

Downspout Disconnection



Green Infrastructure

As our population has grown, natural landscapes, prairies and forests have been replaced by agricultural land and sprawling cities. Stormwater, once easily absorbed, now flows as runoff across the ground and over hard surfaces. Stormwater runoff occurs when precipitation from rain or snowmelt flows over hard surfaces unable to absorb it, like driveways, roofs, sidewalks and streets. The hard surfaces increase the speed and volume of water that reaches the stream and causes stream bank erosion. In extreme cases, this could result in property loss.

Untreated stormwater runoff can be harmful when discharged into the water bodies we use for swimming, fishing and as a source of drinking water. Stormwater picks up chemicals, nutrients, debris, sediment and other pollutants. It can also increase temperature as it is carried by sewers directly into lakes, streams, or rivers.

To counter the effects of excessive stormwater runoff, we can manage stormwater differently with green infrastructure. Green infrastructure involves the use of soils, plants, and land features in an effort to preserve, interconnect, and mimic natural processes that slow, sink, and spread stormwater where it first falls. This reduces the volume of runoff and the amount and type of pollutants entering our waterways. Using green infrastructure to manage stormwater, we can prevent untreated water from affecting our environment and reduce the amount of water we use on our lawn and landscaping. Common strategies include the collection and conveyance of stormwater runoff from roofs, driveways and other surfaces so that rain is absorbed or is collected for re-use. Selecting plants for landscaping that have deep roots that promote infiltration and only need rainfall to thrive.

By using green infrastructure on your own property, you can realize the many benefits it provides.



Description:

Your home's downspouts are either connected from your roof gutter directly to city storm drains or they discharge stormwater straight onto your property and subsequently into a storm inlet. In each situation, stormwater flows unimpeded into our waterways. In some cases, excessive stormwater causes sewers to overflow, sending untreated water directly into nearby streams and lakes. In the case of direct discharge onto driveways and sidewalks, rainwater not only picks up pollutants and chemicals on its way to a storm inlet, it is also heated by these hard surfaces. Heated stormwater that enters our waterways degrades the stream habitat. In addition, when stormwater is routed to nearby streams and rivers, it picks up speed. As a result, the stormwater entering streams scours away stream beds and erodes stream banks. Erosion adds sediment to the water, which has devastating effects on stream ecosystems.

Considerations:

Disconnecting downspouts and re-directing stormwater can help protect our water resources, but it must be done properly to prevent wet basements, flooding and erosion. Consider where the runoff will go, by what means it will get there, and what happens once it gets there.

- Disconnected downspouts should be extended to convey water at least six feet from a structure.
- Direct water away from building foundations by cutting downspouts and attaching elbows, extensions and splashblocks to manage the fast moving water and keep water on the surface, flowing over at least four feet of vegetation before it hits a hard surface.
- Route water to your lawn or a large landscape area. You might also consider building a rain garden or catchment cistern for the stormwater to run into.
- Avoid disconnecting downspouts in an area that does not drain well or is directed toward a wall or structure.
- Make sure that excess flow from big storms will run to storm inlets rather than your neighbors' property.
- Hire professional assistance if needed to advise you or to do the work.

To learn more about this and other Green Infrastructure strategies, visit:

www.OmahaStormwater.org