

Carter Lake TAT Council Meeting
July 11, 2007

P Loading Review

Existing Phosphorus Load = 3,166 lbs

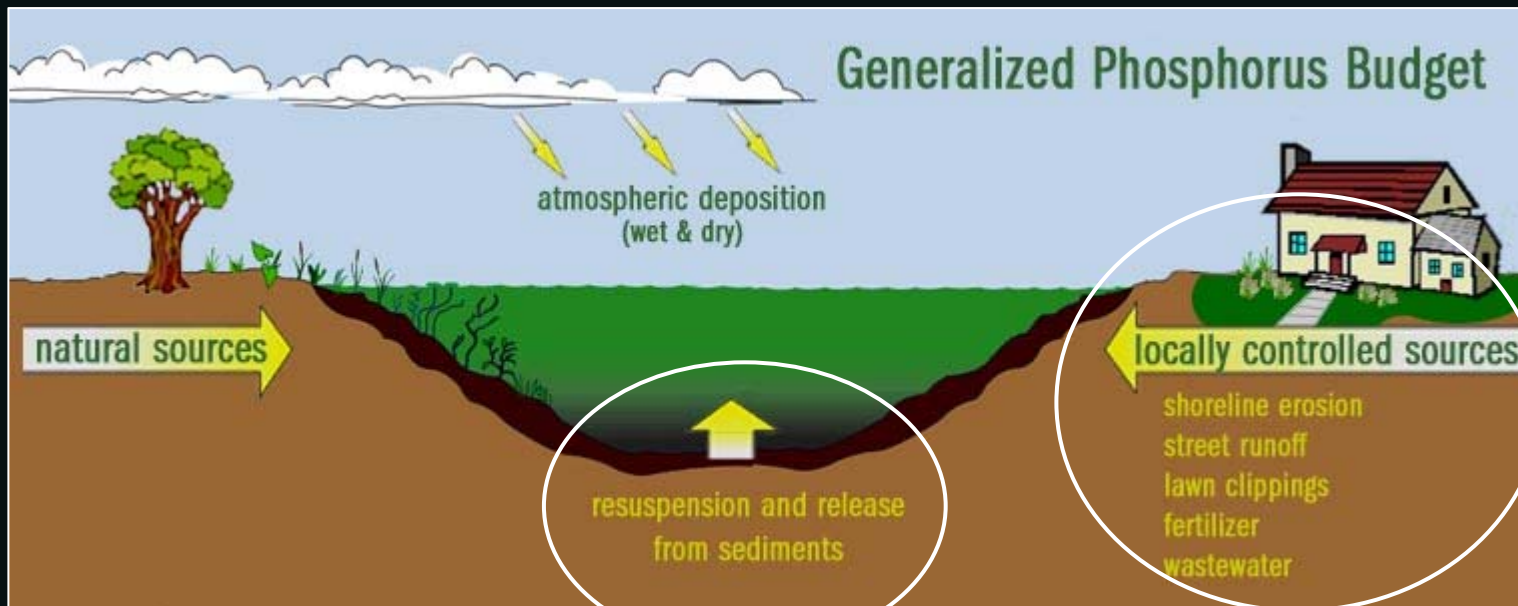
TMDL Target Load = 1,462 lbs

54% (1,704 lb) Reduction

WMP Target Load = 977 lbs

69% (2,189 lb) Reduction

Existing P Loading Sources

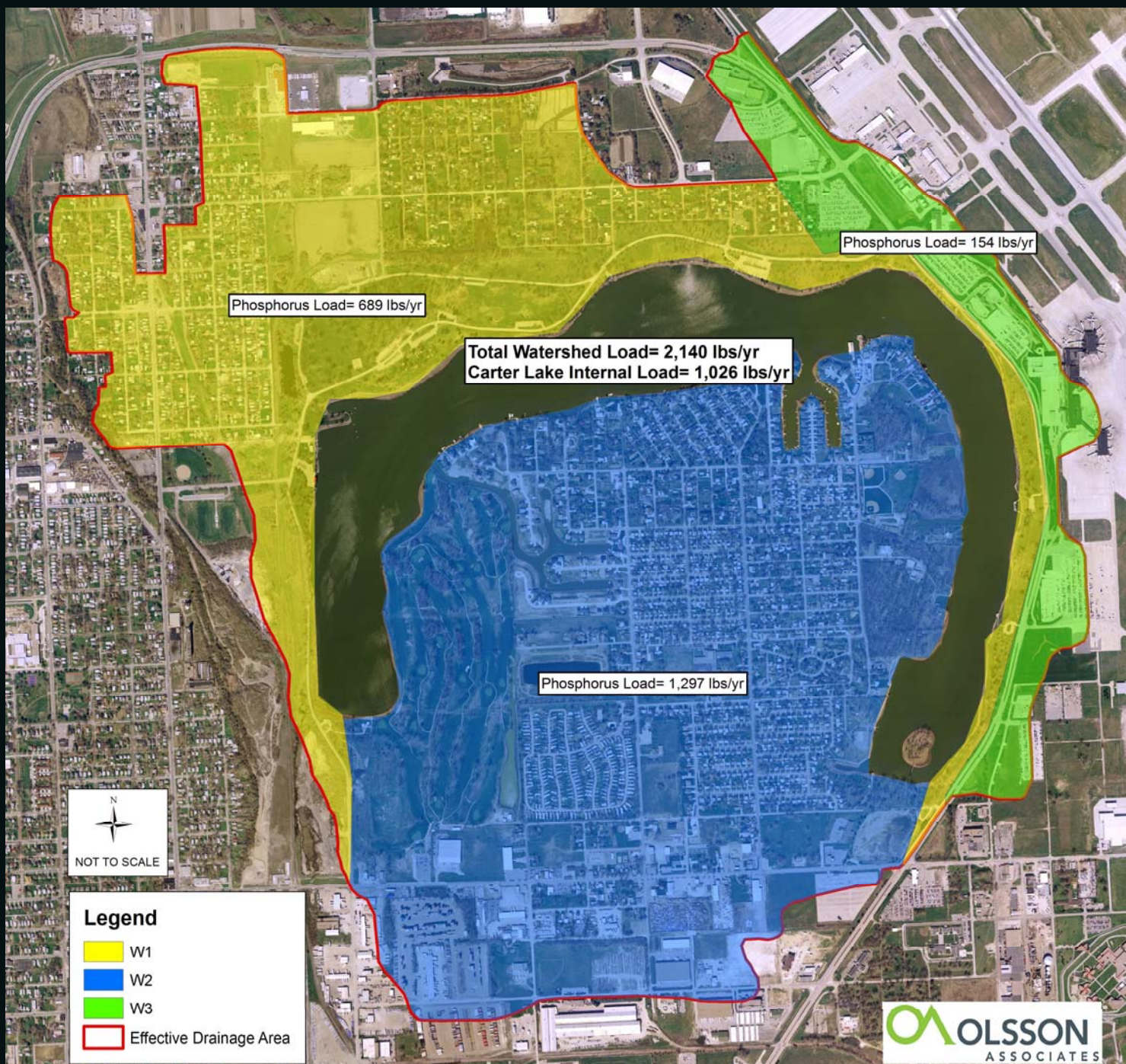


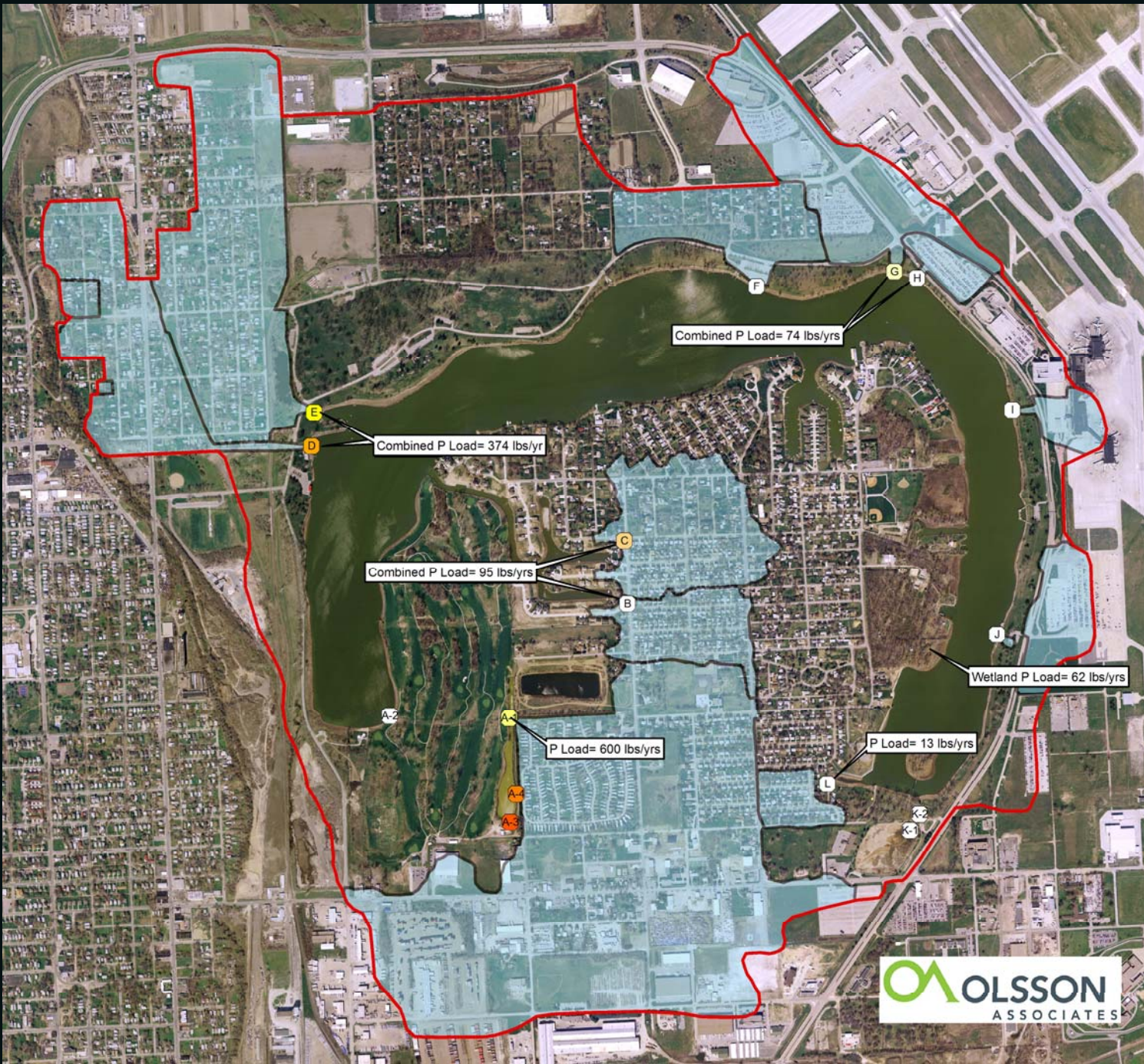
Internal
1,026 lbs

32%

External
2,140 lbs

68%





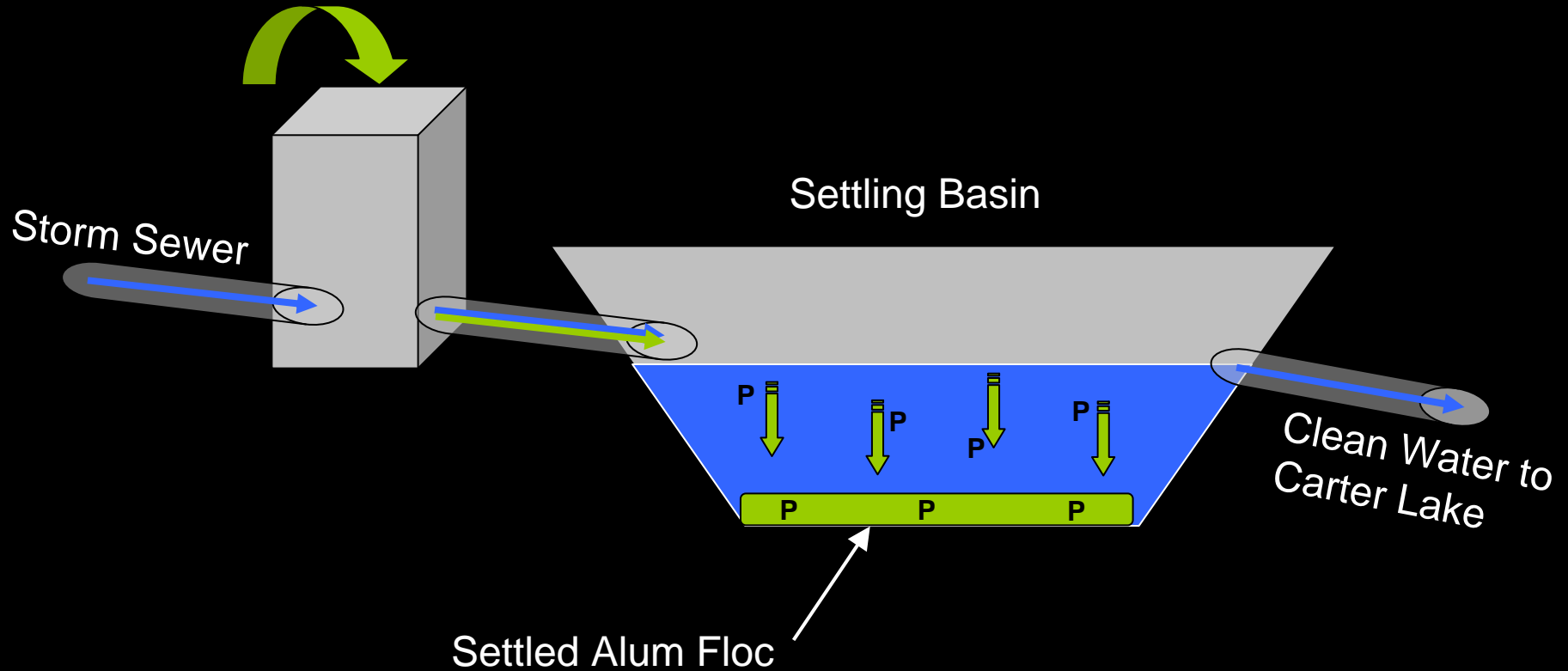
OLSSON
ASSOCIATES

OLSSON
ASSOCIATES



Alum – Stormwater Injection

Alum Injection System



NW Corner of Carter Lake



Golf Course Pond



Post-BMP Loads

External Load w/ 1 alum facility = 1,144 lbs P
w/ 2 alum facilities = (628 lbs P)

Internal Load = 1,026 lbs P

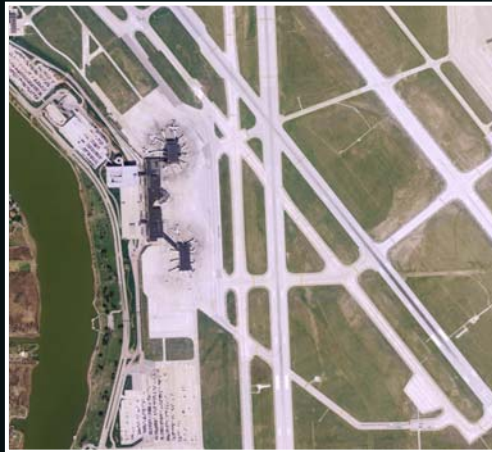
Total Load = 2,170 (1,654 lbs P)

TMDL Target = 1,462

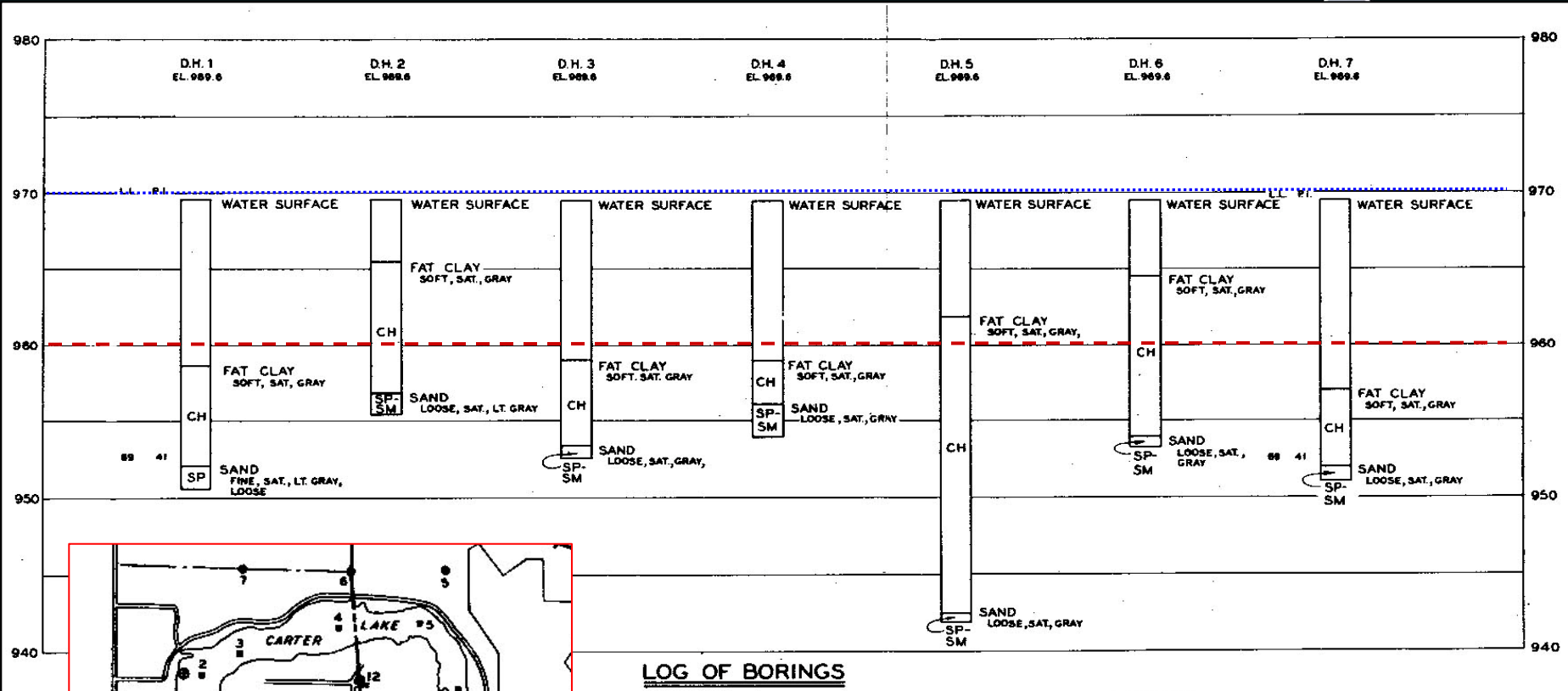
Need equivalent of 192 to 708 lbs of in-lake removal.

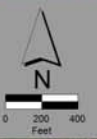
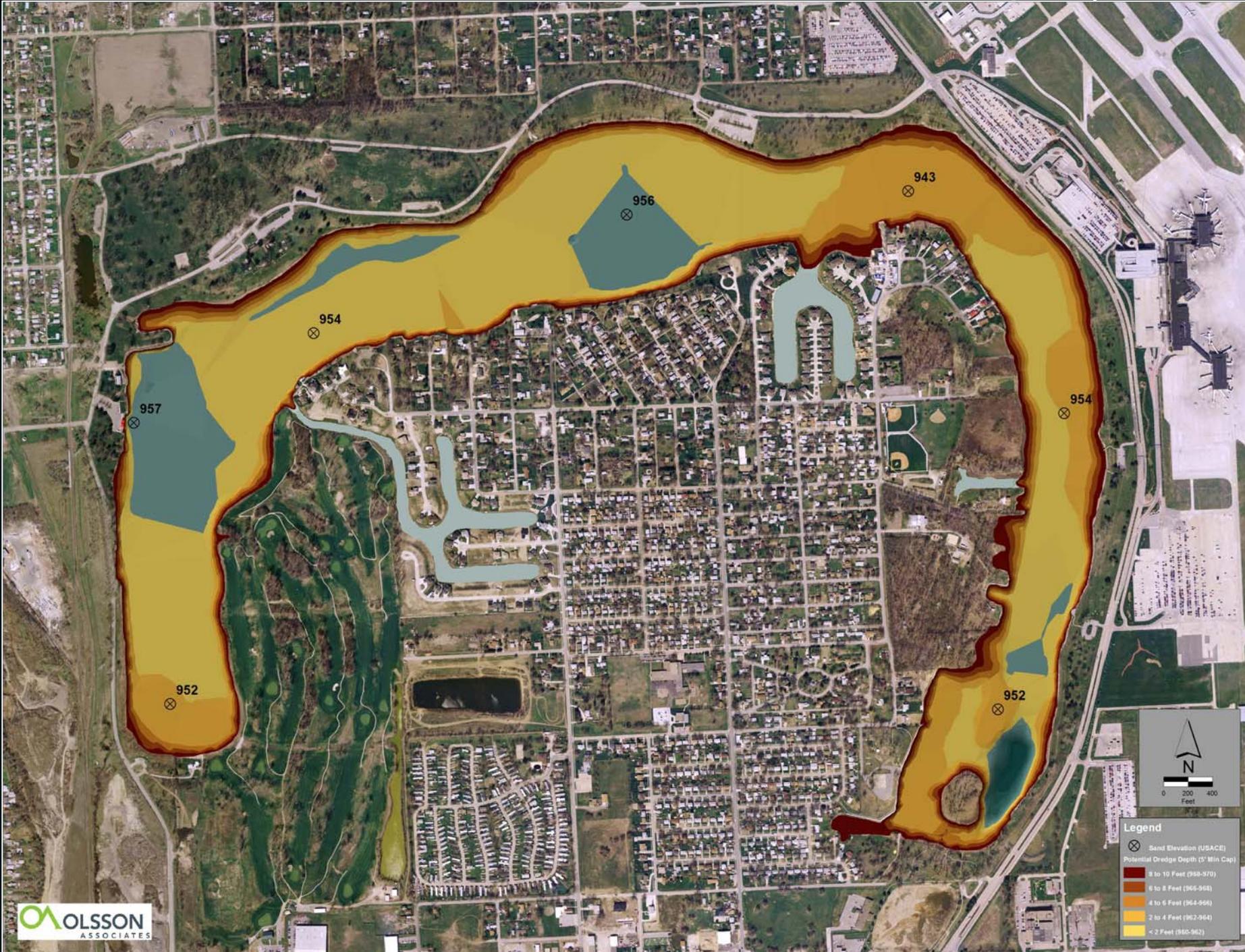
Increasing Inflow

CSO!
Clean Solutions for Omaha



Dredging



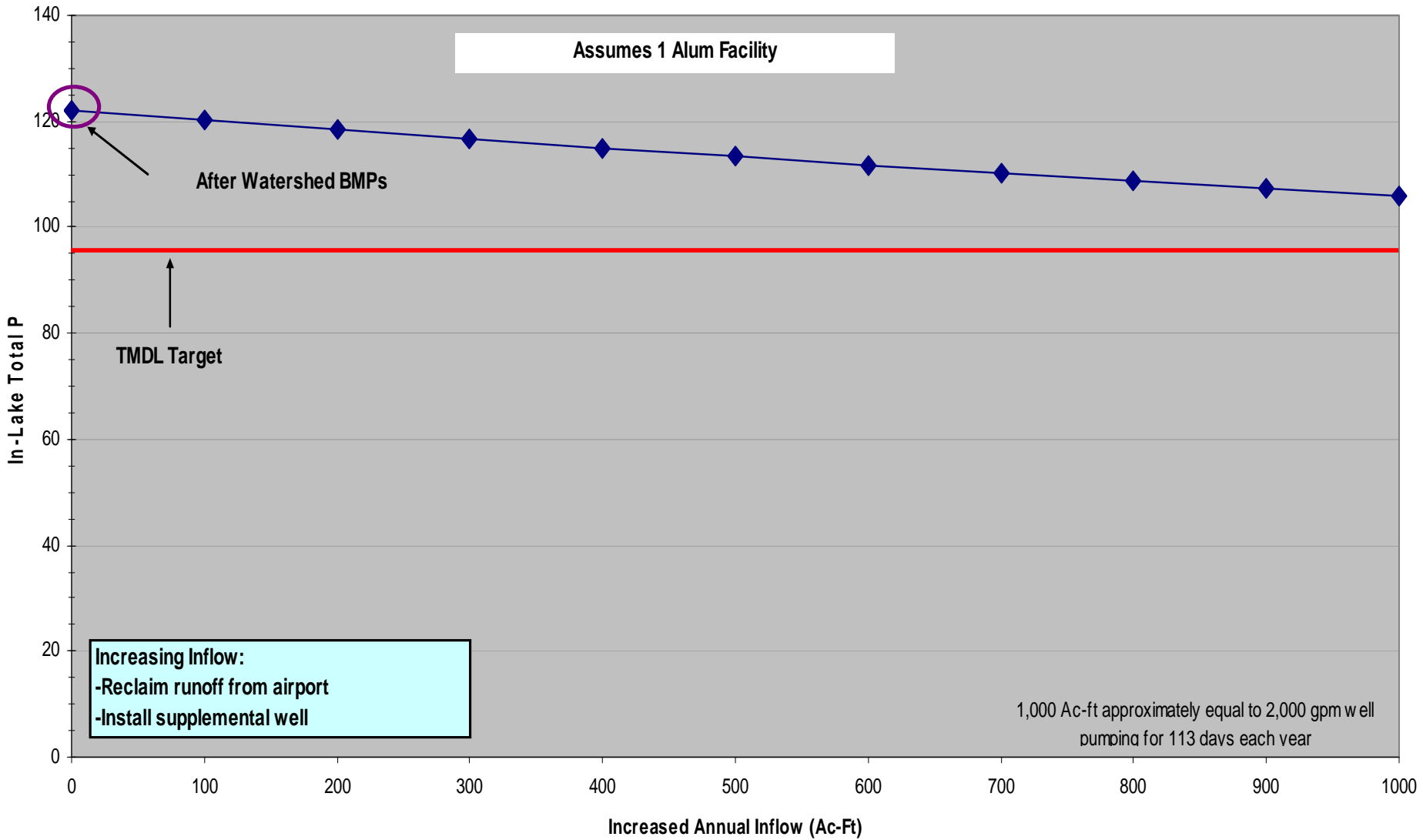


Legend

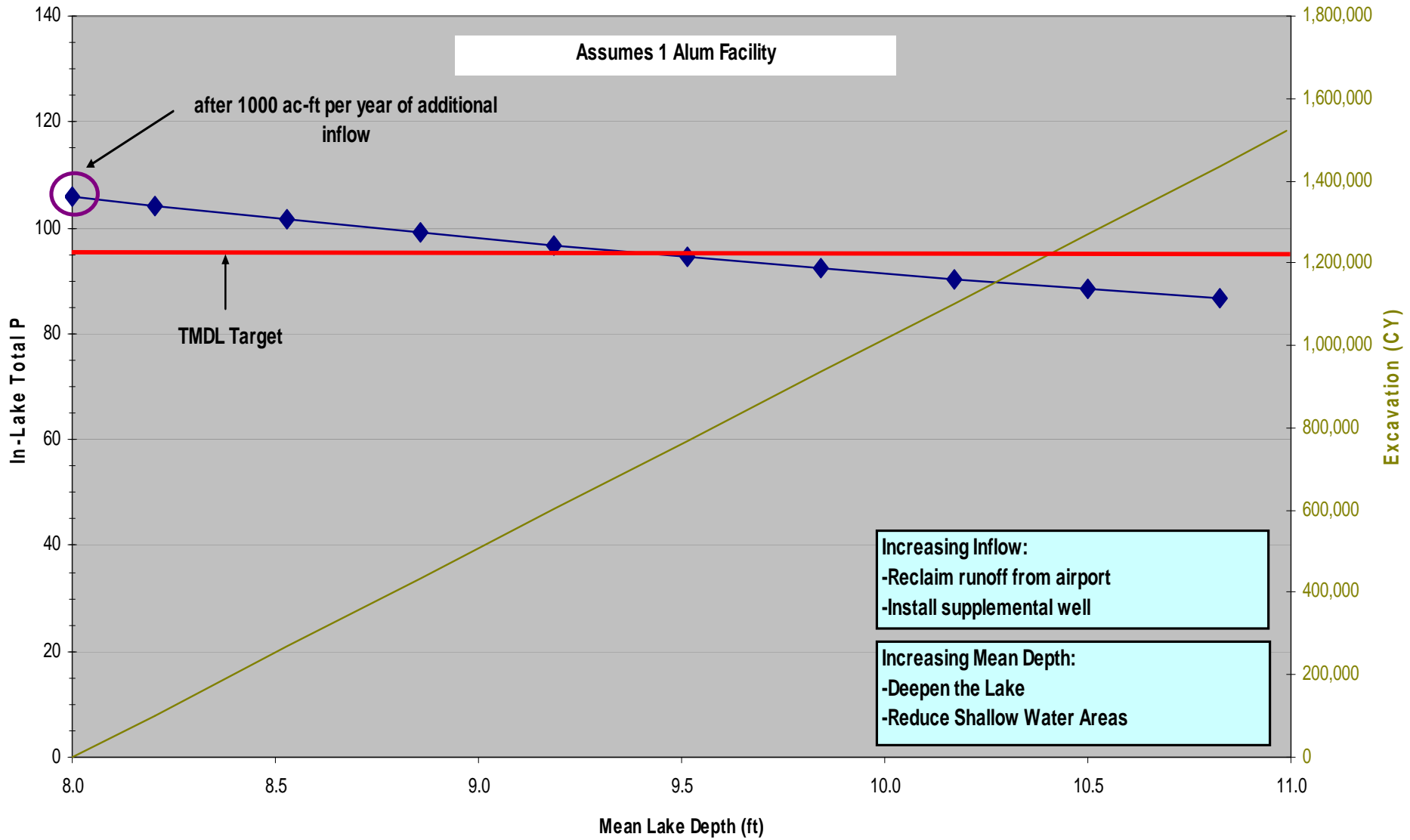
- ⊗ Sand Elevation (USACE)
- Potential Dredge Depth (5' Min Cap)
- Dark Red 8 to 10 Feet (958-970)
- Red 6 to 8 Feet (964-968)
- Orange 4 to 6 Feet (964-968)
- Yellow-Orange 2 to 4 Feet (962-964)
- Yellow < 2 Feet (960-962)

Carter Lake In-Lake P response to Increased Lake Inflow*

* Assumes inflow has 0 mg/l P concentration

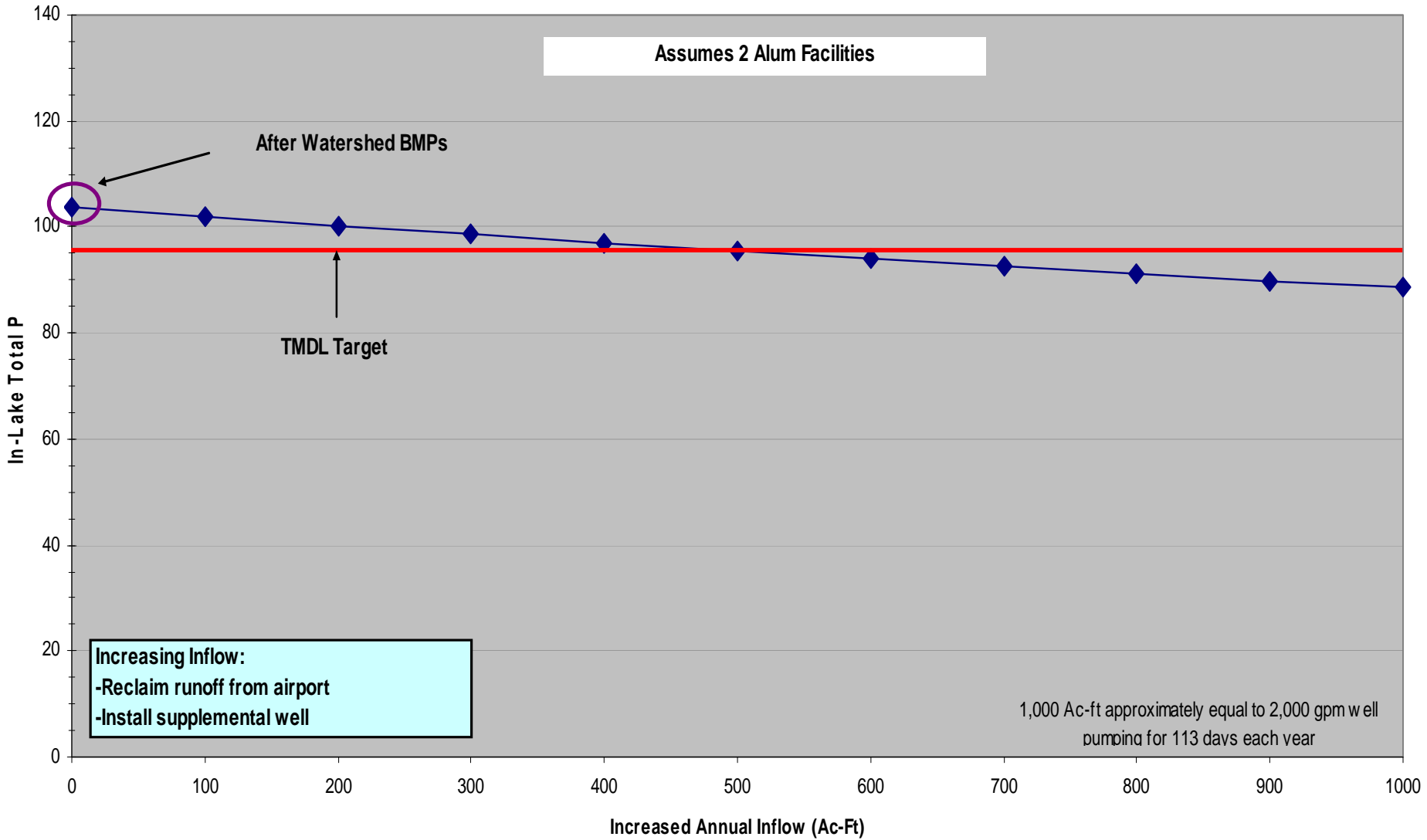


Carter Lake In-Lake P Response to Increase in Inflow and Mean Depth

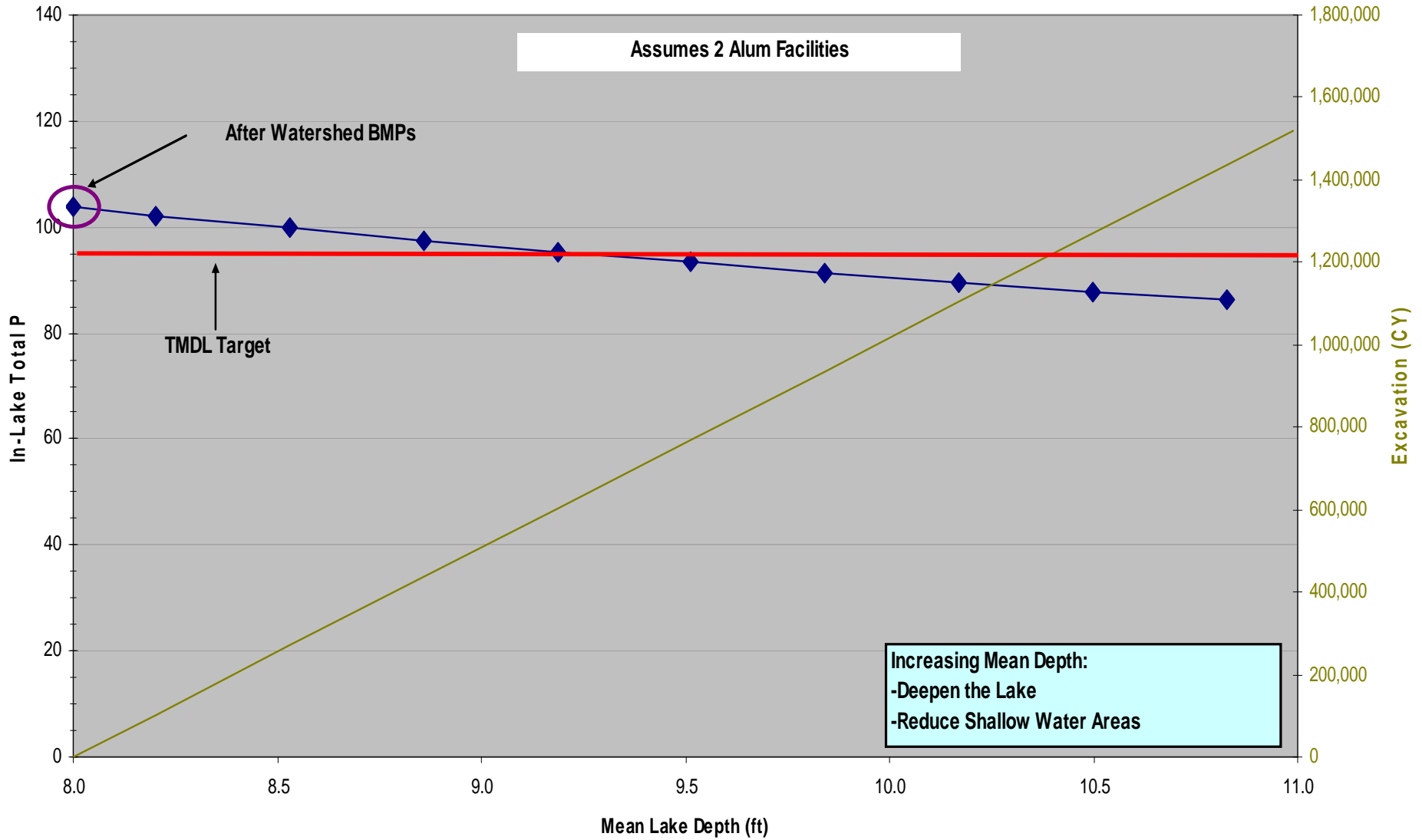


Carter Lake In-Lake P response to Increased Lake Inflow*

* Assumes inflow has 0 mg/l P concentration



Carter Lake In-Lake P Response to Increase in Mean Depth



Next Steps

Carter Lake TAT Meeting
July 11, 2007