

# **STORMWATER BEST MANAGEMENT PRACTICES START AT HOME**

## **Introduction**

Managing stormwater runoff is often considered the job of the local government, a subdivision developer, or possibly a homeowners' association. Good planning and implementation is important to a successful community stormwater management plan; however, it is also important that individual homeowners understand their role in stormwater management and their impact on the larger community.

## **“We All Live Downstream”**

Before considering some methods, or best management practices (BMPs), to reduce home site runoff, it is important to understand why runoff is a concern. No matter where a person lives, they live in a *watershed*. A watershed is an area of land that drains to a specific point of water, whether it is a lake, stream, river, or ocean.

Watersheds vary in size from quite small to very large. For example, the Mississippi River covers several states and millions of acres. All watersheds are interrelated since smaller ones feed into the larger ones that ultimately drain into the ocean.

Activities in the smaller watersheds ultimately affect the larger watersheds. Although homeowners may not think about it, their individual actions affect everyone “downstream” in the watershed. We all live downstream from someone else.

## **What Is Stormwater Runoff?**

Stormwater runoff can affect the quantity and quality of water that must be handled somewhere downstream. Excess runoff can contribute to flooding. Contaminated runoff can pollute water, making it unfit for human consumption and wildlife habitat. Both situations can be costly to correct. Prevention is more effective and efficient.

Stormwater runoff is the rain and melting snow that flows off streets, rooftops, lawns, parking lots, open fields, and any other exposed area. The runoff carries with it whatever can be dislodged from the various sites, such as salt, soil, leaves, pesticides, fertilizers, oil, gasoline, and any other materials present on the surface. These materials are washed off a wide geographic area rather than originating from one point. That makes preventing contamination more important as well as more difficult.

As land is developed, part of the surface is paved or roofed, creating more runoff potential. Usually, storm sewers are used to carry the resulting runoff to nearby waterways. The water from developed areas often contains contaminants. Even on lawns or other open areas, water that is not absorbed can runoff into the street or parking lot and then into the storm sewers.

Storm sewers are a system of underground pipes that have surface drains or inlets designed to gather storm water. Stormwater is not treated prior to entering local waterways.

Because preserving stormwater quality is so important, Village ordinance prohibits any illicit discharge or illegal dumping of hazardous or suspicious materials into a storm sewer or creek channel. The Village also prohibits dumping of any trash, landscape debris or other material in the community's drainage system.

### **Stormwater Quality Starts at Home**

Reducing the quantity and improving the quality of stormwater runoff in a community can start with individual homeowners. Some stormwater BMPs can be implemented when first planning and building the home and designing the landscape. Others can be incorporated into day-to-day activities.

#### ***Construction Phase BMPs:***

- Consider alternatives to concrete or asphalt paved surfaces Consider more porous surfaces such as brick, gravel, wood chips, stone slab, or geo-textile materials. If areas must be paved, keep it to a minimum and direct runoff onto grassy areas, not onto areas that drain to storm sewers.
- Design and construct the landscape topography to facilitate water holding and infiltration. For example, use low areas for "rain gardens," terrace to slow water runoff, construct small wetlands, or incorporate subsurface water holding areas.
- Use natural plantings in the landscape that are deeper-rooted than turf grass and thus allow for more water infiltration.
- If near a water source, plant buffer strips of natural vegetation and woody plants to slow runoff.
- Mulch and plant exposed soil as soon as possible after construction.
- Use sediment barriers when necessary. Avoid excessive soil compaction and disturbance to the lot.

#### ***Day-to-Day BMPs:***

- Avoid overuse of pesticides and fertilizers use only the amount needed and apply only when necessary
- Apply fertilizer and pesticides only onto target areas. Do not spread fertilizer onto paved surfaces that drain to the storm sewer.
- Follow recommended watering practices. Avoid excess watering and do not sprinkle water onto paved or other areas that drain into the storm sewer.
- Avoid compacting yard and garden soils because compaction impedes water infiltration.
- Clean up hazardous material spills properly and do not wash waste into the storm sewer.
- Store oil, gasoline, antifreeze, and other automotive products properly. Keep these substances tightly sealed and avoid leaky containers.
- Clean up oil or other vehicle fluid drippings. Do not store used vehicle parts on areas that drain to the storm sewer.
- Wash vehicles at a commercial car wash or on a non-paved surface to avoid drainage to the storm sewer.

- Avoid allowing pet waste to be dumped or washed into the storm sewer. Reduce or avoid areas of concentrated pet waste.
- Mulch grass clippings and leave these on the lawn for natural fertility or use the clippings for composting.
- Keep grass clippings and leaves from washing into the storm sewer.
- Drain downspouts onto grassy areas. Collect water from downspouts for use around the home.
- Mulch and seed bare soil as soon as possible to prevent the soil from eroding into the storm sewer.

Many of these best management practices may seem rather simple or small, but the cumulative effect throughout an entire watershed can significantly contribute to improved stormwater management. Any questions or inquiries should be directed to the Engineering Division at 847-252-5800.