# Sustainability in Warrenville

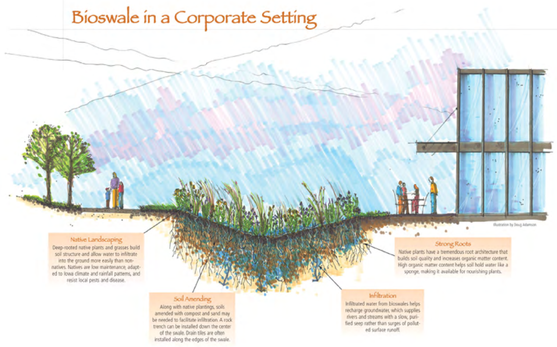
## Best Management Practices

**Best Management Practices (BMPs) are measures designed to manage excess stormwater runoff, prevent degradation of local walkways, and enhance overall water quality. These measures manage stormwater quality through the control, capture, and treatment of stormwater pollutants, ensure erosion control, and in many cases provide aesthetic benefits. Here are a few examples of the BMPs successfully implemented in the City of Warrenville:**

**Bioswale:** Bioswales are vegetated drainage ways that function by slowing runoff as it comes off an impervious surface, such as a parking lot. Bioswales remove sediments and other pollutants and promote water infiltration into the soil during small rain events. Maintaining and enhancing natural drainage ways can save money by eliminating the need to install storm sewers.

Warrenville Examples:

- New Hubble Middle School (3S600 Herrick Rd)
- Hyatt Hotels in the MaeCliff Development (27576 MaeCliff Dr)
- CDH/ProCure Cancer Center (4405 Weaver Pkwy)
- Blanchard Alliance Church (30W251 Butterfield Rd)
- DuPage County River Research Center (Blackwell Forest Preserve)




**Native Landscaping:** One of the easiest ways to enchance the landscape's ability to manage water more sustainably is to strategically install landscaping that features native plants of the tall grass prairie region. Native plants have deep root systems that will help build soil quality and do not need fertilizers or pesticides. Native plants also create habitat for birds, butterflies, and other wildllife species. After establishment, native landscaping is less expensive and easier to maintain.

Warrenville Examples:

- Cerny Park, City of Warrenville
- Summerlakes Park, Warrenville Park District
- Blanchard Alliance Church (30W251 Butterfield Rd)
- DuPage County River Research Center (Blackwell Forest Preserve)

**Rain Gardens:** Rain gardens perform bioretention services but generally do not have an engineered subgrade. Rain gardens rely on healthy soils with good infiltration and percolation rates to manage ponded runoff water. A thorough soils investigation is needed to ensure a proposed rain garden site has soils with adequate percolation rates. Rain gardens are typically used in residential settings to manage runoff from smaller impervious surfaces like roofs. In some residential development, soils are altered and compacted and require an engineered subgrade to ensure a drain down time of 12 to 24 hours.

Warrenville Examples:

- DuPage County River Research Center (Blackwell Forest Preserve)

**Naturalized Detention Basin:** Naturalized detention basin designs emulate natural lake or wetland systems by utilizing native plants along the water's edge and on side slopes. Effective detention designs dramatically reduce runoff rates, prevent most increases in flooding associated with new development, reduce runoff pollutants, prevent erosion, and provide desirable habitat for birds and aquatic organisms.

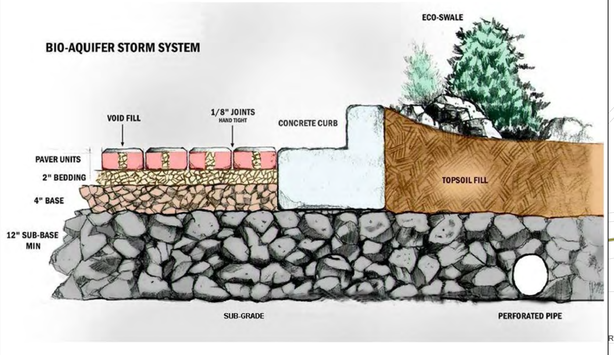
Warrenville Examples:

- IBEW Local 701 Corporate Headquarters (28600 Bella Vista Pkwy)
- New Hubble Middle School (3S600 Herrick Rd)
- Blanchard Alliance Church (30W251 Butterfield Rd)
- Various Detention/Retention Ponds, Cantera Development
- Dupage County River Research Center (Blackwell Forest Preserve)

**Permeable Pavement:** Transportation surfaces (roads, parking lots, driveways) account for over 60% of impervious urban surfaces. Permeable pavement allows rainfall to infiltrate down rather running off into storm sewers. Rainfall moves into a rock chamber below the pavement. Water in the pores space between the aggregate either percolates out and down through surrounding soils or moves to a perforated drain pipe installed in the rock chamber. Water is slowly released to become ground flow or enter surface waters after it has been cleaned and cooled by moving through the pavement and underground rock chamber.

Warrenville Examples:

- Warrenville Road
- New Hubble Middle School (3S600 Herrick Rd)
- DuPage County Forest Preserve River Research Center (Blackwell Forest Preserve)




**Infiltration Trench:** An infiltration trench is a rock-filled trench with no outlet that recieves stormwater runoff. Stormwater passes through some combination of pretreatment measures, such as a swale or sediment basin, before it enters the trench. Runoff is then stored in the voids of the stones, slowly being infiltrated through the bottom and into the soil matrix over a few days. The primary pollutant removal mechanism of this practice is filtered through the soil. In infiltration trenches, there is no landscaping on the surface itself, but it is important to ensure that the upland drainage is properly stabilized with dense vegetation, both during and after construction.

Warrenville Examples:

- Blanchard Alliance Church (30W251 Butterfield Rd)

City of Warrenville BMPs
Community Development Department
Created By: Lee Spencer
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Summerlakes Park Native Landscaping


DuPage County Forest Preserve River Research Center

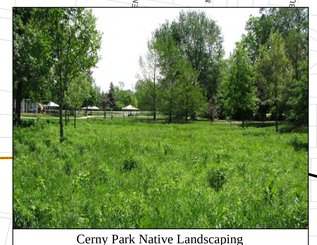

Warrenville Rd Permeable Pavers

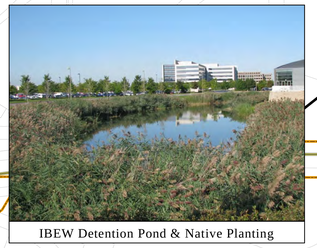

Hubble Middle School Permeable Pavers


Village Green Detention Pond & Native Planting


Hyatt Hotels Bioswale


Blanchard Alliance Church Infiltration Trench


Cerny Park Native Landscaping


IBEW Detention Pond & Native Planting


Hubble School Naturalized Detention Pond


Lund Lake


CDH ProCure Cancer Center Parking Lot Bioswale