

Carter Lake CLEAR Council Meeting
May 16, 2007



Agenda

- Phosphorus Loading Review
- Watershed Analysis
 - Identifying Critical Areas
 - Treatment Options
 - Expected Load Reductions
- Next Steps



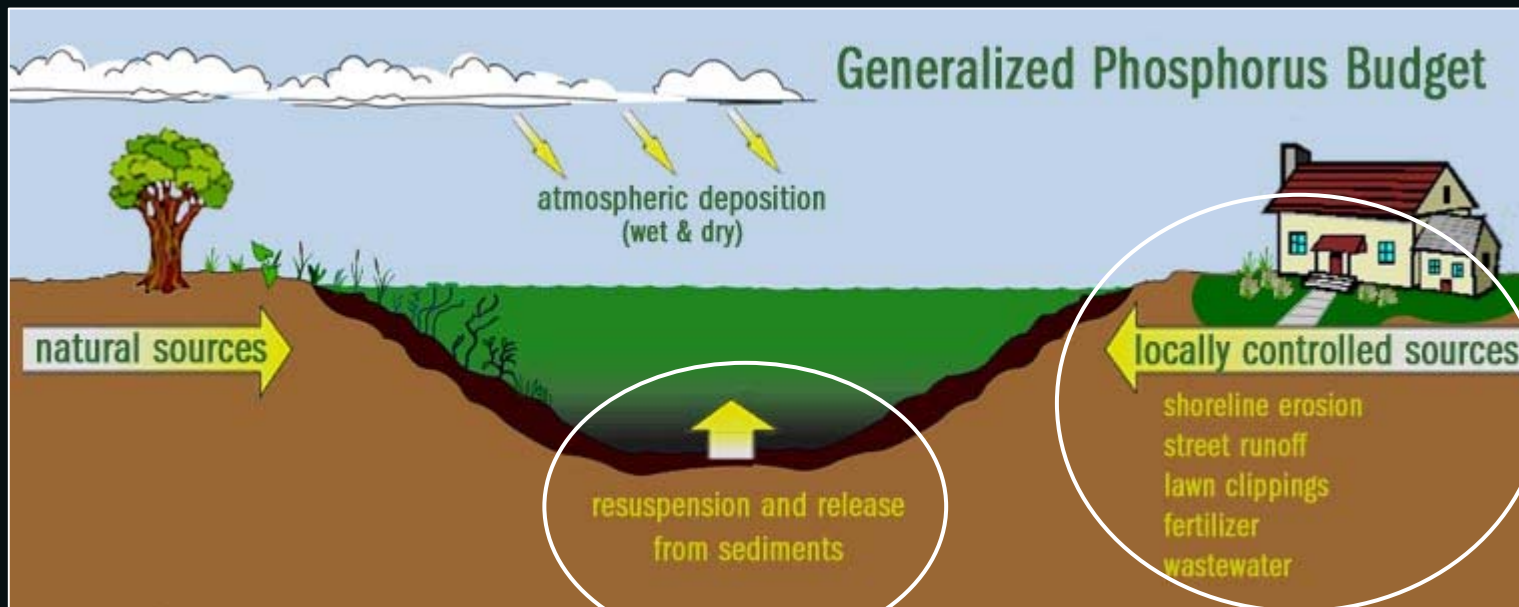
P Loading Review

Existing Phosphorus Load = 3,166 lbs

TMDL Target Load = 1,462 lbs
54% (1,704 lb) Reduction

WMP Target Load = 977 lbs
69% (2,189 lb) Reduction

Existing P Loading Sources



Internal
994 lbs

32%

External
2,172 lbs


68%



Legend

 TMDL Carter Lake DA


 Effective Drainage Area


 Clean Out

 Creek Outlet

 Dead End or Stub Out

 Diversion Structure

 Flared End (Inlet or Outlet)

 Grit Basin/Grit Chamber


 I Intersection

 Inlet/Catch Basin


 Lift Station/Sanitary

 Lift Station/Storm

 Manhole

 Other or Unknown


 Outfall

 Siphon Structure

 T Intersection


 Tap

 Sanitary


 Sanitary Combined


 Combined

 Storm


 Storm Combined

 Forced Main


 Inlet Lead

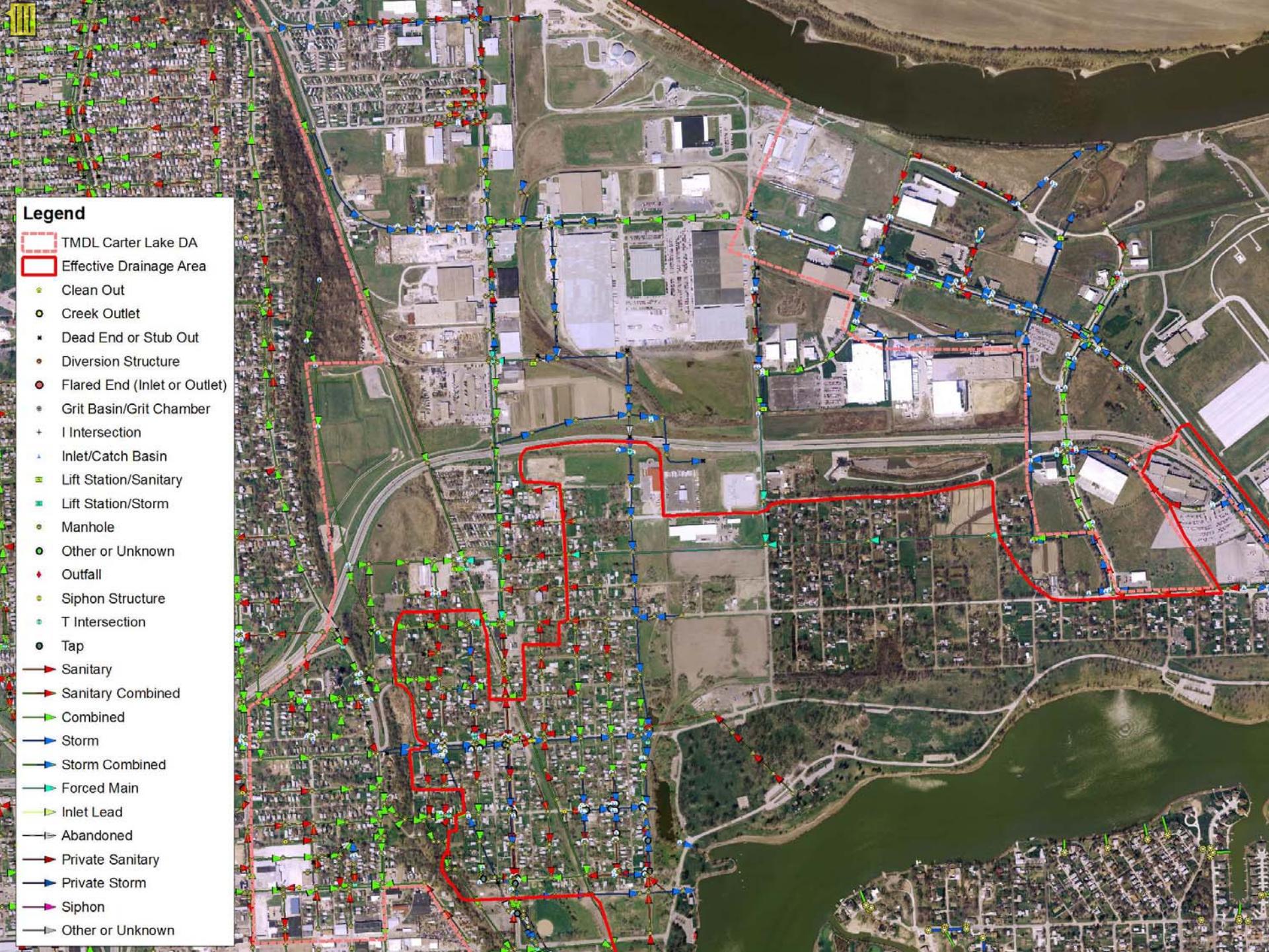
 Abandoned

 Private Sanitary

 Private Storm

 Siphon

 Other or Unknown

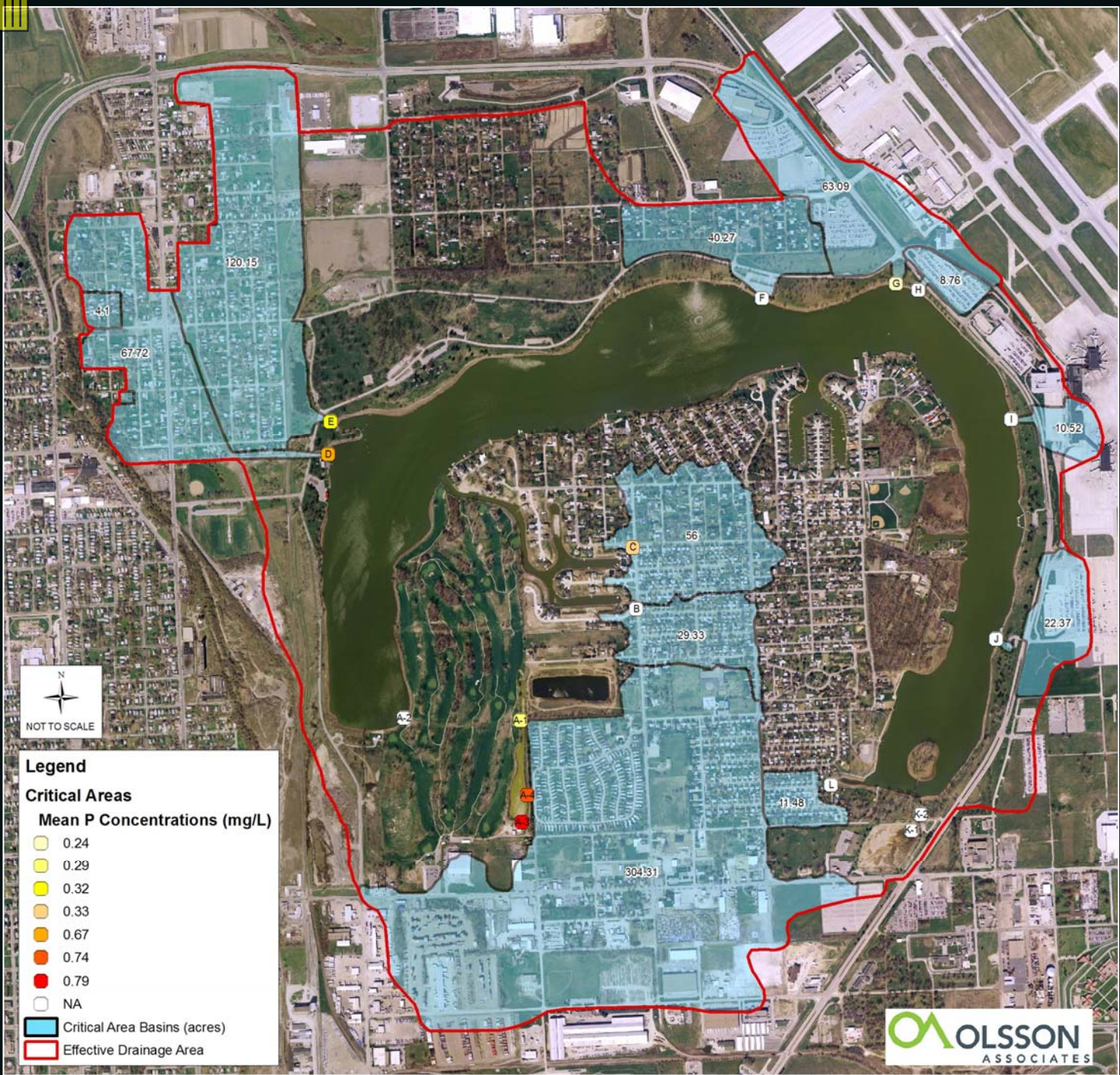






Watershed Treatment

- Stormwater Wetlands / Detention
- Bio-Retention
- Grass Swales
- Vegetated Filter Strips
- Water Quality Inlets
- Street Sweeping
- Septic System Removal or Repair
- Pet Waste Management



Legend

Critical Areas

Mean P Concentrations (mg/L)

- 0.24
- 0.29
- 0.32
- 0.33
- 0.67
- 0.74
- 0.79
- NA

■ Critical Area Basins (acres)

■ Effective Drainage Area



Area A



A-1



A-2



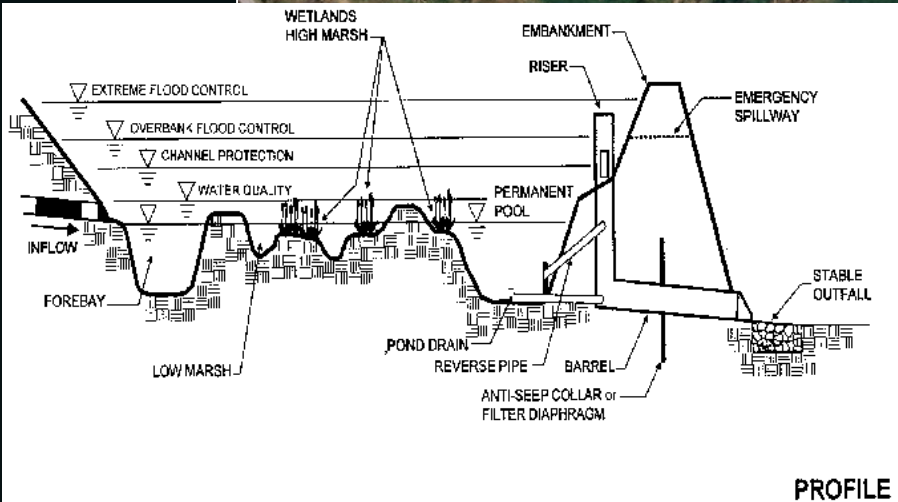
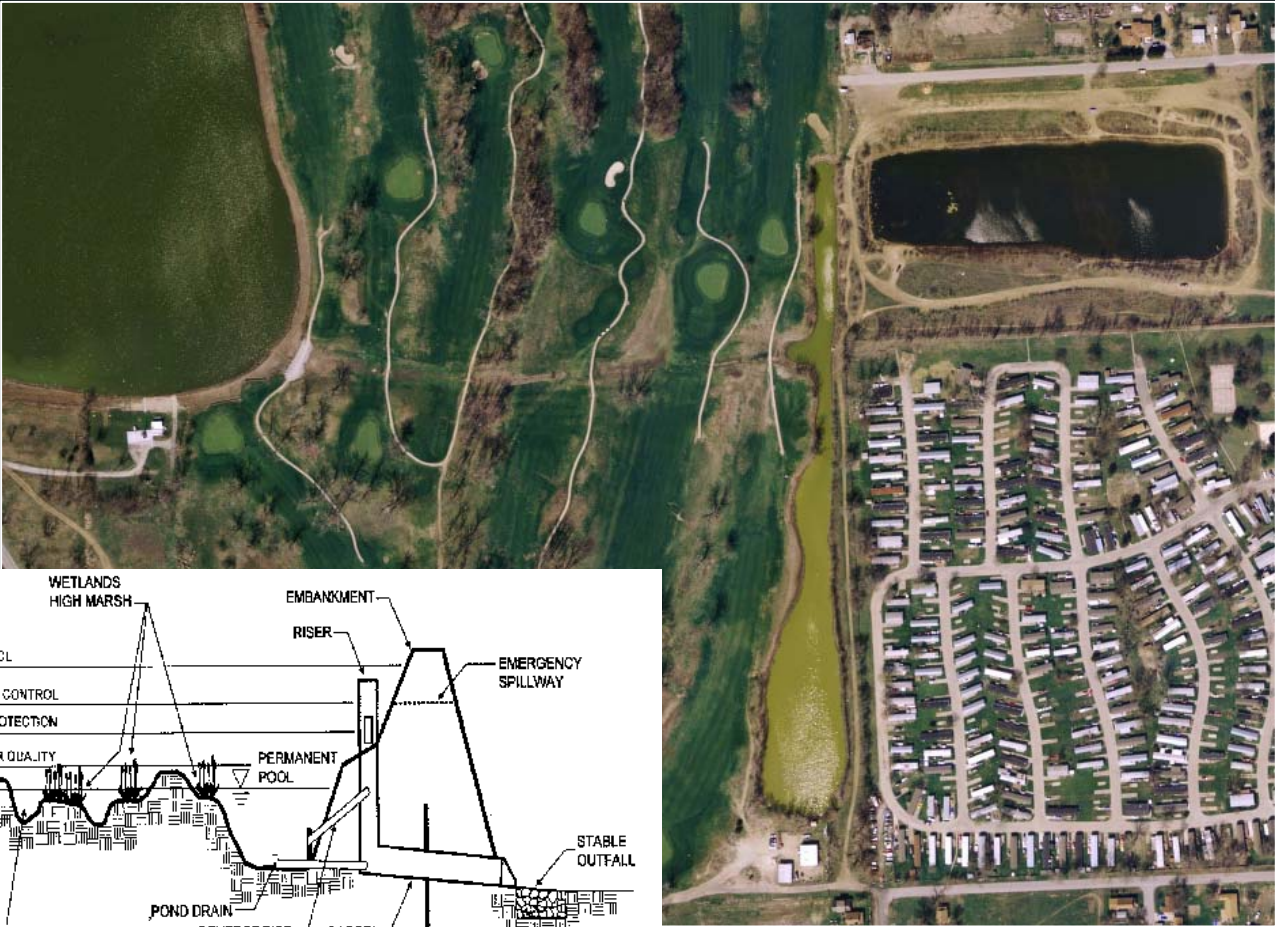
A-4



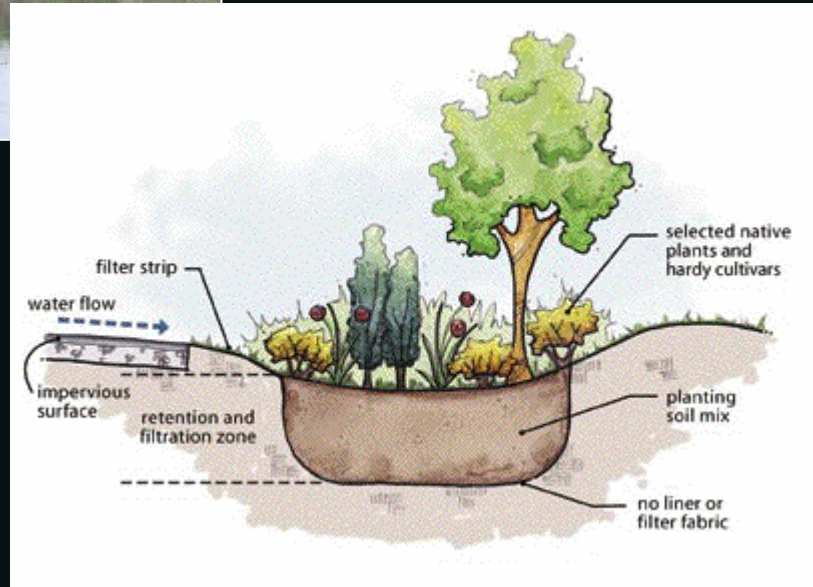
A-3



Area A



Area A



Areas B & C



Areas B & C

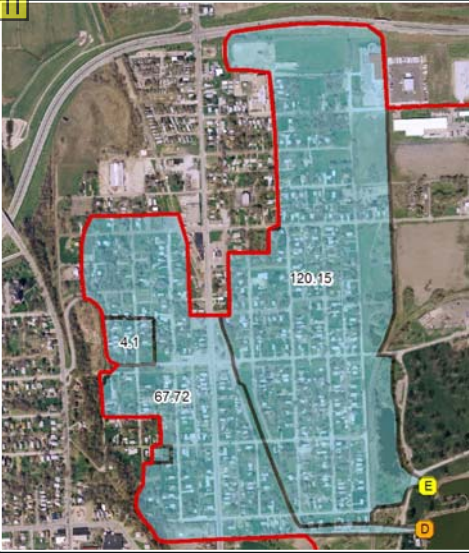




Area D



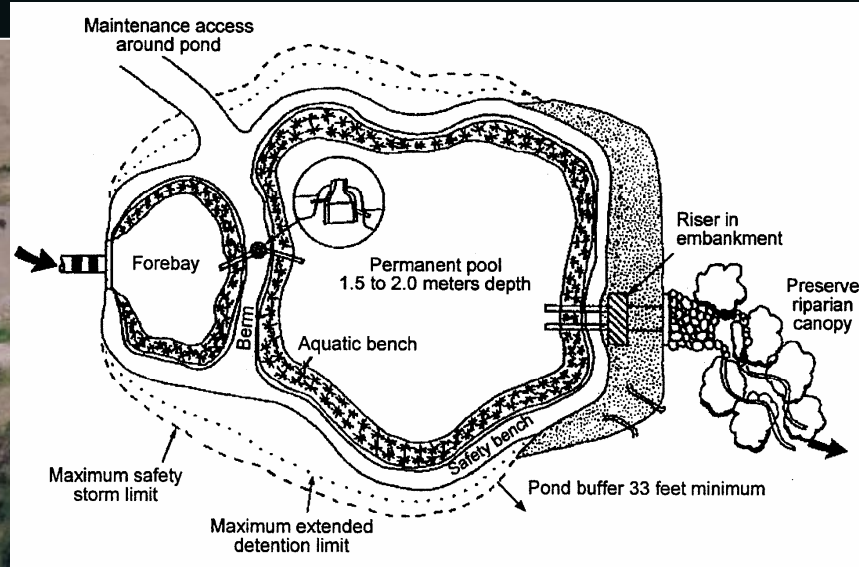
Area E



Area E

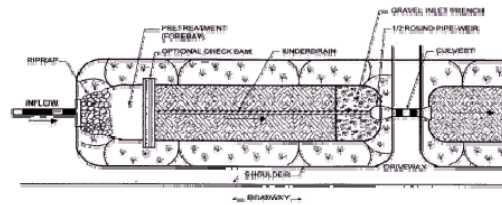


Area E

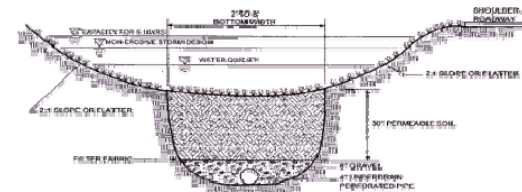




Area F



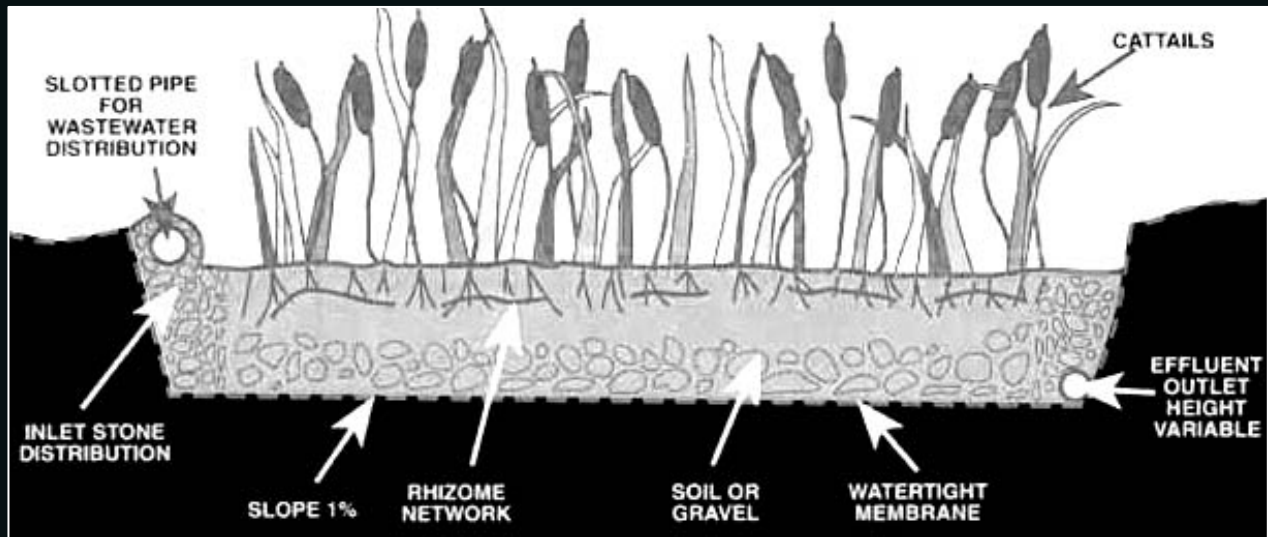
PLAN VIEW



SECTION

Area G







Area H





Area J





Area L

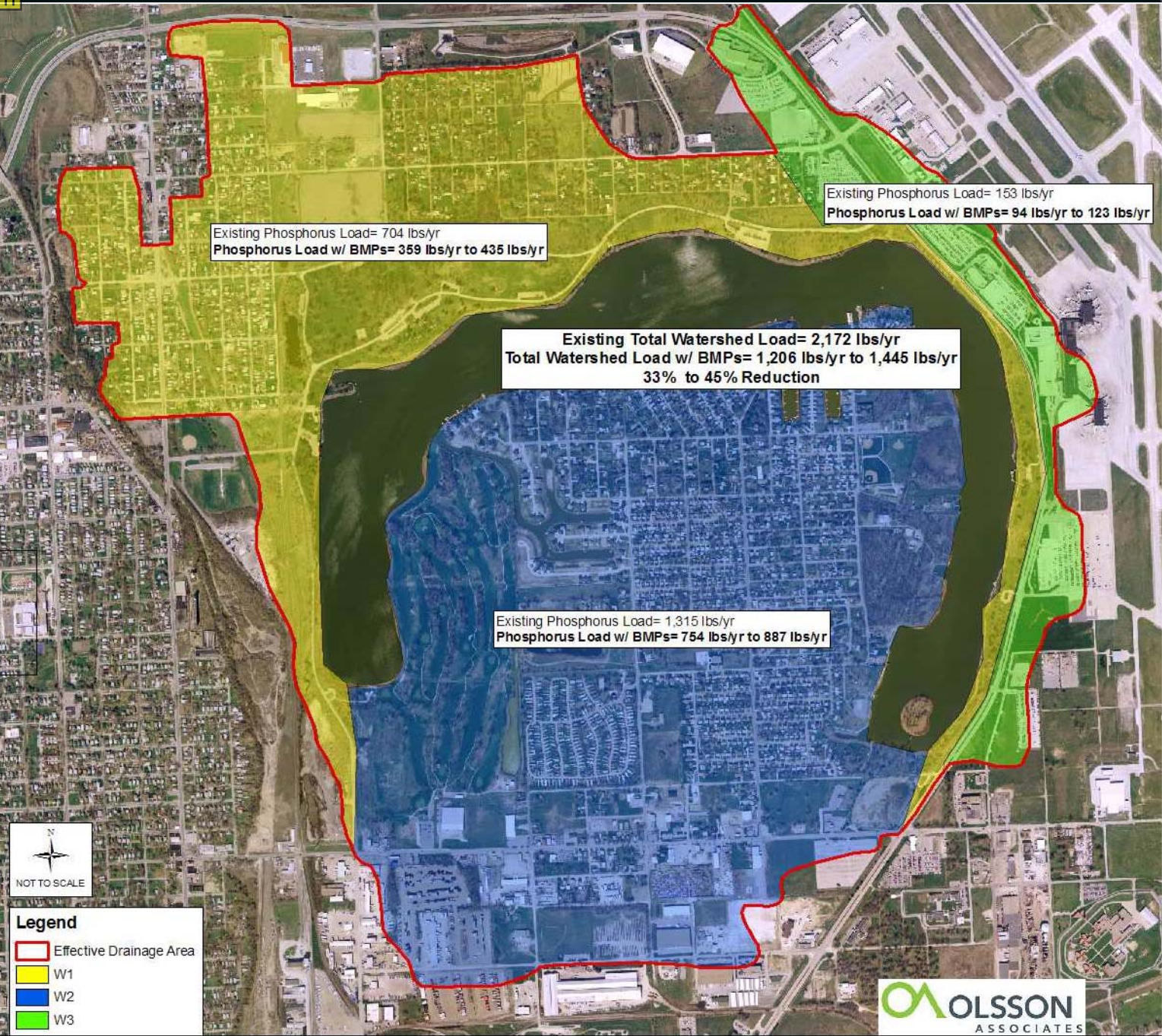




Source: City of Lenexa, Kansas.



Photo provided by CONTECH Stormwater Solutions Inc.



NOT TO SCALE

Legend

- Effective Drainage Area
- W1
- W2
- W3





Next Steps

- Watershed
 - Conceptual Design
 - Cost Estimating
- Lake
 - Modeling
 - Conceptual Design / Master Planning

Discussion

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