## UNIT IV: CONSERVATION PROGRAMS AND PROJECTS



**SUMMARY** – IWLA members actively promote the League's conservation mission by picking up litter and restoring stream banks, by teaching others about hunter safety and responsible outdoor behavior, and by making their voices heard from city hall all the way to Congress. This unit describes the League's core conservation programs and provides a "how-to" conservation projects section. Each two-page project description is based on an actual project successfully conducted by League chapters that has helped to advance our conservation mission. We hope these programs and activities will inspire your chapter to conserve and protect our natural environment.

#### **Conservation Policy**

The League's conservation policies are established by its members. Each year members, chapters, and divisions draft resolutions outlining how they would like the League to address important natural resource problems and conservation issues. If these resolutions are adopted at the annual national convention, they become official League policy, guiding the work of volunteers and staff at all levels of the League.

**Resource Committees** – A resolution submitted for consideration at the annual national convention is referred to one (or more) of nine resource committees. Any League member may volunteer to serve on a resource committee by submitting an application form or by contacting the IWLA national president. Resource Committees include:

- Agricultural Affairs
- Carrying Capacity
- Conservation Education
- Energy
- Environmental Health and Air
- Fish and Wildlife
- Public Lands
- Outdoor Ethics
- Water Resources

Each year members, chapters, and divisions draft resolutions outlining how they would like the League to address important natural resource problems and conservation issues. **Resolutions Process** — The chair of each resource committee also serves on the Resolutions Committee (refer to current *IWLA National Directory*). Assisted by input from League staff, the Resolutions Committee assigns resolutions to the proper resource committee. After the resource committee reviews and comments on the resolutions, the Resolutions Committee recommends to the national president which resolutions should be presented to convention delegates for a vote. For details on who is eligible to serve as a delegate and the rules for voting at a national convention, refer to Article 7 of the League's Bylaws.

The National Bylaws (Article 15) require that all resolutions and supporting materials be submitted to the National Office no later than two weeks in advance of the national convention to allow adequate time for review and processing. Resolutions for consideration at the annual national convention should be sent to: IWLA Conservation Staff, 707 Conservation Lane, Gaithersburg, MD 20878-2983, Attn: Resolutions. In addition, please e-mail an electronic copy of the proposed resolution to: conserve@iwla.org.

Here are a few pointers to aid in submitting a resolution proposal:

- Make it clear that the proposed resolution is intended for consideration at the national convention.
- Write the resolution in simple essay form (not the "whereas style").
- Include sufficient information with the proposal to give the Resources and Resolution committees a better understanding of the issue and its importance.
- Identify and credit the author of the resolution (include contact information).
- Identify someone familiar with the resolution, its history, and who will be prepared to speak to or answer questions from the relevant resource committee at the national convention.

**Conservation Policies Handbook** – The resolutions adopted by the League since its founding in 1922 are summarized in the *IWLA Conservation Policies* handbook. The handbook is updated annually after each national convention and made available on the League's Web site. A limited number of printed handbooks are produced every five years. Although the handbook is divided into numerous sections, all sections should be examined to identify policy statements that may apply to a specific issue.

**Conservation Issues Chair** — Through the handbook, our quarterly magazine, our bimonthly electronic newsletter, and other means, the National Office strives to keep chapters and members informed about our ongoing conservation work. Conversely, it is important that chapters

The National Bylaws require that all resolutions and supporting materials be submitted to the National Office no later than two weeks in advance of the national convention. keep their state divisions and the national organization informed about their work on local, state, or regional issues. To facilitate communication and collaboration on conservation issues at all levels of the League, each chapter is encouraged to appoint a conservation issues chair. To do so, please complete a Conservation Issue Chair Designation Form (available online), or call (refer to current *IWLA National Directory*) or e-mail the conservation staff (conserve@iwla.org). You may also designate a member annually when completing your chapter's Officer Report Form (Appendix A).

#### **IWLA Programs**

One way the League carries out its mission is through staff-led conservation programs. Each of our core conservation programs is designed to advance our conservation policies. They also complement the community-based efforts of our chapter members and offer our volunteers opportunities to influence policy at state and federal levels.

Our flagship national programs include:

- Agriculture
- Clean Water
- Energy
- Outdoor Ethics and Shooting Sports
- Sustainability Education
- Wilderness and Public Lands

#### Agriculture

Efforts by the League to address soil erosion date to 1937, when the League adopted a resolution calling for a national program to retire fields in mountainous areas from agricultural use. Today, League staff and members continue to advocate farming practices that sustain both natural resources and people.

**Conserving Farmland** — More than half of America's land is used for agriculture. It is critical that these lands, which provide food for our tables and habitat for wildlife, are managed to balance production with conservation. Locally, the League educates farmers about practicing stewardship on their lands. Nationally, we work to ensure strong legislation and funding to support agricultural conservation programs such as those found in the federal Farm Bill. Our goal is to ensure that American farms produce enough food to feed a growing nation while protecting soil and water quality, wetlands, and habitat for fish and wildlife. One way the League carries out its mission is through staff-led conservation programs.



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**Managing the Upper Mississippi River** — As an organization with strong roots in the Upper Midwest, the League has fought for protection of the Upper Mississippi River basin since 1924, when we led the campaign to create the Upper Mississippi River National Wildlife and Fish Refuge. The Upper Mississippi River is one of the most complex ecosystems on Earth. It provides habitat for 50 species of mammals, 45 species of reptiles and amphibians, 37 species of mussels, and 241 species of fish. The League spearheads efforts to reform the river's lock-and-dam navigation system to ensure that flows and habitat remain as natural as possible. We also work to reduce agricultural impacts on the river, promote sustainable agriculture practices, and implement farm conservation programs to reduce polluted runoff.

**Restoring the Missouri River** — In 2007, League members across three states (Iowa, Nebraska, and South Dakota) joined to create a new initiative that focuses on protecting and restoring the Missouri River. As America's longest river (2,431 miles), the Missouri spans 10 states. Like the Mississippi, it faces challenges from agriculture and navigation. Man-made changes to the river's natural flows are degrading significant fish and wildlife habitats — including those of a number of endangered and threatened species. By working with local, state, and federal agencies and other organizations on restoration and recovery of the river, the League is ensuring this national treasure remains intact for future generations.

#### **Clean Water**

Clean water is essential to life. Unfortunately, 40 percent of the nation's assessed streams, lakes, and estuaries are still not clean enough to support fishing and swimming. As an organization founded by anglers, the Izaak Walton League believes this is simply unacceptable. That's why we are committed to improving the health of America's waterways through local action and national advocacy.

**Monitoring and Restoring Streams** — Since 1969, the League's Save Our Streams program has taught thousands of citizens how to monitor and restore the health of local streams. Guided by our publications, workshops, expert consultation, and other tools, citizens become active stewards of their local waterways. In addition to assessing water quality, our volunteers take action to address the problems they encounter, such as notifying state agencies of pollution problems or planting trees along stream banks to reduce erosion and improve fish habitat.

**Conserving Wetlands** – Wetlands provide critical habitat for countless birds, amphibians, fish, insects, and other species. They also act as natural filters, cleansing pollutants from groundwater and runoff. Unfortunately,

Since 1969, the League's Save Our Streams program has taught thousands of citizens how to monitor and restore the health of local streams. since the 1600s, more than half of America's wetlands have been drained. Protecting those that remain is vital to safeguarding clean water and habitat.

The Izaak Walton League educates Americans about wetland ecology, functions, and values, and provides communities with the tools they need to conserve these valuable ecosystems. Aided by our Protect Our Wetlands program, hands-on workshops, easy-to-read educational materials, and technical assistance from our staff, our volunteers are leading the fight to conserve our nation's remaining wetlands.

**Stopping the Spread of Invasive Species** – In recent years, invasive species such as zebra mussels and Eurasian milfoil have infested America's waterways, crowding out native species and causing billions of dollars in damage to marinas, recreational fisheries, and other facilities. These plants and animals often spread from waterway to waterway via recreational boaters, who unknowingly transport invasive species on their equipment. To combat the introduction and spread of aquatic invasive species, the Izaak Walton League launched a nationwide Clean Boats Campaign. Through public service announcements, articles, and a Web site, www.cleanboats.org, millions of boaters are now learning how to properly clean their gear so that they don't spread harmful invasive species from one waterway to another.

#### Energy

How we obtain and use energy has far-reaching implications for human health, fish and wildlife, and the Earth's climate. The Izaak Walton League's Energy Program works to reduce emissions of harmful air pollutants, combat global warming, promote energy efficiency, and foster the use of renewable energy.

**Cleaning the Air** — The League has been a champion for clean air for decades, recognizing the vital link between air quality, human health, and the natural environment. Much of our work has focused on cleaning up coal-fired power plants — a major source of air pollutants that contribute to ozone, haze, and acid rain. These power plants also emit mercury and carbon dioxide, contaminating our fisheries and contributing to global warming. In recent years, the League has helped establish new rules to reduce mercury emissions from midwestern power plants. In addition, we are leading regional efforts to stop the construction of new coal-fired power plants and to promote cleaner sources of energy.

**Curtailing Global Warming** – A changing climate means a changing environment for both people and wildlife. In addition to documenting the effects climate change will have on wildlife and outdoor recreation, the League has been a leader in the fight to reduce emissions of carbon dioxide and other greenhouse gases. To help address global warming, we are working



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with a wide range of groups to implement new technologies that will not only reduce emissions, but also capture and store carbon dioxide already in the Earth's atmosphere. Our success in the Midwest is serving as a model for regional and national action.

**Promoting Energy Efficiency** — For years the League has recognized that the cheapest, cleanest way to address problems associated with energy use is to invest in energy efficiency. Our work has helped establish new requirements for utilities to capture untapped energy savings through conservation programs for customers. We also provide information to League members and others on ways they can reduce their own energy consumption.

Advancing Renewable Energy — From wind to biomass to solar, renewable resources can have significant environmental benefits by producing clean energy. To reduce our dependence on foreign sources of oil and better protect our environment, the League believes electric utilities should be required to produce more energy from renewable sources. In addition, we work to identify and promote new sources of renewable energy that are on the cutting edge of current technology.

#### **Outdoor Ethics and Shooting Sports**

The League inspires outdoor enthusiasts to take personal responsibility for protecting the outdoors. Our Outdoor Ethics and Shooting Sports Program educates and supports ethical behavior among all outdoor users, particularly gun owners and hunters, to ensure the safety of others, protect the environment, and conserve fish and wildlife for future generations.

The League inspires outdoor enthusiasts to take personal responsibility for protecting the outdoors. **Teaching Outdoor Ethics** — Each year, the League and the Maryland Department of Natural Resources host Ethics in Action workshops for hunting education instructors from all over the country. Featuring some of the nation's leading voices in hunter education and ethics, our workshops teach instructors how to incorporate outdoor ethics lessons into their hunter education classes — instilling the values of fair chase and the importance of conservation in a new generation of hunters.

**Supporting Shooting Ranges on Public Lands** – Protecting recreational shooting and hunting opportunities has long been part of the League's mission. By partnering with government agencies, the shooting sports industry, and other conservation organizations, the League helps to maintain access and promote responsible use of shooting ranges on public lands.

**Managing Shooting Ranges at League Chapters** – League chapters own and operate more than 100 shooting ranges across the country, including archery, rife, pistol, skeet, sporting clays, and trap ranges. These

facilities are used for firearms safety training, hunter education courses, and youth shooting programs. Many of our chapter's programs are endorsed by the National Rifle Association, the National Shooting Sports Foundation, and the Amateur Trapshooting Association. But range ownership also conveys responsibility for safety and environmental stewardship.

The League's Executive Board has adopted a set of nonbinding, recommended guidelines and minimum safety standards for League chapters operating shooting ranges. Their purpose is to help ensure that shooting ranges are constructed and operated safely, carry adequate liability and property damage insurance, and establish rules and procedures consistent with recommended safety standards. These recommendations may help chapter and state divisions in developing their own standards, rules, and procedures.

Over the course of the last decade, environmental lawsuits against shooting ranges (under the federal Clean Water Act and the Resource Conservation and Recovery Act, for example) have increased. In a few cases, ranges have been ordered to clean up lead shot on their property; the cost of such a cleanup can reach \$1 million or more. To improve environmental management of shooting ranges, entities such as the National Shooting Sports Foundation and the U.S. Environmental Protection Agency have developed detailed guidance and best management practices. In 2003, the League entered into an agreement with the U.S. Environmental Protection Agency and the National Association of Shooting Ranges to promote the development and implementation of environmental stewardship plans at chapter shooting ranges. The League strongly encourages chapters to develop and implement such plans. But it is up to each chapter to ensure that its shooting ranges are operated and maintained in a safe and environmentally sound manner, in full compliance with all applicable local, state, and federal laws.

#### Sustainability Education

The Izaak Walton League believes it is possible to have a high quality of life without sacrificing future generations' natural resources. Our Sustainability Education Program aims to identify practical ways we can all work together to create a sustainable future — one that meets the basic needs of all people today without compromising the Earth's ability to meet the needs of future generations.

**Understanding Population and the Environment** — Many of the conservation challenges we face today are, at their root, caused by the sheer number of people using the Earth's natural resources. More than 6.6 billion people inhabit our planet, and that number increases by 80 million each year. That's a lot of people tapping into resources like fresh water, fossil fuels,

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Sustainability Education Program aims to identify practical ways we can all work together to create a sustainable future. forests, and fisheries. Through our Sustainability Education Program, the League promotes sensible solutions to the challenges presented by population growth. Using workshops, media outreach, legislative advocacy, and study tours, we work to raise public awareness and support for a sustainable future that places fewer demands on already scarce natural resources.

**Promoting Sustainable Communities** — Across the nation, individual communities face a similar challenge: How do we grow economically and socially while still conserving our natural resources? We help answer that question by providing League members and others information on what different communities are doing to create sustainable futures. Through our publications and our Web site, we share what we've learned: that successful communities combine visionary leadership with long-term planning and collaboration to preserve open space, reduce personal consumption, and manage growth.

**Taking Individual Action** — The League's Shallow Footprints Campaign teaches people how they can conserve energy, water, and other resources to attain a more sustainable lifestyle. We also train individuals on how to be more effective advocates at local, state, and national levels for a sustainable future.

#### Wilderness and Public Lands

Since its founding in 1922, the Izaak Walton League has been a staunch advocate of wilderness and has striven to improve the management of our forests, rangelands, national parks, and wildlife refuges. To this day, protection of our nation's public lands remains a focal point of the League's conservation efforts.

**Managing Public Lands** — The League believes that outstanding lands should be set aside for special management as parks, wildlife refuges, and wilderness areas. When these lands are threatened, League members step forward to protect them. For example, when a plan to sell off selected parcels of national forest land to private buyers was proposed, the League and its members jumped in to oppose the sale. Many of the parcels offered public access to some of the best outdoor recreation in the country. Congress listened and rejected the proposal. Similarly, League members stood their ground when a 754-acre development was proposed next to the Blackwater National Wildlife Refuge in Maryland.

With explosive growth in the recreational use of all-terrain vehicles (ATVs), dirt bikes, and other off-highway vehicles (OHVs), we also are spearheading efforts to protect public lands and roadless areas from the damage caused by irresponsible use. In addition to documenting the physical damage caused

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**Preserving Wilderness Areas** — Wilderness is defined by the federal Wilderness Act as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain ... which is protected and managed so as to preserve its natural conditions." Consistent with this definition, we place great importance on protecting wilderness areas. For instance, we fight to ensure that the Boundary Waters Canoe Area Wilderness, a unique and beautiful 1.1 million-acre area along the Canadian border in northern Minnesota, as well as other designated wilderness areas, retain their wilderness character. We are also a strong voice for the designation of new wilderness areas across the country.

#### **Technical Assistance**

For additional information or assistance on League policies and conservation programs, the *IWLA National Directory* provides a listing of staff contacts. Refer to the pages titled "National and Regional Office and Field Staff Contacts" or "Program Support Assistance" chart. You may also call the National Office toll-free at (800) IKE-LINE (453-5463), or find a contact name through our Web site at: www.iwla.org.

#### **Advocacy and Policy**

For more than 85 years, League members have led local, state, and national efforts to protect public lands, combat water and air pollution, and ensure future generations can enjoy hunting, fishing, and the outdoors. Advocacy does make a difference. Working individually and together, we can impact public policy from city hall to the halls of Congress.

#### Legislative Advocacy and Engagement

The general principles of effective advocacy are the same at the local, state, or federal levels. Legislators at all levels (e.g., city council, state legislature, or Congress) want to hear from their constituents your voices and views are an important part of the decision-making process. In each case, legislators want to know: how does an issue affect my constituents, district, and community; which interests are on which side of the issue; and is a compromise possible?

**Identifying Your Legislators** – To begin, you first need to identify your local, state, or federal legislator. There are many tools available to help you identify your legislator, find contact information, and even make meeting requests. These include:



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- IWLA Conservation Advocacy Center. This is the League's on-line advocacy tool (www.iwla.org/advocacy), which allows you to identify your U.S. representatives and senators and draft and send letters and e-mails about important issues. League members can also stay informed about a wide array of conservation issues by signing up for e-mail action alerts.
- U.S. House and Senate Web sites. The House (www.house.gov) and Senate (www.senate.gov) Web sites allow you to identify your members of Congress based on zip code. They also provide links to each lawmaker's Web site.
- State Legislatures. Each state legislature also maintains a Web site with information about legislators, committees, meeting schedules, and pending legislation. Your state's official Web site is a good place to find links to the legislature.
- Local Phone Book and Library. Most phone books contain a section listing local, state, and federal government contacts. Your local library is also a good resource for contact information, and librarians can often help with more in-depth research needs.

**Legislative Staff** — In the pages that follow, you will see frequent references to staff. In the legislative context, especially at the federal level, you are more likely to interact with a staff person than your U.S. representative or senator. When dealing with congressional offices, keep in mind that staff are:

- **Highly skilled.** Although most staff are young, they are highly skilled, professional, and knowledgeable about a wide range of issues.
- "Eyes and ears." Legislators rely on staff to research issues, gather political intelligence, and to make recommendations about the positions they should take on issues. Building a relationship with a staff person is not only easier, but just as important as building one with the legislator.

**Ways to Communicate with Your Legislator** — There are no concrete rules about what method of contact (phone call, e-mail, or face-to-face meeting) will be most effective in communicating your message. Your experience over time will indicate what works best under the circumstances. Keep the following guidelines in mind:

• Face-to-face meeting. Most legislators, staff, and experienced advocates agree that in-person meetings are the most effective option for conveying your message. Taking the time for a meeting demonstrates that you care about issues and allows you to answer questions and

Most legislators, staff, and experienced advocates agree that in-person meetings are the most effective option for conveying your message. explore issues in more detail. Importantly, you do not need to travel to Washington, DC or your state capital for a meeting. Every member of Congress has one or more state or district offices, and many state legislators have local offices. Although highly recommended, meetings are rarely a viable option when you need to communicate quickly, because most appointments are scheduled weeks in advance.

- Personalized letters, e-mails, and faxes. Letters, e-mails, and faxes can be very effective if they are personalized. In this context, personalized means highlighting how an issue or bill will directly affect you and your family, your chapter, your community, or other things important to you. Personalized communications catch the attention of legislators and staff because the writer has taken the time to share his or her views and to address personal or local impacts. Do not assume that an e-mail or fax will be read on the day it is sent. If time is of the essence (for example, the bill you are concerned about will be voted on in two days), a phone call is the best option.
- Phone calls. To let your state or congressional representatives know how you feel about a bill coming to a vote within a day or two, call their offices. However, phone calls are not an effective means to communicate large amounts of information or complex positions. The message must be short and specific. For example, "Please vote for Bill X-Y-Z."
- Site visits. Many legislators want to get out of the office and learn about issues on the ground. Site visits are an ideal way to educate legislators and staff about specific subjects and your chapter's larger role in the community. Moreover, they can be good media events for you and your representative. But site visits require long-term planning and organization and can be challenging if they require travel to especially remote locations. If you do expect media, develop clear, concise talking points and main messages in advance. In addition, have background material ready to give to the media, should they request more information.

**Effective Advocacy Techniques** – Here are some techniques for advocating effectively:

- Always be prepared, factual, and credible. Know the issues before you start, present facts to support your case, and be sure to use credible, reliable information.
- Put issues in a local or personal context. When evaluating an issue, most legislators consider a range of factors, including how it affects their district or state and different constituencies. Framing issues in a local or personal context is critically important to making them relevant to legislators and their staff.

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Maintaining regular contact offers an opportunity to educate policy makers about the breadth of activities your chapter performs.

- Be brief. Legislators at all levels have dozens of meetings every week and receive ever-increasing volumes of e-mails, letters, and phone calls. So naturally, they appreciate brevity. Keep your letters and e-mails to one page if possible. Be prepared for short meetings 15 minutes or less and don't be surprised to meet in a hallway or crowded office. It is useful to provide written background material for meetings two pages or less is a good rule of thumb.
- Have a specific ask. Although "educating" a legislator and staff about an issue is useful, it is important to have at least one specific request or "ask." You might ask the legislator to introduce a bill, cosponsor legislation authored by other legislators, sign a letter to an agency official, or attend a meeting. Having a clear request helps to focus the discussion and gives legislators and staff something specific to consider. It also helps with follow-up; it is much easier to contact an office and ask if the legislator has co-sponsored the bill you discussed than to inquire if he or she has made a decision about "our concerns."
- If you don't know the answer, don't guess. Frequently, legislators and staff will ask questions that you cannot immediately answer. Don't guess; tell them you don't know, but will get back to them. It is always much better to provide reliable information than to offer a response that the official or staff later learns is inaccurate.
- Listen closely. Legislators and staff frequently provide nuanced answers to questions. Over time, you can learn to interpret those responses by listening carefully to what they say and don't say. For example, if your representative says, "I'll take a look at your bill," that is not the same as "I will support it." When a staff person listens politely to your position, it does not mean that his or her boss supports it. In many cases, what isn't said, such as a specific offer of support or assistance, speaks volumes.
- Send a thank you note. After your meeting, send a brief letter or e-mail thanking the legislator and/or staff person for meeting with you. Feel free to quickly reiterate key points about your issue; however, saying thank you is most important.
- Follow up. If you are asked to provide more information, be sure to do so as soon as possible. By following up on these requests, you can demonstrate that you are a reliable source of accurate information. This is very important to developing long-term working relationships with legislators. You should also follow up on your specific asks.

**Building Relationships** – Although communicating with your legislators when critical issues arise is important, your chapter should strive to build long-term relationships with legislators through sustained advocacy and

engagement. Maintaining regular contact offers an opportunity to educate policy makers about the breadth of activities your chapter performs. For example, many legislators may not know that your chapter is the largest single provider of hunter education in the area, or that your members routinely monitor water quality in local streams. Over time, they may begin to reach out to you to solicit input on a broader range of issues and pending legislative proposals.

#### **Executive Branch Advocacy**

For the most part, the same principles and techniques apply when dealing with executive branch departments and agencies, from state fish and wildlife agencies to the U.S. Forest Service. Government agencies that execute policy also want the public to be involved, and federal and state laws frequently mandate public participation and input.

In addition, because agencies that manage and regulate public land, wildlife, and outdoor recreation, tend to focus more on technical details and making policy workable in practice, individuals and groups with demonstrated technical expertise and experience in particular areas may have greater opportunity to inform final decisions. This section provides basic information on how to begin and what opportunities exist to engage.

Once the chapter has decided to take on a particular issue, it is critically important to engage at the very beginning of a process and stay engaged throughout. In many cases, local, state, and federal rules make it difficult to begin participating midway through the decision-making process. For example, stakeholder or advisory groups are frequently formed early on and given significant roles in shaping policy. It may be very difficult to be named to such a group after it is formed. In addition, your opportunity to challenge agency decisions may be limited if you cannot demonstrate that you participated in the public process from the beginning. A variant of the old adage "vote early, vote often" applies here: "participate early, participate often."

**Information Sources and Staying Informed** – To find information about public participation in department and agency decision making, consider these sources:

• Department and agency Web sites. Most local, state, and federal agencies maintain Web sites, which include information about public participation. On these sites, you may be able to sign onto mail or e-mail lists that provide public notices, meeting times and locations, and other useful information.

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- Local newspapers. Monitor the legal and public notices section of your local paper. Department and agency rules frequently require public notices to be published in newspapers with widespread circulations.
- Federal Web portals. The federal government has several Web sites that provide general information. For example, www.usa.gov provides access to information across the government. For regulatory issues and public notices in particular, www.regulations.gov is a good place to start. Many notices of pending agency actions, such as proposed regulations, are published daily in the *Federal Register*.

**Opportunities to Act** — There are many opportunities to advocate for and influence policies developed by agencies:

- Attend public meetings and hearings. Departments, agencies, and commissions hold public meetings and hearings as they consider policy options. Attend these meetings, provide oral comments or testimony, and stay informed about next steps in the process.
- Submit written comments. Most public processes offer citizens the opportunity to submit comments in writing. In general, public notices will usually provide information about how comments can be submitted, as well as contact information for staff who can answer questions. In some cases, notices highlight specific questions agencies want the public to address, or requests for additional information about the impacts a policy could have on particular constituencies.
- Request meetings with agency staff. Requesting a meeting with staff may be especially worthwhile when the agency is asking the public for technical recommendations or to address impacts on particular constituencies. If chapter members have the technical knowledge and experience being requested, a meeting is an ideal setting to provide input and lay the foundation for ongoing engagement. Staff contacts are frequently listed in public notices or can be found on agency Web sites.
- Seek appointment to a board or commission. Especially at the local level, chapter members may have the opportunity to help establish policy by being appointed to boards, commissions, or advisory panels. Some of these bodies have policy-making authority, while others advise county councils or state agencies.

**Keys to Effective Engagement** – The keys to effective advocacy and engagement in executive agency decisions are largely the same as those in the legislative arena. Make your case based on facts and credible evidence, convey your points clearly and briefly, and make specific recommendations and requests. And the same holds true in building relationships. If you

Make your case based on facts and credible evidence, convey your points clearly and briefly, and make specific recommendations and requests. participate in decision-making processes and demonstrate to agency staff that your chapter and its members are credible experts, they will be more likely reach out to you in the future on related issues.

**IWLA Resources** — Your chapter and its members should feel free to call the IWLA National Office's conservation and program staff with questions, for advice, or to help you develop an advocacy strategy. Call the National Office or find e-mail addresses for program contacts on the League's Web site or in the *IWLA National Directory*.

#### **Chapter Conservation Projects**

One of the League's greatest strengths is its work on the ground to conserve natural resources in local communities. League members are on the front lines and can see firsthand the effects of poor planning and management on soil erosion, water quality, air pollution, and fragmentation and loss of fish and wildlife habitat.

Tackling a natural resource problem in your community can be hard work. But consider the satisfaction you'll feel when your project is a success, resulting in cleaner water, healthier air, protection of open space, and more abundant wildlife. In addition, conservation projects can help raise the chapter's profile in your local community, educate the public on the need to conserve natural resources, and recruit new members and volunteers.

Furthermore, the time and resources your chapter invests in conservation and conservation-related education activities will help it to meet requirements for tax-exempt organizations. Refer to Unit II — Finance, Legal and Fund Raising for more details on IRS and League requirements.

#### Project Management

Every chapter should plan one or more conservation projects each year as part of its activities. Although in most chapters the conservation committee takes the lead in deciding what issues and projects to tackle, they should seek input from other committees and volunteers. When you have a project in mind, also consider seeking help and advice from an appropriate local natural resource professional. For example, you could ask someone from your state conservation department or state fish and wildlife agency to assist you in technical areas. In some cases, these agencies may already have a program designed to help you complete your project.

One of the first considerations in selecting a conservation project is whether to conduct your project on your chapter property or in the community.



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**On Chapter Property** — Your property may readily lend itself to specific conservation projects. Even if you don't own the property, you may want to consider this option, provided the project is permitted under your lease or you can enter into a separate agreement or cooperative understanding with the owners. Regardless of whether you own or lease the property, you need to consider whether the project will benefit the broader public and, if so, how this will affect its design and implementation. For example, do you need to include plans to open up a demonstration project to the public for educational or other purposes?

**In the Community** — Your chapter could also provide essential leadership for conservation work in your community. For example, you could seek to protect a natural area of local importance, such as a sensitive wetland, a tract of virgin timber or prairie, or a state, county, or city park. Your chapter could also provide leadership by serving as a partner in a wildlife awareness campaign to promote outdoor ethics, or a litter cleanup event to restore a degraded area or habitat.

**Assess Your Locality** – Local conservation issues and needs are equally important factors in selecting a proposed project. Here are some questions to help get you started in assessing potential areas or projects in need of conservation work:

- Does your chapter own local property? What condition is it in?
- What is the state of the municipal water and sewage system?
- Are there any local or state park lands in dire need of maintenance?
- Is there one area of outstanding importance in your locality which should be set aside as a park, refuge, or restored for migratory waterfowl?
- Is the pollution problem in nearby rivers and streams detrimental to public health and recreation?
- How common are wildlife habitat improvement projects in your county? Are your upland game birds and other wildlife over-wintering well? Is land use impacting bird nesting sites?
- Are lakes, ponds and streams producing enough diverse, healthy fish and other aquatic life? If not, what improvements are necessary, and how would they be carried out?
- Is natural resource conservation adequately taught in the schools?
- If the land is largely forest and grass, is the cover sufficient to protect local watersheds?

Local conservation issues and needs are equally important important factors in selecting a proposed project. • Are the local forests managed properly, or are timber-cutting practices resulting in excessive soil erosion and loss of wildlife habitat? Can reforestation be aided by chapter action?

Chapters located in or near large cities might consider these more specialized needs:

- If the city depends on reservoir water supplies, is the watershed well protected from sprawl development, overgrazing on remaining farmland, and over cutting of adjacent forestlands?
- Does the city or industrial community treat its sewage and waste properly?
- How does the city manage its urban trees? How about urban wildlife?
- How does the city deal with storm water runoff?
- Are natural resource conservation, environmental education, and nature adequately taught in the inner-city schools? Do these students have opportunities to experience nature?
- Is open space at a premium? Are there remaining undeveloped areas that should be set aside for use by the public for conservation and outdoor recreation?

Some equally important considerations in choosing projects include:

- Volunteers' interests
- Chapter strengths and resources (property, local conservation issues)
- National organization support (national conservation programs, successful programs from other chapters, support from division)
- Availability of existing technical and financial resources (government and private)

**IWLA Endowment** — One place to turn for financial assistance is the IWLA Endowment. This special-purpose foundation provides grants for IWLA chapter, division, and national-level conservation projects. For the most current contact information for the IWLA Endowment, refer to the *IWLA* National Directory, or visit the Web site at www.iwlaendowment.org.

#### **Creating a Work Plan**

After you have selected one or more conservation projects, the next step is to create a detailed work plan. A good way to begin is to assign teams to develop a plan for specific elements of the overall project. Your chapter could also provide essential leadership for conservation work in your community. As part of this work plan, you will need to identify the skills necessary to carry out the project, develop your volunteer recruitment plan, and establish the methods you'll use to keep those volunteers motivated and working.

**Recruiting Volunteers** – Recruiting members and developing them into volunteers should be a high priority for any chapter. Use the following tips to help recruit the project's required manpower:

- Know what skills, interests, and time commitment you need.
- Offer varying commitment levels.
- Recruit from partner groups.
- Invite friends and neighbors.
- Advertise events and requests for volunteers.
- Offer volunteer orientation and training.

**Motivating Volunteers** — Motivating volunteers is one of the most important aspects of project management. A conservation project leader must provide volunteers opportunities to meet their expectations and use their skills effectively. Use the following suggestions to motivate the project volunteers:

- Recognize their contributions.
- Make the task fun.
- Match the assignment to the right volunteer.
- Communicate regularly and ask for feedback.

Remember that members will only volunteer their time and talent if they derive some satisfaction from the work.

**Leadership Development Tips** — To maintain a consistent cadre of volunteers, your committee should:

- Make a commitment to volunteer leadership through mentoring.
- Actively identify potential leaders from your membership, particularly new members.
- Provide ample opportunities for people to develop and use their leadership skills.

To identify a project committee chair, consider someone who:

- Understands how to include others and delegate responsibility;
- Is willing to lead;
- Actively seeks out new ideas.

Motivating volunteers is one of the most important aspects of project management. **Creating a Budget** — Once you have identified the major components of your work plan, you need to construct a budget for revenues and expenses. Be careful not to underestimate expenses or be overly optimistic about how much revenue you can raise to support the project (from donations, fees, in-kind contributions). If the projected revenues are inadequate to offset the anticipated costs, avoid the temptation to artificially inflate your revenue projections or underestimate the real costs of the project. Instead, modify the scope and scale of the project to bring expenses into line with revenues. Or, consider exploring other revenue sources. Refer to Unit II — Finance, Legal, and Fund Raising for more details on fund-raising strategies.

**Getting the Word Out** — Be sure to also discuss and plan how you are going to advertise and promote the project to achieve its intended goals. For example, you might advertise the event or activity on your chapter Web site, in your newsletter, in your local newspapers, or through mailings or signs. You should use this opportunity not only to recruit volunteers and obtain maximum public participation in your project, but also to educate participants about your chapter's work and how they can help — by volunteering, by becoming a member, or by contributing to the League.

#### Volunteering on Public Lands

Another way to help conserve and manage your local natural resources is to volunteer at a local park, state forest, or national wildlife refuge. Volunteering at one of these facilities not only advances the chapter's conservation objectives, it helps to provide important public benefits and elevate your chapter's profile in the community.

**Federal Public Lands** — If your chapter is interested in volunteering on federal public lands, such as national parks, forests, and wildlife refuges, you should begin by identifying lands near your chapter. Most can be found on the Internet or in the government listings of a telephone book. Every federal land management agency Web site also provides information about the location of its lands. For more information, visit:

- Army Corps of Engineers Recreation Areas: www.usace.army.mil
- Bureau of Land Management Lands: www.blm.gov
- Bureau of Reclamation Sites: www.usbr.gov
- National Forests and Grasslands: www.fs.fed.us
- National Parks and Recreational Areas: www.nps.gov
- National Wildlife Refuges: www.fws.gov
- Natural Resources Conservation Service Projects: www.nrcs.usda.gov



Another way to help conserve and manage your local natural resources is to volunteer at a local park, state forest, or national wildlife refuge.



Many federal agencies have Web site pages dedicated to volunteering. They provide basic information about volunteering, specific project listings, and other useful resources. For more information, visit:

- Bureau of Land Management: http://www.blm.gov/wo/st/en/res/ Volunteer.3.html
- US Forest Service: http://www.fs.fed.us/volunteer
- US Fish and Wildlife Service National Wildlife Refuges:
- http://www.fws.gov/volunteers/index.html
- National Park Service: http://www.nps.gov/gettinginvolved/volunteer/index.htm

The federal government maintains a central volunteer Web site (www. volunteer.gov/gov) with information about a wide array of opportunities across all public land management agencies. In some cases, the League has entered into formal agreements or memorandums of understanding with federal agencies for League chapters and member volunteers to help with designated projects.

**Volunteer Opportunities** — The types of volunteer opportunities on federal public lands are almost limitless. Volunteers can assist with a wide range of projects. Some of the most common include:

- Trail maintenance and construction. Annually, volunteers help federal agencies maintain, construct, and develop thousands of miles of hiking, horse, biking, and other multi-use trails. Trail projects can range from a half-day effort immediately outside the visitors' center to week-long projects in the backcountry.
- Invasive plant and animal control and removal. Invasive plants and animals pose serious threats to the long-term health of national forests, wildlife refuges, and parks across the country. Understaffed agencies need help to control invasive species and restore native plants and wildlife.
- Habitat restoration. Habitat restoration is a critical component of land management and is key to restoring and maintaining healthy populations of fish and wildlife. Restoration projects can range from replanting areas following fires to road removal to restoring wetlands.
- Monitoring and research. Timely information about the status of natural resources is essential to effective, science-based management. Volunteers can help land managers monitor and study water quality, game species, habitat, and a multitude of other natural resources and conditions.

The types of volunteer opportunities on federal public lands are almost limitless. • Interpretation and visitor services. Public lands conserve natural resources and also have a rich history. Volunteers can help share the history and legacy of these lands with visitors of all ages.

**Volunteer Management Considerations** — Volunteers are an incredible asset to federal land management agencies. They provide essential manpower for cash-strapped, understaffed agencies, and in the process, help safeguard these lands for the future. As you research conservation projects and evaluate volunteer opportunities, consider the following ways you can help your local federal land managers:

- Assess needs. Before getting a group of volunteers together, request a meeting with the local land manager to discuss the most pressing needs of the forest, wildlife refuge, or park in which you are most interested. Starting here will allow the manager to make the most effective use of your volunteer efforts and help you to recruit appropriate volunteers.
- **Combine efforts.** Combine the roles of volunteer and project manager. Although agency personnel will identify projects and provide basic instruction, they increasingly rely on volunteers to manage those projects from start to finish. Volunteers can fulfill this more meaningful role by providing their own basic equipment, training other chapter volunteers before the project begins, and working directly with local managers to schedule projects.
- Form Partnerships. Consider forming a partnership with other volunteer organizations. There are many excellent volunteer groups operating at state, county, or local levels that provide leadership and project manager training, organize events, and serve as liaisons with agencies.

**Local, State, and Other Public Lands** – Not every chapter is conveniently located near federal lands or government offices. Chapters can follow similar steps with respect to local and state public lands. Your local government will maintain information about public lands it owns, and most state natural resource agency Web sites provide ways to locate various types of state lands. These agencies can also be found online or in the government listings of a telephone book.

Meeting with the manager of the specific land area is a good first step. The manager or other staff will be the best source of information about where volunteer assistance is most needed and how volunteers can take on and complete projects.



#### Sample Conservation Projects

Why re-invent the wheel when League chapters have years of experience in planning and carrying out conservation projects? For a list of examples of conservation projects conducted by League chapters, please refer to Appendix I.

The following Sample Conservation Projects provide descriptions of successful projects undertaken by League chapters nationwide. They are based on information that individual chapters submitted for inclusion in this manual. At the end of each, you'll find a list of known chapters that have conducted the project, so you can contact them and exchange ideas or ask questions.

Each sample project sheet includes:

- Project Title
- Description
- Benefits (to the chapter and community)
- Key Steps
- Who Can Help (volunteers, partners and sponsors, technical and other support)
- Dollars and Cents (budget considerations)
- Getting the Word Out (publicity and advertising)
- Other Chapters (with similar projects)

**Note:** It is up to each chapter to decide what conservation projects best meet its needs and to ensure that any project is carried out safely, in compliance with all applicable laws, regulations, and permits.

Examples of steps chapters can take to help ensure the safety of all participants and protect the chapter from future liability, include providing appropriate equipment and training, monitoring the work closely and following all safety precautions, and carrying adequate liability insurance and securing liability release forms from participants, regardless of their age.

You will find the projects organized under one of four project categories:

- Fish and Wildlife
- Forestry and Public Lands
- Sustainable Communities
- Watershed and Wetlands

It is up to each chapter to decide what conservation projects best meet its needs. Please refer to and utilize the separate sample sheets as you organize and implement your chapter's conservation projects.

We will continue to keep this manual updated with fresh ideas, so we encourage you to send us a description of your best project. You'll find a blank "Chapter Conservation Project Description Worksheet" in Appendix J for this purpose. Please feel free to make photocopies of this two-page form for all conservation projects you might want to highlight and submit.

> To keep this manual updated with fresh ideas, we encourage you to send us a description of your best project.

SAMPLE CONSERVATION PROJECTS

## CATEGORY: FISH AND WILDLIFE

# category: fish and wildlife $\mathsf{PROJECT} - \mathsf{BAT} \mathsf{BOX}$

#### Description -

Design, construct, install, and maintain man-made bat roosting boxes on chapter or community property to increase native bat populations.

#### Benefits -

Bats are disappearing, primarily because of habitat loss. Their disappearance would devastate ecosystems. Not only do they help control insect populations (a single bat can eat up to 2,000 mosquitoes in one night), they also pollinate plants and disperse seeds.

#### Key Steps -

- Research detailed instructional plans on how to build a bat box from the state fish and wildlife agency.
- Prepare the wood. Measure and cut the plywood into three pieces:  $26 \frac{1}{2} \times 24$  inches (backboard);  $16 \frac{1}{2} \times 24$  inches (upper front board); and  $5 \times 24$  inches (lower front board).
- On the inside of the backboard and landing area (26 <sup>1</sup>/<sub>2</sub> x 24), cut horizontal grooves with a chisel or saw. Space the grooves <sup>1</sup>/<sub>4</sub> to <sup>1</sup>/<sub>2</sub> inch apart, cutting 1/32 to 1/16 of an inch deep. These grooves give the bats footing.
- Then, cut a furring strip into one 24-inch piece for inside upper wall and two 20 <sup>1</sup>/<sub>2</sub>-inch pieces for the two side walls.
- Cut a final 1 x 4 x 28-inch board for the roof.
- Stain the inside. Apply two coats of dark, water-based stain to the interior surfaces. Don't use paint, which would fill the grooves.
- Caulk the joints. Attach the furring strips to three sides of the inside backboard (with groves kept inside), caulking first. Start with the 24-inch piece at the top (upper wall); continue with the two 20 <sup>1</sup>/<sub>2</sub>-inch pieces (side walls) for the sides. Then attach the front of the bat box to the furring strips, again using caulk to create a seal.
- Final assembly. Attach 16 <sup>1</sup>/<sub>2</sub> x 24 inches (upper front board) and 5 x 24 inches (lower front board), leaving <sup>1</sup>/<sub>2</sub> inch of vent space between the upper and lower front pieces. Use screws to assemble the front, back, roof, and furring strips. Caulk the outside joints. Use roofing nails to attach shingles or galvanized metal to the roof. Apply three coats of paint or stain to the exterior (use primer for the first coat).

- Location. Mount the bat box on a building where it receives enough daytime sun to keep the bats warm. The box should be at least 15 feet off the ground to keep predators out, and preferably close to a water supply for drinking.
- When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions

#### Who Can Help -

Volunteers: Constructing and installing a bat house requires two volunteers.

**Partners/Sponsors:** Bat Conservation International, state fish and wildlife agencies, and local (town, city, township, county) governments, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** Bat Conservation International, state fish and wildlife agencies, and local (town, city, township, county) governments. Refer to the article entitled **"How to: Build a Bat Box**" from *Outdoor America* magazine on the League's Web site (www.iwla.org, navigate to News and Publications, click on Publications, and then scroll down to How Tos).

#### Dollars and Cents -

**Expenses:** Materials: One pine furring strip measuring 1 x 2 inches (actual <sup>3</sup>/<sub>4</sub> x 1-<sup>1</sup>/<sub>2</sub> inches finished dimension) x 8 feet; one 4 x 8 feet x <sup>1</sup>/<sub>2</sub>-inch sheet of exterior grade pine plywood — not pressure-treated; 20 to 30 1<sup>1</sup>/<sub>4</sub>-inch coated deck or exterior-grade Phillips screws; one pint of dark, water-based, stain; one pint of water-based primer, exterior-grade; one quart of flat water-based paint or stain, exterior grade (use low-VOC paints and stains); one tube of paintable latex caulk; one 1 x 4 x 28-inch board for roof; black asphalt shingles or galvanized metal; 6 to 10 7/8-inch roofing nails. Total cost should be between \$50 and \$75.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash, materials, or other in-kind services). Bat boxes could be made and sold to local feed, hardware, and nature retailers.

#### Getting the Word Out -

Send a pre-event news release to area newspapers and other media outlets, and a post-event release with photos of volunteers constructing and installing the bat box. Advertise in your chapter newsletter and on your Web site. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

#### Chapters With Successful BAT BOX Projects -

Rockville, MD

Mahaska County, IA

Cortland, NY

# CATEGORY: FISH AND WILDLIFE PROJECT - FISH HABITAT IMPROVEMENT

#### Description -

Restore native fish populations by improving habitat conditions and promoting species diversity in a pond, lake, or stream. Construct man-made fish cribs to increase fish habitat in area ponds and lakes.

#### Benefits -

Building fish cribs or artificial habitat structures will transform area ponds and lakes into places where bass, bluegills, and other lake species can hide, feed, and reproduce, improving both fishing and aquatic health.

#### Key Steps -

- Research detailed instructional plans on how to build artificial fish habitat or fish cribs from the state fish and wildlife agency.
- Obtain recycled or new PVC (polyvinyl chloride) piping and make a cube- or box-shaped structure. Tie the sides together with twine first to stabilize the structure. Then secure them tightly with plastic cable ties near the corners, until the cube can stand by itself.
- Make it sink. Fill two heavy-duty, plastic mesh grain bags (not burlap) or five-gallon buckets with sealed lids with sand, pebbles, or rocks. Tie each one tightly to a bottom edge of the fish crib to help weigh it down once the structure is in the water.
- Add more internal structure to the fish crib by adding some natural materials, such as dead trees or branches. Secure everything with cable ties so it doesn't separate in the water.
- Install the fish cribs. Identify what depth of water is ideal for the fish, making sure the crib won't be an obstruction to boaters.
- Monitor the cribs. Mark the site of each crib (a global positioning system, or GPS, unit would be ideal for this) and measure the depth (a marked rope line or depth finder will work). The most direct way to check whether the crib is working is to have divers see if the structure is intact and if fish are using it. Otherwise, send boats out periodically to pull up the cribs using a large treble hook drag or small boat anchor on a rope line; check their condition.
- Remember to have first aid kits, waders, sunscreen, and insect repellent available when building or inspecting the crib. Beware of broken, sharp items in the water. Handle trash with gloves. Use the buddy system to prevent drowning. Require personal floatation devices (PFDs) when volunteers are working in deep water or on vessels.

#### Who Can Help -

**Volunteers:** Five to 10 volunteers are needed to construct and install fish crib habitats. Never work alone in open water; always have at least two people.

**Partners/Sponsors:** Watershed groups, local chapters of conservation organizations, fishing clubs, state fish and wildlife agencies, Boy Scouts, 4-H clubs, local businesses looking to cooperate in conservation work, and other IWLA chapters.

**Technical and Other Support:** Fisheries biologists from state fish and wildlife agencies and local (town, city, township, county) governments. Refer to the article entitled **"How to: Build a Fish Crib,"** from *Outdoor America* magazine on the League's Web site (www.iwla.org, navigate to News and Publications, click on Publications, and then scroll down to How Tos).

#### Dollars and Cents -

**Expenses:** Materials include: pliers, side-cutters, hacksaw, hammer, gloves, shovels, boats (for installing the cribs), purchased or recycled PVC plumbing pipes, preferably already combined into boxy structures, other recycled materials, including vinyl window frames, house vinyl siding, or plastic drain pipes, discarded trees or branches to be used as filler, plastic cable ties sold in bundles at home improvement retail stores, plastic bags, sand, and rope or twine. If you purchase the plastic pipe, you will need to buy fittings, PVC cleaner-primer, and glue. Total cost incurred may be \$35 to \$50 per structure, depending on whether you use new or recycled PVC. Consider boat rental costs in addition to these materials.

**Revenue:** To offset expenses, use discarded PVC pipes and other recycled materials. Ask area hardware stores for in-kind donations of materials. Contact area plumbing associations regarding discarded materials; if they have some to donate, offer to pick them up.

#### Getting the Word Out -

Send a pre-event news release to area newspapers' events or calendar sections. Promote the project in your chapter newsletter and on your Web Site. Make sure to send a post-event release with photos of volunteers building and installing fish cribs. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

#### Chapters With Successful FISH HABITAT IMPROVEMENT Projects -

Berks County, PA Maine, ME

Boone River, IA Sioux Falls, SD Champaign County, IL

### CATEGORY: FISH AND WILDLIFE PROJECT – FISH HATCHERY AND STOCKING

#### Description -

The purpose of this project is to restore or introduce native fish species in appropriate streams and rivers. It involves raising fish and releasing them into population-depleted areas to increase the numbers and diversity of aquatic species. This project may be combined with a stream restoration project to increase the chances of survival for fish released into the wild.

#### Benefits -

Fish hatcheries provide a number of important ecological, recreational, and economic benefits. They can increase populations of native species, thereby providing enhanced recreational opportunities for anglers. Habitat improvements for fish benefit other aquatic species, as well, creating a healthier ecosystem. A fish hatchery also provides an opportunity to educate the public on the biology, ecology, and management of fish and other species and their habitats.

#### Key Steps -

- Research appropriate fish farming practices for desired species.
- Obtain required licenses and permits to raise fish for future release.
- Secure and prepare facilities, such as a pond on chapter property, in which to raise fish.
- Work with state fish and wildlife agency or private fish farming operation to obtain fingerlings of desired fish species.
- Retrieve the fish and release into a contained water source, such as a pond.
- Monitor and care for fish on a daily basis, according to species-specific instructions.
- Determine what habitat conditions the species requires and consider restoring sections of streams prior to release to achieve optimum conditions.
- Work with other landowners to access the stream for habitat improvements and/or stocking.
- See the sample conservation project description on Stream Restoration for more details.
- At the appointed time, drain the pond and release the fish into the wild.
- Use care when placing fish into stocking vehicles and transferring them into the wild.
- Remember to have on hand first aid kits, sunscreen, waders, gloves, insect repellent, and personal floatation devices (PFDs) when working on or in the water.

#### Who Can Help -

**Volunteers**: To raise fish, considering having three reliable volunteers to handle required tasks. To retrieve and release fish, you will need 10 to 15 volunteers.

**Partners/Sponsors:** U.S. Fish and Wildlife Service, state fish and wildlife agencies and natural resources departments, local chapters of conservation organizations (such as Trout Unlimited), and other IWLA chapters.

**Technical and Other Support**: U.S. Fish and Wildlife Service, fisheries biologists from state fish and wildlife agencies or natural resources departments, local chapters of conservation organizations, and other IWLA chapters.

#### Dollars and Cents -

**Expenses:** Depending on the size of your operation and whether fingerlings are donated or purchased, the cost to raise and feed the fish could range from \$500 to \$2,000 annually.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services). Hold a fishing event and use entry fees to benefit the chapter's fish hatchery and stocking operations. Establish collection cans or other promotions to seek donations from customers at area sporting goods retailers and bait and tackle shops.

#### Getting the Word Out -

Send a pre-event media release to local media outlets and follow up with a post-event release with photos of volunteers releasing fish into community streams. Post notices in your chapter newsletter and on your Web site. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

#### Chapters With Successful FISH HATCHERY AND STOCKING Projects -

Berks County, PA Brown County, WI Winchester, VA York, PA Grand Island, NE Delta, OH McCook Lake, SD Travelle, WY Boone River Valley, IA

## CATEGORY: FISH AND WILDLIFE PROJECT – WILDLIFE HABITAT IMPROVEMENT

#### Description -

Restore a native wildlife species population by improving habitat conditions and managing the diversity of wildlife on the property. This project may be carried out by planting fruit- and nut-bearing trees and shrubs, native grasses, wild grains and forbs; employing beneficial land practices, enhancing riparian buffers, and protecting wetlands. It can include the release of propagated game bird species and trapped and transferred native wildlife by a state fish and wildlife agency.

#### Benefits -

A successful project can restore native wildlife species to your region, increase wildlife viewing opportunities for nature watchers, and improve experiences for hunters. Improvements in habitat and enhanced habitat diversity can benefit other wildlife in addition to the targeted species.

#### Key Steps -

- Investigate what wildlife is native to the region and their habitat and forage needs.
- Habitat improvement techniques will vary depending on desired wildlife species and existing conditions. Techniques may include removing invasive plants, prescribed burning, selective timber cutting to open up canopy, planting nut- and fruit-bearing trees and shrubs, restoring grassland, and installing food plots of wild grains, grasses, and forbs.
- Ask your state fish and wildlife agency about appropriate habitat improvement techniques, along with habitat management needs, and specifics on releasing game birds and relocating wildlife species. For more details, refer to the sample Wildlife Propagation and Management project description.
- Ask state fish and wildlife or forestry agencies about acceptable timber management practices that would improve the habitat for wildlife. For more details, refer to the sample **Reforestation** project description.
- Contact the Natural Resources Conservation Service about additional habitat improvement options and proper grassland management. For more details, refer to assorted sample conservation project descriptions, including **Invasive Plant Species Removal** and **Native Grasslands Restoration**.
- Develop your wildlife habitat improvement plan, working with landowners (on private or leased land) or property managers (on public lands).
- Coordinate with adjacent property owners about your project and its benefits.
- Invite a local youth group, such as a 4-H club, to help implement the plan.

- If the plan includes food plots, work with volunteers to remove brush, conduct plantings, inspect food plots weekly, and maintain the plot on a seasonal basis.
- Remember, wildlife should be observed, not disturbed. When viewing wildlife, remain at a safe distance.
- When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions. When in the field, remember to use sunscreen and insect repellant. Always have first aid kits available.

#### Who Can Help -

**Volunteers:** The number of volunteers will vary, depending on the scope of the wildlife habitat improvement plan, such as the size of food plots and tasks required (cutting brush, cultivating land, planting).

**Partners/Sponsors:** State fish and wildlife agencies, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, local chapters of conservation organizations (such as Quality Deer Management, National Wild Turkey Federation, Ducks Unlimited, Ruffed Grouse, Pheasants Forever, and Quail Unlimited), local 4-H clubs, and other IWLA chapters.

**Technical and Other Support:** State fish and wildlife agencies, local chapters of conservation organizations (see above list), and other IWLA chapters.

#### Dollars and Cents -

Expenses: Purchasing materials for each food plot costs from \$45 to \$175 per acre.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services) and borrow tools and equipment from members or supporters. Approach your state fish and wildlife agency, other conservation organizations, and private foundations about providing grants for wildlife seed and plant materials. The Natural Resources Conservation Service offers various financial assistance programs for landowners interested in restoring or conserving wetlands or creating wildlife habitat.

#### Getting the Word Out -

Promote your work and project successes to local media, and state fish and wildlife agency publications, as well as in your chapter newsletter and on your Web site. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

#### Chapters With Successful WILDLIFE HABITAT IMPROVEMENT Projects -

Franklin County, PA Bethesda-Chevy Chase, MD Wisner, NE Lancaster, PA Winchester, VA Ottumwa, MN Worth County, IA Maine, ME St. Joseph County, IN

## CATEGORY: FISH AND WILDLIFE PROJECT – WILDLIFE PROPAGATION AND MANAGEMENT

#### Description -

The purpose of this project is to restore or introduce wildlife, particularly game bird species. The project involves raising and nurturing the birds, improving habitat conditions, and releasing them on property that you maintain. Habitat improvements range from making minor modifications to existing agricultural practices, to undertaking extensive clearing and planting of native grasses, wild grains, and fruit- and nut-bearing trees and shrubs.

#### Benefits -

The project increases wildlife viewing opportunities for nature watchers, restores native species, and provides opportunities to hunt and harvest game birds, and to introduce young or other first-time hunters to the sport. Improving habitat can also benefit other species and provide valuable information on the biology, ecology, and management of wildlife and their habitats.

#### Key Steps –

- Determine the habitat and forage needs for desired species.
- Where required, obtain the proper licenses and permits to raise wildlife.
- Research specifics on appropriate housing and rearing pens for species.
- Build and maintain the required facilities.
- Purchase species through your state fish and wildlife agency or private propagators.
- Provide adequate food and cover for young birds.
- Raise and nurture juvenile birds, eventually moving them into wild rearing pens until they are ready for release into the wild.
- Work with private landowners or public lands managers who will be accepting released wildlife on their properties to improve habitat, assess anticipated losses to predators, and conduct the release of game bird species.
- Refer to the project description on Wildlife Habitat Improvement for more details.
- When handling wildlife, always use gloves. Remember to have first aid kits available.

#### Who Can Help -

**Volunteers:** To raise native and other wildlife, considering having at least three reliable, trained volunteers to manage the operation and to capture, handle, and release the birds into the wild.

**Partners/Sponsors:** State fish and wildlife agencies, U.S. Fish and Wildlife Service, local chapters of conservation organizations (such as Pheasants Forever, Quail Unlimited), hunter safety education instructors, and other IWLA chapters.

**Technical and Other Support:** State fish and wildlife agencies, local chapters of conservation organizations, and other IWLA chapters.

#### Dollars and Cents -

**Expenses:** To build and maintain pens and other facilities, you should expect to spend \$500 to \$3,000. The cost to acquire eggs or juvenile birds and raise and feed them until release will vary, but could cost as much as \$7 to \$10 per bird. Refer to the expenses listed in the **Wildlife Habitat Improvement** project for more details on specialized habitat improvements.

**Revenue:** To offset expenses, consider establishing a cooperative operation with your state fish and wildlife agency, seeking grants, member donations, or contributions from area businesses (cash or in-kind services) for building materials and feed mix.

#### Getting the Word Out -

Send a pre-event press release to local media and a post-event press release with photos of volunteers working with and releasing wildlife or engaged in organized hunts. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

#### Chapters With Successful WILDLIFE PROPAGATION AND MANAGEMENT Projects -

Franklin County, PA Winchester, VA Woodmont, MD Lancaster, PA Worth County, IA Brown County, WI Peoria, IL York, PA Sioux Falls, SD
# category: fish and wildlife PROJECT - WOOD DUCK NEST BOX

### Description -

Build, install, and maintain man-made nest boxes in marshes and riparian areas to increase migratory and residential wood duck populations.

### Benefits -

A well-constructed and managed nest box enhances nesting success rates. Participants gain greater awareness of the wetland environment in which wood ducks live, and the project can strengthen the chapter's connection to the community, area conservation organizations, and government agencies.

- Research instructions on how to build a wood duck box from the state fish and wildlife agency.
- Or to build one, measure the lumber in order to saw it into six segments; note that a 12-inch width of lumber actually measures 11 ¼ inches. The pieces should measure: back, 32 x 11¼ inches; two sides, 24 x 11¼ inches; front, 24 x 11¼ inches; floor, 9 ¾ x 11¼ inches; roof 16 x 11¼ inches. Drill four or five ¼-inch drainage holes in the floor piece. Drill holes on the top and bottom of the back board for securing to the support post.
- Make an entrance-exit hole (3 inches high x 4 inches wide) in the front piece using a jigsaw or hole drill. The center of the hole should be 19 inches from the base of the piece. Roughen or score the wood below the hole to make the surface easier for the ducklings to climb on.
- Attach the front to the two sides using nails or screws. Attach the bottom next, and then the back, allowing the back board to extend above and below the box (for securing to the pole). Attach the roof piece to the back board using two hinges; this will enable you to access and clean the nest box. The nest box does not need to be painted or finished, but if you want to apply a finish, use nontoxic wood preserver or earth-tone paint on the outside only.
- A cone guard helps to keep snakes, raccoons, and other predators out of the nest box. Cut out a 3-foot circle of sheet metal. Make a slot to the middle, and then cut out a center circle that is 1 inch larger in diameter than the support pole. Drill 5/16-inch holes along the slot for 1/4-inch bolts or rivets to secure the sheet in a conical shape. Slip the cone guard over the pole before attaching the nest box to the pole. Secure it below the nest box using bolts or mounting blocks.
- Late winter is the best time to erect the nest box. Locate a wetland that has both open water and vegetation. Place the box near enough to the water for the ducklings to reach it readily, or in the water, at least 4 feet above flood level. Anchor the support pole so that it sits solidly in the ground or pond bottom. The entrance hole must face an area that allows for unobstructed flight. Avoid placing the box near any branches that might allow predators to access the box. If installing more than

one nest box, don't place them closer than 600 feet from each other. Place a 4-inch layer of wood shavings in the box for nesting material.

- Plan on checking the box at least once before the beginning of nesting season, and then at least once a month during the nesting season. After nesting is complete, clean out old nests. Use caution, as screech owls or other desirable species may use the boxes in the winter.
- When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions. Remember to have on hand first aid kits, sunscreen, and insect repellent. Beware of broken, sharp items in wetlands. Wear a personal floatation device (PDF) when working in deep or swift waters, or in a boat or canoe.

### Who Can Help -

**Volunteers:** One to two volunteers are needed to construct one wood duck box; five to seven volunteers are needed to install a box in a wetland.

**Partners/Sponsors:** Homeowners associations, watershed groups, local chapters of conservation organizations, especially Ducks Unlimited and other waterfowl groups, and other IWLA chapters.

**Technical and Other Support:** State fish and wildlife agencies and possibly local governments. Refer to the article entitled **"How to: Build a Wood Duck Nest Box"** from *Outdoor America* magazine on the League's Web site (www.iwla.org, navigate to News and Publications, click on Publications, and then scroll down to How Tos).

### Dollars and Cents -

**Expenses:** Purchase materials, which include, a 1- x 12-inch x 20-foot board (preferably rough on one side) from a local sawmill or agricultural supply retailer. Use weather-resistant, untreated wood such as cedar, cypress, pine, or spruce, not pressure-treated wood. You will need assorted hand and powertools; (galvanized nails or screws, and galvanized hinges); a support pole (which could be a 4-inch x 4-foot cedar post or a 2-inch galvanized metal pole; a 3 x 3-foot piece of galvanized sheet metal; and tin snips. Total cost should not exceed \$35 to \$50 per nest box.

Revenue: To offset expenses, consider asking area businesses for contributions.

### Getting the Word Out -

Send a pre-event press release to local media outlets. Send a post-event release with photos of volunteers building and installing nest boxes in the field. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful WOOD DUCK NEST BOX Projects-

Rockville, MD	Floyd County, IA	Talbot County, MD
Wildlife Achievement, MD	Cincinnati, OH	Mahaska County, IA

Note: For the most current specific chapter contacts, refer the IWLA National Directory or IWLA Web site (www.iwla.org).

SAMPLE CONSERVATION PROJECTS

## CATEGORY: FORESTRY AND PUBLIC LANDS

IWLA CHAPTER MANUAL | NOVEMBER 2008

## CATEGORY: FORESTRY AND PUBLIC LANDS PROJECT - HIKING AND NATURE TRAILS

### Description -

Design and install a trail system that serves as an outdoor classroom for observing nature and learning about conservation. This project involves designating and clearing a pathway in private or public forests or parklands, and may include placing educational or interpretive signs along the way. Your project may benefit from annual volunteer days that public lands agencies often organize to maintain and develop such trails. Building and maintaining a trail can range from a half day to a week-long project.

### Benefits -

Trails create year-round outdoor recreation opportunities for local users and visitors to view birds, fish, and wildlife in their natural settings. In addition, building a trail system can help deter or control human foot traffic in wild lands and other sensitive habitats. It can also provide a destination for school field trips, allowing students to observe nature and conservation practices firsthand. By building a trail, your chapter can also benefit from enhanced visibility and recognition in the community.

- Obtain permission from the appropriate agency to work on specific public lands.
- Arrange to have a topographer or cartographer map the area.
- Lay out a potential trail course on a map and plan for sign placement.
- Scout the course and mark points where you will need to make modifications.
- Organize and properly train volunteers.
- Construct a trail by clearing the area of vegetation and rocks, minimizing soil compaction, diverting runoff, and providing crossings for streams and other water bodies.
- Make or purchase and install trail markers (directional, user rules and restrictions), and interpretative signs (tree identification, habitat information, wildlife quiz stations).
- Design a trail guide booklet or brochure explaining points of interest.
- Construct an informational kiosk at the beginning of the trailhead that displays a trail map with significant land features noted. It should also contain a place for posting information, announcements, and handouts.
- Coordinate with the partnering public agency in advertising that the trail is open for public use.
- Establish a plan for long-term trail maintenance.

• When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions. Wear long sleeves for the clearing portion of the day. Have first aid kits, sunscreen, and insect repellent available.

### Who Can Help -

**Volunteers:** Have teams of four to six workers clear specific sections of the trail. Make sure experienced volunteers handle power tools and machinery.

**Partners/Sponsors:** U.S. Forest Service, Bureau of Land Management, state natural resource and park agencies, regional and local parks and recreation departments, local governments, schools, and Boy Scout units.

**Technical and Other Support**: U.S. Forest Service, Bureau of Land Management, state natural resource or park agencies, and regional and local parks and recreation departments.

### Dollars and Cents -

**Expenses:** Expect to spend \$250 to \$500 loppers, chain saws, gloves, and eye and ear protection. The costs could increase by \$250 or more if you plan to purchase trail markers and interpretative signs from a sign vendor.

**Revenue:** To offset expenses, consider asking the state department of natural resources for grants to cover equipment costs, or to provide equipment. Local parks and recreation departments may provide equipment. Or, you can ask to borrow tools from members or supporters.

### Getting the Word Out -

Send a pre-event news release to local media, advertise within the local parks department, and post a notice in your chapter newsletter and on your Web site. Also, advertise with area schools; hours spent on trail construction and maintenance may count toward students' community service hours. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful HIKING AND NATURE TRAILS Projects -

Cass County, MN Sioux Falls, SD Worth County, IA Loudoun County, VA Wildlife Achievement, MD Medina, OH Grand Island, NE Brown County, WI Rome, NY

### CATEGORY: FORESTRY AND PUBLIC LANDS

## PROJECT – INVASIVE PLANT SPECIES REMOVAL

### Description -

Organize volunteers to remove invasive plants from an infested area on chapter grounds, in your community, or on public lands.

### Benefits -

Invasive plants are non-indigenous plants that become established in communities, displacing native plants and the animals that depend upon them. By removing the invasives, you allow native flora and fauna species to re-establish and flourish, and you help maintain the balance and integrity of the local ecosystem.

### Key Steps -

- Identify an infested location and invasive species. Have a plant species book handy to share with volunteers.
- If the location is on public land, coordinate the project with agency staff.
- Determine the best time of year to remove the invasive species based on its germination cycle.
- Teach volunteers how to identify the plant and how to properly remove it.
- Equip volunteers with tools, such as loppers, chain saws, gloves, and eye and ear protection. Make sure experienced volunteers handle machinery.
- Provide volunteers with heavy-duty trash bags and work gloves.
- Arrange with a local trash hauler to remove collected debris. Or, find a safe location to burn the debris if local ordinances permit.
- If herbicide is necessary, have a trained individual apply it after other volunteers have completed their work.
- Remember to make available first aid kits, sunscreen, and insect repellent. Beware of broken, sharp items in brush (gloves and eye protection are a must). When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions.

### Who Can Help -

**Volunteers:** Recruit teams of four workers per area to begin. Have one volunteer operate a chain saw, if needed, while the rest use the loppers to remove cuttings. Certain situations may dictate the use of herbicides; after the group has manually removed as much vegetation as possible, have one trained volunteer apply herbicide.

Partners/Sponsors: U.S. Forest Service, area parks and recreation departments, local governments.

**Technical and Other Support:** Local state natural resource or forestry agencies and local (town, city, township, county) governments.

### Dollars and Cents -

**Expenses:** Rental and purchase of tools (loppers, chain saws, concentrated herbicide, gloves, and eye protection) can cost \$500 to \$1,000, depending on the magnitude of the project.

**Revenue:** To offset expenses, consider asking your state natural resources agency for grants to cover equipment cost or to provide equipment. Local parks and recreation departments may also provide equipment. Or, you can borrow tools and equipment from members and supporters.

### Getting the Word Out -

Send a pre-event news release to the local media, advertise through the parks department, and post notices in your chapter newsletter and on your Web site. Also, advertise with area middle and high schools to attract students who may want to earn community service hours. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful INVASIVE PLANT SPECIES REMOVAL Projects -

Rockville, MD Central New York, NY Lincoln, NE Dwight Lydell, MI Hamilton, OH Staunton-Augusta, VA Greater Seattle, WA Silverton, OR Sioux Falls, SD

#### CATEGORY: FORESTRY AND PUBLIC LANDS

### PROJECT – NATIVE GRASSLANDS RESTORATION

### Description -

Restore native prairies or grasslands by improving growing conditions and managing the diversity of fauna on the property. Plant native grasses and wild grains on reclaimed or abandoned space, allowing the grasslands to revive.

### Benefits -

Prairie restoration projects help to recover an area's natural ecosystem and restore its native diversity of plants and animals. Grasslands serve as filters to improve water quality, reduce erosion, create beautiful landscapes, and promote appreciation of an area's natural heritage.

- Select a site. Look for areas with maximum sun exposure and lack of competition from other plants.
- Purchase the property or obtain approval from the property owner.
- Prepare your site. In mid-spring, manually clear the site of existing vegetation.
- Create a seed bed of freshly worked soil; till the area to a depth of 1 to 4 inches. If the site is a quarter-acre or more, consider using a tractor or all-terrain vehicle (ATV) with plow, disc, and harrow implements. If smaller use a roto-tiller.
- If your area was densely populated with weeds, especially problem weeds or invasives such as quack grass, thistle, leafy spurge, or sweet clover, allow the weeds to germinate and begin growing and either re-till, remove manually, or remove chemically with herbicide.
- Finally, rake the weed-free soil to create a smooth, firm seed bed.
- Plant the native grass seeds. The best time to sow seed is from the spring thaw to late summer. In the fall, sow seed from mid to late September through freeze-up. Consider mulching to provide erosion control and help the soil retain moisture.
- Consult the Natural Resources Conservation Service for technical support on how to best manage the newly restored grasslands. Prairie landscape takes time to develop, requiring patience and careful management the first few years, such as monitoring new growth during periods of drought.
- When working on the land, make sure to have first aid kits, sunscreen, and insect repellent available. When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions.

**Volunteers:** Planting prairie grasslands require 15 to 20 volunteers to till, prepare, and plant the site.

**Partners/Sponsors:** State natural resource agencies and local (town, city, township, county) governments, local chapters of conservation organizations, such as the National Wild Turkey Federation or Pheasants Forever, and other IWLA chapters.

**Technical and Other Support:** Natural Resources Conservation Service, state natural resource or fish and wildlife agencies, and local (town, city, township, county) governments.

### Dollars and Cents -

**Expenses:** Unless you are planting an unusually large tract, the cost of native seed for the prairie should not exceed \$1,000. Tools for preparing the site can be leased or may be borrowed from members or state agencies.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services). State natural resource agencies may be able to provide seeds or grants to obtain seeds from state-approved nurseries.

### Getting the Word Out -

Invite your chapter members to participate through your newsletter and Web site; invite the public by sending news releases to media outlets; advertise in area newspapers; post fliers at local businesses. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful NATIVE GRASSLANDS RESTORATION Projects -

Brown County, WI Elgin, IL Lincoln, NE

Rice Lake, IA

# CATEGORY: FORESTRY AND PUBLIC LANDS PROJECT - REFORESTATION

### Description -

The purpose of this project is to establish new woodlands and urban forests. It involves researching and locating good sites for planting native tree species. Trees can be purchased and planted or raised in seedling beds and holding areas on chapter grounds. After they mature to a designated size, these seedlings can be replanted. Some species may require special efforts for handling and reforesting.

### Benefits -

Planting trees benefits the community in many ways; trees filter air pollutants and dust; reduce runoff, flooding, and erosion; provide summer shade and protection from winter winds and blowing snow; provide shelter and food for birds, fish, and other wildlife; and make communities more attractive to businesses, tourists, shoppers, and home buyers. Sustaining thriving forestlands creates many recreational opportunities and can yield forest products and building materials. Depending on the site, your project can create conditions for future natural forest succession or urban forest canopy growth.

- Work with an area forester or private arborist to identify a site, appropriate tree species to plant, and a location for growing seedlings.
- Purchase or rent equipment to clear the areas where you will plant the seedlings, and later the saplings.
- Purchase native seedlings from your state forestry agency or a regional private nursery.
- If you are raising seedlings from seeds, ask your state forestry agency for assistance.
- Plant the seeds in organic-rich soil in seedling beds. Maintain, water, and nurture your nursery stock.
- When the seedlings have become saplings, transplant them into holding areas in rows called "tree groves."
- Add fencing around the perimeter of the grove and/or individual tree tubes for temporary protection.
- Maintain and monitor the young trees' growth. Size at maturity will vary from species to species. Once the saplings have reached an appropriate height and maturity, prepare to transplant them to their final locations.
- Organize a group to prepare the final site and plant the young trees, adding tree protection tubes.
- Remember to have available first aid kits, sunscreen, and insect repellent. When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions.

**Volunteers:** Maintaining a native tree grove requires 15 to 20 volunteers to clear weeds, till the soil, water the saplings, and prepare for relocation and replanting.

**Partners/Sponsors:** National Arbor Day Foundation, state natural resource and forestry agencies, tree commissions from local (town, city, township, county) governments, Keep America Beautiful, homeowners associations, species-specific organizations (such as the American Chestnut Foundation), local chapters of other conservation organizations, area schools with nature and ecology curricula and Future Farmers of America classes, 4-H clubs, area tree retailers and garden centers, and other IWLA chapters.

**Technical and Other Support:** American Tree Farm System, National Arbor Day Foundation, state natural resource and forestry agencies and local (town, city, township, county) governments, Keep America Beautiful, homeowners associations, area tree species organizations, local chapters of conservation organizations, and other IWLA chapters. In addition, please refer to the **Reforestation with Native Nut-Bearing Trees** project description.

### Dollars and Cents -

**Expenses:** Purchasing native tree stock can range from \$50 to \$500. Anticipate additional expenses for materials and equipment, such as tree tubes, shovels, tree planting bars, gloves, snacks, water, and trash bags.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services) and contacting the National Arbor Day Foundation for a grant. The Foundation may also be able to provide information on other potential sources of grant funding, such as state forestry agencies, corporations, and community groups.

### Getting the Word Out -

Send a pre-event news release to local media. If your project involves local schools, advertise through your local board of education office. Advertise your project in your chapter newsletter and on your Web site. Make sure to send follow-up pictures of volunteers planting trees to the outlets that promoted the event. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful REFORESTATION Projects -

Medina, OH Talbot, MD Loudoun County, VA Rome, NY Prairie Woods, MN Fairfield, OH Wildlife Achievement, MD Sportsman's, MD Argos, IN

#### CATEGORY:FORESTRY AND PUBLIC LANDS

## PROJECT – REFORESTATION WITH NATIVE NUT-BEARING TREES

### Description -

Reforest a local site with collected native nuts and other seeds. Your chapter can gather the nuts and seeds and plant them in areas where more trees are needed, or you can use them to raise seedlings for other conservation projects.

### Benefits -

Chapters provide a great service by coordinating volunteers to collect the nuts and then turning the nuts over to the state forestry agency's nurseries, or by planting the nuts themselves and distributing the seedlings for tree planting projects. Planting trees benefits the environment in many ways, from reducing greenhouse gases to reducing erosion to providing wildlife habitat.

- Check with your state forestry agency or a local nursery for a list of native trees. The easiest place to start collecting nuts is on your own property. If you want to collect nuts from someone else's property or from a public space, seek permission from the landowner or grounds manager.
- Use buckets or bags made out of materials that allow air flow burlap, mesh, and paper work well to collect nuts. Separate nuts of different species into different bags. Identify collection location to decide where to plant the nuts or how to raise them.
- Plant nuts as soon as possible after collection. If that is not feasible, store the nuts in a cold place. Place them in sealable plastic bags with a handful of peat moss to stave off mold or bacteria. Leave the bag slightly open or poke a couple of holes in it, and then put it in a refrigerator. This keeps the nuts safe for about a month, until the conditions are right for planting. If you want to store acorns through winter, place them in one-gallon sealable plastic bags with some peat moss and store them in a refrigerator set at 34 to 36 degrees Fahrenheit. For hickory nuts, pecans, walnuts, and hazelnuts, create a moist mixture of half sand and half ground peat. Place nuts in a storage container with an airtight lid, then store in a cool, unheated location until spring.
- Remove from storage the amount of nuts that you want to plant. Rinse the nuts off to remove any dirt or debris. Remove acorn caps, but leave nut shells or hulls on for planting. Before planting the nuts, sort out the ones that aren't viable. One test that works well for acorns (but not other nuts) is to place all the acorns in a tub of water overnight. The ones that float to the top probably won't germinate. The ones that sink to the bottom are ready for planting. Remove the good acorns from the water and place them on newspapers in a cool, dark location to dry completely.

- Select the locations where you want to plant the nuts. The best time to plant is after an autumn rain while the ground is still moist. If you are planting nuts directly in the ground, simply create a hole using a stick or narrow rake. The depth should equal the diameter of the nut (usually about one inch).
- Once seedlings are well established, (e.g. after at least one year of growth), dig the seedling and its roots out of the soil and wrap it in a small section of wet newspapers for distribution to planting project.
- Place each seedling with the moistened newspaper in a plastic bag newspaper sleeves work well
   — and loosely secure with a rubber band. Distribute the seedlings as soon as possible. Make sure to
   have a first aid kit available.

**Volunteers:** This can be a chapter-wide, nut scavenging effort. Employ volunteers to gather, sort, and prepare the nuts to plant. Start with 25 to 50 volunteer members.

**Partners/Sponsors:** U.S. Forest Service, state forestry agencies, and regional forest conservation groups; local chapters of conservation organizations and other IWLA chapters.

**Technical and Other Support:** U.S. Forest Service, state forestry agencies, local garden centers and private nurseries, and regional forest conservation groups. Refer to the article entitled **"How to: Collect and Plant Native Nuts"** from *Outdoor America* magazine on the League's Web site (www.iwla.org, navigate to News and Publications, click on Publications, and then scroll down to How Tos).

### Dollars and Cents -

**Expenses:** Materials needed: burlap, mesh, or paper sacks, one-gallon re-sealable plastic bags, air-tight containers, peat moss, a large plastic tub, wire screens, a long stick or narrow rake, old newspapers, plastic grocery bags or newspaper sleeves, and rubber bands. Total supply cost should not exceed \$50.

Revenue: To offset expenses, consider asking state forestry agency for equipment contributions.

### Getting the Word Out -

Advertise through your chapter newsletter and Web site. Send a pre-event press release to local media outlets, particularly those with events sections. Send a post-event release with photos of volunteers gathering nuts in the field, or raising and distributing seedlings. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful REFORESTATION WITH NATIVE NUT-BEARING TREES Projects -

Hamilton, OH	Rockville, MD	Fullerton, CA
Wildlife Achievement, MD		

SAMPLE CONSERVATION PROJECTS

## CATEGORY: SUSTAINABLE COMMUNITIES

# category: sustainable communities PROJECT - COMMUNITIES

### Description -

Many chapters conduct projects to recycle used items and other resources, especially where government recycling programs are limited or non-existent. Other unwanted consumer goods, either donated or found, can be refurbished and sold. For example, several chapters maintain a base of operations or re-use centers for recycling and selling used, but very usable, furniture, appliances, books, toys, and clothing. Chapters with shooting facilities can also recycle fallen bullet brass, mine the spent lead shot from trap and skeet fields and the bullets from impact berms, and collect and resell used empty shotgun shell hulls for reloaders.

### Benefits -

Recycling used products saves natural resources, helps to conserve energy, protects our air and water, and reduces the burden on landfills. Collected materials can also be made into new products and sold again. When you establish a recycling program, you are not only conserving natural resources, you are educating the public on ways to have a positive impact on the environment.

- To set up a local recycling program, begin by working with your state and county to identify what is recyclable in your community.
- Identify what materials your chapter will collect for recycling, how much of it you can handle, and the scope of your operation (for example, whether you will have one or multiple collection sites).
- Find a recycling service provider. Do they haul away recyclables, or do you need to contact a local solid waste company?
- Acquire recycling bins. Trash haulers may make these available to you.
- Label both trash and recycling bins clearly. People will be less likely to confuse the trash and recycling bins if they are clearly marked.
- Set up drop-off sites in convenient locations throughout the community.
- If working on a smaller scale (with a chapter, church, or school), secure their commitment to promote and help implement the recycling collection program.
- Distribute and monitor recycling bins.
- Let the community know this service is now available.
- Designate someone to serve as a community recycling liaison.

- Organize recycling drives.
- When you sort recyclables, remember to wear gloves and to handle sharp items carefully.

**Volunteers:** Starting a small recycling program in your community that has collections sites at your chapter property, a school, or a church requires one to three people. To monitor the program on a scheduled, consistent basis requires about 15 volunteers.

**Partners/Sponsors:** State natural resources or environmental agencies and county government solid waste departments, local anti-litter coalitions, National Recycling Coalition, Keep America Beautiful, homeowners associations, watershed groups, local schools, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** State agencies and county government, local anti-litter coalitions, Keep America Beautiful, homeowners associations, watershed groups, local chapters of conservation organizations, and other IWLA chapters.

### Dollars and Cents -

**Expenses:** Expenses include trash removal and recycling receptacles. Start-up should not exceed \$1,000.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services). Local and county governments may provide recycling receptacles and removal service. Your chapter may even earn hundreds or thousands of dollars each year by trading in recyclable materials, if you set up the program properly.

### Getting the Word Out -

Post fliers in your community. Advertise through your local chapter. Send press releases to local media sources. Post notices on Web sites. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful COMMUNITY RECYCLING Projects -

(Communitywide recycling) (Re-use centers) (Shooting components) (Christmas trees) (Chapter facilities) Fremont, NE Travelle, WY

Talbot County, MD Southern Maryland, MD Loudoun County, VA Bill Cook,WI Clinton, IA Michigan City, IN McCook Lake, SD

Cincinnati Chapter, OH

Dwight Lydell, MI Sabula, IA Staunton-Augusta, VA

# category: sustainable communities PROJECT - EARTH DAY

### Description -

On April 22, 1970, 20 million people across America celebrated the first Earth Day. Now Earth Day is celebrated annually around the globe. Earth Day celebrations are intended to inspire awareness of and appreciation for the Earth's environment.

### Benefits -

Earth Day is one day in the year when businesses and industries actively seek to partner with environmental organizations to celebrate conservation. An Earth Day event can bring visibility to your chapter and attract new members.

### Key Steps -

- Identify a need in your community, particularly one that might draw media and volunteers.
- Pick a conservation project that fits the need, such as a stream or roadside cleanup, watershed walk, education workshop, tree-planting event, or other project listed in the manual.
- Secure a site to host the event.
- Work with area business to obtain in-kind donations or sponsorship for the day.
- Provide snacks, drinks, and League brochures and other giveaways to participants.
- Make sure to have several youth-friendly activities available.
- Invite a government official to speak at your event.
- Remember to have first aid kits, sunscreen, and insect repellent. Be sure to use gloves and beware of broken, sharp items (such as glass or needles) if picking up trash.
- In wooded areas or near the water, use the buddy system to keep children safe. Require personal floatation devices (PFDs) for activities in or near deep water or on vessels.

### Who Can Help -

**Volunteers:** Depending on the project, and considering Earth Day's mass appeal, recruit 20 to 50 volunteers to operate events, concessions table, registration, and other duties that arise.

**Partners/Sponsors:** Earth Day Network; Environmental Protection Agency; Natural Resource Conservation Service; state natural resources, fish and wildlife, or forestry agencies; local anti-litter coalitions; Keep America Beautiful; homeowners associations; schools; watershed groups; local chapters of conservation organizations; and other IWLA chapters.

**Technical and Other Support:** State natural resource agencies and local (town, city, township, county) governments.

### Dollars and Cents -

**Expenses:** Costs will depend on the type and scope of your event and whether you provide food. Consider spending as little as \$100 or as much as \$500 to \$1,000 for a one-day event.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services). State highway departments may provide trash bags and removal service if you opt to hold a litter cleanup.

### Getting the Word Out -

Send a pre-event media release to local outlets, and a post-event release with photos. Photos might include volunteers working with youth during educational activities, the keynote speaker, or collected piles of recovered litter. Distribute event fliers through participating schools. Promote the event in your chapter newsletter and on your Web site. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful EARTH DAY Projects -

Bethesda-Chevy Chase, MD Des Moines, IA Central New York, NY

Brown County, WI Anthony Wayne, OH Navphibase, VA Silverton, OR Prairie Woods, MN St. Joseph County, IN

### CATEGORY: SUSTAINABLE COMMUNITIES

## PROJECT - ROADSIDE LITTER CLEANUP

### Description -

Organize and conduct a community highway or roadside litter cleanup by mobilizing volunteers, both members and non-members.

### Benefits -

A litter cleanup removes litter and other debris from public roads. It can also help keep the trash out of local waterways. Your chapter will receive recognition in the community for conducting a litter project, and your efforts will educate others about not littering. Cleanups are also an excellent way to attract new members.

- Identify a heavily littered section of highway or road.
- Contact the appropriate transportation agency to see if you need to register your activity or become part of an "Adopt-a-Highway" program.
- Arrange with a local trash hauler or highway department to remove the debris you collect. Decide whether you will separate recyclable items or seek an arrangement with the trash hauler to handle them. Make sure that the hauler intends to dispose of all items in accord with local environmental ordinances. Designate a drop-spot (an area where volunteers can leave filled trash bags for removal).
- Designate a gathering point where volunteers meet before and after the cleanup.
- Provide volunteers with heavy-duty trash bags and work gloves.
- Post "work area ahead" highway warning signs and safety flags in advance along areas where you are conducting your cleanup. Provide orange safety vests for your volunteers and require that they walk toward the flow of traffic and use extreme caution along narrow road shoulders. Use the buddy system along the road for added safety and to closely monitor young volunteers.
- Provide snacks and drinks at the gathering place for volunteers. Consider posting education displays or providing literature about litter's effect on the environment for volunteers to read during breaks.
- Record the amount of trash (bags, pounds, or tons) removed, and note any unusual trash items collected.
- Commit to maintaining this designated litter site on a consistent, regular basis. At a minimum, League members should gather four times a year to clean their adopted section of road.

• Pick up trash wearing gloves. Beware of broken, sharp items (such as glass, nails, or needles). Bring first aid kits, sunscreen, and insect repellent.

### Who Can Help -

Volunteers: Small events can operate with six to12 volunteers; larger events call for 50 to 100 volunteers.

**Partners/Sponsors:** Local anti-litter coalitions, Keep America Beautiful, homeowners associations, state transportation or highway agencies, watershed groups, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** State natural resource agencies, state transportation or highway agencies, and local (town, city, township, county) governments.

### Dollars and Cents -

**Expenses:** Trash removal, \$200 to \$1,000; heavy duty work gloves and trash bags, \$200; meals, \$200; if your chapter plans to transfer trash independently, fuel cost, \$200; random last-minute items, \$200. The total for an entire day should not exceed \$1,800.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services). State highway departments may provide trash bags and removal service. Area businesses, such as hardware stores, may provide or donate work gloves. Recyclable items such as copper, aluminum, and beverage cans may generate revenue.

### Getting the Word Out -

Send a pre-event press release to local media; follow up with a post-event release with photos of volunteers working and piles of recovered trash. Take pictures of the event for publicity and remember to record the amount of trash (bags or tons) removed and any very unusual trash items collected. This information makes great stories for the press. If your chapter is an Adopt-a-Highway sponsor, take photos of volunteers standing by the state-issued recognition sign along with gathered trash. Promote the project in your chapter newsletter and on your Web site. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful ROADSIDE LITTER CLEANUP Projects -

Champaign County, IL Pikes Peak, CO Arlington-Fairfax, VA Monongalia County, WV Grand Island, NE Owatonna, MN White River Chapter, NC Mountaineer, WV Bethesda-Chevy Chase, MD Travelle Chapter, WY

# category: sustainable communities PROJECT - VERMICOMPOSTING

### Description -

Vermicomposting, or worm farming with compost, is the process of recycling food waste with organic materials by feeding it to worms in a self-contained bin. Native worms play an important ecological role and are particularly beneficial to agriculture.

### Benefits -

The waste generated by the worms — called castings — combines with decomposed newspaper and other types of bedding to create rich compost you can use in your garden. Because a worm will eat its weight in table scraps in a day, vermicomposting is a triple win: you recycle waste; you produce organic fertilizer for house and garden plants; and you raise worms for fishing.

- Obtain a wooden, metal, or plastic bin with a fitted lid for the worm farm and drill a dozen or so <sup>1</sup>/<sub>4</sub>-inch drainage holes in the bottom to promote air circulation.
- Provide bedding. Bedding gives the worms a home, but also holds moisture and contains the food waste. Bedding material must be biodegradable and light enough to allow air exchange. It must also be free of chemicals or pesticides. Cardboard, newspaper, or computer paper shredded into thin strips works well; glossy or colored paper does not. Leaves may be used, but only if they are free of insects, road salts, and chemicals.
- Moisten the bedding with water, and then wring it out before adding it to the bin. For even more worm-friendly bedding, add some peat moss, sterilized soil or sand, crushed eggshells, or ground limestone.
- Purchase the worms. Don't obtain just any worms night crawlers and other garden worms fare poorly in bins. Red worms (*Eisenia foetida*) reproduce quickly and eat voraciously, making them the worm of choice for vermicomposting. You will need about one pound of worms per pound of daily food scraps.
- Keep a container by the kitchen sink to collect your discards. Worms are like goats they'll eat just about anything. But the best choices for vermicomposting are fruit and vegetable scraps. Rinse banana peels to avoid fruit flies. Crushed eggshells add grit and calcium. Leftover pasta, old bread, coffee grinds, and tea leaves are all fine, too. Don't use meat or dairy products they'll create bad odors.
- Bury the food scraps in the bedding, using a different area each time. Every three to six months, move the resulting compost to one side of the bin and add new bedding to the empty half. Then

bury new food waste in the new bedding only. The worms will follow the scraps, and once they've moved over, you can harvest the compost.

- Store harvested compost in a plastic bag until you're ready to use it. Worm compost is more concentrated than other compost, thanks to the worms' hardworking digestive systems. For houseplants, you can mix the compost with potting soil or spread a layer of it on top. In the garden, you can use it as mulch or mix it into the soil. Finely screened compost can be combined with potting mixes for seeds or sprinkled onto the lawn as a conditioner.
- Always use gloves when working with the compost.

### Who Can Help -

**Volunteers:** It takes one volunteer to create and maintain a vermicomposting bin. Consider convening a group of 10 to 12 youth members to separate the compost from the worms.

**Partners/Sponsors:** Area food markets, hardware stores, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** Agricultural extension services, state natural resource agencies, and local (town, city, township, county) governments' solid waste units. Refer to the article entitled **"How to: Vermicompost"** from *Outdoor America* magazine on the League's Web site (www.iwla.org, navigate to News and Publications, click on Publications, and then scroll down to How Tos).

### Dollars and Cents -

**Expenses:** An average storage bin costs \$10 at an area building supply store. You can buy red worms from growers, bait shops, garden centers, or through the mail at an average cost of \$20 per pound.

**Revenue:** Consider asking area food markets for perished or expired vegetable and fruit items to start your worm bin. Sell the worms to local anglers or at a chapter fishing event.

### Getting the Word Out -

Promote your worm bin through your chapter newsletter and Web site. Advertise in the schools; in fact, you might want to take the worms on a tour of area schools. Teach area children about composting, the ecological role that worms play, agricultural practices, and the League. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful VERMICOMPOSTING Projects -

Capitol Youth, MD (Contact IWLA National Office for details) Dwight Lydell, MI Griffith, IN (Contact Jim Sweeney) SAMPLE CONSERVATION PROJECTS

## CATEGORY: WATERSHED AND WETLANDS

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### CATEGORY: WATERSHED AND WETLANDS

## PROJECT – LAKE AND POND PRESERVATION AND MANAGEMENT

### Description -

Restore or protect a lake or pond for fish and wildlife habitat and community enjoyment. Restoration is one way to return a polluted or declining body of water to health. The project may include stabilizing banks, restoring water sources (stream, spring seeps, wetlands) flowing into the pond or lake, removing invasive species, eliminating excessive algae blooms, monitoring sources of offsite nutrient and chemical pollution, or installing structures to create fish habitat to help bring a lake or pond back to a fully functioning state.

### Benefits -

A healthy lake or pond with a good balance of vegetation, insects, crustaceans, fish, reptiles, and amphibians can support many species of animals and birds and serves as an excellent living classroom. Lakes and ponds also provide recreational enjoyment for anglers, boaters, and wildlife watchers. Fishing derbies and other water resource-based youth events can introduce children to outdoor recreation and may attract new members to your chapter.

- Assess the health of your lake or pond using the League's Save Our Streams standards. A healthy system has a lot of dissolved oxygen to support aquatic life, a variety of native aquatic and shore plants, relatively clear water free of excess sediment, and not too much algae. It should support a diversity of fish, insects, crustaceans, amphibians, and reptiles. Consider restoring your lake or pond, focusing on areas that most need attention.
- If your lake or pond is suffering from erosion problems, consider creating a shoreline buffer of vegetation and/or rocks to hold soil in place. If the pond is clogged with sediment, a vegetative buffer can filter excess sediment from rain runoff and improve water quality. Shade from shoreline vegetation can increase oxygen levels by decreasing water temperatures.
- Invasive plants or animals can also wreak havoc on natural lake or man-made pond systems. If you have invasive plants or animals, you may want to find ways to control and manage them. Pulling weeds along the shoreline is one way to engage volunteers in lake management. You can also educate boaters and anglers about the importance of keeping their equipment clean so they don't introduce an invasive species into your lake.
- Keep your lakeshore trash free. See the sample conservation project description Waterways Litter Cleanup for more details.
- Use your healthy lake or pond as a resource for the community. Invite schools and youth groups to explore aquatic life with nets, or hold fishing derbies and educational workshops to engage youth

in outdoor recreation. Invite members of the community to fish, canoe, or watch wildlife in and around the pond. Water quality monitoring, trash cleanups, and invasive plant removal are also good volunteer projects to connect the community with your lake or pond and your chapter.

• When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions.

### Who Can Help -

**Volunteers:** To assess the health of an existing lake or pond, you will need at least two or three dedicated volunteers to lead the effort, collect data, and work with partners or contractors as needed for more labor-intensive tasks. For trash cleanups, invasive plant removal, and monitoring activities, you may engage 10 to 50 volunteers, depending upon the size of the lake or pond. Educational and recreational activities may engage 50 to 100 community members, with 5 to 10 volunteers organizing and leading activities.

**Partners/Sponsors:** Local anti-litter coalitions, Keep America Beautiful, homeowners associations, watershed groups, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** The Natural Resources Conservation Service, U.S. Army Corps of Engineers, state natural resources and fish and wildlife agencies, agricultural extension service (for ponds), local governments, universities, and private consultants and excavation contractors.

### Dollars and Cents -

**Expenses:** Equipment for monitoring lake or pond conditions may include a Secchi disk to measure water clarity, and probes or test kits to measure dissolved oxygen and turbidity. These items cost approximately \$100 to \$1,000. Chemical treatment for algae blooms on ponds and smaller lakes varies, but may run \$100 to \$250 annually. Restoring an existing lake or pond, including new construction, can range from \$5,000 to \$200,000 or more. If you are holding an event for the public or conducting a youth education event, you will need to budget for materials, fliers, food, and giveaways, depending on how you organize the event.

**Revenue:** Instead of purchasing monitoring equipment, borrow it from a government agency, university, or other conservation group. Seek grants for lake and pond restoration or creation.

### Getting the Word Out -

Send a pre-event press release to local media and a post-event follow-up release with photos of your project and information about the importance of all waterways to the community. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful LAKE AND POND PRESERVATION AND MANAGEMENT Projects -

Berks County, PA Mahaska County, IA Hamilton, OH Lincoln, NE McCook Lake, SD Anthony Wayne, OH Champaign County, IL Griffith, IN

Note: For the most current specific chapter contacts, refer the IWLA National Directory or IWLA Web site (www.iwla.org).

# category: watershed and wetlands PROJECT - STREAM MONITORING

### Description -

Chapter members test the water quality of local streams using either chemical test kits or the League's Save Our Streams (SOS) biological monitoring method. Under the biological method, volunteers collect and identify aquatic macroinvertebrates (stream insects and crustaceans) and determine a water quality rating of excellent, good, fair, or poor based on the diversity of insects found and their varying tolerances to pollution.

### Benefits -

Stream monitoring is an easy, hands-on project that serves as an excellent community outreach tool. The data that volunteers collect is used to determine stream health, identify potential pollution problems and solutions, and advocate for better stream protection. Monitoring can be used before and after restoration projects to determine whether or not restoration is working, and to suggest changes needed to improve success. Monitoring is also a great way to introduce youth and adults to streams and conservation. Opening monitoring workshops to the community is a great way to recruit new members.

### Key Steps –

- Choose a stream to monitor. Make sure the stream is easily accessible and that the water is below knee level.
- To train volunteers, organize a one-day workshop on monitoring techniques that is open to the public.
- Contact the League's National Office for help with setting up trainings. Make sure instructors are Save Our Streams-certified.
- Following the workshop, purchase or borrow stream monitoring equipment, including Save Our Streams publications, waders, monitoring nets, and other supplies. Monitoring instructions, data forms, and field guides are available through the IWLA National Office. The League's Web site, www.iwla.org/sos, also lists sources of equipment.
- Schedule regular monitoring events for your volunteers. Monitoring should take place at the same site four to six times per year.
- Make sure monitoring volunteers take safety precautions. Provide first aid kits, sunscreen, and insect repellent to workshop participants and monitoring teams. Beware of broken, sharp items in the water. Make sure participants can identify poison ivy.

### Who Can Help -

**Volunteers:** Two Save Our Stream-trained instructors are needed for a class of 30 participants. Two additional volunteers are needed for food preparation; one to two for administration and registration;

and one volunteer for taking photographs. A monitoring session requires three to five volunteers for two to four hours per monitoring site.

**Partners/Sponsors:** Area colleges and/or biology professors; naturalists, representatives from natural resource agencies, watershed groups, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** State natural resource agencies and local (town, city, township, county) governments; area colleges and/or biology professors; naturalists, representatives from the U.S. Environmental Protection Agency (EPA), watershed groups, local chapters of conservation organizations, and other IWLA chapters. Also contact the Izaak Walton League National Office for assistance at (800) BUG-IWLA or sos@iwla.org.

### Dollars and Cents -

**Expenses:** SOS biological monitoring requires: a kick-seine or D-frame net, thermometer, map to mark location, ice cube trays, white table cloth or sheet, pencils, tweezers, monitoring instructions and data form, a magnifying glass, macroinvertebrate identification field guides, and clip boards, all of which can be purchased for about \$150. Optional items include: waders, insulated gloves, a field microscope, pH meter, global positioning system (GPS) unit, and other chemical test kits. These items will cost between \$150 and \$300. If you provide food or drinks for the workshop day, you'll need to factor in those costs for participants and volunteers.

**Revenue:** IWLA's National Office can advise chapters on how to best raise local funds to host a training event with IWLA staff that would include equipment costs. Small grants for equipment are available from many local community foundations and state agencies. The IWLA Endowment also supports stream monitoring projects.

### Getting the Word Out -

Send a pre-event press release to local media and a post-event release with photos of volunteers monitoring the stream and collecting data. Use community calendars in newspapers, your chapter newsletter, fliers, and partnerships with other local organizations to advertise workshops. Post your workshop on your chapter Web site and use local listservs to reach community members. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful STREAM MONITORING Projects -

Potomac, MD Mountaineer, WV Sportsman's, MD Arlington-Fairfax, VA Orange, CA Sioux Falls, SD Rockville, MD Bush Lake, MN Southern Maryland, MD Central New York, NY Diana, IN Cincinnati, OH Virginia Save Our Streams, VA

# category: watersheds and wetlands PROJECT - STREAM RESTORATION

### Description -

Stream restoration can help to return a polluted or failing stream to a health. This project often includes stabilizing banks, removing disturbances, or altering the shape of the stream channel, as well as fencing cattle out to reduce erosion and create fish habitat.

### Benefits -

Streams are unique features that connect landscapes and communities, providing vast environmental, social, cultural, and economic value. They provide vital fish and wildlife habitat, as well as water for drinking, irrigation, industry, power production, transportation, flood control, fishing, boating, swimming, and other recreational enjoyment. Restoring a stream can increase its value for people and wildlife, and can provide many opportunities for volunteer projects at your chapter.

- Select a stream and assess its health and condition. Determine the watershed boundary, which includes all of the land that drains into the stream. Using maps, aerial photographs, local knowledge, and organized watershed walks, identify potential sources of pollution in the watershed. Next, walk the length of the stream to identify problems such as erosion, lack of streamside vegetation, and pipe outfalls. Monitor water quality to determine whether or not the stream supports life. Make sure you obtain landowner permission before entering any private property. For more monitoring methods, refer to sample **Stream Monitoring** project description.
- Assemble a technical expert team to help with your stream assessment efforts. Use the information gathered to prioritize restoration sites so that you start with the problems that need to be solved first. Restoration techniques may include one or more of the following remedies.
- Fence out cattle. When cattle enter streams to drink water or to cross, they trample the banks, causing erosion that threatens trees and produces excess sediment that smothers fish and their eggs. Cow manure can cause harmful algal blooms that sap the stream's dissolved oxygen. Fencing cattle out of streams creates stabilized crossing areas and allows streams to improve on their own.
- Plant riparian buffers. Vegetation growing along streams provides shade and food necessary for aquatic life. Vegetation traps and filters pollutants from rain runoff, and the roots strengthen stream banks and prevent erosion.
- Get involved in land-use planning. Stream restoration is most effective when combined with a sound land-management plan. Attend planning commission meetings, participate on a commission or task force to review planning regulations, or review and comment on land use plans or zoning ordinances to make sure land use practices support healthy streams.

- Stabilize eroding streambanks. There are several conservation-minded ways to stabilize eroding banks while still maintaining excellent fish and wildlife habitat. Consult with technical experts in the planning, design, and installation of these projects.
- When working with power equipment, rely on experienced operators, follow all instructions, and use safety precautions.

**Volunteers:** Watershed and stream assessments and monitoring can be done by five to 50 volunteers, depending upon the size of the stream and its watershed. Tree plantings and some bank stabilization techniques may take 10 to 50 or more volunteers, depending upon the size of the project. Fencing and more structural stabilization techniques should be installed by professionals.

**Partners/Sponsors:** State and local natural resource agencies, homeowners associations, watershed groups, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support**: Federal natural resource and state fish and wildlife agencies and local (town, city, township, county) governments, schools and universities, consulting firms, other conservation organizations, and IWLA national staff for support materials.

### Dollars and Cents -

**Expenses:** Monitoring and assessment may require clipboards, maps, global positioning system, or GPS units, and chemical or biological equipment listed in the stream monitoring section. Cost is approximately \$100 to \$1,000. Costs will vary greatly depending upon the size and scope of these projects: Tree plantings require trees, digging tools, and tree tubes and may cost \$500 to \$5,000. Fencing projects include fence materials, professional labor, and stones, wood, and labor for stabilized crossings may cost from \$1,000 to \$10,000. Stream bank stabilization projects may cost \$5,000 to \$200,000.

**Revenue:** To offset expenses, consider borrowing monitoring equipment from a government agency, university, watershed group, or other conservation organization. Often, nurseries or government agencies are willing to donate trees for planting projects. Government agencies and private foundations may also provide grant funds for these types of projects.

### Getting the Word Out -

Send a pre-event press release to local media, a post-event release with photos of volunteers working, and before and after photos of stream restoration work. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful STREAM RESTORATION Projects -

Elgin, IL	Central NY, NY	Travelle, WY
Wayne, OH	York, PA	Bill Cook, WI
Talbot County, MD	Greater Seattle, WA	Izaak Walton Cottage, UK

Note: For the most current specific chapter contacts, refer the IWLA National Directory or IWLA Web site (www.iwla.org).

### CATEGORY: WATERSHED AND WETLANDS

## PROJECT - WATERWAYS LITTER CLEANUP

### Description -

Organize and conduct a community waterways cleanup by recruiting volunteers (both members and nonmembers) to remove discarded items along stream and river banks and in river corridors.

### Benefits -

This project removes litter and other debris from our waterways. Litter in streams can interfere with spawning beds and injure fish, wildlife, and people. Litter can also inhibit the free flow of water and hinder recreation. By removing litter, your chapter will earn recognition for its efforts to promote fishable and swimmable waters, while improving the community's potential drinking water sources.

- Choose a project leader and several other people to plan the event. Meet to determine and assign tasks.
- Select a stream or river for your cleanup project.
- Choose a time when weather is milder, such as late spring or early fall. Set a date and time at least two months in advance, along with a place (with easy public access) for volunteers to meet.
- Obtain permission from property owners to access the site during cleanup dates.
- If applicable, register your group and site with state natural resources agencies' or highway departments' Adopt-a-Stream programs.
- Obtain equipment and supplies, including trash bags and gloves, food and drinks for volunteers, and first aid supplies. You may also want to use canoes, kayaks, or waders to reach trash in the water.
- Arrange with a local trash hauler or the highway department to remove collected debris from a designated spot once the cleanup is over.
- Have a manned registration table and ask volunteers to sign up and provide contact information so you can invite them to other events. Provide chapter membership information at the table.
- Start the cleanup effort with a brief program. Welcome and thank volunteers and discuss safety issues. You can also use this time to educate participants about pollution prevention, introduce your chapter, and thank volunteers and donors.
- Assign segments of shoreline or waterway to each team of two volunteers. Volunteers on foot can work along a designated section of streambank. Volunteers in canoes or kayaks can pick up floating trash or sunken garbage. Use larger vessels or trucks to haul trash to your pre-arranged pick-up point, if needed.
- Designate a gathering point where volunteers meet after the cleanup and drop off collected trash. Record the amount of trash (bags, pounds, or tons) removed, and note any unusual trash items collected.

- Commit to maintaining this designated section of stream or river on a regular basis. At a minimum, League members should gather two to four times a year to clean adopted sections of waterways.
- Remember first aid kits. Beware of poisonous snakes. Monitor hypothermia. Require personal floatation devices (PFDs) when in deep water or on vessels, and use the buddy system to ensure safety. Arrange for proper and legal removal of recovered trash.

**Volunteers:** Depending on the length of the waterway you choose, access to vessels, and anticipated amounts of debris, 10 to 50 volunteers are manageable with three to five volunteer managers.

**Partners/Sponsors:** Local anti-litter coalitions, Keep America Beautiful, homeowners associations, watershed groups, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** State natural resource agencies and local (town, city, township, county) governments, state highway or local transportation departments.

### Dollars and Cents -

**Expenses:** Your budget should account for trash removal, supplies, meals, trash bags, and orange safety vests. Canoe or boat rental and a movable dumpster lease come at higher costs. You may also want to provide, or ask volunteers to bring, work gloves, work boots, waders, and rakes. Volunteers may also be able to bring canoes and paddles, boats with outboard or trolling motors, and PFDs. Total cost can range from a minimal amount to \$1,000.

**Revenue:** To offset expenses, consider asking area businesses for contributions (cash or in-kind services). State highway departments may provide trash bags, safety vests, and removal service. Valuable recyclables include items made of copper and aluminum. Be sure to arrange ahead of time how you will separate and handle these items.

### Getting the Word Out -

Send a pre-event news release to local media and a post-event release with photos of volunteers working and collected piles of recovered trash. Take pictures of the event for publicity and remember to record the amount of trash (bags, pounds, or tons) removed and any unusual items collected. This information makes great stories for the press. Promote the cleanup in your chapter newsletter and on your Web Site. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful WATERWAYS LITTER CLEANUP Projects -

Des Moines, IA Wildlife Achievement, MD Cypress Chapter, FL McCook Lake Chapter, SD Cincinnati, OH Warren County, VA Tennessee Chapter, TN St. Joseph County, IN Rockville, MD Central New York Chapter, NY Suffolk-Nansemond Chapter, VA Silverton, OR

Note: For the most current specific chapter contacts, refer the IWLA National Directory or IWLA Web site (www.iwla.org).

## category: watershed and wetlands PROJECT - WETLANDS CONSERVATION

### Description -

Wetlands conservation includes activities that conserve, protect, and restore, as well as educate people about, wetlands. Marshes, swamps, bogs, and fens — are ecosystems with both terrestrial and aquatic characteristics. They usually have surface water or wet, waterlogged soils and plants that are adapted to wet conditions.

### Benefits -

Wetlands provide vital shelter, food, and spawning and nesting sites for fish and wildlife. They purify drinking water by filtering polluted runoff, reduce flooding and drought by storing water and slowly releasing it, buffer and protect coastlines from erosion, and provide hunting, fishing, and other recreational opportunities. Wetlands also are excellent living laboratories that offer unique experiences for students of all ages. Wetland conservation allows a chapter to provide many of these benefits to the community while engaging volunteers in hands-on learning and on-the-ground conservation activities.

- Turn a wetland into an educational center. Coordinate field trips to a wetland on chapter property or in the community for clubs and school groups. Ask a local wetland scientist to point out unique features along the tour. Provide access, such as boardwalks, for people to visit the wetland without damaging plants. Erect interpretive signs throughout the area.
- Remove invasive plants and plant native vegetation to allow native vegetation that may be more beneficial to wildlife to reestablish in the area. Enlist the help of local botanists, wetland scientists, or government agency employees before developing a plan to control invasive vegetation. Planting native vegetation provides wildlife habitat and increases the wetland's ability to reduce pollution.
- Host a workshop for the community on wetland ecology and conservation. Invite local expert speakers or ask the IWLA National Office for assistance.
- Advocate for wetland protections in your community. Find out about existing wetland protections and how you can lobby for increased protections and funding for wetland conservation programs.
- Be wetland watchdogs. Provide comments on applications to alter wetlands and report violations of wetland laws. Contact the Army Corps of Engineers office in your state and ask to be notified of permit applications in your area.
- Create a wetland. Scope out your site. Size your pond. Dig out the site. Line the bottom and fill your wetland. Vernal ponds provide wildlife habitat and feeding grounds, attract mosquito-eating critters, reduce runoff, and serve as teaching tools.

- Buy a wetland. Purchasing land or holding a conservation easement are great ways to protect local wetlands from development. Foundation grants often are available for key land purchases.
- Restore a wetland. The federal government has several programs that provide technical and financial assistance to landowners interested in restoring or conserving wetlands on their properties. These include the Wetland Reserve Program, Conservation Reserve Program, and Wildlife Habitat Incentives Program. Contact your Natural Resources Conservation Service office for more information.

**Volunteers:** The number of volunteers will vary, based on the scope of each project. Organizing wetland purchases, participating in the permit process, and advocating for wetland protections may be carried out with three to five volunteers. Hosting workshops, planting native vegetation, and using a wetland as an educational center may require five to 30 volunteers.

**Partners/Sponsors:** Watershed groups, federal, state, and local natural resource agencies, local chapters of conservation organizations, and other IWLA chapters.

**Technical and Other Support:** Federal and state natural resource agencies and local (town, city, township, county) governments, consulting firms, universities.

### Dollars and Cents -

**Expenses:** Expenses will also vary widely, based on the scope and type of each project. Land purchases and restoration may cost up to several million dollars. Workshops, plantings, and educational activities may cost up to \$1,000. Advocacy and watchdog projects may incur very minimal costs of under \$100.

**Revenue:** The Wetlands Reserve Program can provide income for the chapter or landowner. You may also be able to harvest timber or other valuable resources from your wetland. Foundation grants and government agency funds are often available for land purchases and restoration projects.

### Getting the Word Out -

Media releases, presentations at meetings of other organizations, fliers, and announcements in conservation and civic group newsletters are all ways to inform the community about your project. Use your newsletter and Web site to promote the project within your chapter. Provide guests with information about the League's mission, your chapter's accomplishments, and membership. Take advantage of those non-members participating in this project by promoting the League and recruiting them as new members.

### Chapters With Successful WETLAND CONSERVATION Projects -

Jacques, MNSouthern Maryland, MDOwatonna, MNRochester, MNSuffolk-Nansemond, VAGreen Lake Area, WI

Bethesda-Chevy Chase, MD Cypress, FL Rome, NY