



# SUPPORTING BIODIVERSITY

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A guide to *Exploring, Restoring* and *Creating* habitat for biodiversity during Citizen Day and throughout the year.



Conservation projects that benefit biodiversity can take many forms, from simple tree plantings to complex wetland restoration projects. All projects, regardless of size or location, can contribute to biodiversity in a meaningful and impactful way.

These actions also provide value to employees and communities by providing opportunities for education, recreation, and an increased awareness of nearby habitats and their species.

To maximize the potential of Solvay to support biodiversity, WHC has created this guide to help Solvay employees start or improve conservation-based projects at home, work and in the community.



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## FIVE STEPS TO GETTING STARTED WITH A CONSERVATION PROJECT

01

**Define goals and objectives.** Setting a clear objective is important when selecting the right biodiversity-related project. Think about what you'd like to accomplish and how to includes others, if applicable.

02

**Assess available resources.** Availability of financial, human or land resources will help guide the scope and scale of your project. Talk to others to determine what resources they can bring to the project.

03

**Select a project.** Select a project that meets the project's goals and objectives and is applicable to the available resources. Consider starting small and adding to the project later.

04

**Create a plan.** Create a timeline of activities and a supply list, and identify questions that need answering before getting started with the project. Depending on the project, a future maintenance plan may be beneficial.

05

**Execute the plan.** Begin the on-the-ground work. Take photos and communicate project success with others. If working in teams, discuss what was learned from the experience and adjust activities if needed.

## WORKING WITH PARTNERS

Partners can add value to a project by providing additional resources such as technical expertise, extra labor and access to funding. Consider the following when sourcing and working with partners:

- Choose a partner with **resources** needed for the project.
- Make sure that partner goals **align** with project goals.
- Determine if there are any **liability** concerns.
- Communicate the **project plan** with the partner and seek their input.
- Consider future **opportunities** to collaborate with the partner.

### Who are good partners?

#### Technical expertise

*Wildlife agencies*  
*Conservation organizations*  
*Universities*  
*Consultants*

#### Extra hands

*Schools*  
*Scouting groups*  
*Neighbors*  
*Co-workers*



# EXPLORE NATURAL ENVIRONMENTS



Discovering which plants and animals are in your area, as well as what pressures they may be facing, helps expand appreciation of natural environments. Knowing the biodiversity in your area can also help to better understand what types of actions are most beneficial and what opportunities exist to contribute to native biodiversity.

The following project ideas can help increase awareness of the habitats, plants and animals near where you live and work.

## PROJECT— BioBlitz Event

A BioBlitz is a group effort to record as many species as possible within a designated location and time period. Public participation is what separates BioBlitzes from traditional biological inventories.

### **Benefits**

- Produce a shareable inventory of the species present in the habitat
- Learn what habitats and species are in the area

### **Tips for Success**

- Invite local experts to serve as identification guides
- Limit disturbance of the area before the event begins
- Take photos of the species you know, take even more of the ones you don't and don't forget to take photos of the event itself
- Utilize online tools (such as [iNaturalist](https://www.inaturalist.org)) to help gather data during your BioBlitz or any other time

### **Why a BioBlitz?**

*The first step to knowing what conservation efforts would be most beneficial for a particular habitat in your area is to have a clear understanding of how the habitat is currently functioning. A key indicator of the health of any habitat is the type and quantity of the species which are present.*

Project  
suitable  
for



Home



Work



Public  
Space



## PROJECT— Nature Photography

Organize a nature photography outing (or contest) at home, work or in the community.

### Benefits

- Hone photography skills of active and stationary subjects
- Support understanding of different species and habitats
- Learn to identify plants and animals in the photos

### Tips for Success

- Invite a naturalist and/or photographer to join the group to offer tips and new perspectives on the surroundings
- Visit a natural area new to you/the group
- For contests, create different categories for submission (by location, time of day or photographer age)
- Submit observations to a citizen science project like [iNaturalist](#) or [Project Noah](#)

### Why Nature Photography?

*Capturing the beauty of nature through photography is accessible for anyone—all you need is a smartphone. Both close-ups and landscapes make great images and can help increase appreciation of our natural world. Sharing your images expands the positive experience to others and help increase awareness of local habitats and species.*

Project  
suitable  
for



Home



Work



Public  
Space

## PROJECT— Self-Guided Nature Walks

Prepare 1-3 walking routes, either at work or in areas nearby, and encourage co-workers to take short breaks to use these routes for self-guided nature walks.

### Benefits

- Offer others a ready-made outdoor experience
- Notice both positive and negative changes in the surroundings which can generate conservation project ideas

### Tips for Success

- Identify points of interest to help guide route selection and design
- If designating multiple routes, vary them by physical difficulty and habitats
- Offer rewards for walking the routes, such as the opportunity to name the route
- If able, identify at least one route that offers significant tree canopy cover for rainy or hot days

### Why Self-Guided Nature Walks?

*Participating in outdoor activities are beneficial to both physical and mental health. Nature walks also provide opportunities to observe and learn about nature, and increase awareness about biodiversity in the area.*

Project  
suitable  
for



Home



Work



Public  
Space



# RESTORE NATIVE HABITATS



Healthy ecosystems not only provide necessary habitat for wildlife, but also provide services that benefit human well-being. Helping to restore habitats to function better will ensure native plants and animals continue to thrive in the areas they are best adapted.

The following project ideas can help increase awareness of the habitats, plants and animals near where you live and work.

## PROJECT— Stream Clean-Up

Remove trash, pull invasive species and plant native species. Physical activity and appropriate outdoor clothing is required.

### Benefits

- Improve water quality and aesthetics
- Increase awareness of water quality issues

### Tips for Success

- Consult with local experts to identify accessible locations in most need of clean-up
- Coordinate trash pickup, buy seedlings/seeds, and communicate the event to others well in advance
- Make sure to have the necessary clothing including sturdy boots and gloves
- Bring tools needed including trash bags, trash grabbers, clippers and first aid kits

### Why a Stream Clean-Up?

*Streams carry water, organisms, and important gases and nutrients along their path and into larger bodies of water. They also help drain rainwater and provide habitats for a wide variety of plants and wildlife. Stream clean-ups protect biodiversity by improving water quality, removing hazards to animals, preventing erosion, and improving food, water and shelter resources for wildlife.*

Project  
suitable  
for



Work



Public  
Space



## PROJECT— Invasive Species Removal

Remove one or more invasive species in a designated area by hand-pulling, cutting or other targeted method.

### Benefits

- See results of efforts immediately
- Provide opportunity for native species to thrive

### Tips for Success

- Consult with local experts to identify species to remove and appropriate removal methods (plan tools, clothing and other safety measures accordingly)
- Time removal of the plants appropriately (e.g., when plants can be easily identified, but before they go to seed)
- If involving others, offer participation opportunities at varying levels of physical demand
- If applicable, replant cleared areas with native species

### Why Invasive Species Removal?

*Non-native, invasive species are those that do not occur naturally in a given area. They compete with native species for resources and degrade ecosystems. Invasive species include terrestrial and aquatic plants and animals. Efforts to control and monitor invasive species are critically important to restoring and maintaining healthy native habitats.*

Project  
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Work



Public  
Space

## PROJECT— Native Landscaping

Add new native plants to landscaping or phase-in native plants as non-native plants die.

### Benefits

- Provide local wildlife with higher quality habitat
- Save on cost over life of the plant due to fewer maintenance requirements

### Tips for Success

- Locate a local nursery that specializes in native plants
- Prior to planting, know moisture and light requirements
- Determine size of the plant when it is mature to provide adequate spacing
- Be patient and remember to continue watering, particularly during the first year

### Why Native Landscaping?

*Both residential and commercial landscaping often make use of non-native trees, shrubs and grasses. While attractive, these plants provide little to no value for native wildlife, and require more maintenance with irrigation, fertilizers and pesticides.*

Project  
suitable  
for



Home



Work



# CREATE NEW HABITATS



The loss of vernal pools and the critical terrestrial habitat around them leads to local loss of amphibian species, a decrease in biodiversity, and a decline in food available for many other animals that live in these areas. These smaller-scale habitats provide areas for feeding, breeding and shelter from predators.

The following project ideas add new elements to the landscape which will support life cycle needs for a variety of species.

## PROJECT— Vernal Pool

Construct a depression in a low-lying area that collects rain. Additional excavating is needed for pools to hold water for at least 90 days in the spring to early summer.

### Benefits

- Increase the presence of amphibian species that serve as an indicator of environmental health
- Serve as a seasonal feature of interest in any landscape

### Tips for Success

- If natural water-retaining areas are not present, line a depression with a thick plastic liner and cover with a thin layer of soil
- Plant native vegetation adapted to wet conditions in and around the pool to prevent erosion
- Create a variety of depths and structural cover to attract species that have different light and temperature requirements
- Check before you dig; avoid gas, electric, cable and other underground transmission lines

### Why a Vernal Pool?

*Vernal pools are depressions in the earth that fill with water in the spring or rainy season and then eventually dry out. These temporary freshwater features do not support fish and therefore are a choice breeding and nursery area for amphibians, and serve important life cycle needs for many aquatic invertebrates.*

Project  
suitable  
for



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## PROJECT— Pollinator Garden

Plant native flowering species for the benefit of pollinators in a sunny area, safe from wind.

### Benefits

- Accommodate life cycle needs of multiple species in a small area
- Improve property aesthetics

### Tips for Success

- Start small and add plants in the garden or nearby at a later date; consider planting several containers that can be easily moved
- Plant in the spring to reduce the need for supplemental watering, as new plantings will need to be watered regularly throughout the first growing season
- If space allows, include plants with varying shapes, colors and bloom times
- Develop a plan to water, weed and replace plants when needed

### Why a Pollinator Garden?

*Pollinator gardens contain flowering plants that provide resources like nectar and pollen for native pollinators (butterflies, bees, hummingbirds, etc.), whose populations are declining across the globe. From flower beds to potted plants, pollinator gardens of any size can make a meaningful impact on biodiversity, while also enhancing aesthetics.*

Project  
suitable  
for



Home



Work

## PROJECT— Low or No Mow Zones

Decrease or eliminate mowing of open areas on a corporate or residential site. Work with facilities and grounds managers and demonstrate the value and cost savings of low or no mow zones.

### Benefits

- Provide habitat for songbirds, insects and small mammals
- Support erosion control and water quality

### Tips for Success

- Add native flowering plants to improve visual appeal
- Maintain a small, mowed border and rounded edges for a more pleasing look in highly visible areas
- Install signage for passers-by to educate them on the purpose and value
- If reducing mowing, consider mowing in late winter to avoid brooding seasons

### Why Low or No Mow Zones?

*Reduced mowing projects are relatively easy to implement on corporate properties and on larger parcels of residential land, and are low effort ways to replace lower value turf grass habitat. In essence, a reduced mowing project involves decreasing (or even eliminating) mowing of open areas of the site.*

Project  
suitable  
for



Home



Work



## RESOURCES LIST — CONSERVATION PRIORITIES BY REGION

While every suitable biodiversity action can have a positive, local impact on your region's native flora and fauna, there are certain key species and ecosystems more imperiled than others. Governments and conservation organizations around the world designate those species and habitats currently in need of conservation, as well as identify strategies and actions to address the top priorities.

Learning about the highest conservation priorities in your region will help determine which projects offer the most meaningful impacts. Explore the following resources to learn more.

### GLOBAL

[IUCN Red List](#)  
[Convention on Biological Diversity National Targets](#)  
[World Wildlife Fund](#)  
[World Resources Institute](#)  
[BirdLife International](#)  
[Flora and Fauna International](#)  
[Half-Earth Project](#)  
[UNESCO](#)

### AFRICA

[African Wildlife Foundation](#)

### ASIA & OCEANIA

[Wildlife Asia](#)  
[East Asian-Australasian Flyway Partnership](#)

### EUROPE

[European Wildlife](#)  
[European Commission Biodiversity Strategy for 2030](#)

### NORTH AMERICA

[National Audubon Society](#)  
[Monarch Joint Venture](#)  
[Partners in Flight](#)

### SOUTH AMERICA

[The Amazon Conservation Team](#)

### BY COUNTRY

#### Belgium

[National Biodiversity Strategy and Action Plan \(NL\)](#)  
[National Biodiversity Strategy and Action Plan \(FR\)](#)

#### Brazil

[National Biodiversity Strategy and Action Plan \(PT\)](#)

#### China

[National Biodiversity Strategy and Action Plan \(ZH\)](#)  
[China's Strategy for Plant Conservation \(hosted by Botanic Gardens Conservation International\)](#)

#### France

[National Biodiversity Strategy and Action Plan \(FR\)](#)

#### Germany

[National Biodiversity Strategy and Action Plan \(DE\)](#)  
[Federal Ministry of Food and Agriculture](#)

#### India

[National Biodiversity Strategy and Action Plan](#)  
[National Plan for Conservation of Aquatic Ecosystems](#)  
[National Afforestation Programme](#)  
[Centre for Environment Education](#)

#### Italy

[National Biodiversity Strategy and Action Plan \(IT\)](#)

#### UK

[National Trust of Britain](#)  
[National Biodiversity Strategy and Action Plan](#)

#### USA

[State Wildlife Action Plans](#)  
[The Conservation Fund](#)  
[LandScope America](#)  
[US NRCS](#)

*Documents are in English unless otherwise noted.*

