

Lake Superior College Rain Garden

Setting: Parking lots for college.

Challenge: Miller Creek (designated trout stream) is receiving water for parking lot & building run-off.

Selected BMP: Lake Superior College is a small college campus that is situated on property adjacent to Miller Creek, a designated Trout Stream. In 2005, the college began working with the So. St. Louis SWCD to design and create a system to treat stormwater run off from one of its parking lots before it discharged into the Creek. A rain garden consisting of two basins was selected to do the job. The first smaller basin is the point where the water flows into the garden. This basin is intended to settle out the road sands that are applied to the parking lot in the winter. The forebay doesn't have any plants planted in it due to the high influx of road sand. The water then flows over the rock check dam and into the main treatment rain garden. This garden is planted with over 20 varieties of native plants that are adapted for wet conditions but able to withstand dry periods. The rain garden will treat the water by two main mechanisms, filtration and transpiration. The plants will uptake a portion of the water and nutrients in the runoff and convert them to plant matter and water vapor (transpiration). The water that is not taken up by the plants will flow through the compost, sand, topsoil mixture and be treated by filtration processes. From that point the water flows out the bottom of the garden through an underdrain system and eventually Miller Creek.



Forebay in front, garden in back, with rock separating the two areas.



Storm Tour '07 participants discussing the workings of the rain garden.



Taking a trout inventory on the stretch of the Creek that runs adjacent to LSC.