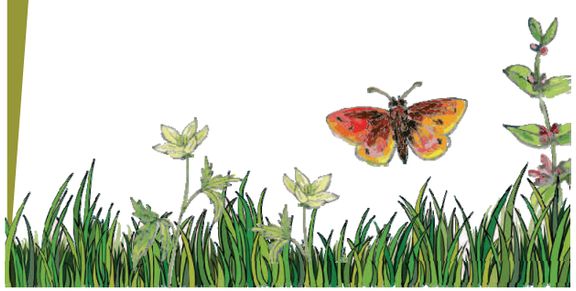
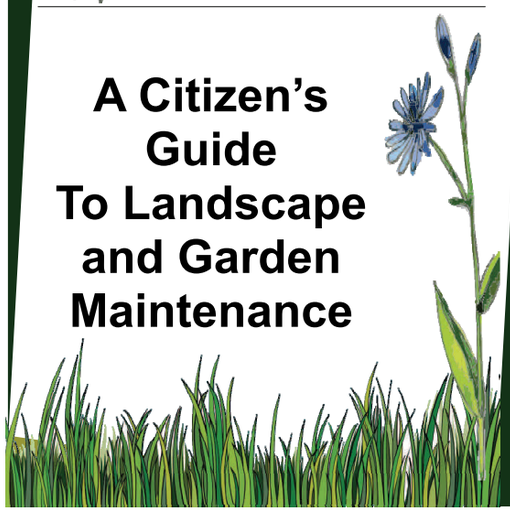


Stormwater Management Division

Protecting Arlington's Waterways

A Citizen's Guide To Landscape and Garden Maintenance



The Storm Drain System

The City's Municipal Separate Storm Sewer System or MS4 was designed to divert excess rainwater, or stormwater, to the many creeks and streams found in the City of Arlington. However, as stormwater flows over yards and impervious surfaces like driveways, streets, roofs and parking lots it picks up pollutants and transports them to these same creeks and streams. These pollutants can have a negative effect on the water quality and increase treatment costs. The dumping of yard waste and other debris can also lead to blockages which can back up stormwater into the streets possibly damaging homes, businesses and other structures when we have rain events.

- Use a mulching lawn mower or bag your grass and leaves instead of blowing yard waste into the street. Besides clogging the storm drains, it can reduce the amount of oxygen in the creeks which fish need to survive.
- Pick up trash and debris around your neighborhood or place of business so it doesn't collect in the storm drain pipes, vegetated swales or adjacent streams.
- Report blocked inlets, storm drain pipes, and any illegal dumping into our local waterways to the City of Arlington's Action Center at 817-459-6777 or online at www.arlingtontx.gov/contact/

Common Stormwater Pollutants

Sediments: Sediment clouds water and reduces sunlight for the aquatic plants that provide habitat and oxygen for fish. Sediments fill in the spaces between rocks in creek or stream beds and damages fish spawning habitat as well as habitat for other aquatic life. Sediments also carry other pollutants such as nutrients, oil and grease which can lead to long term water quality issues.

Nutrients and Organic Matter: Animal, yard and garden waste, soil, and products such as fertilizer contain nitrogen and phosphorus which accelerate algae growth in local waterways. This plant growth and the resulting decomposing organic matter consumes oxygen, which can harm aquatic organisms and disrupt life in streams, creeks and lakes.

Coliform Bacteria: Disease causing organisms found in human, pet and other animal waste can contaminate water. Picking up and disposing of pet waste and preventing sanitary sewer backups and overflows will help prevent these pollutants from entering local waterways.

Chemicals: Pesticides, herbicides and fertilizers from lawns and gardens; detergents from washing our cars; heavy metals from batteries, paints, and fuels along with other petroleum by-products are all toxic substances that can be harmful to aquatic, terrestrial and human life.

Using, storing , handling and disposing of chemicals properly can reduce stormwater pollution!

Litter: Trash and debris often end up in streams and lakes diminishing their natural beauty. This debris can harm fish and aquatic wildlife, hinders sunlight penetration and interferes with fish and wildlife movement which degrades natural habitat.

Landscaping and garden maintenance activities can be major contributors to water pollution.

- Fertilizers, pesticides and herbicides are washed off lawns and landscaped areas and contaminate ground and surface water. These chemicals not only kill harmful pests, they also harm useful insects.

- Sweeping or blowing leaves, grass clippings and tree trimmings into the streets, gutters, concrete and earthen channels or any waterway is a violation of the Stormwater Pollution Ordinance.

  - These wastes clog storm drain inlets which increase the risk of flooding on your street which can cause structural damage to homes and businesses.
  - Garden and lawn chemicals are transported by this debris to our creeks and streams harming local wildlife.
  - Compost and recycle yard wastes. This reduces the costs of chemical fertilizers and reduces stormwater pollution.

- Conserve water by using irrigation practices such as drip irrigation, soaker hoses or micro-spray systems. Use **Rain Barrels** to collect excess rainwater for use in landscape irrigation.

Protect the beneficial species by viewing your lawn and garden areas as a habitat.

Rain Gardens provide an attractive addition to your landscape.

- Provides habitat for beneficial insects.
- Filters pollutants from stormwater which improve our water quality
- Reduces the risk of flooding by decreasing the speed and volume of stormwater runoff.

Integrated Pest Management

IPM is a practical decision making process that relies on a wide variety of tools to promote healthy plants and manage yard and garden pests. It is an effective science-based approach that reduces the use of pesticides, herbicides and fertilizers around your home and outside landscaping. This reduces stormwater pollution, improves water quality and can save residents time and money.

- **Prevention:** Select plants that are less susceptible to insects and disease. Opt for native plants to reduce water usage and use cultural practices to make the environment less favorable for pests.

- **Monitoring:** Regularly inspect landscaping to for deformities, discolorations, holes, wilting or loss of leaves or flowers. Detect problems while pest numbers are low and easier to control. Identify any conditions contributing to the pest problem

- **Identification:** Correctly identify pests. Beneficial insects are often incorrectly identified as a pest. Once the pest has been identified, seek out information on its life cycle and its preferred environmental conditions. Make an informed decision about what control measures will be most effective

- **Treatment Thresholds:** If damage is minimal and only a few pests are present it can be beneficial to continue monitoring to see if the pest population is growing or if beneficial insects are taking care of the problem. A common mistake is to treat pests that are causing little to no damage due to a fear of potential spread.

- **Control Measures:**

  1. Physical methods which physically keep insects from reaching their hosts.
     - Mulching and other barriers
     - Sticky traps
     - Caulk cracks and crevices
     - Hand pulling to control weeds

  2. Mechanical methods which directly remove or kill pests
     - Hand picking
     - Light traps
     - Dislodge pests from their hosts by shaking or spraying with water
     - Cultivation which exposes pests to desiccation or predators

  3. Biological methods which use of living organisms that are the natural enemies of pests.
     - Predatory insects such as Green lacewings eat aphids
     - Bacterial insecticides

  4. Chemical: Use pesticides that are specifically designed for your pest. Use only as directed. ***READ THE LABEL!***

  Use these least toxic products
  - Dehydrating dusts (ex. Silica gel)
  - Insecticide soap
  - Boric acid powder
  - Horticultural oils
  - Pyrethrum-based insecticides

- **Evaluation:** Keep records that show monitoring methods, actions taken and results obtained.

Information Resources

Texas A&M AgriLife
www.dallas.tamu.edu

Texas Commission on Environmental Quality
www.tceq.state.tx.us

Stormwater Pollution Ordinance
www.arlingtontx.gov/citysecretary/

Stormwater Education
www.arlingtontx.gov/stormwater/education

Leaf and Lawn Management
Don't Bag It!
Household Hazardous Waste
www.arlingtontxgov/recycle

Cease the Grease Program
Water Conservation
www.arlingtontx.gov/water/

Forestry and Beautification
Texas Tree Smart
www. naturallyfun.org/parks/

The City of Arlington Action Center
www.arlingtontx.gov/contact/

Public Works and Transportation
Stormwater Management Division

101 W. Abram St
P.O. Box 90231 MS 01-0220
Arlington TX 76004-3231
Phone: 817-459-6550
Fax: 817-459-6585
E-mail:
Stormwatereducation@arlingtontx.gov