Schoolyard Habitat Project Guide

A planning guide for creating schoolyard habitat and outdoor classroom projects
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Second Edition 2011

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The guide can be downloaded from our website: [http://www.fws.gov/cno/conservation/schoolyard.cfm](http://www.fws.gov/cno/conservation/schoolyard.cfm)

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About the Guide

Welcome to your Schoolyard Habitat journey!

This is your guide book to transforming your school grounds into a place that engages the entire school community in habitat restoration. You are a part of a national movement dedicated to developing a citizenry that consciously values their environment. Once you move through this process, your school community will connect to the natural world, not by sitting inside and looking out, but instead by being outside and looking deeper.

This is a how-to guide. It will take you and your students through each step of the process: planning, installing and sustaining a project. This is not a book about why schoolyard projects are important; this is a guide about how to make the best one for your site.

There are important repeating images, themes and examples highlighted in this document:

**The Ripple Effect**
A well designed Schoolyard Habitat project will have ripple effects on wildlife and people into the future, much like throwing a stone into a pond. To create your intended ripple effects, the initial stone thrown into your pond must be a well planned and ecologically sound project. The image of the stone thrown into the pond follows the three fundamental themes of a project to initiate, create and incorporate your project.

**Master Plan**
A master plan is the vision of how your schoolyard could best be used by both wildlife and people. The plan can be formal or informal, but it is important to start with this step so you do not plant trees where future construction is planned. Once you have a master plan, you can easily break it down into phases, so each individual phase is part of a greater whole.

**The Steps**
Schoolyard Habitat projects come in many different shapes and sizes and are very unique depending on the region and community in which they are created. However, there is a universal process that all projects go through. The sequential steps in this guide describe this process, ensuring you have all the tools necessary to complete a Schoolyard Habitat project. You will find many of the steps overlap, and you may need to consider the next step before finishing your current step. For that reason, we recommend you read through all of the steps before beginning.
A Few Notes About Your Journey

You are not the first.
This guide is a compilation of years of experience and thousands of projects from across the country and describes the fundamental elements of what makes great projects. Take comfort in this. Other people have successfully completed what you are starting; there are examples all over the nation.

You are not alone.
The U.S. Fish and Wildlife Service and many other agencies and organizations across the nation are dedicated to making projects like yours a reality. There is a common focus on developing programs to better connect our children, our communities and our natural world and on creating a new direction for our future.

You have yet to realize where this will lead.
Once you start this project, you will discover new things about yourself, your students, coworkers, community and environment. The world of Schoolyard Habitat projects is full of stories of awe, inspiration and motivation. You have yet to discover the people you will inspire to become leaders or the leader you will become. You are ready to begin!

Projects
Throughout the guide, we talk about the ideal project pathway and then specific considerations for woodlands, meadows and wetlands. We realize that not all projects will fit into these classifications, and your region may use various terms to describe them. We use these terms to provide consistency throughout the guide, and as a way to help you make decisions; your project will ultimately be as unique as the wildlife and people that use it.

Cityport Elementary School and Countryside High School
Stories and examples of these two schools are used throughout the guide. Cityport is an urban school with a small campus. Countryside High School is a suburban campus with open space and large sports fields. Both schools are based on real scenarios and are presented as models for you to create your own unique project.

Field Notes
The Field Notes pages are designed to be removed and used in the field with students. We encourage you to incorporate these Field Notes into your existing school system curriculum to get your students outside as frequently as possible.

Topography:
- Identify high and low spots.
- Locate steep slopes.

Prevailing wind:
- Indicate prevailing wind direction.

Sunny and shady areas:
- Distinguish between areas that receive full sun, partial shade and full shade.

Water:
- Designate any areas that are obvious drainage or waterways.
- Indicate direction of water runoff.
- Locate any areas where erosion is occurring.
- Locate spots that seem especially wet or dry.

Structures:
- Identify structures where students play or gather such as playground equipment, bike tracks, signs, benches, picnic tables and fences.

Fields:
- Identify the athletic fields and areas that are used for informal play either by the school or other members of the community.
- Identify where students gather for track drills.

Accessibility:
- Identify areas that are accessible during a class period.
- Indicate formal and informal pathways.
- Identify spaces used by the public.

Utility features:
- Locate obvious utility lines above or below ground.
- Locate existing water or irrigation lines and accessible spigots.

Plants:
- Locate and identify trees, shrubs and plants that provide food and cover for wildlife, both on and adjacent to the school grounds.

Wildlife:
- Locate and identify signs of wildlife on the school grounds.

Groundcover:
- Indicate different groundcovers such as turf grass, bare spots, pavement, woodland groundcovers, native plantings or garden areas.

Field Notes for Completing a Schoolyard Site Survey

Procedure:
1. Draw an outline of the school property, school buildings and parking lots. This is your base map.
2. Break into groups and walk the entire schoolyard.
3. Sketch on your base map all of the important physical, human-related and biological characteristics listed below. Create a legend and designate symbols to mark important characteristics.
4. Share your observations as a class.
5. Create a collective schoolyard site survey.

Physical Characteristics

Human-Related Characteristics

Biological Characteristics

U.S. FISH AND WILDLIFE SERVICE

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U.S. Fish and Wildlife Service
Schoolyard Habitat and Outdoor Classroom Program

The mission of the Schoolyard Habitat and Outdoor Classroom Program is to get students from across the country outside to experience nature. To accomplish this mission, the Program helps schools create natural spaces on school grounds where students will observe, draw, write, think and question.

A Schoolyard Habitat project restores native wildlife habitat, while an outdoor classroom area includes seating, tables and shade structures. Whether referred to as a Schoolyard Habitat or an outdoor classroom, all projects will benefit both wildlife and people and can range in size from a 1,000 square foot (sq ft) area to an acre or more. Regardless of the size and scope, all projects should be inspired and created by students and offer a place to learn outdoors.

In some schools and communities, developing a project on school grounds may not be possible. In these cases, you may be able to locate projects at nearby parks or other open areas; however, the process and concepts outlined in this guide should be applied to those locations as well.

Keep the Focus on the Students

Students going outside frequently to learn, discover, create and celebrate is the ultimate goal of every Schoolyard Habitat. With that in mind, your students’ involvement in and ownership of the Schoolyard Habitat site is the overarching element that must be present in all projects.
A good Schoolyard Habitat project is ecologically sound, integrated into the curriculum and designed to encourage long-term stewardship. For a project to be sustainable, it must have active engagement from the larger school community, including parents, students, maintenance personnel and administrators.

Ecologically sound Schoolyard Habitat projects provide habitat for local and migratory wildlife, including songbirds, shorebirds, small mammals, reptiles, amphibians and insects. In many cases, these habitats also provide a vegetative buffer to nearby streams, reducing pollution reaching these waterways. To benefit the environment, the habitats must be significant enough in size and scope to have a lasting impact in the community.

Your Schoolyard Habitat project can offer teaching and learning opportunities across many academic disciplines. The process of planning, creating and using a habitat provides children with unique hands-on experiences. You do not have to limit the possibilities to just data collection for science. Remember that there are also opportunities to draw, write, research and much more.

During the formative years of life, students develop perceptions and values about their environment. If designed and managed properly, schoolyards can provide students with a powerful example of land conservation and stewardship. Experts know that young children are driven to explore, discover and play. A well designed schoolyard, including a diversity of natural areas, allows students to exercise these innate needs while nurturing their connection to nature.
“The conservation of natural resources is the fundamental problem. Unless we solve that problem it will avail us little to solve all others.”

— Theodore Roosevelt
Perhaps you already have in mind what you want to do and how you want to do it. Or maybe you don’t know exactly what you want; you simply know you want something different in your schoolyard. The first three steps create the foundation to ensure your project’s success and sustainability. You and your students will be exploring and envisioning how wildlife and the school community will use the schoolyard into the future.

In these steps, you will create a team and a broad network of support. This team will define the size, scope and impact of the schoolyard project. The steps also outline the process to create a master plan and assess your project site. At the end of these three steps, you will have everything you need to create the best possible Schoolyard Habitat project.

The stone of your Schoolyard Habitat project will have lasting ripple effects—if you select the right stone, the right placement and the right people to throw it. Schoolyard Habitat projects have the ability to reconnect students and adults to the rhythms and patterns of our natural communities, while improving habitat for wildlife.
“A true conservationist is a man who knows that the world is not given by his fathers, but borrowed from his children.”

— John James Audubon
STEP ONE: Form a Team

Successful Schoolyard Habitat projects from across the country start with just one or two interested people at the school. A teacher, parent, community member or even a student can be the first person to get the ball rolling. But one person cannot complete a long-term successful project on his or her own.

The first step to creating a successful Schoolyard Habitat project is to organize a team that can provide support, resources and an overall stronger end product. Some teams are very formal with assigned duties and structure; others are casual with an informal approach to the project. All successful teams have a collaborative spirit and an agreed upon purpose.

The scope of the project and the professional climate of the school will influence the type of team needed to bring the project to successful completion.

Accomplishments

☐ Committed to Starting a Project
☐ Read Introduction

Tasks

☐ Establish Your Team
☐ Brainstorm Your Schoolyard Ideas
☐ Survey the School Community
☐ Brainstorm Potential Schoolyard Features
Establish Your Team

Schoolyard Habitat teams are usually comprised of a core team that makes most of the decisions and a larger team of supportive helpers. The core team will motivate and push the direction of the project, while supportive helpers will take on individual tasks and assist in implementing the big events. Any of the following team members can be part of either team.

To generate interest and find members of your team, consider presenting at meetings, initiating casual conversations with other school community members or sending out a formal survey to your school community.

**Team members should include:**

**Administrators:** Administrators can help ensure approval and garner school-wide support.

**Maintenance personnel:** The school maintenance supervisor and staff can provide insight into ideal site selection, (including the location of underground utilities), assistance with site prep and ongoing maintenance support.

**Students, teachers and parents:** The more people who take ownership of the project, the more successful it will be in the long term. Students, teachers and parents are all stakeholders with an interest in the appearance and use of the schoolyard.

**Community partners:** Community members, neighborhood associations and environmental organizations can offer technical expertise, assistance or donations for site prep, planting day supervision, ongoing maintenance and support for future projects.

**Natural resource professionals:** Contact your local county, state or federal natural resource office to find personnel who can help with the technical aspects of your project.

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**Tips for Your Team**

- Allow for varying levels of participation.
- Assign roles to help ensure that no one person is overburdened with all aspects of the project.
- Work within any existing formal committee structure of the school. Some very successful Schoolyard Habitat teams have been subcommittees of an overarching School Improvement Team or Parent Teacher Association.
- Identify achievable short-term goals. A simple, successful first project can create enthusiasm for future more complex projects.
- Have a flexible team roster so more people can join as they become interested.
- Designate a central location for your project files, so they can be located by current and future team members.
## Sample Schoolyard Habitat Team Roster

### CITYPORT ELEMENTARY SCHOOL

<table>
<thead>
<tr>
<th>Name</th>
<th>Role on Team</th>
<th>Role in School</th>
<th>Email &amp; Phone</th>
<th>Description of Role</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Core Team</strong> – Processes information from student groups and administration into a cohesive plan.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asha Soni</td>
<td>Project Chairperson</td>
<td>Parent</td>
<td></td>
<td>Organizes the project decision making, timeline and materials.</td>
</tr>
<tr>
<td>Tasha Hubbard</td>
<td>Communications Chairperson</td>
<td>5th Grade Teacher</td>
<td></td>
<td>Communicates the project steps. Involves all of her classes.</td>
</tr>
<tr>
<td>Ima Bank</td>
<td>Treasurer</td>
<td>2nd Grade Teacher</td>
<td></td>
<td>Creates and maintains the budget. Involves all of her classes.</td>
</tr>
<tr>
<td><strong>Supportive Team Members</strong> – Involved and consulted on all major decisions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catherine Thompson</td>
<td>Administrator</td>
<td></td>
<td></td>
<td>Wants to be involved in all decision making.</td>
</tr>
<tr>
<td>Russell Sargent</td>
<td>Student Voice</td>
<td>Student</td>
<td></td>
<td>Will write columns for the student newspaper and make posters.</td>
</tr>
<tr>
<td>M. Pat Moffett</td>
<td>Technical Assistance</td>
<td>Biologist</td>
<td></td>
<td>Forester willing to assist with project design.</td>
</tr>
<tr>
<td>Logan Kelly</td>
<td>5th Grade Teacher</td>
<td></td>
<td></td>
<td>Interested in helping, wants to know more. Used to work as a naturalist at a local park.</td>
</tr>
<tr>
<td>Ellen Brown</td>
<td>Maintenance Person</td>
<td></td>
<td></td>
<td>Has knowledge of the school’s underground utilities. Coordinates the use of equipment. Wants to be involved in all decision making.</td>
</tr>
<tr>
<td>Margaret Silversmith</td>
<td>Art Teacher</td>
<td></td>
<td></td>
<td>Interested in helping, avid gardener and cross country coach.</td>
</tr>
<tr>
<td>Ron Fiorey</td>
<td>Hardware Store Manager</td>
<td></td>
<td></td>
<td>Graduated from the school. Interested in supporting the project.</td>
</tr>
</tbody>
</table>

As your project evolves and the tasks become more defined, each of the team members may take on different or additional roles.
Brainstorm Your Schoolyard Ideas

It is important to brainstorm why you want a Schoolyard Habitat before deciding what projects you want to create. Consider ways you will use your schoolyard in your curriculum. Refer to resources in the back of the guide for more ideas. For a project to be successful, you need to know how you want to use the project. Do not be concerned about limitations or barriers right now. The more students and adults you involve in this process, the richer the list of possibilities will be. You will refine these ideas to become the foundation of your school’s master plan.

Have the team consider what they want to be able to do and see while outside. Then talk about other Schoolyard Habitat projects they have seen and what they liked about them. Consider the wildlife issues you want to address. It can be helpful to organize your thoughts into “Ideas for Wildlife” and “Ideas for People.”

Sample of Brainstormed Schoolyard Habitat Ideas from Cityport Elementary School

**Ideas for Wildlife**
- Reduce storm-water runoff from rooftops.
- Create places for birds to nest.
- Enhance the grounds with trees and flowers.
- Support the entire life cycle of butterflies.

**Ideas for People**
- Create a quiet space for students to read and do schoolwork outside.
- Provide opportunities for students to observe native birds and butterflies.
- Block some of the noise and sounds from the street.
- Develop shady areas near the playground.
- Create a trail to make younger students feel like they are exploring.