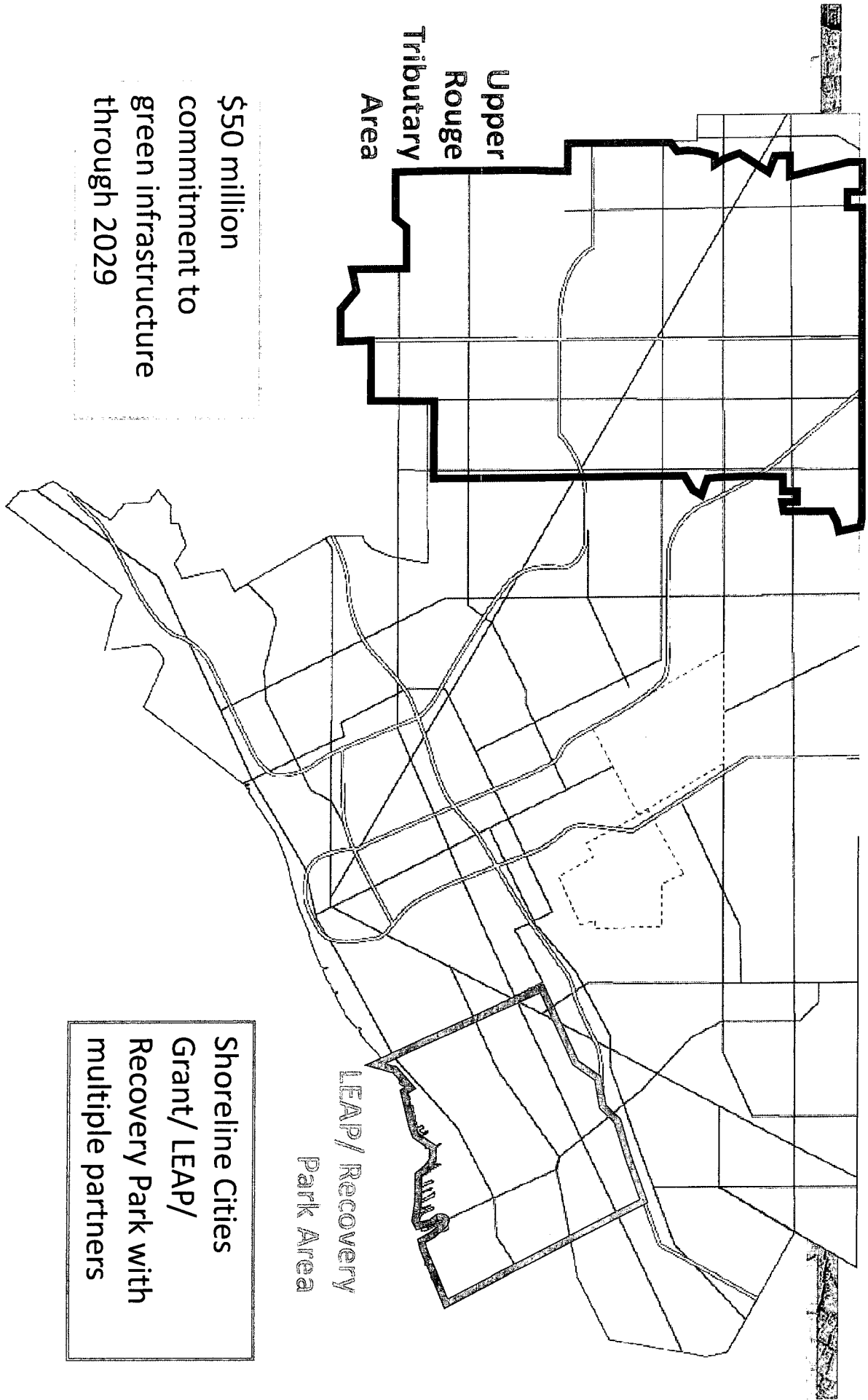
OWSD Green Infrastructure Areas

Upper
Rouge
Tributary
Area

\$50 million
commitment to
green infrastructure
through 2029

LEAP/ Recovery
Park Area

Shoreline Cities
Grant/ LEAP/
Recovery Park with
multiple partners



Shoreline Cities Grant

Lower East Side Action Plan:

- 30 – 50 vacant lots converted to green infrastructure (meadow – stormwater trees)
- Monitoring of benefits

Recovery Park:

- 30 acre Greenhouse Farm. Runoff from roadways and sites will be directed to green infrastructure practices.

16 The Reason for Green

Reduce stormwater that enters the combined sewer system.

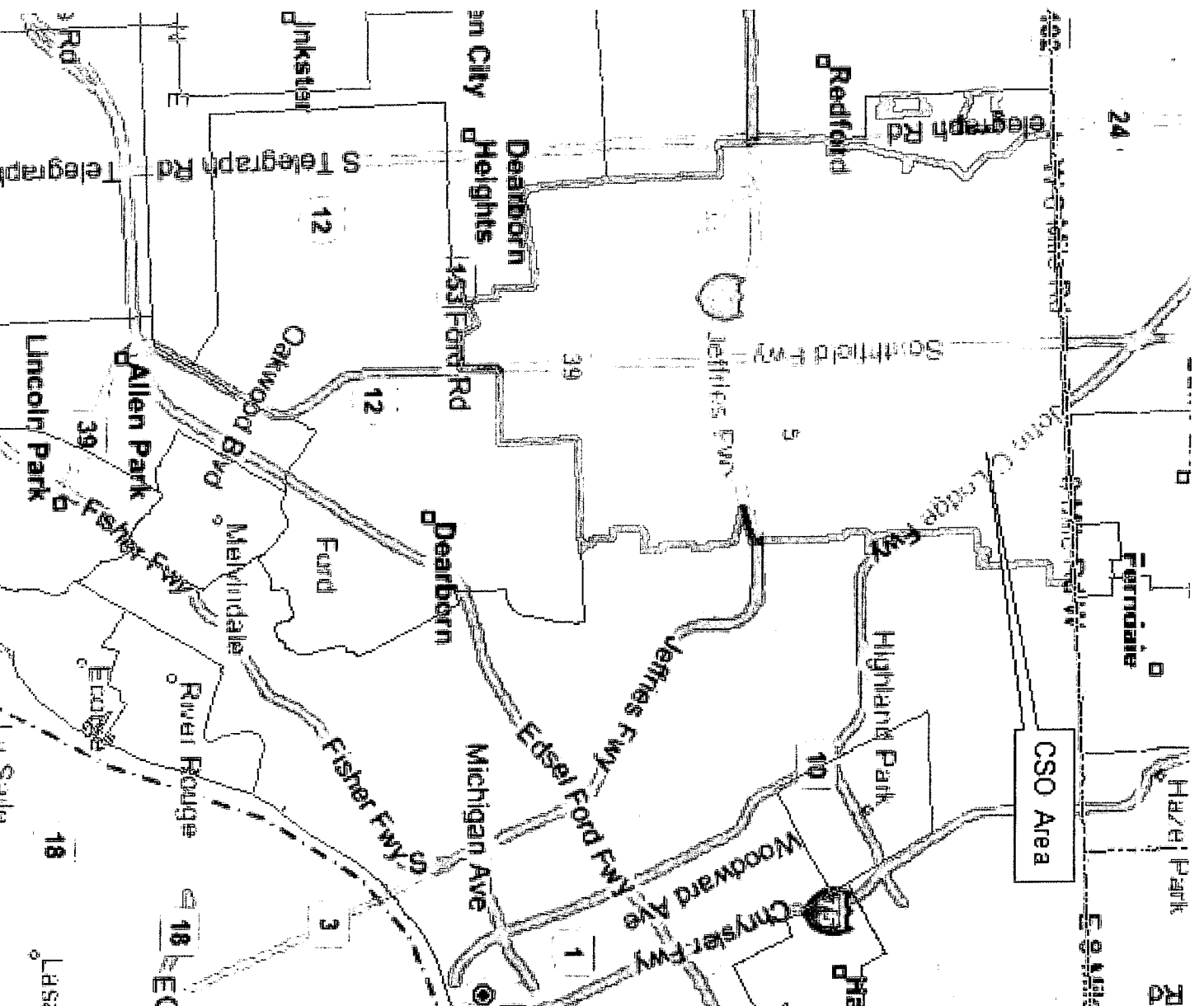
Green infrastructure coupled with smaller CSO facilities were part of an alternate plan that led to the elimination of a requirement for a \$1 Billion tunnel.

Goal is to maximize flow removal for level of investment ($ROI = \text{flow removal}$)

Upper Rouge Project Area



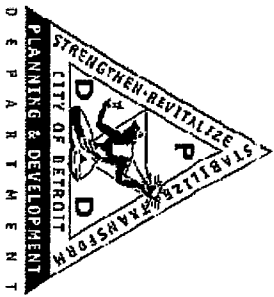
**West side of
Detroit
Over 107,000
Parcels
24,000 Acres
37.5 Square
Miles**



DWSD Activities

Demolished 80 homes
Greened 10 vacant lots

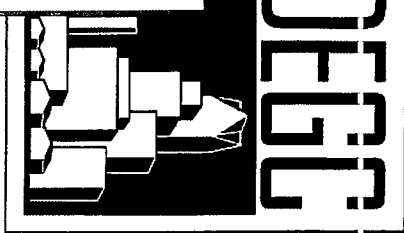




SIERRA



MSHDA
Michigan State Housing
Development Authority



space



Michigan
Fast Track



Greater
Detroit
Development
Corporation



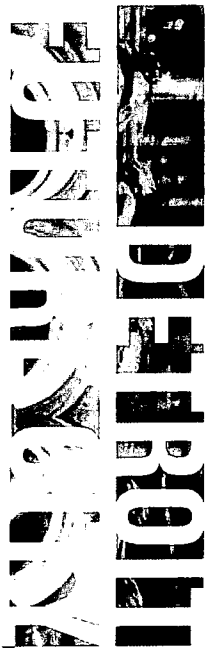
Department of
Public Health

DETROIT
PUBLIC
SCHOOLS



DETROIT
GREENWAYS
COALITION

WATER
PROTECTION



Primary Activities Identified in URT Plan

Activity 1 – Policies, Procedures, and Standards

Activity 2 – Prototype Projects

Activity 3 – Continued Implementation

Activity 4 – Long Term Performance

Activity 5 – Stakeholder and Community Engagement

Policies and Procedures (cont.)

Redevelopment provides opportunities to address both flood control measures as well as green infrastructure

EX: Wayne County Drainage Standard - flood control

<5 Acres - Detain 10 yr Storm w/controlled release

>5 Acres - Detain 100 yr Storm event w/controlled release

Water quality measures to remove 8% of TSS (first flush controls)

Drainage Charge Funding

The drainage charge recovers the following costs:

- Capital for DWSD's investment in CSO Control:
 - \$1 Billion
- Ongoing treatment of runoff
 - WWTP
 - CSO facilities

Green infrastructure helps reduce the wet weather bill (treatment \$'s in the short term, \$'s in capital avoidance in the long term)

Assists in sustainings affordability

Activity 2 – Prototype Projects

Small Scale Greening

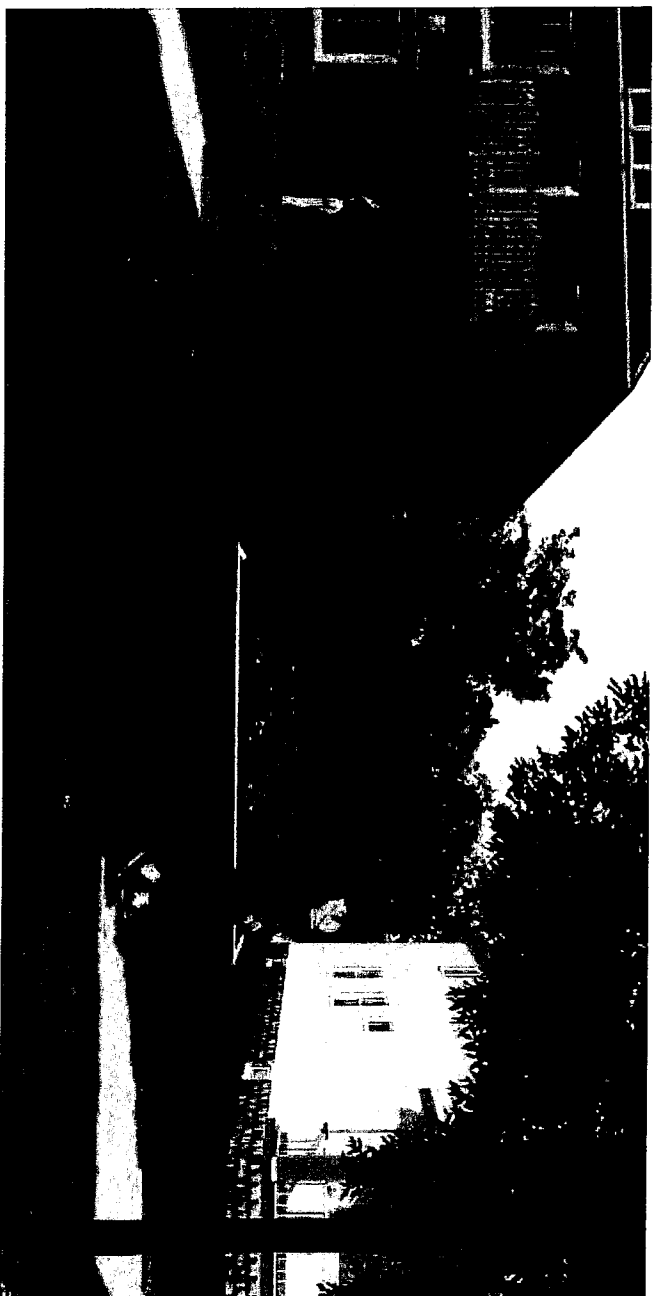
Large Scale Greening

Public Facilities

Municipal Parks

Transportation Corridors

Small scale Greening



Graphic from University of Michigan

Large Scale Greening

Objective:

- Use open space for stormwater management where it can also support a beneficial use for the community.
 - Stormwater management would focus on impervious surface (road) removal and stormwater management from adjacent areas
 - One exploratory project
-

Transportation Greening

Objective:

- Install green infrastructure along streets to manage runoff.
 - DWSD is working with DPW to include green infrastructure with resurfacing projects in 2015.
 - Amount of implementation to be determined
-

Public Facility Greening

Potential site types

- DWSD facilities
- City buildings
- Schools
- Parks
- Public housing

Through June 2015 – develop five projects for implementation

Activity 3 – Continued Implementation

Activity	Plan through 6/30/2015
Residential Downspouts	Several thousand disconnected
Downspouts other than SFR	Evaluation and pilot projects
Demolitions	Under review; strategic
Tree Planting	1000 trees or more

Activity 5: Stakeholder and Community Engagement

(1) the storm water drainage charge

– Costs, methodology & allocation, *credits*

(2) green infrastructure program projects and implementation and

(3) green infrastructure educational resources for general public, engineering community and small and large property owners

Questions

