

# MUELLER RESIDENCE

Rain Garden



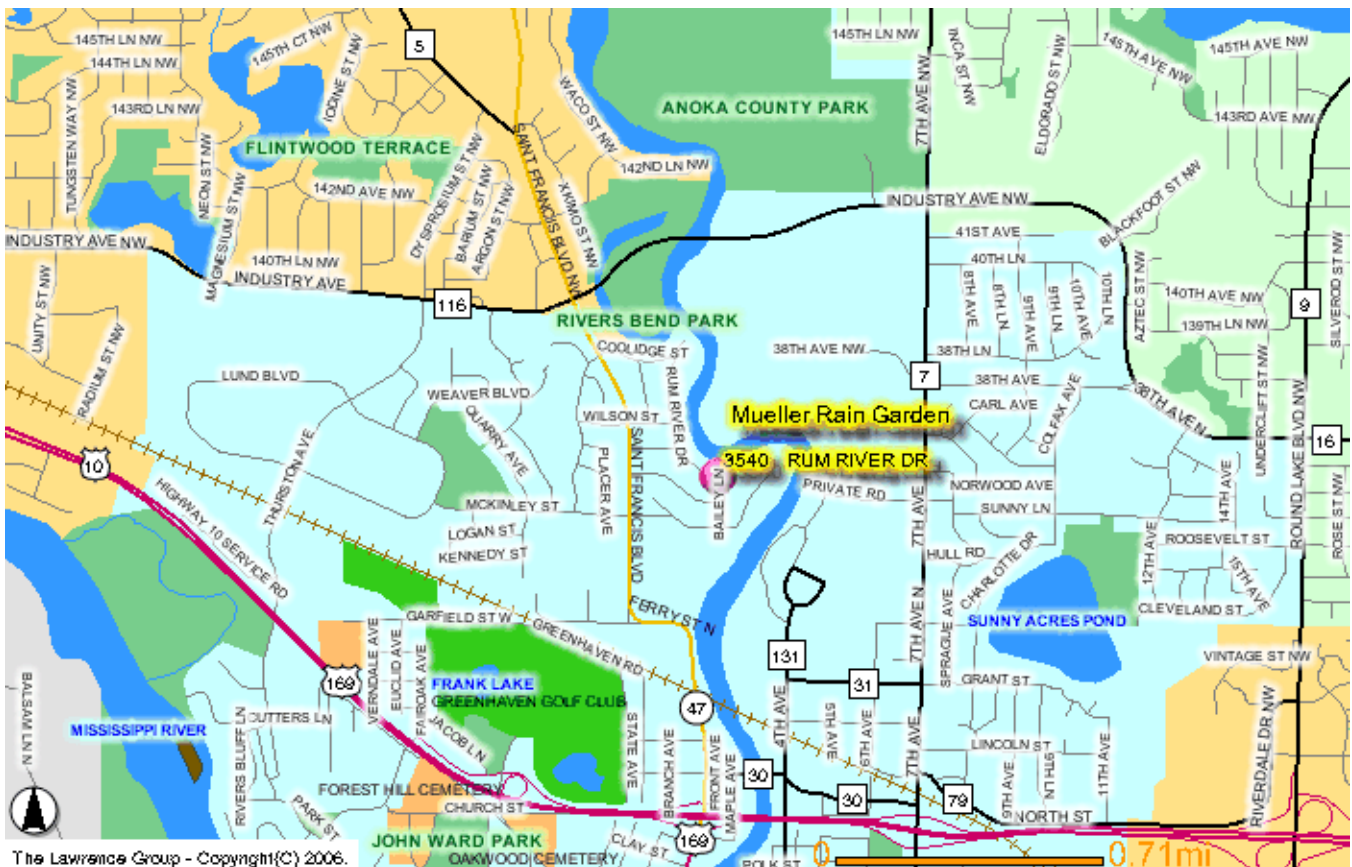
## Pre-Rain Garden Conditions

Rain falling on the roof and property of the Mueller residence was discharged, unfiltered, into the Rum River adjacent to their backyard. The Rum River is currently listed as an impaired water body due to high mercury levels. Excess residential runoff from impervious surfaces can cause:

- An increased risk of flooding and bank erosion
- An influx of sediments, nutrients and pollutants—including mercury
- An increase in water temperatures

## PROJECT SPECS

Date Planted .....	June 2006
Water Treatment Capacity .....	189 ft <sup>3</sup>
Water Detention Capacity .....	212 ft <sup>3</sup>
Materials Estimate .....	\$1,412.94
Labor Estimate .....	\$987.50
Cost-share Funds.....	\$1,863.00



## Rain Garden Installation



A total of four rain gardens were designed for the Mueller residence. To help defray their portion of the project cost, the homeowners provided the labor for the project.

June 2006



## After Rain Garden Installation

- Rain falling on the roof is directed by drain tile to the rain gardens where it is treated to remove nutrients and pollutants.
- Rain gardens are placed to intercept and treat overland flow.
- Up to 189 ft<sup>3</sup> of water can be treated by the rain gardens to remove pollutants.
- In all, the rain gardens detain, or slows down, up to 212 ft<sup>3</sup> of rain water allowing the removal of sediment and solid particulate matter.
- By slowing the flow of water into the river, the rain gardens help to reduce flooding and erosion.



June 2008

