

Designing a City for Zero Stormwater Discharge

Inver Grove Heights, MN

Firm: Emmons & Olivier Resources, Inc. (EOR) - Oakdale, MN / Client: City of Inver Grove Heights, MN



PROJECT INITIATION

The landlocked nature of the area needed a large infrastructure of pumps and pipes that was very costly and had significant environmental impacts. New, creative approaches in stormwater management introduced by EOR, generated a new framework for the city to become the first in the country to rely solely on Enhanced LID-type technologies to mimic natural-conditions and achieve zero-runoff discharge.

In 2014, nearly 10" of rain fell over a 4-day period causing flooding in other parts of the Twin Cities-metro area. Minimal runoff reached the regional infiltration basins and no stormwater left the City.



INTEGRATED PLANNING

EOR provided planning and ordinance development for several years, and recently the design and implementation of several zero-runoff projects. This management approach saved about \$30 million and resulted in a more reliable, operation-free system.

INNOVATIVE BMPs: project example

The 134 acre retail & residential development used a train-treatment approach, that included:

- 35 rain gardens,
- 274 permeable asphalt parking stalls,
- 2 permeable paver intersections,
- 2 infiltration basins
- and a biofiltration swale

