Every individual can help protect the health of our watershed. Here are some practices you can adopt at home to reduce nonpoint-source pollution:

#### Clean up after your pet.

Dog feces left unbagged can introduce pathogens and excess nutrients to our local waterways.

#### Use landscaping options, such as native plants and grasses, that do not require fertilizers or pesticides. If you decide to use chemicals, "organic" products, or compost, use the least amount necessary.

#### Repair automobile leaks as soon as possible.

Any substances that drip from our cars may later be washed down a storm drain.

Sweep driveways or patios instead of hosing off, which will lead debris into the storm drain. This debris will then be carried, unfiltered, into our streams. Dispose of debris in the regular garbage.

#### Wash your car at a commercial car wash.

They use less water and are required to treat the wastewater. When washing cars at home, wash them on your lawn or other unpaved surface using a biodegradable carwash soap.

#### Clean paint brushes in your sink. Dispose of excess paints through a household hazardous waste collection program.

#### Do not dump anything into a storm drain.

Water from storm drains is not treated before being released into our waterways. Share this information with your friends and neighbors.

#### Take proper care of your septic system.

Have a professional inspect it at least every 3 years and pump it as necessary, usually every 3 to 5 years. Protect your drainfield by planting grass only and prohibiting vehicles.

#### Watershed Planning Partners:



Chicago Metropolitan Agency for Planning (CMAP) is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will, and is the delegated authority for the region's areawide water quality management plan.



The Conservation Foundation (TCF) is a not-for-profit land and watershed protection organization, active in northeastern Illinois since 1972. The Foundation's mission is to preserve open space and natural lands, protect rivers and watersheds, and promote stewardship of the environment.



Fox River Ecosystem Partnership (FREP) is a non-profit comprised of Fox River Watershed stakeholders whose vision is to help balance the uses and demands on natural resources while preserving and enhancing a healthy environment.



The mission of the Fox River Study Group is to bring together a diverse coalition of stakeholders to work together to preserve and/or enhance water quality in the Fox River watershed.



This watershed planning project is made possible by Section 604(b) of the Clean Water Act by way of a grant from the Illinois Environmental Protection Agency (IEPA), Bureau of Water, to the Chicago Metropolitan Agency for Planning (CMAP).







## **BLACKBERRY CREEK** WATERSHED **PLANNING**

# Chicago Metropolitan Agency for Planning

### HOW YOU CAN HELP **REDUCE WATER POLLUTION**

We invite the people that live, work, and play in this watershed to act to protect and improve the area's water quality.



#### **Blackberry Creek**

In 2010, the Illinois Environmental Protection Agency (IEPA) assessed Blackberry Creek for its health related to one of its designated uses: primary contact recreation (swimming). Blackberry Creek was found to be impaired due to the presence of fecal coliform, which is a reliable indicator of fecal contamination.

#### What is Fecal Coliform?

Coliforms are bacteria that live in the intestines of warm-blooded animals (humans, pets, farm animals, and wildlife). Fecal coliform bacteria are a kind of coliform associated with human or animal wastes. Escherichia coli (E. coli) is part of the group of fecal coliforms.

#### What You Should Know About Fecal Coliform:

• Although not necessarily agents of disease, fecal coliform bacteria may indicate the presence of diseasecarrying organisms, which live in the same environment as the fecal coliform bacteria, like E. coli. Certain strains of E. coli can cause serious, sometimes life-threatening, complications if ingested.



Department of Ecology, State of Washington: A Citizen's Guide to Understanding and Monitoring Lakes and Streams

- Unlike the other conventional water quality parameters, fecal coliform bacteria are living organisms.
- Fecal coliform bacteria add organic matter to our water, which decreases oxygen levels that fish and other aquatic life need to breathe.
- Urbanized watersheds generate sources of fecal coliform bacteria, such as pet wastes, failing septic systems, and combined stormwater and sanitary sewer overflows.
- Stormwater runoff in urbanized areas has been found to be surprisingly high in fecal coliform bacteria concentrations.

Nonpoint-source pollution is caused by rainfall or snowmelt moving over the surface of the land. As it flows over our properties and roadways, water can pick up pollutants. Any substance entering the storm sewer system gets released untreated into the bodies of water we use for swimming, fishing, and drinking.



Urban nonpoint-source pollution includes:

- Street litter, road salt, pet wastes, and other debris
- Fertilizers, pesticides, herbicides, yard waste, and other lawn care residues
- Motor oil, gasoline, transmission fluid, anti-freeze, and other substances that leak from cars onto driveways, roadways, and parking lots.

#### Agricultural nonpoint-source pollution includes:

- Sediment from exposed soil or overgrazed fields
- Nutrients and pesticides
- Pathogens from livestock waste



#### The most effective way to protect our water quality is to catch and keep water where it falls!

Let's take a look at how to incorporate this concept regionally and in your backyard....

#### Ten Common **LID** Practices

- 1. Rain Gardens and Bioretention
- 2. Rooftop Gardens
- 3. Sidewalk Storage
- 4. Vegetated Swales, Buffers, Strips; Tree Preservation
- 5. Roof Leader Disconnection
- 6. Rain Barrels and Cisterns
- 7. Permeable Pavers
- 8. Soil Amendments
- 9. Impervious Surface Reduction and Disconnection
- 10. Pollution Prevention and Good Housekeeping

The use of LID practices offers both economical and environmental benefits. LID measures result in less disturbance of the development area, conservation of natural features and can be less cost intensive than traditional stormwater control mechanisms.

#### A Closer Look...Tree Box Filters

A tree box is ideal for an urban setting with a lot of impervious surfaces, where land is at a premium. Stormwater is directed to the tree box, where it evaporates or infiltrates and is filtered by vegetation and soil before entering a catch basin, or evaporates. Tree box filters reduce the amount of stormwater runoff and greatly improve the water quality.



- Plant a rain garden with deep-rooted native plants in a low area or near a downspout discharge area, where it can hold and infiltrate water.
- Plant a tree—they not only help keep water on your property longer, their leaves, the sun and wind also help water evaporate.

#### Keep Water Where it Falls: Regional Approach

#### Low Impact Development (LID)

LID is a stormwater management approach that focuses on controlling stormwater by using small, decentralized methods to treat stormwater close to the source. The primary goals of LID include: lessening the impact of development (and the impact of stormwater resulting from that development) on the natural environment; using land more efficiently; lowering capital and operating costs associated with development. LID strategies include the preservation/protection of environmentally sensitive site features such as riparian buffers, wetlands, steep slopes, valuable (mature) trees, flood plains, woodlands and highly permeable soils.



#### Keep Water Where it Falls: Site-Specific Approach

There are a number of things you can do in your own backyard to help prevent stormwater from running off your property:

- Install a rain barrel to hold rainwater for later use. This reduces the amount of runoff from your property and can help you save
- Direct your downspouts to a vegetated area or rain garden.
- Use porous paving materials to minimize impervious surfaces.