

PHAM RESIDENCE



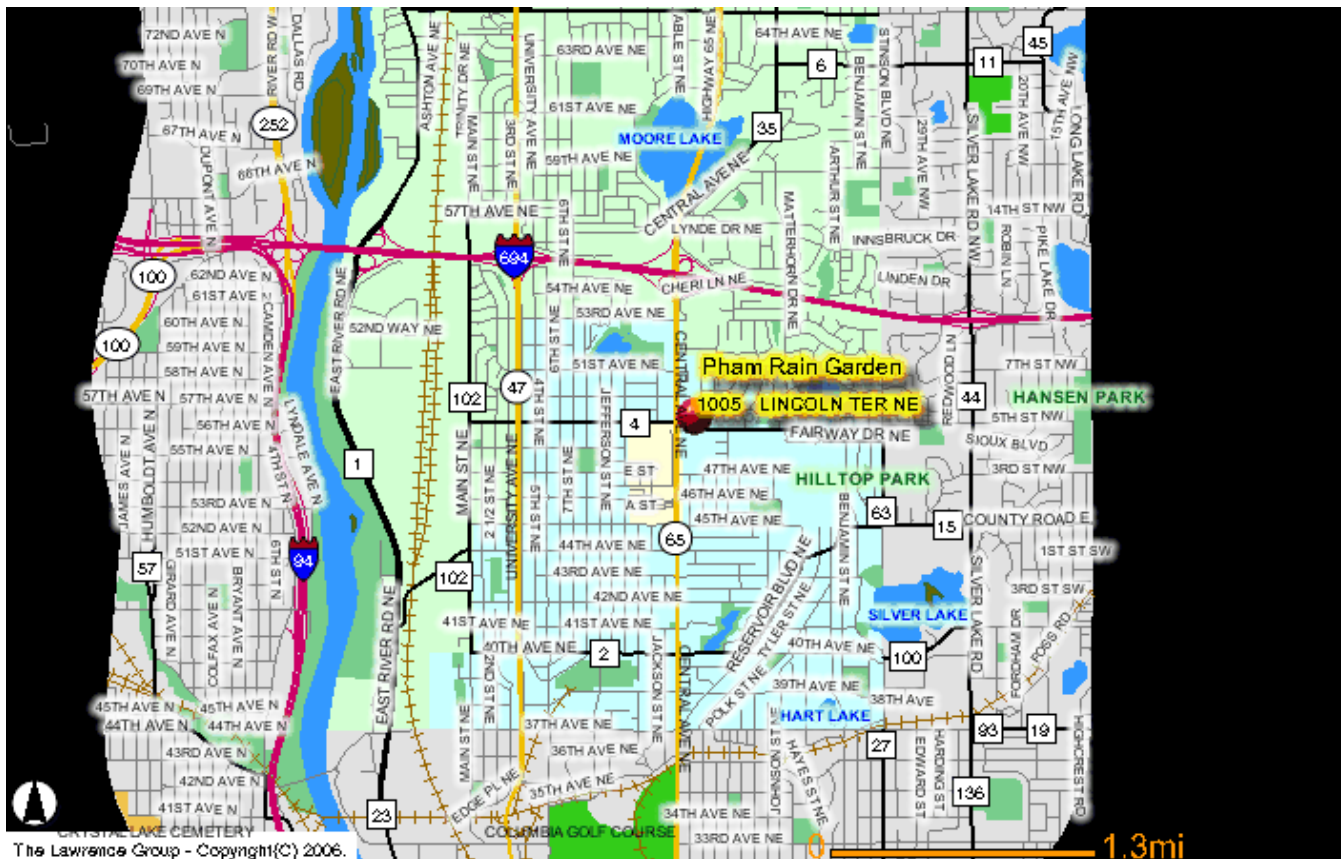
Pre-Rain Garden Conditions

Rain falling on the roof of the Pham residence was directed by downspouts, unfiltered, into the street, eventually making its way to the Mississippi River via the storm sewer system. This excess runoff from impervious surfaces can cause:

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

PROJECT SPECS

Date Planted	August, 2006
Rain Gardens Installed.....	2
Water Treatment Capacity	79 ft ³
Water Detention Capacity	146 ft ³
Homeowner Cash.....	\$0.00
Homeowner Labor	\$1,287.50
Cost-share Funds.....	\$1,233.14



Rain Garden Installation

This rain garden was designed to tie in with existing landscaping. The homeowners joined the two areas and eventually re-planted the original area. Because homeowner labor was estimated at \$1,287.50—greater than half the total project cost—their cash contribution was \$0.00. The cost share program funded by the Met Council covered the remaining \$1,233.14 of the



The rain gardens were designed to capture stormwater falling onto the roof of the Pham residence. Drainage tile was laid underground to direct water from the existing downspouts to each of the rain gardens. In all, the rain gardens are capable of treating up to 79 ft³ of stormwater, reducing pollution and nutrient input to the Mississippi River.



After Rain Garden Installation



August 2006



Rain falling on the roof is directed by drain tile to the rain gardens for treatment.



June 2008



The rain gardens can treat up to 127 ft³ of water, reducing pollution and nutrient input to the River.