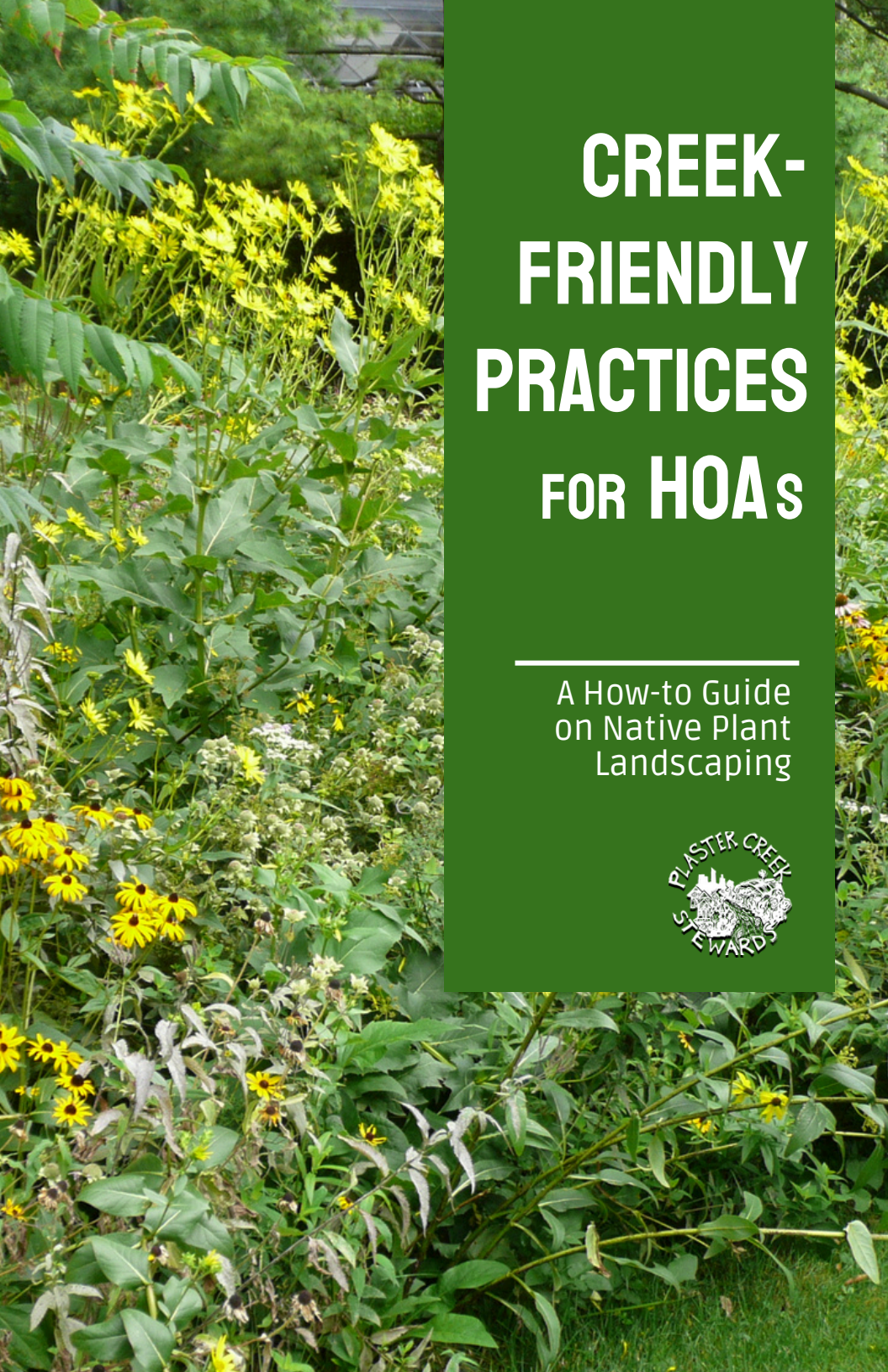
Summer 2025

Creek-Friendly Practices for HOAs

Plaster Creek Stewards



CREEK-FRIENDLY PRACTICES FOR HOAs

A How-to Guide on Native Plant Landscaping

PLASTER CREEK STEWARDS

INTRODUCTION

This booklet is intended to be a comprehensive guide to encourage Homeowner Associations (HOAs) in nurturing and safeguarding their local waterways. Within these pages the challenges facing our water ecosystems will be addressed, with particular focus being placed on the Plaster Creek Watershed in West Michigan. This booklet will also emphasize the role HOAs can play in fostering environmental stewardship and healthier, more resilient creek systems. This booklet contains practical strategies, from rain gardens to native plantings, that not only enhance the beauty of your HOA but extends care to downstream neighbors and the creek.

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ABOUT WATERSHEDS

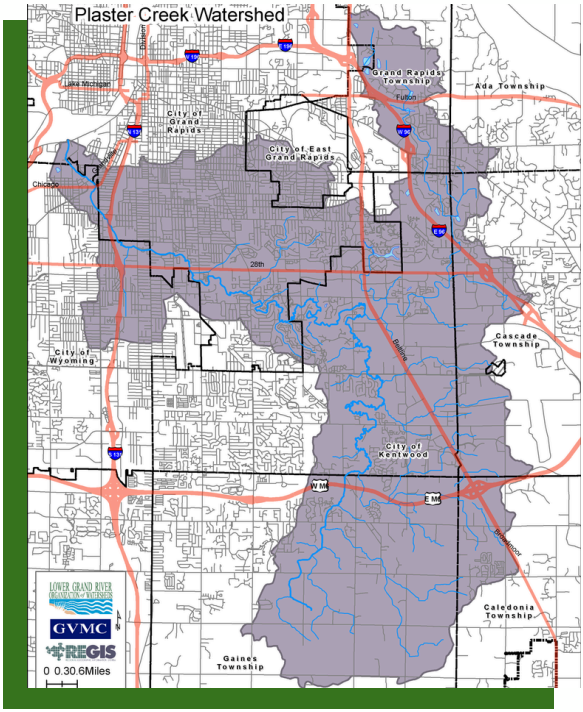
A watershed is an area of land where all flowing water reaches a common point. That common point can be a stream, river, or lake. Watersheds connect communities, as water flows from the headwaters to the lower reaches of land and carries evidence of how the land is used: surface runoff, flooding, erosion, nutrients, pollution, and more. Everyone lives in a watershed and everyone has a part to play in polluting or protecting a creek, but downstream residents of a watershed are the most impacted by mistreatment and neglect. Communities that work together to protect their waterways are showing respect for surface water, and also for their downstream neighbors.

COMMON ISSUES IN WATERSHEDS

Watersheds face many problems, often due to urbanization. When neighborhoods develop, roads, sidewalks, and houses with rooftops are built. These hard surfaces create an impermeable barrier to water. Instead of soaking into the ground, rainwater flows over these surfaces and is channeled directly into the nearest stream. When streams swell from stormwater runoff, erosion accelerates, causing high sediment loads in our waterways. Stormwater runoff also carries pollution from streets and lawns, jeopardizing stream health. Climate change compounds these challenges, with more frequent extreme weather events contributing to worse flooding and erosion. Years of neglect and mistreatment of local watersheds has resulted in highly degraded waterways, and watershed residents have contributed to these problems. However, watershed residents can also change things for the better, and work together to live more carefully on the land.

PLASTER CREEK

The Plaster Creek Watershed covers approximately 58 square miles in West Michigan, with the creek itself running for about 27 miles. The headwaters of Plaster Creek originate south and east of Grand Rapids, with many of its tributaries coming from rural areas around Dutton and Caledonia. The creek flows through suburban and commercial areas of the city, and finally through industrial areas and lower-income and urban neighborhoods before emptying into the Grand River one mile south of downtown Grand Rapids. By the time the creek enters the Grand River, it is considered one of the most degraded waterways in West Michigan, no longer safe to swim in or even touch by the many human residents who live in the downstream areas.

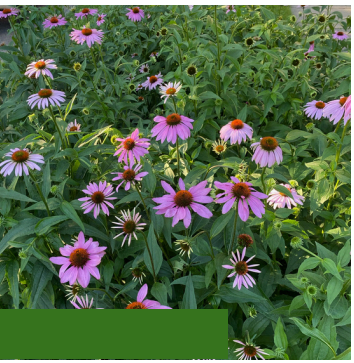


PLASTER CREEK STEWARDS

Plaster Creek Stewards (PCS) is an initiative of Calvin University that seeks to create opportunities for all watershed members to join in the story of a renewed, healthy, and beautiful Plaster Creek. Our strategy includes research, partnerships, education and engagement, and regenerative practices (on-the-ground restoration). Our goal is to bring watershed residents together to learn about their creek and take part in restoring its health and beauty. By reconnecting people with each other and their creek, we hope to build lasting relationships that will one day produce a fishable, swimmable, and life-giving Plaster Creek.

WHAT WE CAN DO:

It is vital to understand the challenges facing local watersheds and the significant role Homeowners' Associations (HOAs) can play in restoring them. Environmentally-friendly land practices are essential for supporting clean water, biodiversity, and thriving aquatic ecosystems, but waterways face immediate challenges. These challenges can be addressed by promoting sustainable landscaping, planting trees, retaining stormwater, and reducing their community's carbon footprint. By embracing watershed-friendly practices, HOAs enhance residents' quality of life, help safeguard surface waters, and extend care to their downstream neighbors.



Install rainscaping projects: slow down and soak up water using rain gardens, rain barrels, bioswales, and riparian buffers.

Plant native plants: choose plants that are adapted to Michigan's climate because these plants are conditioned to thrive in our local soils and seasonal weather patterns.

Plant trees: select native Michigan trees that help absorb rainwater, provide habitat to wildlife, and increase property values.

CREEK-FRIENDLY PRACTICES

Reduce harmful chemical use: minimize lawn maintenance chemicals to protect water quality and minimize environmental impact.

Remove invasive species: encourage your HOA or landscape company to track and avoid invasive plant species, focusing instead on plants that promote biodiversity.

Create a land trust: explore placing natural areas in land trusts for long-term conservation, providing tax breaks and incentives.

RAINSCAPING

Rainscaping is landscaping that focuses on slowing down and soaking up stormwater before it reaches a waterway. Typically, rainscaping can occur around gutter downspouts or in low-lying areas of your lawn or property. One way to practice rainscaping is to create a rain garden that is filled with native plants where water soaks into the ground. Another rainscaping option is to include rain barrels for rainwater harvesting. With rain barrels, water is caught and used for irrigation during dry periods, allowing for less water usage over time.

Another type of rainscaping that may work well at your property would be vegetated or riparian buffers. Riparian buffers are borders along the edges of streams or ponds that are filled with native plants that slow down water and allow it to filter into the ground. They prevent erosion by holding back soils, provide wildlife habitat that deters Canada geese and welcomes insects and birds (Canada geese prefer mowed lawn where they can see approaching predators).

NATIVE PLANTS

Native plants are essential for healthy creeks as well as for feeding and sheltering the many creatures that call the creek home[6]. These plant species have existed in Michigan for thousands of years and have adapted to Michigan's soils and climate. Once they are established, native plants do not require water or fertilizer. Above ground, they offer a breadth of habitat and food for birds and insects. Below ground, their deep roots allow them to survive cold winters, hot summers, and dry seasons. These root systems absorb large volumes of stormwater, filter excess nutrients, and trap sediments while also creating a channel for water to percolate deep into the soil. When water slowly reaches the creek through the ground, it arrives cooler and cleaner than the warm, polluted stormwater that comes from surface runoff.

Native plantings will require different maintenance than traditional plantings, but this can be adapted to an annual schedule including cutting down stalks in the spring if desired (leaving them up over the winter protects wildlife), weeding invasives a few times in the summer, and possible periodic use of wood chips or other edging practices to maintain appealing garden aesthetics.

PLANTING TREES

Incorporating tree plantings into your HOA's landscape management strategy can significantly enhance your property while also protecting the environment. Trees provide multiple ecological benefits: absorbing rainwater, creating shade, protecting and enhancing soil, and providing habitat for insects, songbirds, and small mammals. Studies have also shown a 10% increase in housing value with the strategic planting of trees[11]. Furthermore, trees can serve as natural barriers and aesthetically pleasing fence lines, contributing to the overall charm of your neighborhood.

When planting trees, your HOA should carefully consider certain factors:

Tree Selection:

- Choose trees that provide habitat to wildlife
- Opt for non-invasive tree species
- Prioritize trees that offer year-round beauty

Maintenance:

- Select trees that are easy to maintain.
- Keep storm drains free of leaf litter and debris

Leaving leaves:

- When you can, leave leaves where they are (such as in garden beds or natural areas)[14]
- When leaves cannot be left, move them to areas where they can break down and naturally compost (away from waterways)
- Lastly, advocate for leaves to be mulched into the grass, which adds organic nutrients to the soil, helps retain soil moisture, and improves soil health

REDUCING CHEMICAL USE

Typical lawn maintenance involves applying large amounts of chemicals that are both environmentally damaging and financially costly. These chemicals, such as glyphosate, 2,4-D, organophosphates, and PFAS, pose known and unknown risks to our community[10]. Exposure to PFAS can lead to reproductive and developmental effects, increased risks of certain cancers, and increased cholesterol levels[12]. By reducing lawns and chemical usage, we demonstrate care for the interconnected water sources that sustain us[7].

As a result, one way to make your space more creek-friendly (and people-friendly!) is to reduce the amount of lawn that you have. Begin by identifying areas in your HOA where the lawn is seldom used. Consider what other types of landscaping could be introduced in these locations instead of lawns. For example, perhaps a small meadow with a walking trail would be more useful for HOA residents, or a stand of new trees might be a good option..

If removing unused lawn is not feasible in your HOA, chemical use can also be reduced dramatically with a few lawn care practices including less frequent fertilizing, watering, and mowing. Using electric or hand mowers that mulch lawn clippings will return organic nutrients back to the soil. There are also many organic alternatives to turfgrass fertilizers and pesticides[4, 13].

BY THE NUMBERS

About Lawn Care [8]:

- **In 2020 lawn and garden equipment in the US emitted more than:**
  - 21,800 tons of fine particulates – an equivalent amount to the annual pollution from 234 million typical cars
  - 30 million tons of carbon dioxide – an amount greater than the annual greenhouse gas emissions from the city of Los Angeles
  - 68,000 tons of nitrous oxide (an especially hazardous greenhouse gas), which equals the pollution from 30 million typical cars

- **Operating a commercial lawn mower** for just one hour produces as much smog-forming pollution as driving 300 miles in a car. Using a commercial leaf blower is even more polluting, emitting as much smog-forming pollution as driving 1,100 miles in a car, which is why several municipalities have recently banned gas-powered leaf blowers.

- **In 2020, emissions of cancer-causing chemicals from lawn and garden equipment in the U.S. included:**
  - More than 20 million pounds of benzene
  - 3.5 million pounds of 1,3-butadiene
  - 55 million pounds of formaldehyde

REDUCING SALT USE

Another measure to protect the creek involves minimizing salt application on paved surfaces in the winter. While salt effectively reduces risks from winter ice and snow, overuse damages vehicles and leads to waterways becoming saltier. Increased salt content negatively affects freshwater ecosystems, impacting all forms of aquatic life. Preserving Michigan's water resources necessitates collective responsibility. There are many ways to reduce the risks of snow and ice to HOA residents. One of the best ways to reduce snow and ice use would be to implement rules about when salt can be used on roadways, and making sure all applications are performed with equipment that has been properly calibrated. Focusing on mechanical removal of snow, and making sure that this is done to the best of the HOA's ability will also lead to less salt use.

REMOVING INVASIVE SPECIES

Invasive plants are species that were not present here in pre-colonial times. These plants are typically installed in traditional landscaping, but often “escape” to natural areas where they outcompete native plants that are needed to support wildlife with food and shelter. Your HOA can address this ecological damage by removing invasive plants from landscaping and natural areas and requiring that your landscaping company only installs native Michigan plants. There are many ways to address the spread of invasive species, but the most important step would be to identify which plants within your jurisdiction are problematic and how best to treat them. When native plants are utilized, even within a formal landscape design, they support local insects and birds and if they spread, that's a good thing!

ADDRESSING CONCERNS:

WORK WITH YOUR PROPERTY MANAGEMENT COMPANY

Living in an HOA offers the convenience of shared responsibilities for property maintenance, but also requires effective communication, especially when it comes to specific initiatives like creek-friendly landscaping. Each HOA is unique, so the best change-making strategies will depend on your situation and the interests and expertise within your community. You can begin by approaching your property management company or landscapers to request that more creek-friendly practices be implemented in your community.

GETTING STARTED

- Highlight how your proposed project aligns with the HOA's needs and goals. For example, if most of the trees in your HOA are nearing the end of their lifespan, proposing that new, young trees be planted is a good way to meet multiple objectives, showing that a project has been carefully thought out[5].
- Remember to respect existing community rules and expectations when proposing landscaping changes or a project and focus on feasible projects. Creek-friendly landscaping should be community-friendly, as well [9]
- Build project legitimacy by working with a knowledgeable professional. They can help you demonstrate the tangential positive impacts such as how the project benefits local biodiversity, supports resident well-being, makes financial sense, or provides other benefits in addition to protecting your watershed.
- Work with a landscaper who is experienced in native planting and environmentally sensitive practices or request this as a way to build the capacity of your current landscape company. Sustainable landscaping is gaining momentum across the country, benefitting creeks everywhere.
- Be open to feedback on your proposed plans, adjusting them based on reasonable suggestions. Flexibility can be a powerful way to garner support! HOA goals should meet the needs of the community, and some changes take time.

LEISURE CREEK CONDOS:

A CASE STUDY

Although it may seem daunting to make changes in the way your HOA operates, Plaster Creek Stewards has seen successful partnerships in communities like the Leisure Creek Condominium Association (LCC). In 2015 Plaster Creek Stewards and LCC formed a partnership that led to two large-scale projects.

LCC's care for the natural world began years earlier when they set aside a nature trail in a wooded section of their HOA, which was cared for by a team of residents and visited by local school kids. This continued as residents began wondering if anything could be done at LCC to help the creek. They were particularly concerned about some steep, eroding banks along Plaster Creek as it flowed through the LCC property. Several residents were especially concerned about property damage and rising flood insurance rates.

When an opportunity arose to partner on a large-scale floodplain restoration project, LCC formed a Plaster Creek Committee made up of resident volunteers to liaise with PCS and the LCC board. Together, this group identified common goals (care for the creek and the property of LCC) and achievable projects. With support from the Committee, PCS sought funding and gave presentations to residents at community gatherings to build understanding and trust. The residents at LCC voted overwhelmingly to support this project, setting in motion a partnership that included, two large floodplain restoration projects in 2021 and 2023.

As of 2024, this partnership is still alive and well. When PCS hosts volunteer groups to work at the restoration sites, residents out walking or biking frequently stop by to observe, greet volunteers, and thank them for their help. Residents also regularly share photos and updates regarding the project, demonstrating their ongoing investment in the project's success. We continue the conversation about creek-friendly yards as LCC members explore further opportunities for planting trees and utilizing native plants in their landscaping.

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LOCAL LINKS

- **Find your watershed:** https://www.lgrow.org/watershedmap
- **Control Invasive Plants:** https://www.kentconservation.org/invasive-species-strike-team/
- **Hire a Native Landscaper:** https://www.nativeplantguild.com/
- **Join other Native Plant Gardeners:** https://rivercitygrandrapids.wildones.org/

CONTACT US:

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Plaster Creek Stewards is a collaboration of Calvin University faculty, staff, and students working with local schools, churches, and community partners to restore the health and beauty of the watershed. They focus on research, education, and on-the-ground restoration working directly to restore the watershed.

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