RainSmart stewardship guide

CHATTANOOGA

Stormwater Division

Table of contents

Introduction 1

RainSmart Rewards Programs 2

Garden Care Guidance 3-4

The Basics | Dos & Don’ts 5

Rain Barrel Maintenance 6-7

Cues to Care + Code Compliance 8-11

Sustainable Practices 12-13

Contact Us 14

Introduction

Welcome to the RainSmart Stewardship Guide, an invitation to be a part of something greater—a movement to protect and enhance the health and beauty of our city. This guide is designed to empower and equip you to take simple yet powerful actions on your property that will benefit not only your home but also the broader community, the local ecosystem, and future generations.

As stewards of Chattanooga, our choices shape our communities. Through mindful land management, we can improve water quality, support local wildlife, and strengthen the resilience of our city now and into the future. By adopting ecological land stewardship practices, we reduce erosion, protect our waterways, repair our habitats and contribute to a more vibrant urban landscape. Every step we take—whether it's managing stormwater runoff, conserving and restoring native biodiversity, or creating new green spaces—creates a lasting, positive impact on our environment and our well-being.

This guide is your introductory resource for making a meaningful impact and contributing to Chattanooga's legacy of responsible stewardship for generations to come. Let's work together to build a resilient, healthier, and greener city for all.

RainSmart Programs

Rebates

Earn rebates for installing green infrastructure and restoring habitat on your property. Choose from the 4 following project tracks and receive up to $5000 back.

Rain Garden – Planted basins designed to capture and filter runoff from impervious areas using amended soils and native vegetation, infiltrating stormwater on-site.
SupportScapes – Native plantings that replace turf or invasive plants with deep-rooted natives, slowing runoff, reducing erosion, and creating healthier habitat.
Rain Barrels – Containers that capture roof runoff for later use, cutting stormwater flows and erosion; participants can earn $50 per barrel, up to $500.
Streambank Restoration – Stabilizes eroding stream edges with natural materials and native plants, improving water quality, habitat, and long-term channel stability.

Stormwater Fee Discount

RainSmart Yards Certification – Get certified through WaterWays, our nonprofit partner, and save 25-75% on your annual stormwater fee for implementing stormwater-friendly practices—like green infrastructure, native plantings, and other sustainable measures—that help keep our waterways clean and healthy.

Garden Care Guidance

Install
Weeks 1-2

- Generously mulch new gardens at time of installation. See next section for best practices.
- Thoroughly water newly installed plants immediately following planting and periodically in the first two weeks.

Establish
Years 1-2

- Water establishing plants regularly in extended dry periods between significant rain events.
- Monitor erosion and promptly stabilize.
- Identify and remove encroaching weeds from new garden areas.
- Reapply mulch to any bare spots.

Late Winter
Feb-Early March

- Prune dead wood from trees and shrubs. Check for buds first!
- Cut back dead material of last year's growth from herbaceous perennials and grasses when temps have reached 50+ degrees.

Continued on next page >>>>>

Garden Care Guidance

Spring
Mid April - Late May

- For taller growing species, cut back some or all stems by one-third to one-half their length to extend or delay bloom time and encourage sturdier, more prolific plants.
- Install additional **native herbaceous perennials** to replace any that may have died or as desired. *Be careful to confirm plant death before removal- healthy perennials return each year.*

Fall
Early Oct - Late Nov

- Install additional **native trees and shrubs** to replace any that may have died or as desired. Be careful to confirm plant death before removal- healthy perennials return each year. *For proper planting technique, dig your hole twice as wide and just as deep as the rootball. Ensure the top of the rootball lies slightly above the surface of the soil.*

Ongoing
Variable

- Remove any encroaching lawn, weeds, or invasive species before they have gone to seed.
- Add fresh mulch to garden areas every few years
- Maintain **cues to care** (*see p. 8-9)* to demonstrate intentionality of planting.

The Basics

Pruning Trees & Shrubs

Timing

Prune woody plants during the dormant season (late winter to early spring) before new growth begins. This helps reduce stress and allows the plant to heal before the growing season.

Tools

Use sharp, clean pruning shears or saws to make smooth cuts and avoid damaging the plant.

Technique

Always prune back to healthy wood. Remove dead, diseased, or damaged branches first. For shaping, prune to a lateral bud or branch to encourage natural growth.

Don’t over prune

Remove no more than 25-30% of the plant's growth in a single year to avoid stressing the plant.

Mulching

Ring vs. Volcano

☑ Do create a tree ring around the base of a tree with mulch, leaving a small gap between the mulch and the trunk. This promotes proper airflow and prevents rot.

☒ Don’t create a "volcano" by piling mulch against the trunk. This can suffocate the tree, create excess moisture, and lead to disease.

Depth

☑ Do apply mulch at a depth of 2-4 inches, ensuring it’s even but not too thick. This helps conserve moisture and regulate soil temperature.

☒ Don’t exceed 4 inches of mulch, as excessive depth can prevent water penetration and lead to fungal issues.

Continued on next page >>>>>

The Basics

Weeding

Step 1: Identify

Learn to recognize plants that are out of place in your garden. Look for common weeds which are opportunistic and spread quickly.

Step 2: Remove

For small weeds, pull them out by hand, ensuring you remove the entire root to prevent regrowth. For larger weeds, use tools like a hoe or weeding fork to loosen the soil and remove the plant. Remove before plants go to seed.

Step 3: Dispose

Do not compost weeds, especially invasive ones, as they may spread. Instead, burn them or place them in the trash.

Step 4: Replace

After weeding, apply a layer of mulch to suppress weed growth and retain moisture in the soil. Alternatively, install native seed to crowd out any returning weeds.

Invasive Removal

Step 1: Identify

Learn to recognize invasive plants, which are non-native species that disrupt local ecosystems by outcompeting native plants. Refer to the TNIPC list.

Step 2: Remove

Removal techniques vary depending on the species and size:

- **Cut Stump** - Cut woody invasives close to the ground and locally apply a glyphosate herbicide to the freshly cut stump to prevent regrowth.
- **Hack & Squirt** - For larger woody invasives, make a series of downward cuts in the bark, then apply herbicide directly into the cuts to kill the plant. This method targets the plant's vascular system and prevents regrowth.
- **Mowing** - Mow or weed whack annual, herbaceous invasives after flowering, but before they set seed. Cutting too early will encourage more prolific blooming, which will result in more seeds developing.

Step 3 & 4: Dispose & Replace

Same as steps 3 & 4 in the previous "weeding" section

Rain Barrel Maintenance

General Upkeep

Monitor and periodically remove debris from filter

Use frequently! Stagnant water promotes algae and bacterial growth

Drain before storm events and freezing conditions

Winterize your barrel by detaching inflow hoses and placing upside down in freezing conditions

Annual Cleaning

Use hose to rinse inside

Scrub with concentrated castile soap

Let barrel dry upside down completely before reassembling

Cues to Care

Adapted from the research of Joan Nassauer, cues to care are indicators of a thoughtfully planned and maintained native landscape. These guidelines can provide aesthetic value to your planting, as well as ensuring municipal code compliance.

Edges & Borders

Define your planting borders: fences, mowed edges, lined with logs or stones, or densely planted with sedges or low-growing evergreen forbs

Flowering Plants

Choosing a plant palette that allows for year-round bloom time will benefit not only the aesthetic of your garden but also provide food and shelter for wildlife

Habitat Support

Let others know your planting is intentional by including signs of life: birdhouses, feeders, bee hotels, benches, yard art, and circulation paths

Continued on next page >>>>>

Intentional Design

Well-planned and thoughtful planting designs indicate intentional landscape stewardship. This cue can be achieved with strong shapes and bold patterns

Foundation Beds

Obscuring the foundation of a house works to convey the message that your planting is purposeful, though you should keep your windows and doors unobstructed

Plant Height

Plant height should be carefully considered when choosing plant placement. It is beneficial to plant taller species in low-traffic areas (side yards, fence lines, etc). Plantings within 2 feet of public rights-of-way (sidewalks, roadways, etc) are required to be no taller than 10 inches in height.

Sustainable Practices

Fertilizing practices

Native plants are well adapted to the landscape and likely won't need intensive fertilization. When needed, opt for organic, natural fertilization options. These solutions work by breaking down organic material to provide valuable nutrients and build good soil structure in your landscape:

- ☑ Do apply a thin layer of **compost** spread over your landscape
- ☑ Do **leave the leaves** and your **grass clippings** on your lawn
- ☑ When cutting back your plants, **chop and drop** the material
- ☒ Don't use **synthetic fertilizers**, as these can cause problems like nutrient pollution in waterways
- ☒ Don't fertilize **newly planted trees and shrubs**, as this can hinder root development

Turf removal

- ☒ Don't cover your yard in a **broad spectrum herbicide**
- ☑ Do use less harmful alternatives like **solarization, woodchips,** or removing with a **sod cutter**
  - smother grass with clear or black plastic for solarization, or use a layer of cardboard covered with 8-12" of woodchips

Continued on next page >>>>>

Sustainable Practices

Pest control

Insects, while sometimes garden pests, are crucial members of functional ecosystems. When dealing with pests, it's important to use safe, organic practices, like **Integrated Pest Management,** which considers a wide range of factors that contribute to overall environmental health.

- ☒ Don't use **broad application chemical pesticides**, as these can impact non-target organisms, like beneficial pollinators
- ☑ Do use safe alternatives like **diatomaceous earth, neem oil,** and **capsaicin**
- ☑ Do install **host plants for beneficial insects** that feed on garden pests

It's important to remember that insects are an important part of a healthy ecosystem, and their populations work to keep other animal populations in check. A balanced ecosystem will support natural predators of pest insects.