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Education Projects in the Office of Water

A How-to Guide for Developing Environmental Education Projects

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Throughout this publication, there are references to outside organizations and individuals. They may not necessarily reflect the views of the U.S. Environmental Protection Agency and no official endorsement from the Agency should be inferred.

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Note from the author
It was a pleasure to work with the above individuals, and without them, this guide would not exist. As with all quality educational projects, the end product reflects the knowledge and experience of the support system.
-*Nathan Spees, Office of Water - Education & Outreach*

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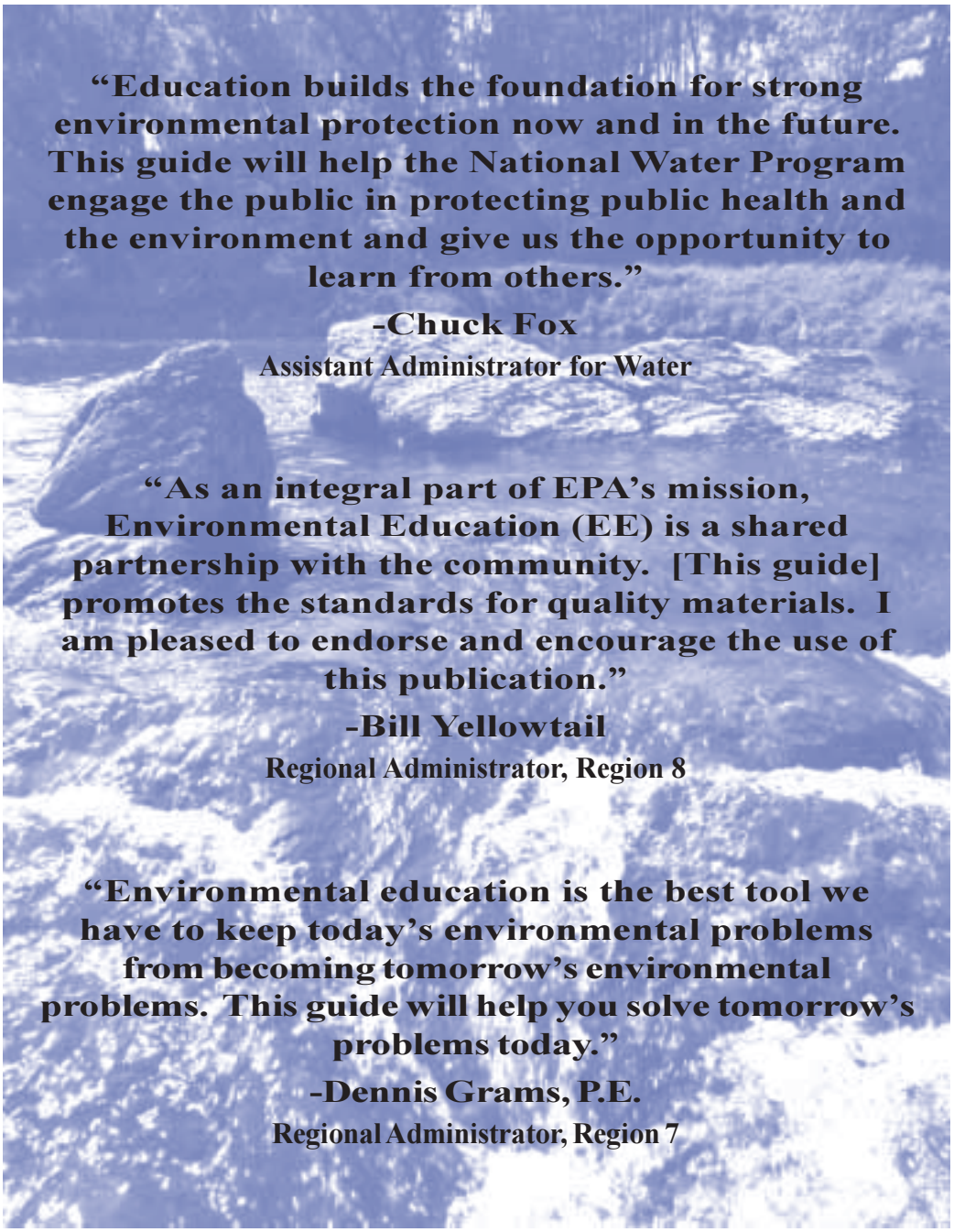
A How-To Guide for Developing Environmental Education Projects



"Education builds the foundation for strong environmental protection now and in the future. This guide will help the National Water Program engage the public in protecting public health and the environment and give us the opportunity to learn from others."

-Chuck Fox

Assistant Administrator for Water

"As an integral part of EPA's mission, Environmental Education (EE) is a shared partnership with the community. [This guide] promotes the standards for quality materials. I am pleased to endorse and encourage the use of this publication."

-Bill Yellowtail

Regional Administrator, Region 8

"Environmental education is the best tool we have to keep today's environmental problems from becoming tomorrow's environmental problems. This guide will help you solve tomorrow's problems today."

-Dennis Grams, P.E.

Regional Administrator, Region 7

Purpose of this Guide

This guide provides you with a roadmap as you develop Environmental Education (EE) projects in EPA's Office of Water. It lays out steps for creating quality EE projects and outlines EPA's procedural guidelines for producing a product or supporting related projects already in existence. In addition, it lists other publications, contacts, and references (web sites, training opportunities, and available materials) that provide you with further detail and insight into the process of developing effective environmental education pieces.

How can this guide help you?

✎ **Increase the effectiveness of your project.**

Environmental education is an important component of the Office of Water's environmental program. This guide provides you with a basic outline to follow, tips from EE experts, and references to EE professionals and resources that should make your job more straight-forward and, more importantly, make your project more effective.

✎ **Reduce duplication of EE projects.**

From the extensive number of EE resources on the market, it is easy to see that it is already flooded with projects (curricula, videos, workshops, publications, etc.). This guide is designed to help connect you to other EE designers and users so that you can get a better idea of what EE projects currently exist and where there are gaps.

✎ **Ensure stakeholder and public support.**

By including individuals and organizations that develop, distribute, and implement EE projects in your development process, you will gain valuable input, identify ways to improve distribution and implementation, and increase the long term sustainability of your project.

What exactly is an EE project?

In this document, you will notice that we use the word "project" instead of "product." The word product implies an object such as a book, video, or publication, and while these items can certainly be effective and used to support EE programs, they are not your only option for reaching your audience. Indeed, there may be other projects that prove to be more effective such as workshops, teacher training, interactive web sites, supporting an existing EE program, etc.

First of all, what is Environmental Education?

Environmental Education (EE) encompasses much more than simply creating a product such as a fact sheet, a video, or a coloring book and sticking it on a shelf. It is a **learning process** that increases the users' knowledge and awareness about the environment and develops skills that enable them to make responsible decisions and actions that impact the environment. EE encourages inquiry and investigation and enables the learner to develop critical-thinking, problem-solving, and effective decision-making skills. EE enables individuals to weigh various sides of an environmental issue. Equally important, EE does not advocate a particular viewpoint or course of action but allows the learner to make an educated decision.[1]

Environmental education projects should strive to build:[2]

✔ **Awareness**	An awareness of and sensitivity to the total environment (natural and built).
✔ **Knowledge**	A basic understanding of environmental processes, human interactions, and the development and resolution of environmental problems.
✔ **Attitudes**	Environmental values and feelings, and motivation and disposition to actively participate in environmental improvement and protection.
✔ **Skills**	Skills for identification, investigation, and resolution of environmental problems.
✔ **Participation**	An active experience in the application of knowledge and skills learned.

Why is Environmental Education Important?

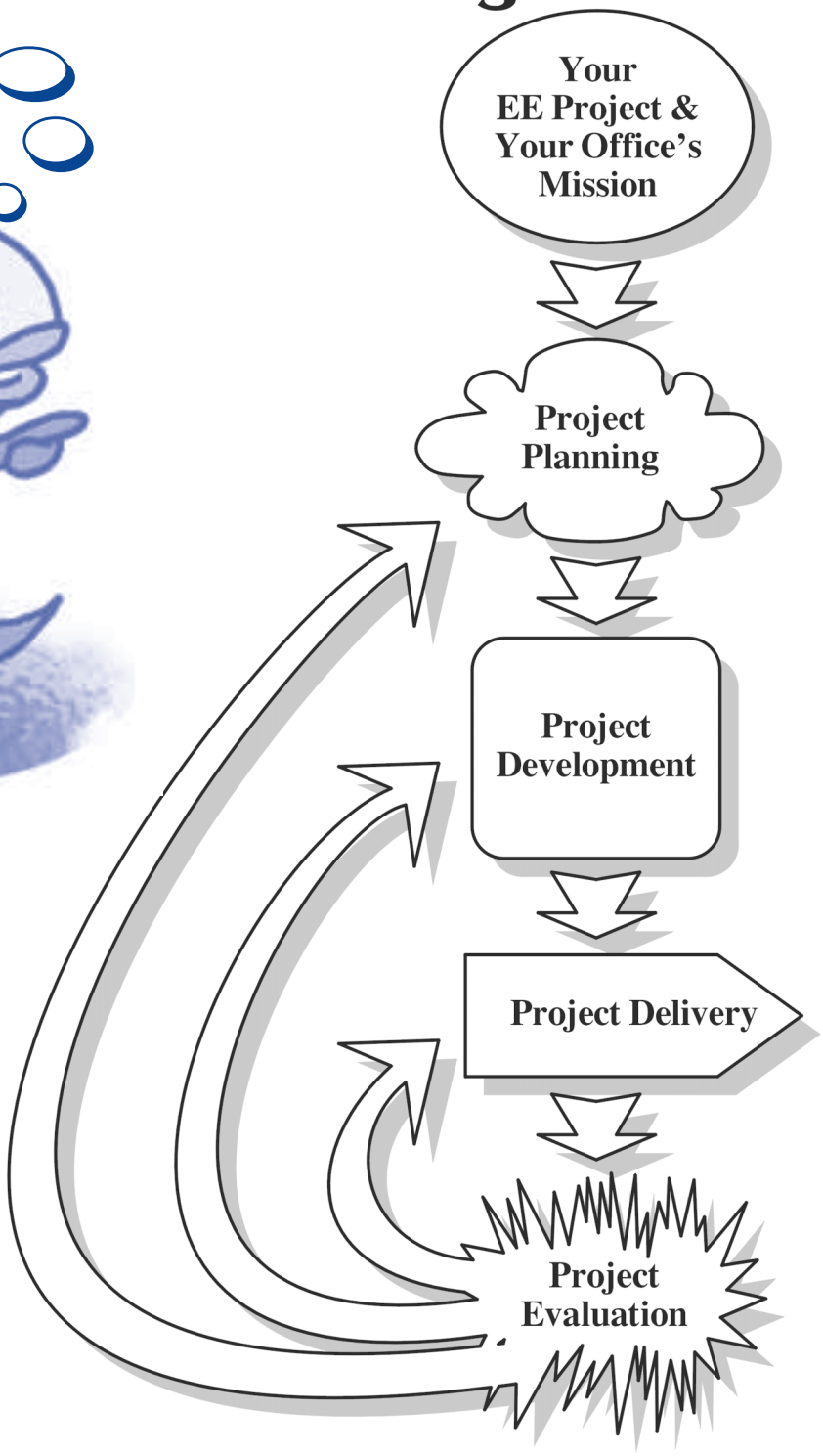
Educating people about the environment is an integral component of EPA's mission. The National Environmental Education Act of 1990 requires EPA to provide national leadership to increase environmental literacy. The Act encourages EPA to partner with and build upon long standing environmental education efforts throughout federal, tribal, and state agencies, education institutions, non-profit organizations, and the private sector.

In addition to the National Environmental Education Act, EE is important because it fosters an environmentally conscious and responsible public. EE addresses the individuals' actions that affect the environment and encourages learners to take responsibility for their actions. When coupled with existing regulatory and voluntary programs, EE will allow us to more effectively resolve environmental problems that are difficult to address and in which the public plays a major role. The critical key to making this approach effective is for us to make the shift from thinking that environmental education is a "nice thing on the side," to a "necessary component" of our water programs.

> "Environmental protection begins with environmental education. Only by learning how we relate to our environment can we contribute to making and keeping the world around us a safer, cleaner place to live."
> -Carol M. Browner, EPA Administrator

[1]See the UNESCO Tblisi Declaration (1978) and the National Environmental Education Advisory Council's "Report Assessing Environmental Education in the U.S. and the Implementation of the NEEA." (1996) The report is available online at www.epa.gov/ncepihom/orderpubs.html .
[2]See above footnote.

The Big Picture



The Running Example

At the beginning of each chapter, you will find a flow chart and a running example that the narrator, "Fly," will guide you through as you go about developing an EE project. In this hypothetical scenario, Fly works in a branch in the Office of Ground Water and Drinking Water (OGWDW) at EPA headquarters. Obviously, your experience will be different than the one in the example, but we think that you will be able to identify with some of the questions and solutions that Fly encountered during his project. Good luck as you create quality EE projects for your office!

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The Running Example

Your EE project and your program office's mission

***Background*:** Our narrator, Fly, works in the Information Management Branch of the Office of Ground Water and Drinking Water (OGWDW) and his main focus is the new Consumer Confidence Reports (CCRs). These reports, produced by community water suppliers nationwide, will inform consumers where their drinking water comes from and what is in it. Since these reports will reach millions of people, it is important that the recipients understand what they are receiving, and more importantly, can use this information to improve their health and environment.

With these opportunities in mind, Fly and his fellow workers decided that having an educational component would be incredibly useful in helping them meet their office's mission of "protecting public health by ensuring safe drinking water and protecting ground water." Join Fly as he retraces the steps of putting their EE project together.

FLY: "Greetings, glad you could join me as I recount the process of creating an EE project. It was the first time I'd ever done something like that, so I had lots of questions. Using this new guide for developing EE projects made my life much easier, but I also realized that I was going to need to put more time and thought into the development than I had first imagined. I wanted it to be successful. Looking back, it was worth the time."

"Using the first chapter and the flow charts, **I knew my office's mission, and I knew we had office goals**: a) the Government Performance Results Act goal to ensure release of CCRs by 2001, and b) the Safe Drinking Water Act mandate to deliver information to the public in a manner that is comprehensive, informative, and understandable."

"So, I saw how an educational component could tie into the office's mission, which meant that there would be buy-in from management. I had one concern: **I wasn't aware that my office had a well-defined EE program**."

Fly first checked with his office's communications and outreach contact and then spoke with the Office of Environmental Education (an EE coordinator if you are in the regions) to find out what an EE program was and if his office had one.

FLY: "That was easy enough. I found out that we do have an outreach and education plan, which the front office develops each year. They select several areas where they would like to see additional outreach efforts occur and set some broad goals for the education program. This year CCRs are one of those topics of interest for additional outreach."

"Some of the goals they set for this year are:
1. Get more EPA employees out into the community, especially the local schools;
2. Work more closely with the regional counterparts when developing projects so that we can get a national program going;
3. Support our drinking water programs; and
4. Reach out to under-served audiences."

Chapter One

Your Environmental Education Project & Your Office's Mission

Environmental education can support your program office's environmental protection goals. Therefore, when you develop your project it is important to tie it into your office's mission, priorities, and EE program goals so that you build support for your work and fill an existing need. If your office has a defined EE program it can make your job easier. An EE program sets priorities and identifies gaps that need educational components. While this document lays out a road map for you to follow as you develop an EE project, it does not focus on EE program development. The Office of Environmental Education can assist your office with the design of an EE program. Also, there are several resources available that lay out a framework for EE program development. (See footnote below).

How does your project fit into your program office's EE goals and mission?[3]

If you are using this guide, you have most likely identified an environmental problem or need that your program office wants to address. You may have initiated this process as a result of a supervisor's request, public input (hotlines, web comments, conferences), personal idea, legal requirement, or some other reason. In order to build support for your project and increase its effectiveness, it is important to identify where your project fits into your program office's mission and/or EE program. While not all OW program offices have well established EE programs, your office's communications and outreach team should have an idea where your project fits into the strategic communications plan for your program office. The examples (facing page and right) can help you and your office's communications/outreach team identify the steps to find out how and where your project fits into your program's mission.

Great Example: An EE program - Office of Ground Water and Drinking Water (OGWDW)

At the beginning of each fiscal year, the office director, senior management, and the outreach team sit down and decide on our goals for the coming year for all aspects of the program office. We set priorities for our technical and outreach programs, identify information gaps, and decide on a plan of action to achieve our objectives. A major part of our outreach program includes environmental education, which supports our mandate to ensure that we deliver information in a manner that it is "comprehensive, informative, and understandable." (Safe Drinking Water Act, Sec. 1412)

This year, we will focus on a number of areas that revolve around our drinking water campaign such as human health effects, children's health, and getting the public to "know" their drinking water. We have set out several goals to address these issues. One involves having more OGWDW employees working with area schools to test and implement our EE projects. We also want to work more closely with the regional drinking water contacts to organize a national EE program. Finally, we have targeted several specific EE projects that will support our drinking water goals. For example, in one of our EE projects, we are developing supplemental activities for teachers to use in the classroom. Students will use their local Consumer Confidence Reports to find out more about their drinking water -- its source and its quality.

-Charlene Shaw, OGWDW

[3]Resources for program planning:
EE in the Schools: Creating A Program That Works
Educating Young People About Water: A Guide to Program Planning and Evaluation at www.uwex.edu/erc/ywc/pdf-files/planeval.htm

Project Planning

A few days (and several fire drills) later...

1. *Conduct a needs assessment*

FLY: "The first thing I did was **conduct a needs assessment**. I didn't have an education background, so I began by speaking with some co-workers and we came up with this list of contacts: my office's communications and outreach team; EPA's Office of Environmental Education (OEE); regional counterparts working on Consumer Confidence Reports (CCRs); a technical person working on CCRs; a representative from American Water Systems, a trade organization; and an education specialist from the Drinking Water Foundation."

Two weeks later...

FLY: "After talking individually with these folks we were able to identify some key points using the audience analysis flow chart on page 9. For example: CCRs are generally aimed at older audiences (high school and older); our Public Service Announcement campaign focuses on reaching adult audiences; and high school teachers frequently request drinking water activities that focus on local issues."

With the high school audience in mind, Fly began to do more directed research. He spent several weeks continuing his needs assessment by surfing the Web, looking through EE resource guides (see Appendices), contacting teachers and students, and reconnecting with his newly formed "team" to uncover what currently exists in drinking water education for high school kids. With all this collected information, **Fly and his team found a gap**: there were *NO* educational materials that existed for the use of CCRs in the classroom. They decided that the most effective use of available resources was to develop an easy-to-use set of supplemental activities for high school teachers to incorporate CCRs.

2. *Define the project's goals, objectives, and evaluation criteria*

FLY: "With this input in mind, our 'team' set several flexible goals, objectives and evaluation criteria for the project. Here's a sample: **Goal #1 (of 4)**: Promote the use of CCRs as educational tools in the nation's high schools by developing and widely distributing a supplemental activity for teachers; **Objective #1**: Students will identify 3 possible sources of contaminants in their community and **Objective #2**: Students will identify 3 possible ways that they are contributing to the problem; and **Evaluation Criteria #1**: Twenty-five schools will be using the activities by Earth Day 2000, **Evaluation Criteria #2**: Ten student-designed and led community projects will be started by August 2000."

3. *Begin the Agency's process for product review*

FLY: "I found the person in my office who calls in for publication numbers, and then I simply filled out the concept notification form on the Web at http://intranet.epa.gov/ocemr-review/prform.html."

4. *Set a time frame*

Fly used the example timeline in Appendix A and estimated that the project would take at least 11-12 months. He also planned to spend 2-3 additional months, after the first year of implementation, evaluating how well the project was being received in the schools.

Chapter Two
Project Planning

Project planning is a critical component in the development of your project. This step includes conducting a needs assessment, setting out flexible goals and objectives, and developing evaluation criteria and a time line to accompany your project. If you choose to develop a product (publication, video, brochure), it is also the time to begin the Agency process of product review.

Is there is a need for your project?

The first and foremost step in project planning is to conduct a **needs assessment**. A needs assessment includes involving key people in the project, identifying your audience and their needs, and examining other materials and projects currently in existence.[4] More than likely, you will find that each of these steps overlaps with the others.

Three major components of a Needs Assessment

> **Tip from a pro:** "If nothing else, do the 'quick and dirty' needs assessment/gap analysis. Make some phone calls and spend an hour on the web. You'll be amazed at how much you will find."
>
> -Elaine Andrews, University of Wisconsin- Extension Service

[4]The following resources describe components of a needs assessment. These publications are available on loan from the Office of Environmental Education's resource library, or find out how to order them for your office by calling 202-260-4965.
Environmental Education in the Schools: Creating a Program That Works, pp. 15-28
Conservation Education: A Planning Guide, pp. 47-97
Adult Environmental Education: A Workbook to Move From Words to Action, pp. 21-22
OCEMR Effective Communication Techniques: http://intranet.epa.gov/ocepa112/review/tech2.html

1. Involve Key People: Who should you involve in the project?

It is important that you involve experienced people in your EE project and establish a network. There are many potential contacts within and outside of EPA listed on the following pages and in the appendices. You will probably find yourself returning to many of these individuals throughout the process.

Your Office's Outreach & Communications Contacts

While each program office is structured differently, you should have at least one outreach and communications contact with whom you can work closely. These individuals, whether they are in a region or at headquarters, should also have contacts with OW communications team members who can pass the word up the line. In the Office of Water's Immediate Office in Headquarters, the communications team leader holds a bi-monthly conference call with the regional water contacts which, ideally, can spread the word about projects throughout the Office of Water. While this system may seem overwhelming at times, the higher up the chain of communications you go, the more likely you will find information that can assist you in your project planning and development. These contacts can:

- ✔ help you get your project started;
- ✔ act as reviewers;
- ✔ help you identify how your project fits into the strategic communications plan and supports program goals;
- ✔ identify other projects that are being or have been developed; and
- ✔ help you with the OCEMR Concept Notification and Product Review process.

Regional Contacts: OW Counterparts & Regional EE Coordinators

The regional offices are in closer contact with the public and consequently have developed numerous EE projects. In addition to individuals in the regions who are working on similar issues, there are designated communications contacts in each region who confer with the OW-immediate office communications team monthly. Also, each region has its own EE coordinator who manages their EE programs. All are a valuable resource for ideas and contacts in the field.

> **Tip from the pros:** "Involve the regions and other key players from the beginning. They can share ideas or may have a project in hand. They can also share costs."
>
> -Connie Cahanap & Kathleen Kutschenreuter, OWOW

If you do not know who the regional communications contacts are, check with your outreach/communications contact for names and numbers. The regional EE coordinators are all listed on the Office of Environmental Education's web site at www.epa.gov/enviroed/contacts1.html. Regional contacts can:

- ✔ identify existing materials;
- ✔ join in a cost-share project;
- ✔ provide a more "on the ground" connection with your audience;
- ✔ add a local feel to the project, or use your project as a model for regional programs;
- ✔ assist in distribution; and
- ✔ assist in the application of EE guidelines (see chapter 3, pages 17 and 20).

Representatives from Your Target Audience

You may want to include individuals from the target audience (users) and individuals who will be teaching the material (instructors). Users from your target audience might include tribal environmental staff, farmers, youth, volunteer monitors, etc. Instructors you might include are college professors, extension workers, community leaders, or school teachers. If you are unsure of places to start, use contacts in your office and find out if they can identify individuals in the field. Individuals from the target audience can help you:

- ✔ identify their needs;
- ✔ develop goals and objectives based on their capacity (knowledge and abilities);
- ✔ spread the word about and get buy-in for your project; and
- ✔ provide a team of reviewers and test pilot groups.

Individuals from Outside Agencies & Organizations

In addition to contacts from your target audience, there are a number of organizations and agencies (federal, tribal, state, and local) that are doing EE. By connecting with this network, you will be plugged into an extensive web of developers, distributors, and implementors. Often times, these groups will be able to give you another perspective of the audience's needs and abilities. See the list of possible contacts in **Appendix B** to start your search. Outside agencies and organizations can help:

- ✔ identify existing projects;
- ✔ offer expertise in their own fields;
- ✔ provide ideas for delivery and distribution mechanisms;
- ✔ offer opportunities for cost-sharing or an avenue to support existing projects; and
- ✔ use your project.

EPA's Office of Environmental Education (OEE)

OEE is a major source of grant funding for outside organizations that are designing and implementing EE. OEE is also taking a more active role in reviewing educational materials and providing a support system to EE developers within EPA.[5] OEE can help you:

- ✔ develop a needs assessment;
- ✔ identify existing programs and materials;
- ✔ set up partnerships; and
- ✔ reach under-served audiences.

OEE houses the EPA environmental education resource center which contains:

- ➢ EE materials (EPA and non-EPA)
- ➢ EE resource catalogs (listings of other EE projects)
- ➢ Guidance documents for developing EE materials

OEE also manages the Catalog of EPA EE Materials. You can view the catalog on the web at www.epa.gov/enviroed/resources.html .

> Stop by OEE to visit their resource center, and check out their list of EE information on their web site at www.epa.gov/enviroed/

The Office of Communications, Education, and Media Relations (OCEMR) Contact

OCEMR provides an Agency-wide point of contact for the planning, development, and review of all communications products (including print, audio-visual, and Internet) intended for the public and targeted audiences. OCEMR works to assure:

- ✔ effectiveness, accuracy and relevance for intended audiences;
- ✔ compliance with Agency communications requirements; and
- ✔ compatibility with the Administrator's priorities and goals.

Your OCEMR contact can help:

- ✔ ensure that the message is clear and consistent with EPA guidelines;
- ✔ reduce confusion and conserve resources by eliminating redundant products;
- ✔ offer editorial and graphics support;
- ✔ provide suggestions on distribution of products; and
- ✔ create evaluation criteria for your project.

> **Tip from a pro**: "The earlier you can get OCEMR in the loop, the easier the process is going to be. They can be very helpful because they provide a broader agency perspective. Invite them to help out with concepts and ideas."
>
> -Charlene Shaw, OGWDW

[5]Contact Drew Burnett in the Office of Environmental Education at (202) 260-0255.

2. Analyze Your Audience: How do you identify and target your audience?

The diagram below provides you with some questions to ask as you analyze your audience.[6] When answering these questions, incorporate the contacts listed in the previous section, "*Involve Key People: Who Should You Involve in the Project?*" By following the following four steps you can tailor your project to the audience's particular needs and abilities.

Step 1: Who is your audience?

- Who/what is causing the problem?
- Who is affected by the problem?

Step 2: How does your audience best learn and receive information?

- How literate is your audience?
  Linguistically, computer, reading, etc.
- How do they prefer to receive information? (What sources do they trust?)
  TV, Internet, radio, school, magazines, newspapers, conferences or workshops, universities, extension services, local/state/tribal/federal officials, etc.

Step 3: How environmentally literate is your audience?
(Where does your audience fall on this continuum?)

- Aware that the environmental problem exists.
- Aware of their relationship to the problem: how it affects them, and how they are contributing to it.
- Aware of the problem and their relationship to it, but not aware of its solution.
- Aware of the problem, the solution, and what they can do, but not convinced that they can make a difference. Not motivated to make a change.

Step 4: What does your audience need to address the problem?

- What knowledge, skills, and abilities does your audience need to know/or have in order to solve or
- How can the audience best contribute to the solution of the problem?

[6]This diagram was adapted from the Peace Corps' Office of Training and Program Support (DC) publication: EE Programming Workshop: The Proceedings: June 18-24, 1989, San Ignacio, Belize, pp. 37-48.

3. Survey Other Related Projects: How do you determine if your project already exists?

As previously stated, there are numerous water education projects currently available. Very often, just finding the right contacts can help you find out what already exists.

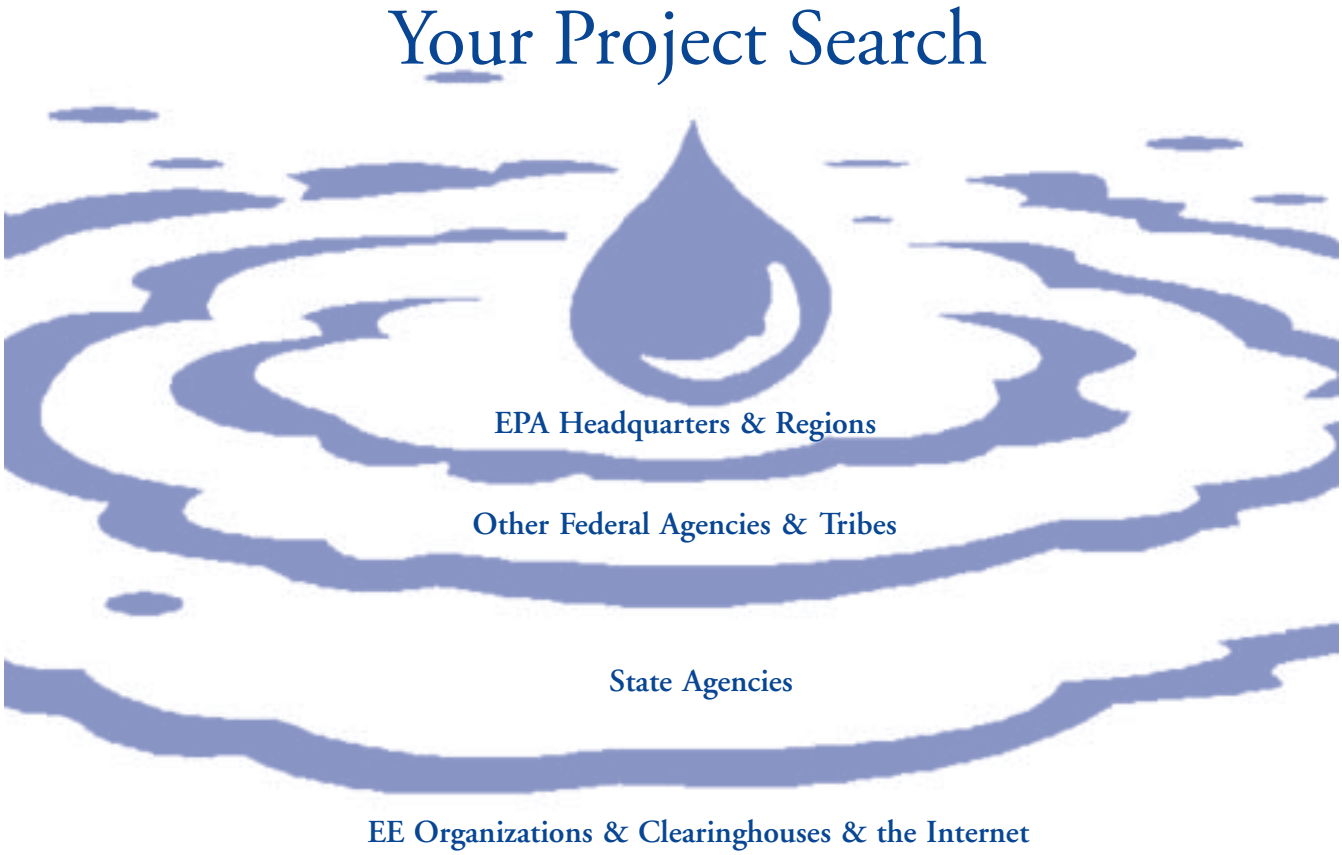
- ✔ Start by asking people at EPA (headquarters and the regions).
- ✔ Visit the Office of Environmental Education and look through their extensive resource library (202-260-0255).
- ✔ Check with people in other agencies and organizations. Check out the list in Appendix B, which lists other agencies, water educators, and EE providers.
- ✔ Search the Internet for EE projects, some starting points are listed in Appendix C.
- ✔ Visit EPA's Office of Water Resource Center (202-260-7786) or your regional office's resource center.
- ✔ Send out "a call for related projects" on an appropriate list serve (see EE-Link for ideas: www.eelink.net).

Tip from a pro: "When you look to see if the product already exists, you will most likely encounter the *ripple effect*, where one source will overlap with another."

1. EPA:
- a. HQ
  - Within your office
  - OW communications team
  - Office of EE
- b. Regions
  - Your regional counterparts
  - EE coordinators

2. Other federal agencies & tribes
3. State agencies
4. EE organizations, clearinghouses, & the Internet

-Janet Pawlukiewicz, OWOW



Define your project's goals, objectives, and evaluation criteria

Now that you have sufficient background information in your hands, you can **set out your project's goals & objectives and create evaluation criteria**.[7] These goals and objectives do not have to be set in stone, and you should revisit them as needed throughout the development process. Similarly, the evaluation criteria that you create should act as road markers and milestones to help you stay on track, identify successes, and target areas in need of improvement along the way.

1. **Set goals for your project**
   - What do you hope to accomplish or achieve with this project?

> **Example**: We want citizens who use fertilizers and pesticides around their houses to learn how improper application is a source of nonpoint pollution. We also want them to learn possible ways that they can reduce their impact on the environment.

2. **Set objectives for your project**
   - More specifically, what do you want the audience to remember or be able to accomplish after using or participating in your project?
   - Use measurable criteria so that you can more easily assess them.

> **Example**:
> 1. We want participants who use the (video, publication, workshop) to be able to identify where they can acquire soil sampling kits and how to use them properly.
> 2. We want participants to be able to identify three ways that improper application can lead to pollution.
> 3. We want users to be able to propose three ways that they can use these products in a way that lessens the threat to the environment.

3. **Create some evaluation criteria for your project**
   - Develop indicators that will tell you whether or not you have met your goals and objectives.
   - Refer to Chapter 5, ***Project Evaluation***, for additional information on selecting evaluation criteria.
   - Celebrate accomplishments along the way.

> **Example**:
> 1. X% of participants will be able to ID where to acquire soil sampling kits and know how to use them.
> 2. X% of participants can identify improper application methods.

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[7] You might want to check out these two resources which provide easy-to-use formats and examples for setting goals and objectives:
Environmental Education in the Schools: Creating A Program that Works!, pp. 23-27 (OEE)
Getting in Step: A Guide to Effective Outreach in Your Watershed (OWOW, Tim Icke) http://216.25.27.197/gettinginstep

How do you begin the Agency process for Product Review?

The product review process can be made easier and more effective if you bring the Office of Communications, Education, and Media Relations (OCEMR) into the loop while you are conducting your needs assessment. Realize that some EE projects (sponsorships, workshops, and some partnerships) will not have to go through the full product review process. Visit the OCEMR product review web site for specifics on whether your project requires you to complete the following procedure: http://intranet.epa.gov/ocemr-review.

Initial Steps for Starting Product Review:

1. **Apply for a document number**
   - ➢ This step should be done as soon as you know that you will be developing a product.
   - ➢ You can find a list of "What is (is not) reviewed?" on the OCEMR web site listed below.
   - ➢ You will need to find out who in your office is responsible for obtaining publication numbers, and request that they arrange for your product to be assigned one.

2. **Submit a Concept Notification**
   - ➢ This step should be completed while you are completing your needs assessment.
   - ➢ Complete a concept notification form on-line: http://intranet.epa.gov/ocemr-review .
   - ➢ Starting in Spring 2000, this step will take **10 business days** to complete.

The Office of Environmental Education (OEE), as part of OCEMR, reviews all EE products for agency approval.

☞ Also, watch for OCEMR's updated publication, "Creating Top Quality Information Products," which will be available in Spring 2000.

Agency resources for creating effective products & web sites that meet EPA standards:

1. Publication Management: A Guide to Processes, Standards, and Style (EPA 175-K-92-001) Details correct use of grammar, format, etc. for EPA documents
2. Plain Language Action Network (PLAN) is a government-wide work group to improve communications from the federal government to the public www.plainlanguage.gov/
3. For EPA web guidance, visit the OIRM web site at www.epa.gov/webguide/ Provides guidelines and helpful hints for web site designers.
4. By Spring 2000, the product review process will be conducted on-line. This will not only speed up the process, but it will also reduce the paper chain that is currently required. In addition to the OCEMR forms, you will find a lot of helpful information on their web site such as; "How Product Review Works," the "Web Guide," "What is (is not) Reviewed?" and other useful topics. Visit OCEMR's web site at http://intranet.epa.gov/ocepa112/review/.

How do you set a time frame for your project?

As you can imagine, certain projects will require more involvement in different areas. See Appendix A for a check list and time line that you can adapt to your project. As you are looking toward the completion of your project, you might select an important date to announce and distribute/offer your project (i.e. Earth Day, Clean Water Act Anniversary, a national conference for water mangers, North American Association for Environmental Education annual conference, etc.).

The following is a generic time line.

1. Project planning	2-4 months
2. Project development	2-5 months
3. Project testing (focus groups, pilot tests, other reviewers)	2-6 months
4. Incorporate reviews/comments	2-3 months
5. Project distribution and implementation	variable
6. Overall project evaluation and incorporation of reviews	2-3 months
Estimated time involved in this project:	**10-21 months**

Tips from the pros: "Set out a time frame that will accommodate research, design and development, product review, distribution and evaluation."

-Connie Cahanap and Kathleen Kutschenreuter, OWOW

"-and then add 4 months!"

-Alice Mayo, OWOW

Project Development

1. *Choose a path for your project*

During the needs assessment Fly and his team found that many organizations possessed the qualifications and experience for producing the supplemental activity guide. Considering their own time constraints and level of experience, they decided to use a contractor to develop the project.

2. *Develop an effective project*

FLY: "After the process of selecting a contractor, I **put together a development team** made up of several individuals from the needs assessment which included a tribal youth educator and an urban high school teacher, who added important perspectives to the group. I then set up several meeting dates with the contractor to meet with the development team so that we could discuss the project in greater detail."

Several meetings later...

FLY: "We **used a variety of EE development resources** which we acquired from the Office of Environmental Education's Resource Library, like the EE Guidelines and the Learner Guidelines (described on page 20), to create a message that was appropriate for the high school audience. We also discussed the various ways that we could get the message across (video, CD-ROM, booklet, etc.) that both students and teachers would enjoy and use.

"We decided that developing a set of activities that would fit in a 3-ring binder and could stand-alone or be used as a unit would best fit the teachers' requests and keep our costs down. In addition to the binder, we wanted to **emphasize the use of the Web** so we created a web site that would accompany the project and where students could post their service projects and share information from across the country. With these pieces in mind, we **worked on a budget** which reflected the costs as best we could estimate."

The team identified several key themes and drafted an outline of activities that could be done in and out of the classroom using the CCRs. Then, they circulated the outline among others in the office and in the regions to get their input. When comments had been incorporated, they **wrote out a specific outline for the contractor** to use when developing the activities. Fly's team also **provided sample CCRs and several examples** of quality EE activities to the contractor after which they could model the new activities.

While the contractor was busy working on the activities, Fly's development team laid out an initial **distribution plan**. They planned on advertising the activities several ways: Internet, EE resource distributors (i.e. EE-Link), regional offices, and several non-government organizations who worked directly with school groups across the country. Fly and some of his colleagues also planned on taking it to a few of the local schools and encouraged the regions to do the same.

Three months later...

Using some of the contractor's connections with the teaching community and several others that OEE had supplied, Fly r**an several pilot tests** which seemed to be well received. After some final changes they **completed the Agency's product review process** by filling out the online Final Draft Review form.

Chapter Three
Project Development

Now that you have completed a needs assessment, you have an abundant amount of background information on your target audience. You also have a list of contacts that can provide valuable input, and you are aware of similar projects that currently exist. Your next step will be to decide whether you will support an existing project or if you will develop a new project (in-house, in partnership, contractor, etc.). If you choose to develop a new project, this chapter outlines some simple steps that will guide you along the way.

What is the best path for your project?

Even if you did a "quick and dirty" needs assessment, you more than likely ran across a number of environmental education projects that already exist and relate to your project. If so, it is often more economical and effective if you support a successful project rather than spend lots of time and resources creating your own. If you have found a gap, there are several paths which you can take to support an existing project or develop a new one. You will find a chart on the next page that lists some advantages and disadvantages to each of the possible vehicles.

Here are some examples:

- Support an existing project. (grant or co-operative agreement)
  Example: Adopt-A-Watershed -- an EPA grantee
  www.adopt-a-watershed.org/

- Form a partnership with another organization to develop a project. (cooperative agreement, interagency agreement)
  Example: "Water Matters" teacher resource series -- Developed by EPA, USGS, etc.
  http://water.usgs.gov/public/outreach/wrei.html

- Do it "yourself." (in-house, contractor)
  Example: Water Drop Patch Program - Designed by EPA's Office of Wetlands, Oceans, and Watersheds -- with minimal contractor assistance.

> [EE pieces] "must be designed with the participation of those who ultimately will be implementing them."
>
> -Conservation Education, p.100

Possible vehicles for an EE project -- As you can see below, there are four vehicles from which to select. If you choose to support an existing project or program, you will more than likely use an assistance agreement. The other options are often used to create new projects. This chart describes some of the advantages and disadvantages for each option. It is important to distinguish between assistance agreements and projects which benefit the Agency -- check with a project officer or the Office of Grants and Debarment (202-564-5325).

	Options	Advantages	Disadvantages
Agency benefits	**EPA** (in house)	Often the cheapest method Total control of content and design Cost of printing may be lower (Check with print shop)	Time intensive for you Outside partners may have more experience working with targeted audience Agency printing options are limited
Agency benefits	**Contract**	You can provide significant input on design and content Less time intensive for you More expertise with layout, graphics, etc.	Similar printing restrictions as above Expensive Every time you make changes to the product, the price may go up
Agency benefits	**Interagency Agreement** (IAG)	Other Agencies may have more flexibility with printing abilities (multi-color, glossy, etc.) Shared costs	Time requirement & coordination Paperwork
Public benefits	**Assistance Agreement** Grants & Cooperative Agreements	Often more knowledgeable and more closely connected with targeted audience's needs Significant input in project (coop. agreements)	No input allowed (grants)

Tips from the pros:
If you use a contractor:
"Complete a final draft of your text and then turn it over to the contractor to tweak and finalize the layout, graphics, etc."

-Connie Cahanap, OWOW

"Have the contractor develop several sample versions of the layout while you are drafting the text so that when it comes time for printing, you will already have upper management agreement on the final look."

-Ben Ficks, OW-IO

Tips from the pros:
If you use an IAG :
"Make sure that you have each agencies' printing offices conversing early on in the project. Otherwise, you might find yourself with a great product and a hard time printing it just the way you imagined it."

-Kathy Hurld, OWOW

How do you develop an effective project[8]?

If you are supporting an existing project using a grant, this section may not be as applicable to you. If you are planning on developing the product in-house or using an Interagency Agreement (IAG), a contractor, or a cooperative agreement, you can use the following steps for guidance:

Assemble a project development team comprised of internal and external people.

It is important to include as many of these different perspectives as possible:

-An educator who works with the target audience
(Examples: an extension service worker, a teacher, a professor)
-A representative from your target audience
-A technical specialist
-A communications/media specialist
-An individual with evaluation methodology experience
-An OCEMR representative

If applicable:
-A professional curriculum developer
-Multi-media specialist (video, CD-ROM, etc.)
-A workshop/training designer
-Contractor

> **Tip from a pro:** "*Start with the end message and work back*...once you have identified what it is that the audience should learn and take away with them, it is much easier to then develop your project."
>
> -Charlene Shaw, OGWDW

Create and express your message clearly.[9]

Frequently, users complain that messages are not well suited for their intended audiences. However, if you arrange a diverse development team and frequently run the message across to individuals in your audience, you can better assure that the message level will be appropriate for the audience. Below are a list of resources that can help you frame your message.

-Use the guide, EE Materials: Guidelines for Excellence, as a reference for the development of new EE materials (see page 20 for information about the guidelines).
-If you are creating grade school (K-12) activities, see Excellence in EE-Guidelines for Learning (K-12),which provides a framework for the level of environmental literacy that students in 4th, 8th, and 12th grades should have. It is available from OEE or by calling the National Service Center for Environmental Publications (NSCEP) at 1-800-490-9198.
-Visit the OCEMR web page titled "Other Tips" for additional suggestions on clarity: http://intranet.epa.gov/ocemr-review/tips2.html.
-See Appendix C for additional resources on developing your specific EE project.

Determine delivery media & identify distribution mechanisms.

From your needs assessment, you identified how your audience receives and understands information best. Using this information, you can decide on the appropriate medium: a workshop, video, publication, etc. You may choose to use more than one if possible. Also, at this time you can begin to conceptualize a distribution plan. How will you get your project out? Refer to *Chapter Four: Project Delivery* for some ideas to get you started.

---

[8] Getting In Step: A Guide to Effective Outreach in Your Watershed, (OWOW - Tim Icke) focuses on watershed outreach, but lays out a detailed process for developing a project and can be applied to most other projects. The workshop is on the web at http://216.25.27.197/gettinginstep.

[9] See OCEMR's Tips and Techniques on the web: http://intranet.epa.gov/ocepa112/review/tips2.html

If necessary, consult with the printing office or appropriate production facility.

If you have selected a project that requires printing, video production, or other type of production service, you need to consult with the appropriate facility prior to developing a budget and proceeding with project development. If you are using a contractor to develop the project, more than likely, they will include this in their cost estimate. If you are producing the project "in house," it is important to find out what the agency's abilities are and what the costs and production time will be.

If you are using the EPA printing offices, set up an appointment to meet with an individual who can walk you through the process and the forms necessary to print using EPA's equipment or the Government Printing Office. They can also offer you advice if your project needs to be contracted out.

Develop a budget.

Budgets will vary depending on the specific project on which you are working. You can get an idea of what an estimate might be by speaking with someone who has completed a similar project in the past. Ask them to share ideas on how to save money and to give you a cost estimate. Don't forget, you can form partnerships or sponsor an existing project to reduce production costs.

Costs to consider:

1. Pre-production, research, and design -- contracts for writers, editors, artists, designers, etc.
2. Production -- printing, filming, programming etc.
3. Distribution and implementation -- mailings, travel, workshop materials, etc.
4. Evaluation -- contractor, if used

Link to additional information and contacts.

It is important to provide the user with contacts and sources of information to continue their learning experience.

-Link to web sites and other resources where additional information is available.
(See example from Top 10 Watershed Lessons Learned below.)
-Include your contact information (name, telephone number, email address).
-If you create a product, provide the National Service Center for Environmental Publications' (NSCEP) telephone number so that people can order additional copies.

Example: A selection of Appendix 4 from Top 10 Watershed Lessons Learned, which provides Web sites that users can refer to for additional information.

Appendix 4: **List of Internet sites mentioned in this document**

Adopt-A-Watershed
http:www.tcoe.trinity.k12.ca.us/aaw/adopt.html
American Rivers
http://www.amrivers.org/
Anacostia Watershed Society
http://www.gmu.edu/bios/anacosti/aws/
Center for Excellence for Sustainable Development
http://www.sustainable.doe.gov/index.html
Center for Watershed Protection
http://www.pipeline.com/~mrrunoff/
Chesapeake Bay http://www.epa.gov/r3chespk/
EPA http://www.epa.gov/owow

Incorporate quality materials.

Use other EE projects that are known to be successful as models for your own project. Provide links to these resources as well so that users can refer to them for additional information.

-The EE Guidelines have been used to rate a large number of existing EE materials. The results of these evaluations are compiled into three volumes titled, The EE Collection: A Review of Resources for Educators (Volumes 1-3). They are available from OEE or NSCEP

Evaluate as you go.

During project development you can begin the second stage of your project evaluation (*see Chapter Five*). During *Project Planning*, you created some measurable goals and objectives. As you progress through project development, you can begin to assess how well your project is meeting those marks. This is an excellent time to run a pilot test on your project to see how your audience responds.

Also, a review team or focus group can provide invaluable information so that you know that you are on the right track. You might include the following on such a team:

-A user (teacher or instructor)
-A recipient (student)
-A technical expert
-An OCEMR product review specialist

Tip from a pro: "We sought out feedback from administrators, teachers, and students at a local Virgina school on how our Adopt-A-Watershed project was working. The teachers were excited to have EPA and USFWS representatives come to the classrooms, and the students were helpful in giving us feedback on the program."

-Amy Gambrill, OW-IO

Complete the Agency's product review process.

In order to finalize the EPA product review process, you will need to submit a Final Draft Review. In late 1999 this will be accessible on-line.

-This step should be completed when you have a final draft of your product. This means you have completed the evaluation step mentioned above and feel that your product is ready for production.
-Access the Final Draft Review form on-line
-Complete the form and forward it to OCEMR

Tip from a pro: "Starting Spring 2000, OCEMR will have a *10 business day turn-around time for each of the product review steps*: concept notification, draft, and final review. Just to be safe, a designer should build 30 days into their time line for this process."

-Leanne Nurse, OCEMR

Guidelines for Environmental Education Materials

What are the guidelines and how can they help you?

The North American Association for Environmental Education (NAAEE) is a network of professionals and students working in the field of environmental education throughout North America. In 1996, NAAEE used a "writing team" comprised of environmental education professionals from a variety of backgrounds and organizational affiliations, and developed the Environmental Education Materials: Guidelines for Excellence. After intensive research, the group identified six criteria that quality environmental education materials should incorporate. These criteria serve as a set of recommendations for developing and selecting quality environmental education materials.

Why use the guidelines?
EPA funded the development and supports the use of these national guidelines for developing and reviewing environmental education materials. The Office of Water encourages its EE developers to use these guidelines as well.

Keep these criteria in mind as you design and develop your project.

1. **Fairness and Accuracy**
   -Does the material appropriately reflect the diversity of perspectives? (provides all sides of the story)
   -Is the information accurate (scientific/factual) when it describes environmental conditions, problems, and issues?

2. **Depth**
   -Does the material foster an understanding and appreciation of environmental concepts, conditions, and issues as appropriate for different developmental levels?
   -Does it relate the problem to a global and local perspective?

3. **Emphasis on Skills Building**
   -Does the material build lifelong skills that enable learners to address environmental issues?

4. **Action Oriented**
   -Does the material promote civic responsibility and encourage learners to use their knowledge, personal skills, and assessments of environmental issues as a basis for action?

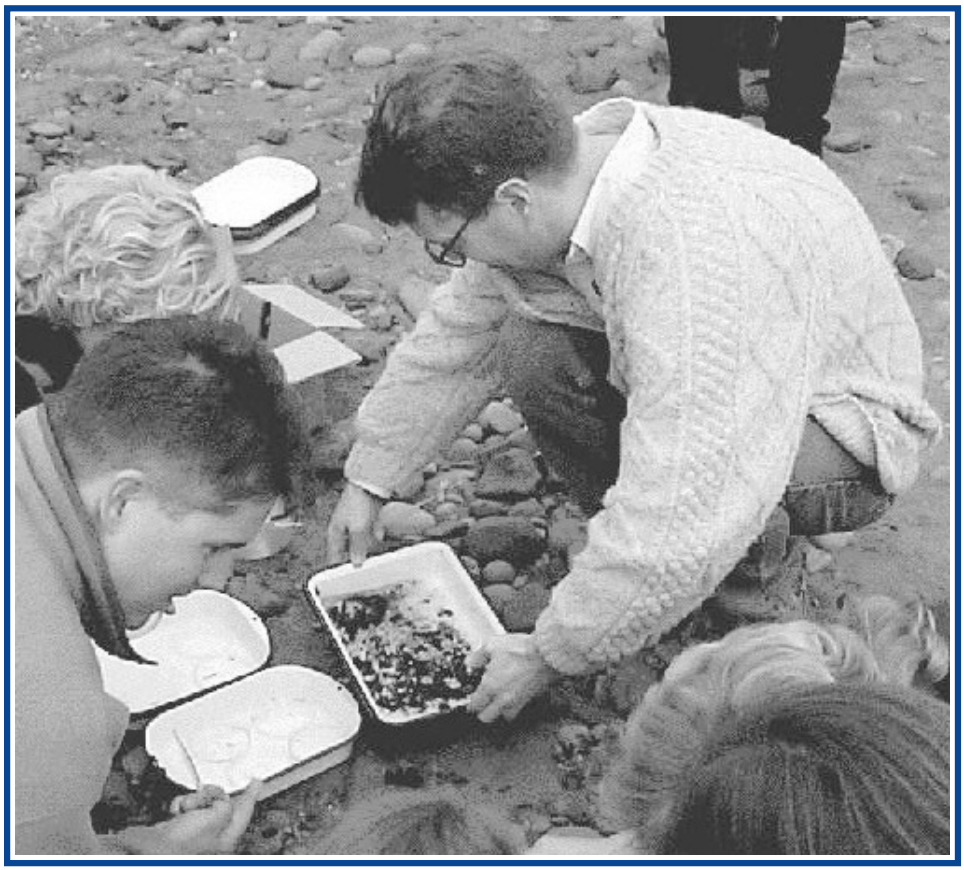
5. **Instructional Soundness**
   -Does the material rely on instructional techniques that create an effective learning environment?

6. **Usability**
   -Are the materials well designed and easy-to-use?
   -Are they presented in a way that the instructor or learner can easily understand and use the information provided?

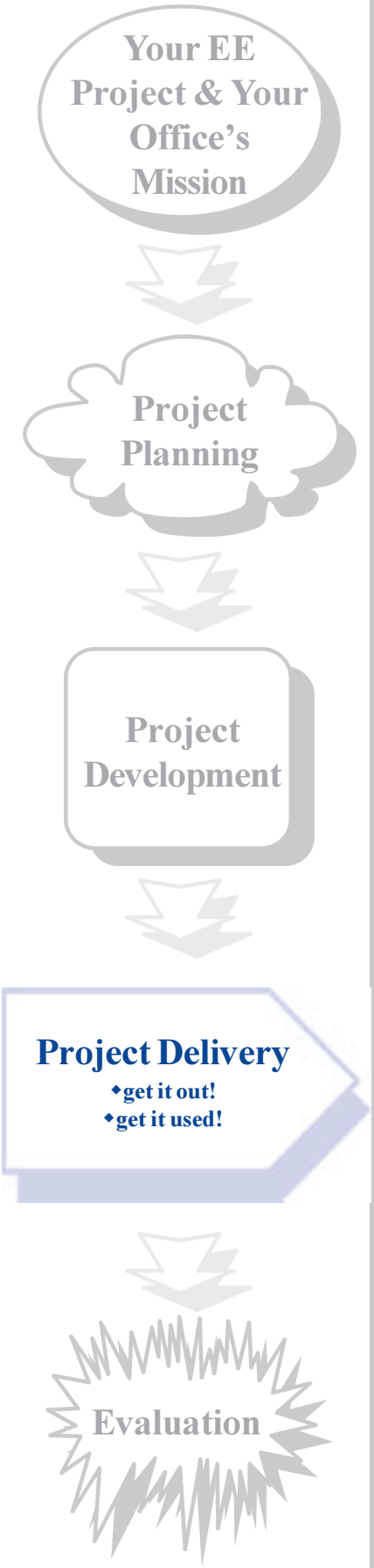
If you are creating supplemental activities for K-12 educators and students, an additional publication from NAAEE called Excellence in Environmental Education -Guidelines for Learning (K-12) is an important resource to have and use. This publication provides a clear framework for the level of environmental literacy (knowledge, skills, abilities) that students in the 4th, 8th, and 12th grades should have. It is available from the Office of Environmental Education or NSCEP.

The brief outline on the previous page was taken from the publication Environmental Education Materials: Guidelines For Excellence. The document can be viewed on the Web at www.epa.gov/enviroed/naeeindx.html . You can also find more information about NAAEE on their web site: www.naaee.org .

Free copies of the materials guidelines are available from the Office of Environmental Education and can be ordered through the National Service Center for Environmental Publication (NSCEP - formerly NCEPI). Workshops are frequently offered to federal and non-federal personnel. Check with OEE for current information on classes.



Instructor with students studying "critters" (macroinvertebrates) for a water quality analysis lesson.



Project Delivery

Fly's team refined the **distribution plan** during printing and decided to try targeted mailings, but they ran into a few surprises along the way.

Fly: "We wanted to mail the packets out to about 300 science teachers in the late spring of 1999, so that they could start using them during the 2000 school year. We soon realized; however, that teachers hadn't started putting together their 2000 lesson plans yet and wouldn't begin until later on in the summer. We decided to hold off on the mailing until closer to the school year so that it would be on the top of the pile when they started looking for activities.

"We also contacted several teachers colleges and sent them 400 copies so that their new teachers would have some hot, new materials in front of them as they got ready to roll."

During the next year, distribution of the guide increased, and Fly and his colleagues received numerous phone calls from various organizations interested in receiving additional copies. Fly and his team also **attended several conferences** such as the National Science Teachers Association and North American Association for Environmental Education and gave presentations on the guide. Also, they brought in two teachers and several students to EPA and **gave presentations to an Agency-wide audience**.

FLY: "It was great to see the response of the educators to these activities, but I think the most rewarding part was actually **going out to several local schools and working with the teachers and students** on some hands-on activities. It was a nice break to get out of the office and talk with people in the community. It was also a great way to gather informal feedback on how the project was working. While most of the activities were successful, teachers had valuable comments for the improvement of the guide when we're ready to revise it."

Chapter Four
Project Delivery

You may have created the most incredible EE project in the world, but if you don't get it to the right people when they need it and how they need it, your project will probably lay dormant on some back shelf of a resource library. Now that you have invested so much of your time into the process, you want to get it out to those who can use it. Using the background information that you collected from your needs assessment, you created an EE piece that complements your audience's learning patterns, skills, abilities, and needs. You can now use those same individuals with whom you spoke throughout the process as well as other distribution avenues to get the "product to the people." Once again, be creative and look for as many outlets as possible.

How do you distribute your project?

You want people to know about your project, don't you? So, instead of using passive distribution (resource centers, catalogs, word-of-mouth), take an active role in getting the word out. An easy way to start your project delivery is to use the contacts from your needs assessment and individuals on your development team. Create an email distribution list as you contact various individuals, and ask them to share their delivery mechanisms and distribution lists with you.

> **Tip from a pro**: I think that "getting it out" is most easily identified as the greatest challenge. Explore as many avenues as possible."
>
> -Connie Cahanap, OWOW

Possible distribution mechanisms:

- **E-mail & Internet**
  - Web sites (EPA, other agencies, and organizations)
    - -Ask your web manager for ideas, and see Appendix B for a list of contacts outside EPA.
  - Listserves
    - -For some examples, see Appendix C -- *Online Resources.*

- **EPA distribution methods**
  - Regional offices (EE coordinators, OW communications contacts)
  - National Service Center for Environmental Publications (NSCEP - formerly NCEPI)
  - Resource catalogs (EPA's annual catalog, OEE's EE materials catalog)
  - Water Resource Center & OW Hotlines
    - -Speak with staff and offer a training on the product.
  - Target Mailings
    - -Ask for distribution lists from your contacts, OEE, and OCEMR.

- **News, media & conferences**
  - OCEMR's Office of Communications -- and Office of Media Relations
  - Media (Radio announcements, Public Service Announcements, TV programs)
  - Newsletters, Newspapers, & Magazines
    - -What does your audience subscribe to?
  - Trade Shows & Conferences
    - -Ask your communications contact and OEE for ideas.
  - Radio announcements, Public Service Announcements

- **Other mechanisms**
  - Personal delivery (workshops, training, in-school presentations, etc.)
  - Partnering with outside groups that have EE programs
  - Water education organizations (See Appendix B)
  - Youth Group Organizations (4-H, Boy/Girl Scouts, summer camps, etc.)
  - Environmental Schools/Colleges, teachers' colleges
  - Environmental & Science Organizations/Groups

How do you encourage people to use your project?

Getting the word out about your project is important, but getting it used effectively is the critical part. If you have partnered with another organization or agency that has direct contact with the target audience, they can help get your project into the right hands and with the correct delivery.

Here are just a few ideas on how to put your project into action:

1. Hold a training/workshop in your region, branch, office, division, or across OW so that other people know about your work. You might tap into existing outreach programs. At headquarters you might use the Watershed Rap in the Office of Wetlands, Oceans, and Watersheds and OEE's EE lecture series, and offer to be a guest speaker.

> **Tip from a pro**: "What makes something effective? That it can be implemented!"
>
> -Charlene Shaw, OGWDW

2. Hold a free training in your area for the target audience or for instructors who can then go out and educate others. You might coordinate with local schools, an extension service, environmental organizations, federal, state, and tribal agencies, and other groups to help sponsor a workshop.

3. Coordinate with existing National EE programs such as Project WET,Project WILD, Adopt-A-Watershed, etc. to integrate your piece into their materials, programs, and training so that it receives wider distribution and implementation.

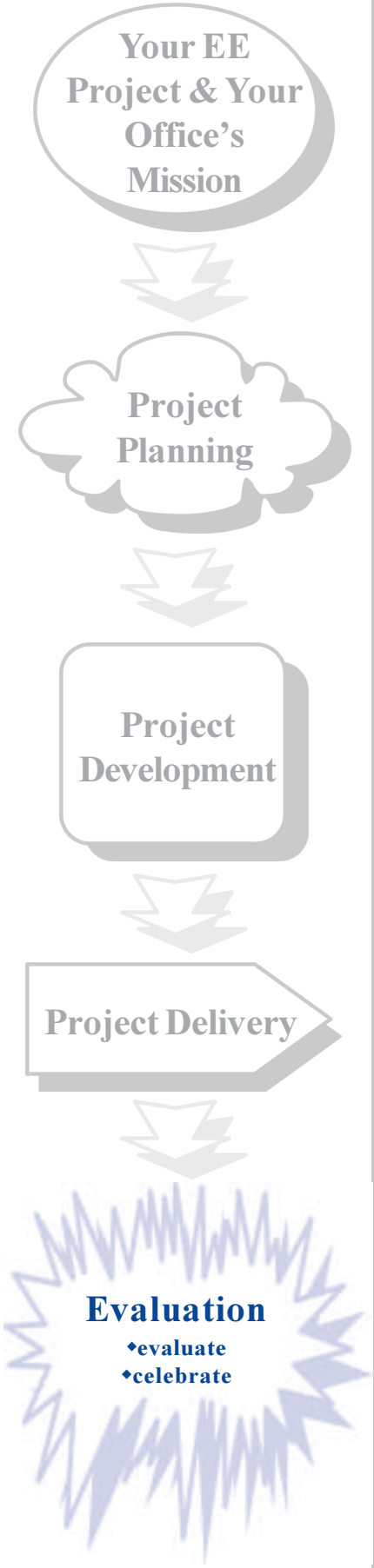
> **Tip from a pro**: "We can't offer enough "Getting in Step" watershed workshops to keep up with the demand. People really like to get their information straight from the source."
>
> -Tim Icke, OWOW

4. Make a presentation or offer a workshop at a conference that relates to your project's topic. Some organizations that have national conferences that might be of interest are:
   - ➤ North American Association of Environmental Education (NAAEE)
   - ➤ Water Environment Federation (WEFTEC)
   - ➤ National Science Teachers Association (NSTA)
   - ➤ National Tribal Environmental Council (NTEC)
   - ➤ Parent Teachers Association (PTA)

5. "Adopt" a local school, community group, or organization to pilot the program. This can be part of your project development and a component of the evaluation process.

6. Get out there and take the message to the street. Attend water festivals, Earth Day events, environmental or trade shows, and other such educational opportunities and share some of your project's message with others. Interact with your audience!

Students engaged in interactive environmental monitoring program - Global Learning and Observations to Benefit the Environment (GLOBE)



Project Evaluation

Stage 1: *During Project Planning and Development*

Fly's team was off to a great start with their evaluation process when they first laid out their project's goals, objectives, and evaluation criteria several months back. As they went through the development process, they continued to evaluate their project with peer review, input from the development team, and several pilot tests with local schools.

FLY: "While it was great to have the input from so many folks, it was time consuming. For every set of drafts we circulated, we spent several hours going over the comments and deciding which were useful and which were not. Even though it took time, it was well worth it in the end."

Stage 2: *During Implementation*

With every activity packet that the office distributed, a comment card was included which asked the users to submit voluntarily how satisfied they were with the product. Fly worked closely with the Agency's Customer Service office and the Regulatory Information Division to make sure the comment card met agency requirements for Information Collection Reviews (ICR), and it only took two weeks to get it approved. As well, they posted a comment box on the web site for users to note how satisfied they were with the whole program.

FLY: "While the response rate to the comment cards was only about 40%, the comments we did receive were useful to us when we revise the guide (most would like to see us emphasize the Web more in the next edition). We also kept track of numbers and knew that there were over 500 packets requested in addition to the original 800 that we had mailed directly to science teachers."

In addition to the comment card, the guide included student assessment tools for each activity that allowed teachers to evaluate the effectiveness of the project in their classroom.

Stage 3: *After Implementation*

Over the next year Fly and his team received nine submissions from students who had completed student-driven community projects such as river clean-ups, storm drain stencilings, and stream bank restorations. Fly highlighted these projects on the Internet using the write-ups and photos that the groups had submitted so that others could see their successes.

After the project's first year, Fly spent three months **evaluating how well it was being received and whether it was meeting their original goals and objectives**. Fly's team gathered feedback from the comment cards and the comment boxes on the Internet site and spoke with several teachers who had been using the project over the first year. Fly then wrote a report which detailed the projects strengths and shortcomings and presented it to his supervisor. Overall, they were extremely satisfied with the response and effectiveness of the project.

Stage 4: *Celebrate Your Accomplishments*

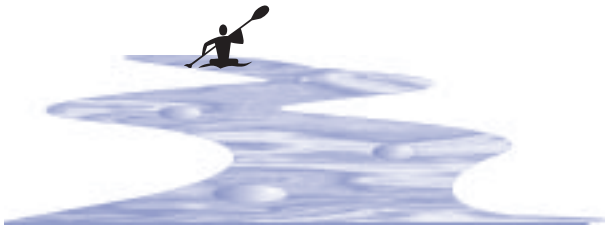
FLY: "Looking back, it was not an easy process, but it was very rewarding. It is easy to get distanced from the target audience sometimes. Working on this project and then reading and seeing the responses made all the time we invested worthwhile!"

Chapter Five
Project Evaluation

For a variety of reasons, evaluation is often avoided or approached with apprehension; however, evaluation is an important step in the design and development of an EE project and should be used to help determine how well you met your goals and objectives. While it is important to follow agency guidance which can be restrictive, there are evaluation tools that are allowed and easy to do. An evaluation is important because it provides you with helpful input during project development and valuable feedback as you update or add subsequent sections. Evaluations can also demonstrate the impact and importance that outreach projects have on meeting our environmental protection goals.

How will you evaluate your project?[10]

Evaluations can take on many forms. They range from complex studies, often performed in the academic world, to informal observations, which can be collected in a variety of ways. Based on your resources, time, personnel, and money, you can determine the degree to which you evaluate your project. Evaluation methods vary according to the particular project but often occur at three stages: (1) during project planning & development, (2) during implementation, and (3) after implementation. As you collect feedback during your evaluation, you can make the appropriate changes to your project or subsequent projects.



Stage 1: During Project Planning & Development

In chapters two and three, you find the basic outline for beginning your evaluation process. In chapter two, Project Planning, you set **goals, objectives, and evaluation criteria**. In chapter three, Project Development, you refer back to your evaluation criteria, adjust them if necessary, and make sure that you are still on track with your goals and objectives. While you are developing your project, incorporate individuals from your needs assessment as well as those from your target audience to provide initial input.

You might include the following individuals during your project development to provide feedback:

- Your project development team
- Peer review
- Contacts from your needs assessment
- A focus group(s)
- Pilot tests on targeted audiences

[10]Several resources can assist in your evaluation process:
Taking Stock: A Practical Guide to Evaluating Your Own Programs available on the web at www.horizon-research.com/publications/stock.pdf
Educating Young People about Water: A Guide to Program Planning and Evaluation pp.46-47, 54
Environmental Education in the Schools pp 439-460
EE Teacher Resource Handbook pp143-197

Stage 2: During Implementation

In Stage 2, you can begin to collect feedback on how the project is being received -- is your audience satisfied with the project? Depending on your project, you can make small to large scale adjustments. You might want to expand a section, include an insert, change the presentation format, etc.

Some ways to collect feedback on your project in Stage 2:

✎ Keep track of numbers: One simple way to collect data is to keep track of numbers. You may track the number of workshop attendees, web hits, number of publications requested, calls to a hotline, and other similar quantitative methods.

✎ Include a mechanism for comments[11]: You can gather voluntary feedback on *customer satisfaction* in a variety of ways if you follow the guidelines. You might use a comment card in a publication or activity guide, a comment box on a web site, an approved survey for a training/ workshop, or set up a number or email account where users can voice an opinion.

> **Tip from a pro:** "Office of Management and Budget (OMB) clearance for *satisfaction surveys* can be easy and 'okay'd' in 10-15 days. For other surveys that focus on the effectiveness of the project, talk to the experts in the Regulatory Information Division (RID) at (202)260-2472."
>
> -Pat Bonner, Customer Service

✎ Provide a mechanism for the instructor to evaluate the effectiveness: While there are OMB restrictions on how federal agencies gather information on a project's effectiveness (see footnote #12), you can *provide the instructor a mechanism to evaluate the progress of their learners.* You can include a pre-test, post-test and other questions in the project for the instructor to use with their students (see example box). It is important to have your development team assist with the writing of these questions so that they reflect the level and aptitude of the audience.

> **See an example of pre-test and post-test questions in an EPA document:**
> Turning the Tide on Trash, p. viii www.epa.gov/OWOW/OCPD/Marine/contents.html

✎ Collect feedback on the effectiveness of you project: Again, in most cases you will need to run a survey that evaluates a project's effectiveness through Office of Management and Budget's Information Collection Request (ICR) process. Visit the Regulatory Information Division web site, www.epa.gov/opperid1, titled, "Do You Need an ICR?," which provides the guidelines for collecting information from the general public. The ICR rule basically states that *if ten or more respondents are asked, even voluntarily, to submit information in any 12 month period then it needs to go through OMB.*

[11]There are several individuals at EPA-HQ who can help you with the development of evaluation tools. Pat Bonner in Customer Service has written a guide for developing customer satisfaction surveys which can be found on the Web at www.epa.gov/customerservice/feedback.htm . Scroll down to factsheet #6 for guidance on, "How to obtain clearance for EPA Customer Satisfaction." If you choose to gather feedback on project effectiveness, contact Joe Retzer in the Regulatory Information Division (RID) office at (202) 260-2472, and visit the RID web site at www.epa.gov/opperid1.

Stage 3: After Implementation

The third and sometimes more difficult step to assess occurs when you look back upon your overall goals and objectives and ask, "Did I accomplish what I set out to do?" If you use realistic and measurable criteria, you will find it much easier to identify your accomplishments or areas that need revision.

Often times it is difficult for staff at EPA to engage in an active long-term assessment of a project; however, it is possibleto set up a program evaluation that requires less involvement but still obtains helpful feedback.

Some ideas for feedback mechanisms:

- Encourage the user/student to send in an achievement package after completing a project and highlight it on the web site.

  Examples:
  -Encourage the participating youth group to develop and submit a poster of how they improved their watershed or monitored their source water.
  -Ask a participant to submit before and after photos of a newly planted riparian zone.

- Include incentives for user responses.
  -Recognize the user with a certificate or award.
  -Post their name/project on the Internet.
  -Send a letter of recognition.
  -Call and thank them for doing their part!

> **Tip from a pro:** "There are some rules about handing out awards and incentives, so to find out more, 'call the lawyers' in the Office of General Council."
>
> -Richard Feldman, OGC

- Engage the participant in an informal agreement. Encourage participants to set up goals and objectives for themselves and submit their accomplishment lists.

  Examples:
  -A conservation group might set a goal to restore a certain amount of acreage of wetlands per year and communicate their results back to you.
  -A high school group might mentor younger students in ways that they can protect source water in their community and provide results of their project.

> **An example of an informal contract in an EPA document:**
> Water Drop Patch Program, p. 34
> Contact: Patty Scott, OWOW

Two examples that may require you to go through OMB clearance.

- Coordinate a focus group made up of instructors and users from the target audience who used the project, and go through a series of discussions to assess the project's impact.

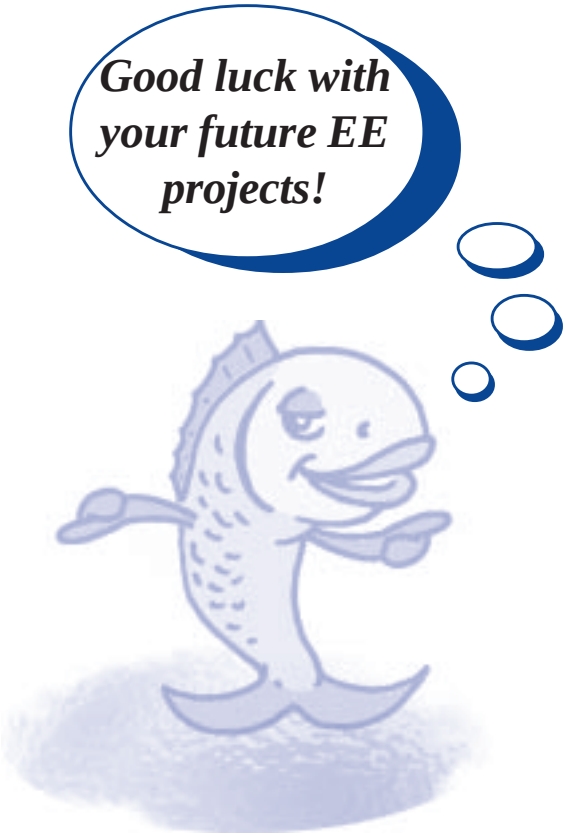
- Check back in with the pilot programs to gauge if the project is still seen as useful and successful.

Stage 4: Celebrate Your Accomplishments! Share your successes with others.

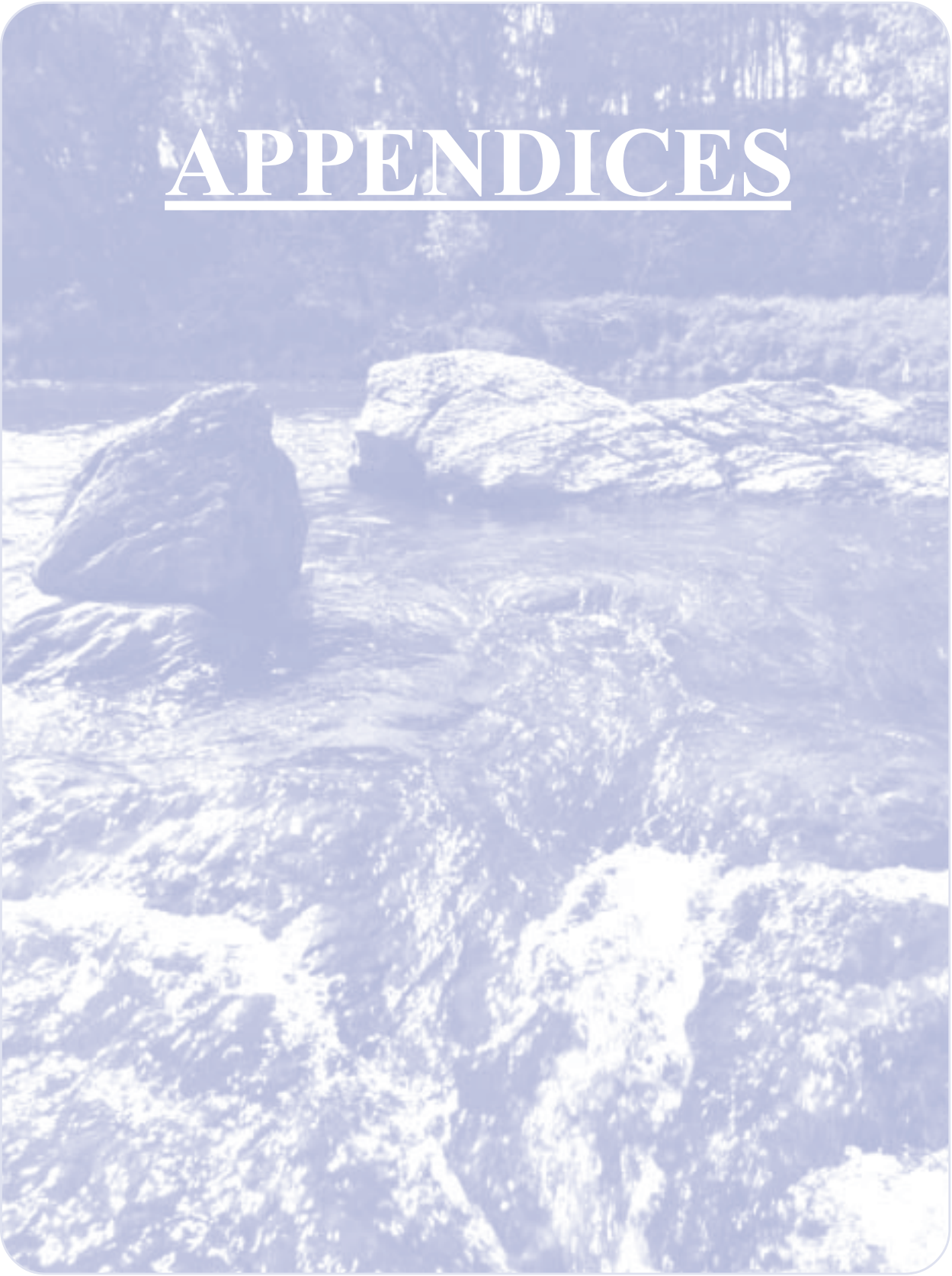
You have come a long way and deserve a chance to celebrate what you have accomplished.

A few ideas on how to celebrate and share your success with others:

- Offer to present at a conference and invite instructors and students to come and share their stories.
- Use EE speaker series to let others know about your project. At headquarters, you might use the OEE lecture series or Watershed Rap.
- Draft a "press release" that you can send out to publications or other media to announce the success of your project.
- Host a get-together for your development team, project reviewers, and other folks who participated in the process.
- *Take a vacation and pat yourself on the back!*



APPENDICES



Appendix A
Checklist & Timeline

Fill in this checklist and timeline as you develop your EE project. For additional information on a particular step, refer to the apporpriate chapter in this guide.

1. How does your project fit into your program office's EE goals & mission? (Chapter 1)

__/__/__ ● Consult with your program's communications/outreach contact to discuss your project and how it connects with your program office's EE goals and mission.

2. Project Planning (Chapter 2)

● Conduct a needs assessment.

__/__/__ Involve key individuals within and outside EPA. *Who can offer you support and input?*

- Your office's outreach/communications contact
- Regional OW contacts & EE coordinators
- Representatives from your target audience
- Representatives from outside agencies & organizations
- EPA's Office of Environmental Education
- EPA's Office of Communications, Education, Media Relations

__/__/__ Identify and analyze your target audience. *Who are you trying to reach?*

__/__/__ Survey other related projects. *What other projects are out there?*

● Define your project.

__/__/__ Set out goals and objectives.

__/__/__ Set up evaluation criteria.

● Begin EPA's product review, if applicable.

__/__/__ Obtain an EPA publication number.

__/__/__ Submit a concept notification (online).

● Create a time line for your project

__/__/__ Lay out sufficient time for each stage of your project

3. Project Development (Chapter 3)

__/__/__ ● Determine best vehicle for your project (in-house, contractor, interagency agreement, grant, or cooperative agreement).

● Design an effective project.

__/__/__ ◆ Assemble a development team.

__/__/__ ◆ Create and express your message clearly.

-Use the guide, EE Materials: Guidelines for Excellence.

__/__/__ ◆ Determine delivery media (publication, video, workshop, etc.) & distribution mechanisms.

__/__/__ ◆ If necessary, consult with the printing office or appropriate production facility.

__/__/__ ◆ Develop a budget.

3. Project Development (continued)

__/__/__ ◆ Incorporate quality materials.
__/__/__ ◆ Link to additional information and contacts.
__/__/__ ◆ Continue project evaluation.
__/__/__ ◆ Submit a final draft for OCEMR final review (online), if applicable.

- Refer to the Environmental Education guidelines publication: EE Materials: Guidelines for Excellence.

4. Project Delivery (Chapter 4)

__/__/__ ● Get your project out to the target audience. *Get it out!*
__/__/__ ● Encourage instructors/audience to use your project. *Get it used!*

5. Project Evaluation (Chapter 5)

● Stage 1: During project planning & development

__/__/__ -Project planning:
◆ Set measurable goals, objectives, and evaluation criteria to use throughout development process.

-Project development:
__/__/__ ◆ Involve individuals from within and outside EPA to provide input/feedback into the project development.

● Stage 2: During implementation

__/__/__ -Collect user information:
◆ Keep tabs on numbers.
◆ Collect user satisfaction information.
◆ Provide assessment tools for instructors to evaluate student progress.

● Stage 3: After implementation

__/__/__ -Encourage users to submit project results and include incentives:
◆ User achievement packages.
◆ Informal agreements.

__/__/__ -Gather evaluation responses on project effectiveness (see OMB guidance):
◆ Use focus groups.
◆ Check in with pilot program groups.

● Stage 4: Celebrate accomplishments & share results with others

__/__/__ -Share your accomplishments with other educators so that they can learn from your hard work.
◆ Use presentations, write-ups, workshops, etc.

Appendix B

List of agencies and organizations that have water-related EE programs/projects

The agencies and organizations listed here have water-related programs and/or EE projects. This list is by no means all inclusive, and as you can see, there are a lot of organizations currently in the field. While you may find that contact names change, the web addresses should provide you with a link to get to the most updated information.

Federal Agencies

U.S. EPA - Office of Environmental Education
401 M St, SW (1707)
Washington, DC 20460
Tel: 202-260-4965
www.epa.gov/enviroed

Army Corps of Engineers - Water Resources Center
20 Mass Ave, NW
Washington, DC 20314-1000
Contact: Beverly Getzen
Tel: 202-761-1980
www.usace.army.mil

Bureau of Indian Affairs (DOI)
1849 C St, NW
Washington, DC 20240
Contact: Mo Baloch
Tel: 202-208-6042
http://shaman.unm.edu/oiep/home.htm

Bureau of Land Management (DOI)
1849 C Street NW, LS-406
Washington, DC 20240
Contact: Mary Tisdale
Tel: 202-452-5163
www.blm.gov/education

Coastal America
Reporters Building
300-7th Street, SW
Washington, DC 20250-0599
Tel: 202-401-9923
www.coastalamerica.gov

Cooperative State Research, Education, and Extension Service (USDA)
1400 Independence Avenue, SW
Washington, DC 20250-0308
Contact: Tim Strickland
Tel: 202-205-5853
www.reeusda.gov/nre/water/water.htm

Department of Energy (DOE)
Forrestal Building
1000 Independence Avenue, S.W.
Washington, DC 20585
http://home.doe.gov/education.htm

U.S. Fish and Wildlife Service (DOI)
4401 North Fairfax Drive, R.870A
Arlington, VA 22203
Tel: 703-358-2536
www.nctc.fws.gov

U.S. Forest Service (USDA)
Box 96090
Washington, DC 20090-6090
Contact: Ann Loose
Tel: 202-205-5681
www.fs.fed.us/outdoors/nrce

U.S. Geological Survey (DOI)
Water Resource Education
PO Box 25046 (M/S 406)
Denver, CO 80225
Contact: Steve Vandas
Tel: 303-236-5900
http://water.usgs.gov/education.html

National Park Service (DOI)
1849 C Street NW, Rm-7312
Washington, DC 29240
Contact: Bob Huggins
Tel: 202-565-1056
www.nps.gov/interp/pksmart.htm

National Oceanic & Atmospheric Administration
1305 East-West Highway, 10th floor
Silver Spring, MD 20910
Contact: Dan Dewell
Tel: 301-713-3070 (ext. 139)
www.constituentaffairs.noaa.gov/outreach.html

Natural Resources Conservation Service (USDA)
PO Box 2890
Washington, DC 20013
Contact: Tom Leverman
Tel: 202-720-2536
www.nrcs.usda.gov

Smithsonian
Smithsonian Institution Bldg., Room 153
Washington, DC 20560-0010
Tel: 202-357-2700
www.si.edu/activity/planvis/sic/educate.htm

Tennessee Valley Authority
-Resource Stewardship Program
4833 Hwy 58, M/S LMOIA-C
Chatanooga, TN 37416
Contact: Linda Harris
Tel: 423-954-3802
www.tva.gov

Non-Government Organizations with water education components

4-H Club
7100 Connecticut Ave.
Chevy Chase, MD 20815
Contact: Kashyap Choksi
Tel: 301-961-2833
www.fourhcouncil.edu

American Indian Science & Engineering Society
PO Box 9828
Albuquerque, NM 87119-9828
Contact: Karen Yamamoto
Tel: 505-765-1052 (ext. 18)
www.aises.org

American Public Works Association
2345 Grand Boulevard, Suite 500,
Kansas City, MO 64108-2641
Contact: Patricia Kutt
Tel: 816-472-6100
www.pubworks.org/education

American Water Works Association
6666 West Quincy Ave
Denver, CO 80235
Contact: Jay Fermaglich
Tel: 303-347-6205
www.awwa.org

American Zoo & Aquarium Association
8403 Colesville Road, Suite 710
Silver Spring, MD 20910
Tel: 301-562-0777
www.aza.org

Association of Science Technology Centers
1025 Vermont Avenue NW,
Suite 500
Washington, DC 20005
Contact: director of education
Tel: 202-783-7200
www.astc.org

Boy Scouts of America
1325 West Walnut Hill Lane
P.O. Box 152079
Irving, TX 75015-2079
Tel: 972-582-2000
www.bsa.scouting.org

Conservation Technology Information Center
1220 Potter Dr Rm 170, W
Lafayette, IN 47906
Contact: Lyn Kirschner
Tel: 765-494-1827
www.ctic.purdue.edu/CTIC/CTIC.html

Earthwater Stencils
4425 140th Avenue S.W.
Rochester, Washington 98579
Contact: Rhonda Hunter
Tel: 360-956-3774
www.earthwater-stencils.com

Earth Force (G.R.E.E.N.)
1908 Mount Vernon, 2nd Floor
Alexandria, VA 22301
Contact: Vince Meldrum
Tel: 703-299-9400
www.earthforce.org

Environmental Alliance for Senior Involvement
8733 Old Dumfries Road
Catlett, VA 20119
Contact: Tom Benjamin
Tel: 540-788-3274
www.easi.org

Environmental Concern Inc.
PO Box P
St. Michaels, MD 21663
Contact: Karen Ripple
Tel: 410-745-9620
www.wetland.org/education.htm

Girl Scouts of America
420 Fifth Avenue
New York, NY 10018-2798
Contact: Lori Arguielles
Tel: 800-478-7248
www.gsusa.org

The Groundwater Foundation
PO Box 22558
Lincoln, NE 68542
Contact: Cindy Kreifels
Tel: 402-434-2740
www.groundwater.org

Issac Walton League
707 Conservation Lane
Gaithersburg, MD 20878
Contact: Julie Middleton
Tel: 301-548-0150
www.iwla.org/SOS

Local Government Environmental Assistance Network (LGEAN)
777 North Capitol Street
Suite 500
Washington, D.C. 20002
Contact: David George
Tel: 202-962-3531
www.lgean.org

National Association of Conservation Districts
509 Capitol Court, NE
Washington, DC 20002-4946
Contact: Wendy Reistle
Tel: 800-825-5547 (ext. 27)
http://nacdnet.org/education/education.htm

National Association of Counties
440 First St. NW
Washington, DC 20001
Contact: Abigail Friedman
Tel: 202-942-4225
www.naco.org/programs/environ/index.cfm

National Environmental Education Training Foundation
734 Fifteenth Street, NW
Suite 420
Washington, DC 20005
Tel: 202-628-8200
www.neetf.org

National Environmental Training Center for Small Communities
P.O. Box 6064
West Virginia University
Morgantown, WV 26506-6064
Tel: 304-293-4191
www.estd.wvu.edu/netc/netcsc_homepage.html

National Science Teachers Association
1840 Wilson Boulevard
Arlington VA 22201-3000
Tel: 703-243-7100
www.nsta.org

National Marine Educators Association
PO Box 369-370
Dauphin Island, AL 36528
Tel: 205-861-7558
www.marine-ed.org

National Wildlife Federation
8925 Leesburg Pike
Vienna, VA 22184
Contact: James Stoufan
Tel: 703-790-4267
http://www.nwf.org/nwf/education/index.html

Parent Teacher Association (PTA)
330 North Wabash Avenue, Suite 2100
Chicago, IL 60611-3690
Tel: 312-670-6783
www.pta.org/index.stm

River Network
153 State Street
Montpelier, VT 05602
Contact: Sharon Behar
Tel: 802-223-8082
www.rivernetwork.org

Terrene Institute
4 Herbert Street
Alexandria, VA 22305
Contact: Erin Foster
Tel: 703-548-5473
www.terrene.org

Trout Unlimited
Kickapoo Project
1327 University Avenue
Madison, Wisconsin 53704
Contact: Laura Hewitt
Tel: 608-262-3939
www.tu.org

Water Education Foundation
717 K Street, Suite 317
Sacramento, California 95814
Contact: Judy Wheatley
Tel: (916) 444-6240
www.water-ed.org

Water Environment Federation
601 Wythe St.
Alexandria, VA 22314
Contact: Lorraine Loken
Tel: 703-684-2487
www.wef.org

National EE Curricula & Programs

Below you will find a small selection of some of the more well-known national water curricula. For a more complete list of water curricula visit the following two web sites:

-Educating Young People About Water: www.uwex.edu/erc/ywc/sumlist.htm

-California Department of Education & Water Resources' Compendium for water resources: www.cde.ca.gov/cilbranch/oee/compendia.html

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Adopt-A-Watershed
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686
Contact: Kathy Machado
Tel: 408-265-2607 x2331
www.adopt-a-watershed.org

Blue Thumb
(See AWWA above)
www.awwa.org/bluethumb

Farm-A-Syst & Home -A-Syst
B142 Sittenbock Library,
550 Babcock Dr.
Madison, WI 53706
Contact: Gary Jackson
Tel: 608-265-2773
www.wisc.edu/farmasyst

Give Water A Hand
216 Agriculture Hall
1450 Linden Drive
Madison, WI 53706
Contact: Molly Thompson
Tel: 608-265-5496
www.uwex.edu/erc

Global Learning and Observations to Benefit the Environment (GLOBE)
www.globe.gov

Project Learning Tree
1111 19th Street NW, Suite 780
Washington DC 20036
Contact: Caroline Austin
Tel: 202-463-2472
www.plt.org

Project WET
201 Culbertson Hall
Montana State University
Bozeman, MT 59717
Contact: Gary Cook
Tel: 406-994-5392
www.montana.edu/wwwwet

Project Wild & Wild-Aquatic
707 Conservation Lane, Suite 305,
Gaithersburg, Maryland 20878
Contact: Donna Asbury
Tel: 301-527-8900
www.projectwild.org

Save Our Streams
(See Issac Walton League)

The Water Sourcebook
(See Water Education Foundation)

WOW!: The Wonders Of Wetlands
(See Environmental Concern Inc.)

Appendix C
Resources for developing EE projects

BIBLIOGRAPHY

The majority of the resources listed in this document are available on loan from the Office of Environmental Education's Resource Library. You can acquire a copy from the office indicated in parantheses.

Braus, J., D. Wood. 1993. EE in the Schools: Creating a Program that Works. (OEE library)

California Department of Education. 1996. Environmental Education Compendium for Water Resources. (OEE library)

Camozzi, Anne. 1994 Adult Environmental Education: A Workbook to Move From Words to Action. (OEE library)

Council of State Governments. 1997. Getting in Step: A Guide to Effective Outreach in Your Watershed. (OWOW)

NAAEE. 1996. Environmental Education Materials: Guidelines for Excellence. (Free - OEE)

NAAEE. 1999. Excellence in EE — Guidelines for Learning (K-12). (Free - OEE)

NAAEE. 1997. The Environmental Education Collection: A Review of Resources for Educators (Volumes 1-3). (Free - OEE)

NAAEE. 1996. EE-TIPS: Environmental Education - Technical Information Packages. (Free - OEE)

National Association for Conservation Districts, 1998, Environmental Education at a Glance. (Free - OEE)

Wilke, R. 1993. Environmental Education: Teacher Resource Handbook. (OEE library)

Wood, D., D. Wood. 1985. Conservation Education: A Planning Guide. (OEE library)

ONLINE RESOURCES

EE Information Providers Directory
www.epa.gov/enviroed/globe.html
List of over a dozen entities that compile EE information and resources

EE-Link
www.eelink.net
Links to EE resources: materials, workshops, etc.

Educating Young People About Water
www.uwex.edu/erc/ywc/index.html
A series of publications that outline how to develop a community-based, youth water education program

North American Association for Environmental Education (NAAEE)
www.naaee.org
National EE programs, initiatives, and resources

WestEd
www.EdGateway.net/
"Swapping grounds" for educators and EE organizations to find, organize, and share events, discussions, organizational information, and documents

Federal Resources for Educational Excellence
www.ed.gov/free
Internet based educational materials developed by Federal agencies.

LISTSERVES

For a complete list of EPA Office of Water newsletters, periodicals, and listserves, visit the OW homepage under *publications*.

Federal Internet-based Education Resources Listserve (FIBRE)
FIBRE@www.gsa.gov

EE Link -- Listserver for environmental educators
ee-internet@eelink.net

K_12 -- EPA listserver for K-12 teachers
K12_environet@valley.rtpnc.epa.gov

RESOURCES FOR SPECIFIC EE PROJECTS

Below you will find resources for designing specific EE projects and a selection of EPA examples. All resources designated with an (OEE) are available for free or on loan from the Office of Environmental Education's Resource Library. A general resource guide designed by the North American Association for Environmental Education, EE-TIPs (www.epa.gov/clariton/clhtml/pubtitle.html), contains a list of resources for developing EE projects.

Workshops & Training

✎ Resources for Project Development:

EE Toolbox-Workshop Resource Manual: Designing Effective Workshops (OEE)
www.epa.gov/enviroed/pdf/toolbox.pdf

✎ Online Resources:

National Environmental Training Center for Small Communities
www.estd.wvu.edu/netc/NETCSC_trtips.html
National Environmental Education and Training Foundation
www.neetf.org
National Environmental Education Training Program
www.epa.gov/educate.html
www.eetap.org
National Conservation Training Center
www.nctc.fws.gov

✎ Some EPA Examples:

Drinking Water Academy
www.epa.gov/ogwdw000/dwa/dwa.htm
Getting in Step: A Guide to Effective Outreach in Your Watershed
http://216.25.27.197/gettinginstep
Watershed Information Network (WIN)
www.epa.gov/OWOW/watershed/wacademy/wsatrain.html

Resources for Formal (schools) and Non-Formal Educators (nature centers, outdoor schools, etc.)

These are activities aimed at teachers/instructors.

✎ Resources for Project Development:

Environmental Education Materials: Guidelines for Excellence (OEE)
Excellence in EE: Guidelines for Learning (K-12) (OEE)
Guidelines for Excellence: The Initial Preparation of Environmental Educators (OEE)
EE Toolbox: Integrating EE Into the School Curriculum (OEE)
Educating Young People about Water: A Guide to Goals and Resources (OEE)
Environmental Education in the Schools (OEE)
EE-TIPS: Technical Information Packages
EPA Publication #171B98002 (OEE)
www.epa.gov/clariton/clhtml/pubtitle.html

✎ Online Resources:

Educating Young People About Water - List of 100 Water Curriculum
www.uwex.edu/erc/ywc/sumlist.htm
California Compendium for Water Resources
www.cde.ca.gov/cilbranch/oee/compendia.html
EE Collection: A Review of Resources for Educators, (Volumes 1-3)
www.epa.gov/enviroed/resources.html
EE-link (classroom resources)
http://eelink.net

✎ Some EPA Examples:

Water Drop Patch Program, (OWOW-hq)
A World in Our Backyard: A Wetlands Education and Stewardship Program, (Region 1)
www.epa.gov/region01/students/teacher/world.html
Teacher's Guide to Streamwalk, Water Division (Region 10)
Drinking Water Activities for Students, Teachers, and Parents, (OGWDW - hq)
The Water Sourcebook (in partnership with Water Environment Federation)
www.wef.org/docs/publicout.html

For a list of non-EPA examples, see Appendix B, under the subheading **National EE Curricula & Programs.**

Outreach Products: Publications, Posters, Brochures, & Promotional Items

✎ **Resources for Project Development:**

Creating Environmental Publications: A Guide to Writing and Designing for Interpreters and Environmental Educators (OEE)

Getting In Step: A Guide to Effective Outreach in Your Watershed, pp. 21-33 (OWOW - hq)

✎ **Some EPA Examples:**

Turning the Tide on Pollution, EPA (Region 1)
www.epa.gov/OWOW/OCPD/Marine/contents.html.

Welcome to Wetlands -English/Spanish versions (OWOW-hq & Region 5)

Water Matters -- Poster series (EPA, USGS, etc.)
http://water.usgs.gov/public/outreach/wrei.html

EE Web Sites

✎ **Resources for Project Development:**

"Evaluating the Structure of Web Sites: Guidelines for Educators," Ohio State Univiversity, Joe Heimlich (Fall 1999)
www.comdev.ag.ohio-state.edu/eetap/publications.htm

"Evaluating the Content of Web Sites: Guidelines for Educators," Ohio State Univ., Joe Heimlich (see Web address above)

✎ **Some EPA Examples:**

EPA's Student Center & Kid's Page
www.epa.gov/students

Water Treatment Path -- interactive web site
www.epa.gov/OGWDW/kids/treat.html

Nonpoint Source Kid's Page -- interactive web site
www.epa.gov/OWOW/NPS/kids/whatwrng.htm

Tip from a Pro: "EPA has an Access Workgroup which reviews EE web sites before linking them to the Agency's Kids, Students, or Teachers Pages. You can find more information on the workgroup and helpful tips on the development of electronic education materials at http://intranet.epa.gov/site/kids/."

-Suzanne Saric, Region 5 EE Coordinator

Multimedia: TV, Videos, & CD-ROMs

✎ **Resources for Project Development:**

EE Toolbox: Using Computers in Environmental Education (OEE)

✎ **Online Resources:**

EE-Link
http://eelink.net/audiovisualandsoftware.html

Superlative sites on EE-link
http://eelink.net/ss.html

Falcon software: EE CD-ROMs
www.falconsoftware.com/

The Video Project (distribution center for educational media)
www.videoproject.org

✎ **Some EPA Examples:**

Earth Café (Region 8)
www.earthcafe-tv.com/

Desdemona's SPLASH!, EPA
www.epa.gov/owowwtr1/NPS/kids/splash/webpage/test.html

Adventures of the Camouflage Kid, "Clean Streets = Clean Beaches, EPA (Region 2)

Turning the Tide on Pollution, EPA (Region 1)
www.epa.gov/OWOW/OCPD/Marine/contents.html

Water Quality Standards Video Series, (OW-OST)

Appendix D

Training for environmental educators

There are numerous organizations that offer training on development, implementation and evaluation of outreach and EE projects. You might look at the following for starters:

- EPA Office of Environmental Education website: www.epa.gov/enviroed/educate.html
- US Fish and Wildlife Service's training center in West Virginia
  -National Conservation Training Center (304-876-7200) www.fws.gov/r9nctc/nctc.html
- Environmental Education and Training Partnership (EETAP) www.epa.gov/enviroed/eetap.html
- EE-Link (teacher education): http://eelink.net/teachereducation.html
- Watershed Information Network (WIN): www.epa.gov/OWOW/watershed/wacademy/wsatrain.html

Interested youngster interacts with Chesapeake Bay Program's "Touch the Bay" computer program.

Appendix E

Your feedback on this guide

What do you think?

Please take a few minutes to give us feedback so that we can improve this EE guide when we reprint. Thanks for taking the time to give us your ideas!

Rating the Sections

Please use the numbers below to rate the sections in the EE guide. Feel free to add any specific comments on content, design, and usefulness.

Ratings: 4 = Superb! 3 = Good 2 = Average 1 = Poor

- ☐ **Introduction/background**
- ☐ **Chapter 1: Your Project & Office's Mission**
- ☐ **Chapter 2: Project Planning**
- ☐ **Chapter 3: Project Development**
- ☐ **Chapter 4: Project Delivery**
- ☐ **Chapter 5: Project Evaluation**
- ☐ **Additional Resources**
- ☐ **Overall Design**

General Comments:

What do you like best about this guide?

What recommendations do you have to improve this guide? If you have comments about specific chapters or sections, please make them here.

Other comments or ideas:

Your name and contact information:

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