

Examples of Various Storm Water Management Practices

Management Practice: Bio-Swale

Location: Private Residence,
Milwaukee, WI

Description: Bioswales are landscape elements designed to remove silt and other pollutants from surface runoff water. They consist of a meandering drainage course with gently sloped sides (less than six percent) and filled with vegetation, compost and/or riprap. Bioswales are designed to maximize the time water spends in the swale, which aids the trapping of pollutants and silt. Depending upon the geometry of land available, a bioswale may have a meandering or almost straight channel alignment.



Management Practice: Wet Detention Basin

Location: Cabela's Store,
Richfield, WI



Description: A wet detention basin is designed to have a permanent pool of water with calculated dimensions, inlets, outlets and storage capacity, constructed to collect, detain, treat and release storm water runoff. The primary purposes of this practice are to improve water quality and reduce peak flows. The location and use of wet detention ponds may be limited by regulations relating to navigable waters, floodplains, wetlands, wells, or by land uses such as waste disposal sites and airports.

Management Practice: Green Roof

Location: Mayfair Mall, Wauwatosa, WI

Description: A green roof is a roof of a building that is partially or completely covered with vegetation and soil, planted over a waterproofing membrane. Benefits of green roof systems include reduction of heating and cooling costs, reduction of storm water runoff peak flows and volumes, reduction of pollutants through filtration, and increased life span of roof.



Management Practice: Infiltration Basin

Location: Pabst Farms Development, Oconomowoc, WI

Description: An infiltration basin is defined as a basin created either by excavation or an embankment, with a flat, densely vegetated floor dedicated to the infiltration of runoff through the ground surface. The purpose of these basins is to reduce storm water peak runoff flows and volumes, reduce pollutants through filtration, increase discharge to groundwater, and preserve base flow in streams.



Management Practice: Porous Pavement

Location: Morton Arboretum,
Lisle, IL



Description: This practice includes porous asphalt, concrete, paving stones or bricks. All of these pervious materials allow precipitation to percolate through areas that would traditionally be impervious and instead the storm water infiltrates through to the soil below. The infiltration capacity of the native soil is a key design consideration for determining the depth of base rock for storm water storage and determining whether an under drain system is needed. These pervious surfaces allow groundwater recharge, while capturing the pollutants.

Management Practice: Rain Barrels

Location: Brico Fund, LLC; Milwaukee, WI

Description: A rain barrel is a water tank which is used to collect and store rain water runoff, typically from rooftops via rain gutters. Rain barrels are installed to capture rain water for later use. Stored water may be used for watering gardens, agriculture, flushing toilets, in washing machines, and washing cars.



Management Practice: Rain Gardens

Location: Broken Hill Subdivision, Pewaukee, WI

Description: A rain garden is a planted depression that is designed to allow rainwater runoff to be absorbed from impervious urban areas like roofs, driveways, walkways, and compacted lawn areas. This reduces runoff by allowing storm water to soak into the ground rather than running to a storm drain. Benefits include a decrease in runoff peak rates and volume, an increase in groundwater recharge, and a decrease in urban storm water pollutants.



Management Practice: Restored Wetlands

Location: Tellabs, Inc.; Naperville, IL

Description: Wetland restoration is the re-establishment of a previously drained wetland by excavation, diking or removing/breaking tile drains. Benefits of wetland restoration include the improvement of water quality and wildlife habitat for native birds, and hundreds of plant and amphibian species. A wetland will temporarily hold runoff, which reduces flooding downstream and filters out pollutants before the water infiltrates and recharges groundwater.

