### **Student Senate Legacy Area**

In 2012, the Student Senate Legacy Project began with a functional landscape idea. The first part of the project was a 3,000 square foot native grasses and wildflower restoration space on the front lawn. This area includes a stormwater pipe outlet and wet drainage area. The seeding was designed by the student senate, with advice and installation expertise from Boreal Natives. It is designed to use native wetland and dry prairie grasses that infiltrate rainwater better than typical turf grass. These types of seedings take at least two growing seasons to fully establish and create habitat and year-long color. The native grass area is the backdrop for further Legacy Project expansion.

LAKE SUPERIOR COLLEGE

SUSTAINABILITY

Visit the LSC Sustainability webpage for more information.

### **Extending Stormwater Benefits**

The South St. Louis Soil and Water Conservation District obtained a Clean Water Fund grant to extend LSC's Student Senate Legacy native grass swale. The purpose of this native seeding is to capture additional runoff from the front lawn space and rooftop. Less "warmed" rainwater reaches Miller Creek and this protects the cool-water loving trout and invertebrates. Boreal Natives began working with Student Senate in 2012 to also provide additional pollinator habitat and aesthetic appeal to the LSC landscape. This project added to that area an approximately 1,500 square foot re-contoured and prairie seeded stormwater conveyance area.

Visit the LSC Sustainability webpage for more information.



SUSTAINABI



### **LAKE SUPERIOR COLLEGE STORY OF THE SUPERIOR COLLEGE Root Systems of Prairie Plants**





### WILD LSC!

One of LSC's most visible wildflower area conversions was first seeded in the fall of 2013. The campus's Student Services Building (S-Building) entrance area was converted from typical turf to a northern hardy grass and wildflower seed mix. This had previously been a tricky maintenance area. With narrow sidewalks, large snow removal equipment, heavy salt and poor soil, the grass on either side of the sidewalk had a difficult time thriving.

The annual wildflower seed mix can change each year, but is always a campus favorite! This area will continue to develop as needs, climate and management strategies change.



### **Annual Wildflower Mix Content**

Depending on the seasonal stage, you might find some of these wildflowers in this seeded area:





Calendula



**Bachelor button** 



Forget-me-not



Baby blue eyes



**Plains coreposis** 



Red poppy



Snapdragon



Godetia



Shirley poppy



Baby's breath



Short dry grass mix Little bluestem, Side oats grama, Blue grama, Poverty oat grass, June grass, Kalm's brome, Prairie dropseed



### **Rain Gardens for a Hillside Campus**

Rain gardens are a natural way to reduce the negative effects of stormwater runoff and are an alternative to typical curb and gutter management systems. This rain garden catches excess runoff and sediment from the hillside and rooftop, while the deeply rooted perennial native grasses promote water infiltration and evapotranspiration. This helps to reduce the amount of direct runoff that eventually reaches Miller Creek - a protected trout stream. This rain garden needs minimal maintenance and is part of Lake Superior College's larger Stormwater Management Plan.



#### **Underground Stormwater Infrastructure**

In 2012, this lot was updated with underground stormwater management structures. These corrugated and perforated pipes capture, cool, and settle stormwater before dispersing overflow to nearby Miller Creek. This results in an almost 50% reduction in sediment that would otherwise flow off the parking lot and into receiving waters. Reducing sediment prevents deterioration of habitat for trout and invertebrates in Miller Creek.

The parking lot also features an eco-smart design. The old parking lot concrete was ground up and incorporated into the current lot's base layer, solar sensitive LED lights save electricity and money by automatically dimming, and a pedestrian friendly sidewalk was added where previously none existed.

Visit the LSC Sustainability<br/>webpage for more information.Image: Comparison of the comparis



#### **Slow the Flow**

This stormwater conveyance feature was seeded with native grasses, sedges, and flowers in 2014. Taller perennial grasses help slow the velocity of stormwater, reduce erosion, capture sand and salt, and keep more water in place instead of sending it directly to streams. These native plants and flowers are also aesthetically appealing, drought resistant, and offer interest to otherwise mowed single-species or weed-prone areas. Boreal Natives provided the expert design and installation power for this unique area.



### **Native Plant Identification**

Depending on the seasonal stage, you might find some of these wildflowers in this seeded area:



Black-eyed Susan Rudbeckia hirta



Common ox-eye



Golden Alexander Zizia aurea



Blue vervain Verbena hastata



Large-leaved aster Eurybia macrophylla



Flat-topped aster Doellingeria umbellata



Tall meadow rue Thalictrum dasycarpum



Upland goldenrod Solidago ptarmicoides



Wild bergamot Monarda fistulosa



Gray goldenrod Solidago nemoralis





### **Native Plant Identification**

Depending on the seasonal stage, you might find some of these wildflowers in this seeded area:



Stiff goldenrod Solidago rigida



Northern bedstraw Galium boreale



Common milkweed Asclepias syriaca



Stiff sunflower Helianthus pauciflorus



Yarrow Achillea millefolium



Blue vervain Verbena hastata



Joe-pye weed Eupatorium maculatum



Joe-pye weed Eupatorium maculatum



Boneset Eupatorium perfoliatum



Swamp milkweed Asclepias incarnata





### **Native Plant Identification**

Depending on the seasonal stage, you might find some of these wildflowers in this seeded area:



Flat-topped aster Doellingeria umbellata



**Giant sunflower** 



Boneset Eupatorium perfoliatum



Blue flag iris Iris versicolor



Water plantain

Canada anemone

Anemone canadensis



**Panicled** aster Symphyotrichum lanceolatum

**Red-stalked** aster

Symphyotrichum puniceum



**Black-eyed Susan** Rudbeckia hirta



Common ox-eve Heliopsis helianthoides





### Design for Stormwater, Habitat and Ecology

The grasses and flowers in this area are habitat for wildlife, and this area is designed for bees and other pollinators. Unlike lawns, native pollinator areas help to alleviate habitat fragmentation and assure widespread and diverse travel paths for pollinators across the city and region. No pesticides are used here and only the perimeter of the swale is mowed. Less mowing also means less carbon emitted into the atmosphere and less gasoline used for regular maintenance.

Visit the LSC Sustainability webpage for more information.





#### West Rain Garden Design



#### Learn More About Miller Creek

The Miller Creek ravine provides opportunities for education, solitude, recreation and stewardship of natural resources. The Miller Creek Interpretive Trail connects 14 sites of ecological interest in the creek ravine and surrounding area. The trail is less than a mile long and the sites are marked by informational sign posts.

The trail entrance is just west of this rain garden, off of the LSC main driveway.

Visit the LSC Sustainability webpage for more information.



