

# Grand Island Stormwater

## Guidance: Erosion & Sediment Control for New Construction



When you move in to your newly built home, you may be taking on the project of establishing a lawn on bare soil. When rain falls on exposed soil, it can wash soil particles away. This can erode bare ground, wash away valuable topsoil and make landscaping more difficult. It also carries soil, nutrients and other pollutants into streets, gutters and ditches. Stormwater runoff is not treated at a wastewater treatment plant; it travels untreated to lakes, rivers, streams or wetlands. Polluted runoff can cause excessive growth of weeds and algae in water bodies and reduce recreational opportunities such as swimming and fishing. Sediment-laden runoff can also clog ponds and wetlands and increase localized flooding.

If your new home does not have an established lawn, you can help protect the environment by taking steps to maintain your topsoil while your grass, groundcover, or landscaping becomes well established.

### Temporary stabilization

When construction on your home is complete, ensure that your builder has installed temporary soil stabilization measures. Things like straw mulch, silt fence, and downspout extenders are proven to minimize soil erosion and prevent sediment-laden runoff from reaching streets, gutters, ditches, streams, lakes and wetlands. Silt fence or other sediment control should be in place on the down slope perimeter as well as near curb and gutters, ditches, streams, lakes and wetlands. Mulch or similar material must cover exposed soil; soil stockpiles remaining on site must also be stabilized.

Some common temporary stabilization methods include:

**Temporary vegetation** usually refers to annual grasses that sprout quickly such as annual rye, oats and winter wheat. These grasses grow quickly and require little care. Their roots hold on to soil and can protect the soil from rain, slow runoff, while the plant acts as a filter. These plants do not come back each year and are not considered permanent cover. Vegetative maintenance can include mowing, fertilizing, watering, and even reseeding to ensure temporary vegetative cover is maintained on your property until permanent cover is established. Please note that weeds are not temporary cover.

**Mulching** is used as a temporary cover to protect the soil from rain and help keep seeds in place; it may be the only option during the winter when seeding or sodding is not possible. Some common types of mulch include straw, wood chips, and wood fiber blanket. Mulch must stay in place to be effective, so some types of mulch are anchored with netting, stakes or chemical binders. Mulch maintenance includes reinstalling washed-out mulch and making sure the mulch is anchored in place.

**Sediment control devices** are intended to keep muddy stormwater from leaving your property. Silt fences, one common example, are lengths of permeable fabric held up with stakes, commonly installed around the perimeter of a property. The silt fence catches stormwater runoff and allows it to puddle or pond, so soil and sediment can settle out before water makes its way through the fabric and off a site. Other sediment control devices include earth berms, straw wattles, and more. These items must be properly installed – if stormwater can get under, around, or break through the barrier, the device will not work. Maintenance includes patching or installing new barriers when they are ripped, collapsed, undermined, or decomposed. It is also necessary to remove built-up sediment before it reaches  $\frac{1}{2}$  the height of the device. These



perimeter controls should be maintained until permanent vegetation is established.

**Downspout extenders** are excellent tools to protect your property from roof runoff by directing water to paved or grassy areas. This helps prevent erosion near your foundation while you are getting your lawn established. Be sure to check the connection and positioning of any extenders regularly. Remove downspout extenders after your groundcover is established so your roof drains can water your lawn.

Remember, you are responsible for inspection and maintenance of all temporary stabilization measures on your property until permanent ground cover is established on your yard.

## Permanent stabilization

Establish permanent vegetation or ground cover as soon as possible. Mulch, silt fences, downspout extenders, or other temporary stabilization measures can be removed once permanent vegetation is established.

*For a watersmart property, consider the following:*

- Keep and protect existing native trees, bushes and plants on your property; plant new trees and shrubs to reduce runoff.
- Schedule landscaping projects for dry weather.
- Terrace slopes to slow the flow of runoff.
- Use well adapted native plants that reduce runoff and require little maintenance.
- Plant lawn alternatives like rain gardens, prairie plants, or no mow lawn mixes.
- Plant fast-growing annual and perennial grasses.
- Water new seed or sod lightly, every day or two, for two weeks to keep soil moist.
- Route downspouts and other drainage to heavily vegetated areas.
- Use crushed rocks, pavers or other alternatives that allow rainwater to seep into the ground for walkways, recreational vehicle (RV) pads, decks, patios and drives.
- Leave an unmowed buffer strip of thick vegetation along stream banks and lakeshores.
- Use caution when landscaping near your home, especially next to the foundation. Changes in the final grade can lead to water pooling and basement water damage.
- Use a landscaping firm experienced in stormwater design.
- Check with the Building Department to make sure your landscape design meets local regulations.

## Control stormwater pollution

Finally, you can continue to help area lakes and streams for as long as you own your home. Stormwater runoff does not go to a wastewater treatment plant. It flows directly into our lakes and streams. There are many ways you can reduce polluted runoff:

- Keep trash, leaves and grass clippings off streets and out of storm drains, streams and lakes.
- Pick up and bury or flush pet wastes.
- Keep cars tuned up and repair leaks.
- Properly dispose of hazardous wastes.
- Do not pour oil, pesticides, paint or other materials down the storm drain.
- Use pesticides, fertilizers and de-icing materials according to the manufacturer's instructions.
- Wash your car on the lawn or use a commercial car wash to keep soap and dirt out of the storm drain.

For more information on stormwater measures, contact the Public Works Department.

