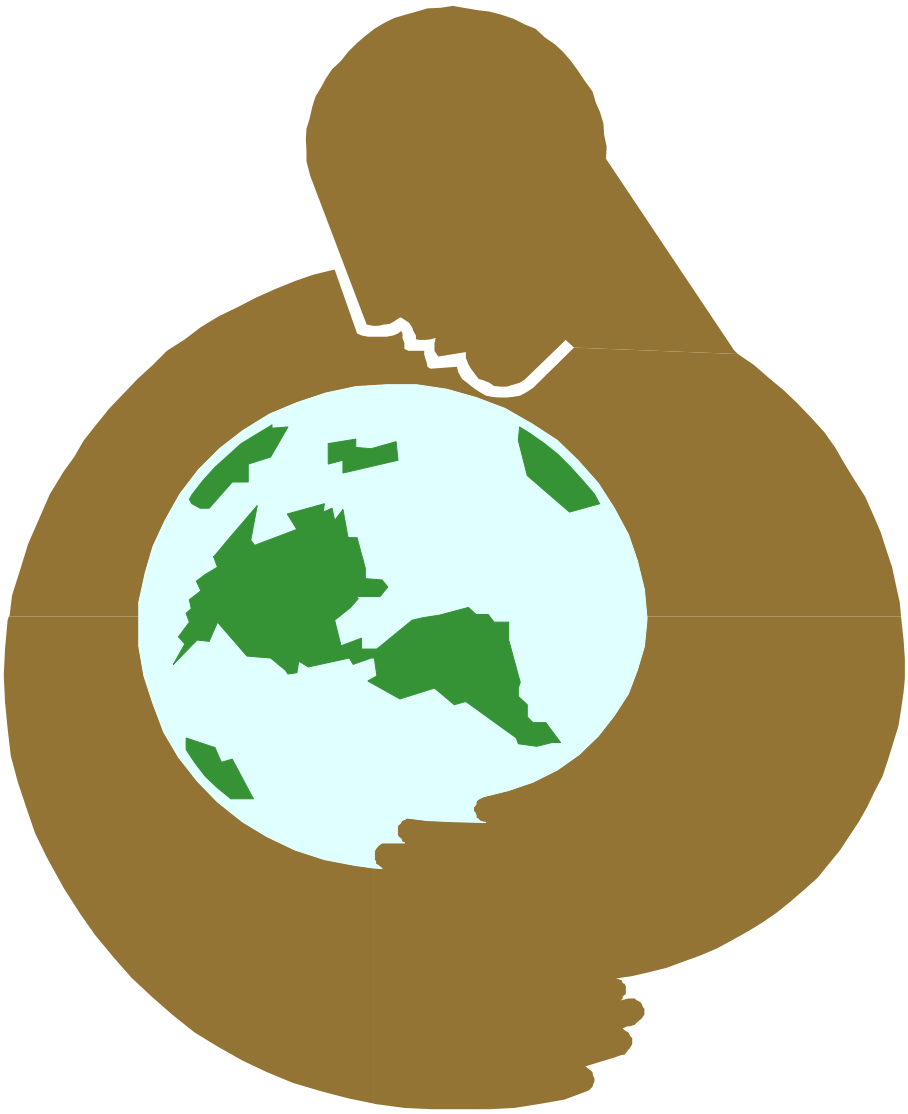
Environmental Sustainability Kit



Prepared by the Pollution Prevention Alliance

The groups collaborating to produce this Environmental Sustainability Kit were brought together through the Environmental Defense Fund's Pollution Prevention Alliance (PPA). PPA joins more than 200 community, state, tribal, and regional organizations in the Great Lakes region committed to promoting pollution prevention and sustainable communities. The following groups from the Great Lakes region support and endorse the ideas contained in this Kit:

Citizens for a Better Environment, Milwaukee, WI; Chicago, IL; Minneapolis, MN
Earthday Coalition, Cleveland, Ohio
EcoCity Clevland, Cleveland, Ohio
Ecology Center, Ann Arbor, Michigan
Environmental Defense Fund, New York, New York
Environmental Law and Policy Center, Chicago, Illinois
Erie County Environmental Coalition, Erie, Pennsylvania
Grand Cal Task Force, Whiting, Indiana
Green Institute, Minneapolis, Minnesota
Hoosier Environmental Council, Indianapolis, Indiana
Indigenous Environmental Network, Bemidji, Minnesota
McHenry County Defenders, Woodstock, Illinois
Michigan Environmental Council, Lansing, Michigan
Minnesota Center for Environmental Advocacy, Minneapolis, Minnesota
Ohio Environmental Council, Columbus, Ohio
People for Community Recovery, Chicago, Illinois
Politics of Food/NYSAWG, Rochester, New York
Pollution Probe, Toronto, Canada
The Minnesota Project, St. Paul, Minnesota
Wisconsin's Environmental Decade, Madison, Wisconsin
Wisconsin Citizens for a Better Environment, Milwaukee, Wisconsin
World Wildlife Fund, Madison, Wisconsin

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For additional information about Environmental Defense Fund's Pollution Prevention Alliance and its environmental sustainability projects, please contact the Kit's primary authors: Bill Davis at 608/259-0268, and Meena Palaniappan or Lois Epstein at 202/387-3500.

EDF is indebted to the W. K. Kellogg Foundation for its support of the Environmental Sustainability project and to the C. S. Mott Foundation, the Joyce Foundation and the George Gund Foundation for their support of the Pollution Prevention Alliance.

The Pollution Prevention Alliance would like to acknowledge the following participants of PPA's Sustainable Communities Task Force for their assistance in designing, developing, and reviewing the Kit. It is a much improved document thanks to their input!

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Keith Harley, Chicago Legal Clinic
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John Lamb, The Minnisota Project
Jill Viehweg, The Safer Pest Control Project
Rob Kennedy, The New Transportation Alliance
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Rae Schnapp, Hoosier Environmental Council
Jeff Roy, Urban Ecology Coalition of Pillsbury
Orrin Williams, Center for Global Transformation

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Politics of Food/NY Sustainable Agriculture Working Group, Rochester, New York
Pollution Probe, Toronto, Ontario
Windsor & District Labour-Environment Project, Windsor, Ontario
Wisconsin Environmental Decade, Madison, Wisconsin
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The Environmental Defense Fund is a New York-based, private, non-profit research and advocacy organization with over 300,000 members nationwide. EDF's staff includes scientists, engineers, attorneys, and economists who seek solutions to a broad range of environmental and human health problems. EDF is indebted to the W. K. Kellogg Foundation, established in 1930 to "help people help themselves," for its generous support of EDF's Environmental Sustainability project. EDF also thanks The George Gund Foundation, The Joyce Foundation, and the C. S. Mott Foundation for their ongoing support of the Pollution Prevention Alliance.

Any errors in the *Environmental Sustainability Kit* are the responsibility of the EDF authors. The authors would like to acknowledge the following participants of the Pollution Prevention Alliance's Sustainable Communities Task Force for their assistance in designing, developing, and reviewing the Kit. It is a much improved document thanks to their input!:

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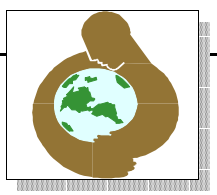


Imagine a mother in inner-city Chicago sending her young children to a neighborhood park—without the dangers of crime, asthma from polluted air, or sickness from the contaminated soil...

Imagine a father and daughter fishing in a nearby lake and eating the healthy and plentiful fish they catch, without the fear of PCBs, dioxins, and other poisons...

Imagine families living near a factory, having a meaningful voice in the decisions that affect their health, safety, and environment...

Imagine a worker actively participating in decisions that protect his or her health and safety, including reducing the use of toxic chemicals in the work place...

Imagine a manufacturer saving money and reducing pollution and long-term liability by integrating pollution prevention into the core business practices at a factory...

Imagine a household buying safe and affordable locally-produced foods...

Imagine yourself choosing between a number of affordable, efficient, and environmentally-sound transportation options...

Imagine agency officials moving beyond oversight and beginning to optimize the connections between business, environment, and community...

Imagine a community where many diverse sectors of society work together towards shared solutions to community problems...

These visions represent a piece of what we call a *Sustainable Community.* A sustainable community is our shared vision of a better tomorrow. The strength of a sustainable community lies in its ability to integrate economic, environmental, and social forces to forge innovative, enduring, and comprehensive solutions to current and future challenges. While our vision of sustainability is broad and far-reaching, the steps we take towards this goal must be concrete, measurable, and real.

The *Environmental Sustainability Kit* is a set of tools—ideas, procedures, and resources—to help local leaders, residents, and businesses work toward making their own communities more sustainable. While sustainability encompasses many things, from affordable health care and housing to a safe and clean environment, we have focused the *Environmental Sustainability Kit* on the environmental and pollution prevention aspects of sustainable communities efforts.

Pollution prevention has been shown to be a win-win solution for society, for the economy, and for the environment. In addressing and implementing pollution prevention opportunities in our communities, we can show real, demonstrable, and measurable successes. This can mean developing "Good Neighbor" agreements between residents and local industries, promoting policies that encourage pollution prevention, or creating community supported agriculture cooperatives. Building on this initial success, the local community can turn to other problems—and take further steps toward the long-term goal, a sustainable community.

While the examples in this Kit focus on pollution prevention as a strategy toward a more sustainable community, the inclusive approach of the Kit makes it useful for any sustainable community initiative. Our social, economic, and environmental problems are interconnected. By inviting all interested parties to consider these problems, we have a better chance of arriving at enduring solutions that set our communities on a more sustainable course. We believe that the best way to democratize decision-making and invigorate public involvement is to bring many interests to the table in a multi-stakeholder team. Using pollution prevention and multi-stakeholder strategies, this *Environmental Sustainability Kit* attempts to help you create sustainable change, one step at a time.

How can you use the Environmental Sustainability Kit?

The following ten sections of the Kit are modular in nature and can be used independently of each other. Depending upon the needs of a particular project, we encourage you to use the sections that are most useful in the order that seems most appropriate. Each section has a picture associated with it that can be found on every page of the section. When other sections are referred to in the text, they will be set apart from adjoining text using the *Brushscript Font*. At the beginning of every section, a cover page provides a brief overview of the main points of the section. The ten cover pages taken together can be used to introduce a newcomer to the *Environmental Sustainability Kit* without overwhelming him/her with the entire document. Many sections have worksheets and examples to help you apply the ideas contained in the section, and resource lists to guide you to additional information. We hope that you find the *Environmental Sustainability Kit* valuable in your efforts toward creating a more sustainable community.

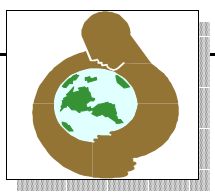
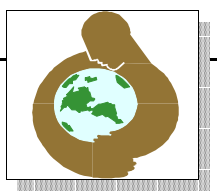


Table of Contents

List of Worksheets

List of Examples



A Quick Guide to: Defining Sustainability

WHY define sustainability?

Establishing definitions is important because it enables participants to gain a common understanding of the fundamental principles on which your project will be based.

WHAT needs to be defined?

Three key terms should be defined for an environmental sustainability project: **sustainable communities**, **pollution prevention**, and **environmental justice**. These definitions will help clarify and communicate the goals of your project.

WHEN should you define?

You can define key elements of your environmental sustainability project and present these to attract other stakeholders, or you can define these issues and strategies after the diverse multi-stakeholder

Defining Sustainability

What is the sustainable communities field or movement?...For some, it is about livable cities and towns, for others it is a key to greater environmental protection, for still others it is a way to rethink economic policy so that it benefits everyone in a community. Definitions vary, but they share common themes and concerns: economic security, community vitality, ecological integrity, equity and commitment to the welfare of future generations.

-Janet Maughan-
Sustainable Communities: A Report to the Johnson Foundation, November 1995

do you define sustainability ?

To help your community develop its own definitions of environmental sustainability, included below are commonly accepted definitions of sustainable communities, pollution prevention, and environmental justice. These definitions will help you clarify and communicate the goals of your project to other potential stakeholders and to the public. Having clear definitions can help you attract stakeholders and educate the public about the issues your project hopes to address.

The **sustainable communities** definitions come from several sustainability projects that are local to international in scope. The **pollution prevention** definition comes from the federal Pollution Prevention Act of 1990, and we have included its "plain English" interpretation by the Pollution Prevention Alliance. The **environmental justice** definition comes from the People of Color Environmental Leadership Summit in October 1991, where nearly 600 grassroots and national multi-racial leaders agreed on *Principles of Environmental Justice*.

As for your definition of **community** (i.e., the geographic area that will be addressed in an environmental sustainability project), this should be defined as appropriate for your geography and intended project scope. Examples of **community** can be a neighborhood, a town plus its surrounding region, a tribal reservation or village, a city and its metropolitan area, an entire watershed, or larger entities.

Sustainable Communities

There are as many definitions for *sustainable communities* as there are ideas on what makes an ideal community. We hope that by including several different *sustainable communities* definitions and components of definitions that were developed in different contexts, your community can create its own definition.

The Pollution Prevention Alliance definition (Great Lakes region-wide participation): *Sustainable communities* are livable, equitable, and affordable over the long-term. *Sustainable communities* provide good environmental quality, social justice, and safe jobs at living wages. In particular, *environmentally sustainable communities* would include:

- businesses and services which prevent waste;
- viable markets for locally-produced goods and services;
- reliance on energy efficiency and renewable sources of energy;
- high levels of public awareness about and participation in local environmental issues;
- relatively proportionate distribution of environmental assets such as park land quality and quantity; and

- transportation and land-use patterns that prevent urban sprawl, protect the environment, and meet the mobility needs of local residents.

The President's Council on Sustainable Development's Vision Statement: "A *sustainable United States* will have a growing economy that provides equitable opportunities for satisfying livelihoods and a safe, healthy, high quality of life for current and future generations. Our nation will protect its environment, its natural resource base, and the functions and viability of natural systems on which all life depends." [italics added] *Sustainable America: A New Consensus* (Washington: President's Council on Sustainable Development, 1996), p. iv.

The United Nations' "World Commission on Environment and Development" definition of *sustainable development*: "...meet the needs of the present without compromising the ability of future generations to meet their own needs." *Our Common Future* (Oxford: Oxford University Press, 1987), p. 43.

The "Defining Sustainable Communities" national conference (June 1994) essential components of *sustainable communities*:
Oneida Tribe of Wisconsin Mission Statement: "To sustain a strong Oneida Nation by

♦ **Environmental Integrity** Living within ecological limits Protecting natural resources Responsible consumption patterns: re-use, recycling Measurable carrying capacity indicators: water quality, air quality, species diversity, etc. ♦ **Quality of Life** Connection to place Diversity Cooperation Health Education Efficient, affordable, accessible mass transportation systems Communication Linking jobs to housing and communities Intergenerational equity Pluralism and tolerance Honoring of culture Compassion	♦ **Economic Security** Local, regional economic viability Opportunities for employment Economic justice, economic equity Reduce the gap between rich and poor Economic security Appropriate technology and economics Long-term view, not short-term gain: decisions made with seven generations in mind ♦ **Democratic Participation** Power from within the community Belief in the possibility of change Democracy Accountability Responsibility Communication, education, information and collaboration Training in the "skills of democracy" All stakeholders represented and involved Grassroots organizations

preserving our heritage through the seventh generation. The Oneida family will be strengthened through the values of the Oneida, by providing housing, promoting education, protecting the land, and preserving the environment."

New York Sustainable Agriculture Working Group framework for Sustainable Agriculture: "Creating a *sustainable food system* requires a comprehensive approach that takes into account farm practices within a broader social and economic context...[including] fertility management and soil health, water management, waste management and nutrient recycling, insect and disease management, weed management, biodiversity, plant and animal adaption, energy use, people, and economics." [italics added]

Pollution Prevention

The U.S. Environmental Protection Agency considers *pollution prevention* equivalent to "source reduction" as defined in the federal Pollution Prevention Act of 1990. This law defines "source reduction" as

"...any practice which—

(i) reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and

(ii) reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

...The term "source reduction" does not include any practice which alters the physical, chemical, or biological characteristics or the volume of a hazardous substance, pollutant, or contaminant through a process or activity which itself is not integral to and necessary for the production of a product or the providing of a service."

In plain English, this *pollution prevention* definition distinguishes between preventive practices and pollution control practices, with the latter including waste storage and transport, recycling (except for in-process recycling), energy recovery, waste treatment, waste disposal, and waste segregation. An important advantage of *pollution prevention* over pollution control is that the former protects all environmental media (air, water, and land)

simultaneously, while the latter may shift waste from one medium to another (e.g., an air pollution scrubber can send air contaminants into water). While the term *pollution prevention* has been used most often to describe industrial activities, it also is applicable to efforts to prevent pollution from small businesses, individuals, agriculture, resource extraction, and transportation.

Environmental Justice

As adopted October 7, 1991, in Washington, DC, the *Principles of Environmental Justice* are shown on the following page:

Principles of Environmental Justice

Preamble

We the people of color, gathered together at this multinational People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to insure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and, to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these Principles of Environmental Justice:

1 **Environmental justice** affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.

2 **Environmental justice** demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.

3 **Environmental justice** mandates the right to ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet for humans and other living things.

4 **Environmental justice** calls for universal protection from nuclear testing, extraction, production and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food.

5 **Environmental justice** affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples.

6 **Environmental justice** demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.

7 **Environmental justice** demands the right to participate as equal partners at every level of decision-making including needs assessment, planning, implementation, enforcement and evaluation.

8 **Environmental justice** affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.

9 **Environmental justice** protects the right of victims of environmental injustice to receive full compensation and reparations for damages as well as quality health care.

10 **Environmental justice** considers governmental acts of environmental injustice a violation of international law, the Universal Declaration on Human Rights, and the United Nations Convention on Genocide.

11 **Environmental justice** must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.

12 **Environmental justice** affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all communities, and providing fair access for all to the full range of resources.

13 **Environmental justice** calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.

14 **Environmental justice** opposes the destructive operations of multi-national corporations.

15 **Environmental justice** opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.

16 **Environmental justice** calls for the education of present and future generations which emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.

17 **Environmental justice** requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to insure the health of the natural world for present and future generations.

A Quick Guide to: Multi-Stakeholder Process

WHAT is a Multi-Stakeholder Process?

A multi-stakeholder process brings representatives from many different constituencies together to develop consensus on holistic, effective, and enduring solutions to community problems.

WHY use this process?

A multi-stakeholder process:

- helps ensure fundamental and enduring change;
- allows participants to address interconnected aspects of a sustainability project simultaneously; and
- advances the cause of environmental and social justice by providing equal access to and participation in community decision-making.

WHEN should you use this process?

This process is useful in a variety of situations, particularly those that require interconnected aspects of a problem to be addressed simultaneously, or that would benefit from diverse and inclusive representation of

Multi-Stakeholder Process

Lasting solutions are best identified when people from throughout a community—as individuals; elected officials; or members of the business community, environmental groups, or civic organizations—are brought together in a spirit of cooperation to identify solutions to community problems.

-President's Council on Sustainable Development-
Sustainable America, February 1996

WHATNOT is a multi-stakeholder process ?

A multi-stakeholder process is an effort by *all* those affected by or with an interest in the outcome of a problem to arrive at a *shared* understanding and "ownership" of the issue, to develop solutions to the issue, and to implement those solutions. This process uses consensus-building as a tool to address community problems in innovative and inclusive ways.

WHY use a multi-stakeholder process ?

This Kit focuses on a multi-stakeholder process to address environmental sustainability projects instead of other strategies like litigation, lobbying, organizing, etc. There are two main reasons for this:

- First, in most cases a successful sustainability project will ultimately require the effort and cooperation of many different parties. This is difficult to achieve with more confrontational strategies.

- Second, sustainability goals require long-term commitments, and therefore require a strategy that helps ensure fundamental and enduring change. Because a multi-stakeholder process creates "ownership" in all the relevant parties surrounding a problem, and therefore brings resources and expertise to implementing solutions, it is more likely to create lasting results than other strategies.

A multi-stakeholder strategy may not be perfect for all sustainable community projects, but frequently it is more appropriate for these kinds of projects than other strategies. In order to decide whether to use this strategy for a particular project, review the advantages and disadvantages described on the following pages and then compare this strategy with what can be achieved using other strategies.

Why a consensus-building process?

The term "consensus" can generate confusion. Consensus requires a good faith effort on the part of all participants to reach unanimous agreement on how to address a shared objective. This does not mean that there is no conflict or everyone gets exactly what he or she wants, but rather that better decisions can flow from sincere efforts to understand the perspectives of others who are interested in or affected by a decision. Everyone should be able to live with the decisions resulting from a consensus-building process..

Consensus works best when there are a modest number of decision-makers who share certain basic objectives. For example, it may be an unwieldy tool to decide whether the U.S. should reform the social security system, but it may be the ideal tool for a cross-section of community leaders to harmonize select environmental, economic, and social goals.

Multi-Stakeholder Process

ADVANTAGES

1. ***A multi-stakeholder process involves all relevant interests by bringing together representatives from all constituencies with a relevant interest (pro or con) in the project's subject area.*** This achieves several goals. First, the process provides a forum for parties that have been in opposition to identify and discuss the real issues outside an adversarial setting such as a court or a legislature, where they often feel the need to posture. An unconstrained discussion that includes all the different perspectives on the issue can lead to the discovery of mutually acceptable solutions. Second, if joint solutions can be identified, the process is a ready mechanism for marshalling the resources and expertise of all stakeholders to implement these solutions. Lastly, including a breadth of membership within a community brings power and prestige to a project, which can draw additional attention to the effort, enable more to be accomplished, and increase the likelihood that the public will accept the outcome.

2. ***A multi-stakeholder process allows participants to address any interconnected aspects of the project simultaneously.*** For example, to address economic development and pollution prevention simultaneously, the multi-stakeholder team likely would involve representatives of banks and/or economic development agencies, community development corporations, and environmental groups.

3. ***A multi-stakeholder process ensures that constituencies historically excluded from decision-making have a meaningful voice at the decision-making table.*** Because the basic premise of a multi-stakeholder process is to include all relevant perspectives on an issue, inviting typically under-represented stakeholders advances the important causes of environmental and social justice and broadens both the range of viewpoints and the potential base of support for a project.

4. ***The multi-stakeholder process itself will increase participants' knowledge and awareness of the issues discussed.*** Even if the project is not successful, a multi-stakeholder process will provide a better understanding by all parties of various positions on the issues.

5. A multi-stakeholder process can address a situation that has been or still is confrontational in nature. A multi-stakeholder process may succeed in these situations because stakeholders will have spent time and effort identifying and justifying their positions in other settings. When opposing sides have been fighting each other to a standstill for years, there may be an opportunity to break the gridlock. Keep in mind that a shared project objective is the most important requisite for a successful multi-stakeholder project.

DISADVANTAGES

1. ***A multi-stakeholder process takes time.*** A multi-stakeholder process will often, but not always, require more time than other strategies. Participants need to be educated on the process itself, to learn the many sides to the issue, to develop ground rules, and to achieve consensus.

2. ***If not done correctly, a multi-stakeholder process may lead to a less than satisfactory "lowest common denominator" solution.*** A poor solution can result if participants feel that once an unproductive process has started, it must be kept going until it develops some kind of solution, even though it might be better to end the process.

3. ***A multi-stakeholder process may identify problems and solutions very different from those the participants anticipate. This could make solutions difficult to implement.*** If solutions are outside the scope of work of the stakeholders, implementation may be very difficult. For example, if a participating group whose skills are oriented towards environmental or health work finds that the real solutions to a problem they have identified are in crime prevention and education, the group may be unequipped to implement the necessary solutions.

4. ***A multi-stakeholder process requires that participants work together, though many participants may not be accustomed to working as partners.*** Because many people are not used to working with those having divergent perspectives, it may be difficult to develop the level of trust and understanding needed for a multi-stakeholder process to succeed.

5. ***A multi-stakeholder process is best run by a particular type of personality.*** The lead person for a multi-stakeholder process needs to have patience, be a good listener, and be able to find common ground among various stakeholders. (see *Stakeholders* section)

6. ***Solutions reached via a multi-stakeholder process are not enforceable in the way a court order or a law would be.*** It is possible for a project to develop great solutions and even to begin implementation only to have the project grind to a halt because one or more stakeholder representatives change (e.g., if a government administration changes).

do you develop a multi-stakeholder process ?

The following is an example of how one group might choose to use the Kit. Depending upon the situation in which a multi-stakeholder process is undertaken, a different sequence of sections might be more appropriate:

A community group or a few groups need to identify the general issue (*Develop Project Idea*) to be addressed. They then must identify and recruit the appropriate *Stakeholders* for the multi-stakeholder project team. After the stakeholders are recruited, the project team must develop the *Ground Rules* it will use to operate. With the ground rules in place, the project team can begin to develop the *Shared Project Objective* which builds on and refines the original project idea. Once the project is agreed upon, the project team will need to identify the *Resources* needed for the project and to develop their strategy (*Strategy Development*). With the strategy in place, the project team can define *Indicators of Progress* so that it can evaluate whether the strategy is working. Finally, the project team will need to review the project periodically, evaluate progress, and adjust as necessary.

New or Existing?

Most of this Kit is written from the perspective of creating a new multi-stakeholder process. In some instances, however, this may not be necessary. If there is an existing process or project that is either addressing similar or related problems or which involves many of the same stakeholders you would need for your project, you may want to investigate the possibility of merging or somehow linking with that process. A merger would have the following advantages:

- It would save time in identifying and recruiting stakeholders;
- The stakeholders already would have a working relationship;
- The mechanics of how, where, and when to meet would have been worked out;
- The project could benefit from any successes of the existing process or project; and
- There may be a synergistic effect. A joint effort might have a better chance of establishing "clout" and gathering the resources needed than two separate projects.

Avoid "founders syndrome"

This occurs when the group that starts a project expends a great deal of effort to get it off the ground and therefore feels that it should or will "control" the project. In other words, the initiator group(s) believes it should be able to determine the direction of a project through time. In reality, if a project works as a true partnership, the initiator(s) not only will "lose" control but should expect and welcome that. It means that others are truly invested in, and committed to, the project.

On the other hand, there are disadvantages to a merger, including:

- It may take more effort to change the ground rules and focus of an existing process than to create a new process;
- Trying to change or alter an existing process or project may create hard feelings among the stakeholders involved in the original project. This could be a problem if these stakeholders are asked to be involved in your project; and
- An existing project's ground rules or structure may constrain the range of issues to be addressed and potential solutions.

Therefore, assess any existing processes carefully and discuss fully with the participants whether it would make sense to combine efforts, coordinate efforts, or move separately.

Resources
Multi-Stakeholder Process

Title: *Farming and Clean Water: A Community Action Guide*
Publisher: The Minnesota Project and Midwest Consortium on Groundwater and Farm Chemicals
Date: 1993
Contact: The Minnesota Project
1885 University Avenue, West, #315
St. Paul, MN 55104
612/645-1262

This guide discusses how to start and conduct a multi-stakeholder process related to farm contamination of groundwater. The topics are very similar to those in this Kit, but they are explained in a slightly different way which may help you better understand the process.

A Quick Guide to: Developing a Project Idea

WHAT is a Project Idea?

A project idea clarifies for potential stakeholders what you are bringing people together to work on. When developing an initial project idea, remember that it should be: *Actionable, Timely, Relevant, and Important.*

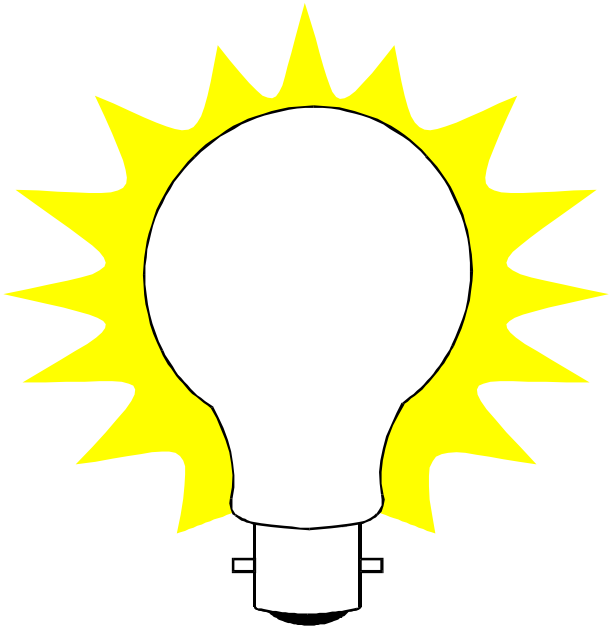
WHY develop a Project Idea?

Developing an initial project idea will help you identify the best process to address the issue, and attract relevant stakeholders to your project.

WHEN should you develop a Project Idea?

Since a project idea will assist you in attracting other stakeholders, you should develop an idea before you approach stakeholders. While an initial project idea can inform the development of a shared objective, the final shared project objective will

Developing a Project Idea



"Start now, define some criteria, and in each and every decision, pick that option that tends toward sustainability. That way we will gradually get on a sustainable course."

-Kathy Fletcher-
People for Puget Sound

WHAT is a project idea ?

Some projects evolve out of other work, while others are developed from "scratch." A project idea clarifies for potential stakeholders what you are bringing people together to work on. Developing an initial project idea will help you identify the best process and strategy to address the issue, and attract relevant stakeholders to your project. It is important, though, to wait to develop project specifics in collaboration with the entire multi-stakeholder project team. This ensures that other team members feel ownership of the project.

The following are some items to consider when developing an initial project idea:

⇒ *Actionable.* Whatever project you choose must be actionable—i.e., there must be something that can be done to address the problem. For example, trying to ban the element uranium as a means of stopping nuclear power would be impossible, given the laws of nature.
⇒ *Timely.* A multi-stakeholder process can take time to develop, so a project idea that needs immediate action may not be appropriate. On the other hand, do not pick a problem to resolve that is so far in the future that it is not relevant to anyone now.
⇒ *Relevant.* The project idea should be of interest to many diverse stakeholders.
⇒ *Important.* The project idea must be something that you are not only interested in, but willing to commit resources to achieve. Others will be less likely to join if you and your organization are not invested in the process as an initiator.

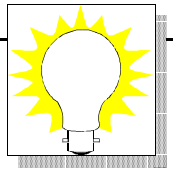
HOW do you develop a project idea ?

There are many places to look for project ideas if you do not have a particular goal in mind. The following are six likely sources:

• *Work your organization already is doing*. Think about whether there are issues that you have already been working on, but are not getting the results or progress you would like. Picking this kind of issue means you are already interested and invested and know who the "players" are.

• *Work other groups have done*. If you hear about an interesting project from another group, you might want to replicate the group's project or a variant. In this case, your group can learn from another group's experience.

• *The case studies included in this Kit*. The *Case Studies* section describes several environmental sustainability projects. You may want to duplicate one of these or they may spark a related idea that you could pursue.
• *The definitions included in this Kit*. Reading how others have defined sustainability and the



elements of sustainability may give you a different perspective on your work or your community, which may lead to ideas for a multi-stakeholder process (see *Defining Sustainability*).

• *The results of a visioning process*. A more detailed description of a visioning process is provided below. Besides helping you develop a project idea, this strategy also can be useful in different stages of a multi-stakeholder process to create "ownership" of the project among stakeholders and to increase public participation.

Remember...
If you have an idea but do not think you can draw others together, then it would not be appropriate to try to build a stakeholder process around it. Keep in mind the entire stakeholder group must review and accept the idea for the project. It is possible that after stakeholders have convened to discuss an issue, they come up with a different idea for a project that makes more sense.

• *Performing a community assessment.* A community assessment can be used to identify environmental and other problems within a community. This analysis can help your project focus on areas that need the most improvement. A more detailed description of a community assessment follows the visioning process discussion below.

Opening the imagination creates avenues for participation: to see beyond our immediate reality to a place we might go, and to muster the will to get there. We need vision to inspire us, to aid us in moving through difficult challenges, and to help us face the inevitable tensions and conflicts that occur as we begin to make changes.

-Sustainable Seattle-
Indicators of Sustainable Community, 1995

Visioning Process

In general, a visioning process is an exercise that allows you to assess where you are and helps you figure out where, as a community, you want to be. In one way or another the process usually includes:

- an assessment of the current status of the community;
- current trends;
- a determination of where you want to go; and finally,
- how to get there.

There are several potential benefits to using a visioning process depending on where a project begins. All of these benefits are derived from the fact that the process should get people "out of their boxes" and thinking in a fresh way about their community. It provides a forum to articulate what they really want to see happen without the constraint of what is currently politically or financially possible, or the burden of presenting and defending their institutions' points of view.

Getting people to think in a different way about their community can be difficult. A visioning

process can make this easier because it gets people thinking that there are different options for a community and that they can choose among those options. People often think that things like pollution, growth, and development "just happen," and that there are no choices. Additionally, people often think in terms of what will happen this year or at most in the next two or three. This is usually not long enough for fundamental change to occur, so they do not think a situation can change. A visioning process lets your project team decide what needs to be done and then determines how to achieve it in whatever time frame makes sense.

When not to use a visioning process...

If, for funding or other reasons, you are only interested in one set of issues or strategies, DO NOT engage in a visioning process. It should not be entered into or viewed as a way to validate a predetermined result. If you have a strong idea of what is needed, see if others agree, and move forward. For a vision process to work, and the results respected and useful, it must be open. This may be somewhat risky or unnerving, but that is the nature of this kind of process.

One of the most powerful ways to get people to realize there is a choice for the future is to be visual (e.g., including drawings, videos, and computer or 3-dimensional modelling) in your visioning process. This can be done in many ways and does not have to be resource-intensive. For example, in Portland, Oregon, one neighborhood organized walks through a neighborhood with architects who drew pictures on the spot as they heard the comments that participants made. Visual tools give your project team or community the chance to "see" the future and experiment with it until they come up with a vision they like.

It is important that all participants understand that in a visioning process there is no such thing as a "crazy," "dumb," or "impractical" idea. It may turn out that it is the right idea for a community or it may spark other ideas that lead you in the right direction.

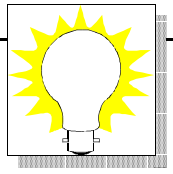
The following are some benefits of a visioning process:

1. Ownership

Everyone participates and provides input equally into a visioning process. Therefore, a visioning process should increase all participants' investment in, and commitment to, the outcome of the process, and hence, the overall project. A visioning process will generally bring out how participants think about things and their motivations, which can dramatically increase the level of understanding of others in a multi-stakeholder project team, and hence their ability to work together to find solutions to problems.

2. Finding new/different issues

Often when the connections between issues are brought out, new strategies or solutions will present themselves. This can be disconcerting, but also can be a tremendous opportunity. It will be clear to all participants that this is their product and should increase their interest in a project.



3. Different approaches to old problems
The visioning process may not surface entirely new ideas but it may discover new approaches to problems. This is due to the breadth (hopefully) of people involved in the process, the different perspectives they bring, and the holistic nature of the exercise.

4. Connecting with other groups and projects
The outcome of a visioning process often will show the connections between issues in a community. This can be a valuable tool for explaining and describing your project to others, and also should make it easier to attract others to support your project.

If you think you will have trouble generating an idea for a project or identifying goals and objectives, then a visioning process may be helpful in getting started. It also can be valuable if there are parties that logically should be involved in a multi-stakeholder process but who are traditional adversaries. Taking these parties out of their usual roles may help them find common ground. A visioning process may make sense as a way to introduce a community to the idea of sustainability and to set the stage for your project. In any of these examples, the visioning process should be done early on in your project.

There are many different approaches to a visioning process, including some that allow for participation by community residents. There are good "how-to" materials on the visioning process cited in the resources list at the end of this section.

Community Assessment

A community assessment helps to lay the groundwork for an environmental sustainability project in several ways. By providing basic information about the state of your local environment and cataloging the resources available to assist the project, it gives you a better idea of the problem or problems you should address. The assessment can help you develop, refine, modify, or change your initial project idea. Using data collected in the assessment, you can establish a baseline showing where the community stands before your project begins—for example, the existing levels of air and water pollution—and comparing them to national and state baselines. Carrying out a community assessment also can attract participants and awaken public interest by demonstrating the need for your project.

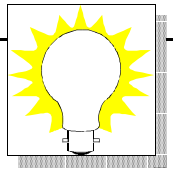
In taking this overall look at your community, you need to undertake two distinct types of surveys:

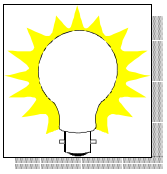
- a **resources, policies, and infrastructure assessment** which identifies the public and private resources and organizations that can help you set up and carry out your project; and

- a **physical assessment** of your community's environment, to establish baseline data showing the extent of the problem or problems you want to tackle.

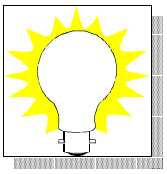
The *Community Assessment Worksheet* on Page 9 of this section provides a chart of questions that can help you in your initial assessment of the resources, policies, and infrastructure in your community. To do an initial physical assessment of your community, see the *Indicators of Progress/Community Assessment Worksheet* on Page 5 of the *Indicators of Progress* section.

The *Developing a Project Idea Worksheet* beginning on Page 7 of this section helps you identify and evaluate potential project ideas, using the tools described in this section.





Worksheet
Developing a Project Idea



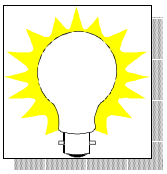
Step 1: List Potential Project Ideas

List problems/issues/projects your group is working on

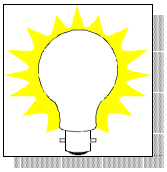
List problems/issues/projects other groups are working on or case studies that interest you (see *Case Studies*)

List issues that arise from your visioning process, if undertaken

List issues/areas that need improvement based on the *Indicators of Progress/Community Assessment Worksheet* (see *Indicators of Progress*)



Worksheet
Developing a Project Idea



Step 2

In the following table, list potential project ideas in the first column, and fill in the rest of the boxes by responding to the criterion listed. This exercise serves to help you think through a project idea. You may decide to pursue or drop a project idea based on how many negatives appear on the chart.

Potential Project Ideas	Has debate on the issue stalled or regressed (i.e., issue requires rejuvenation)?	Does the issue fit with the mission and vision of your organization?	Is the issue fundable?	Do you have the expertise needed?	Will you be the sole organization of your type working on the issue?

Worksheet 2
Community Assessment

The following questions will help you determine what resources, policies, and infrastructure are available to assist in an environmental sustainability project.

	List resources, policies, and infrastructure available for the project and contact information for each
Is there a local government office which, or person who, focuses on pollution prevention? Is there a pollution prevention office at the state or tribal level?	
Is there a state or tribal agency that provides technical assistance for pollution prevention in your area?	
Are there local, state, tribal, or federal funds available for pollution prevention projects, either separate from or as part of economic development funds?	
Are there other community groups who can help your project with fundraising or organizational assistance?	
Are computer resources available for environmental data searches (a local college or university would be a good place to look)?	
Is there a neutral location for project meetings?	
Are there other types of community organizations that might be interested in an environmental sustainability project, e.g., religious groups, voter organizations, neighborhood associations, community development organizations, health and welfare groups, educational organizations, etc.?	
Does the local government have an environmental purchasing strategy currently? Does it have a solid waste reduction or integrated pest management strategy?	
Does the community have a land-use plan currently? What area(s) does it cover?	

Visioning Resources

Title: *A Guide to Community Visioning: Hands-On Information for Local Communities*
Publishers: Oregon Visions Project
Contact: Steven Ames Planning
325 SE 14th Ave.
Portland, OR 97214
503/235-3000

This guide walks you through what a visioning process is and how to do it, and gives examples of community experiences.

Publisher: Center for Livable Communities
1414 K Street, Suite 250
Sacramento, CA 95814
916/448-1198

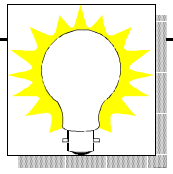
The Center for Livable Communities has a variety of visioning tools and materials available, and obtaining a copy of their publications brochure will list them all. These materials are generally aimed at land-use and/or transportation issues but they are useful guides for how to structure a visioning process.

Videos and Slide Shows (examples of what can be done to make your project more visual):

Title: *Back to the Future: Designs for Walkable Neighborhoods*
Producer: Citizens for a Better Environment
Minneapolis, MN
Contact: CBE, 414/271-7280

Provides an introduction to key design concepts of pedestrian-friendly development, such as mixed-use, compact pedestrian oriented design, and traditional neighborhood street design.

Videos and Slide Shows (continued)

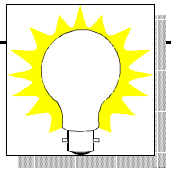


Title: *Livable Communities Slide Show*
Producer: Citizens for a Better Environment
Minneapolis, MN
Contact: CBE, 414/271-7280

Provides side-by-side comparisons of pedestrian-friendly neighborhoods and auto-oriented developments in southeast Wisconsin and elsewhere.

Title: *A Pattern for Living*
Publisher: Chesapeake Bay Foundation
162 Prince George Street
Annapolis, MD 21401
410/268-8816

This is a slide show and video on alternatives to sprawl, which provides a good example of how to make a process very visual.



A Quick Guide to: Stakeholders

WHAT are Stakeholders?

Stakeholders are the backbone of a multi-stakeholder process. A stakeholder is any party, interest or constituency that will be affected by the resolution of a problem addressed by the environmental sustainability project.

WHY should you involve Stakeholders?

Stakeholders provide the necessary power, perspective, prestige, talent, and resources to develop effective solutions and to implement them. Moreover, involving all parties that are affected by an issue, particularly those historically left out of decision-making, can lead to more effective and enduring solutions.

WHEN should you recruit Stakeholders?

You should recruit stakeholders after developing a general project idea around which to coalesce the multi-stakeholder project team. Also, consider

Stakeholders

History has thrust upon our generation an indescribably important destiny—to complete a process of democratization which our nation has too long developed too slowly...

How we deal with this crucial situation will determine our moral health as individuals, our cultural health as a region, our political health as a nation, and our prestige as a leader of the free world.

-Martin Luther King, Jr.-

WHAT is a stakeholder ?

Stakeholders are the backbone of a multi-stakeholder process. A stakeholder is any party, interest or constituency that will be affected by, and has an interest in, the resolution of the problem or issue addressed by your project. A stakeholder also can be a group whose expertise is essential for an effective solution. You should recruit people from "all sides" of an issue, not just people who share your beliefs or perspective. The great challenge, but also the power, in a multi- stakeholder process is bringing all sides together to find and implement shared solutions.

HOW do you recruit stakeholders ?

The *Identifying/Recruiting Stakeholders Worksheet* beginning on Page 6 of this section details the steps required to create a list of potential stakeholders for your project. The following is some background to help you complete the worksheet:

To identify stakeholders, begin with your project idea. Make lists of those who will be positively or negatively impacted by a change in the status quo, those who will have to change the way they operate, and those whose resources or expertise can make the project successful.

For example, if you are working on the redevelopment of brownfields (contaminated urban land), the following is a partial list of whom you might want to include:

Representatives of groups to include	**What might be their primary interest?**
Members of the surrounding community	Creating jobs; safeguarding the health of residents
Owners of property in the area	Ability to sell or develop land
Government that has jurisdiction	Tax revenue and job creation
Environmental groups	Reducing pollution from the site; eliminating health problems caused by contamination; appropriate clean-up; urban sprawl
Financial community	Investing or lending to businesses; liability issues
Job creation specialist	Using redevelopment as a job creator

Think broadly about who should be involved in your multi-stakeholder process beyond the usual "players." The goal is to include all relevant parties, particularly those that have historically not been part of decision-making and implementation of solutions.

Diversity can generate management challenges in a multi-stakeholder process. Because there will be people involved with very different experience and knowledge levels, it is important to make sure that all parties feel comfortable with the process. Particular stakeholders may require special attention or assistance to ensure they feel their contributions are relevant and valuable.

The following are examples of categories of people you might want involved as stakeholders:

- Public interest organizations: environmental groups, environmental justice groups, community-based organizations
- Community officials: mayor, city or tribal council representative, others
- Business representatives: large/small employers, as appropriate, Chamber of Commerce, business associations
- Worker representatives/workers
- Neighborhood associations/community members
- Financial entities: public and private
- Community development corporations
- Religious organizations: churches, temples, tribal spiritual leaders
- Local/regional planners
- Academic community
- Media/Public Relations firm
- Other government representatives: county, state, others
- Leaders of compatible efforts

Once the list of interested parties is complete, start putting names of groups or individuals next to each interest and select those to recruit for the project. Make sure there is balanced representation of all the types of groups represented and of their initial perspectives on the issue. There need not be exactly the same number of people from each type of group, but be careful that no stakeholder group feels unable to be heard or to participate effectively because they feel outnumbered.

The people you choose for the multi-stakeholder process will be critical to the success of your project. Ideally, you should choose individuals who embrace the project idea and are willing to find common ground. If you do not know certain stakeholder candidates, call other people you know or respect who might be able to help determine the best choices for the project.

Planning Group

A planning group is a small subset of the obvious stakeholders who can help identify and recruit the rest of the stakeholders. A planning group can be used if:

- one group alone cannot develop the list of interests and potential individuals for the project;
- if the task is so large and time-consuming that help would significantly speed up the process; or
- if the early involvement of a few (2-4) well-known stakeholders will increase the likelihood of recruiting other stakeholders.

For example, in order to identify and recruit stakeholders for the Great Printers Project, a multi-stakeholder project seeking to incorporate pollution prevention into the daily practice of lithographic printers, the Environmental Defense Fund (EDF) formed a planning group with the Council of Great Lakes Governors and the Printing Industries of America. This "balanced governance" model worked to generate broader ownership because each member of this planning group had a high level of credibility with and knowledge of distinct and important constituencies.

If you decide to create a planning group, it will be most useful if it has representatives from a variety of "sides" of an issue. It is important for the planning group to understand that its role is to help convene the multi-stakeholder process—the planning group does not have greater "authority" or power within the process, nor should it design an entire project. A predetermined project makes it difficult for other stakeholders to feel ownership of the project. The planning group should be aware that a project can change dramatically once an entire stakeholder team is organized.

Recruiting

After compiling a list of potential stakeholder candidates, you need to recruit them for the project team. Assess what would motivate each person to participate, i.e., what makes this project worth spending his or her time and resources. The key to this effort is being able to describe the project idea clearly (it does not have to be detailed and, in fact, should not be too refined or set), so potential stakeholders can decide whether it is something they are interested in and committed to working on in a multi-stakeholder process. There are two general reasons people will participate:

In deciding who to invite to join a multi-stakeholder process, consider....

⇒ **Constituency:** Would representation from a particular constituency help address important elements of the project? Does the multi-stakeholder process include individuals representing all constituencies with a substantial stake in the project's outcome and/or those who can play an important role in crafting solutions?

⇒ **Personality:** Does an individual work well with others, listen to other people's ideas, and try to find common ground? Avoid individuals who will only represent current positions, or only work on their own narrow area of interest.

⇒ **Power:** Can an individual deliver results?

⇒ **Credibility:** Is an individual well-respected within his/her field, among the constituency he/she represents, and within the community?

⇒ **Diversity:** Does the multi-stakeholder process include individuals representing all parts of your community (if possible), and does it include individuals representing economic, ethnic, racial and geographic diversity?

⇒ **Commitment:** Is an individual committed to a good faith effort in trying to reach consensus?

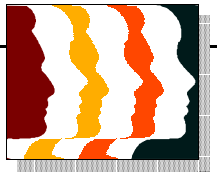
substantive and *personal*.

The *substantive reasons* are what the individual or his/her group will get out of the process. To assess why a potential stakeholder would be interested in a project, think about what benefits the stakeholder would gain from involvement or what frustrations the project might alleviate.

On the *personal* side, some people will participate as a favor to someone they know or because someone they know or respect is involved. This can be true even if they are not fully convinced of the merits of a project. Personal contact can work to bring someone to the table, but it will then be up to the rest of the stakeholders and the process to convince these people that it is worth their full effort and investment.

Think about whether the recruitment of any particular individuals, or the groups they represent, would make it more likely to attract other important participants. For example, if government will be involved, businesses might feel there is a better chance of changing the status quo. There may be a local banker who is very well-known and respected in the community whose presence would make it more likely for others to join the multi-stakeholder project team. If there are groups or individuals like this, recruit them first.

Finally, think about who should make the contact with each individual. If you do not have a great relationship with a particular person, let someone else who does make that contact.



Worksheet
Identifying/Recruiting Stakeholders

Step 1
What stakeholders (industry, real estate, labor, etc.) will be affected by the outcome of the project and how? (see examples on preceding pages in this section)

Stakeholders that may be positively affected	
Stakeholders that may be negatively affected	
Others who can bring expertise or resources to the project	

If this chart shows many different stakeholder interests, proceed with a multi-stakeholder process. If not, a multi-stakeholder process is probably not appropriate for your project.

Worksheet
Identifying/Recruiting Stakeholders

Step 2

What groups, institutions or individuals best represent the stakeholder interests listed in Step 1? For each entity or individual identified, fill out the following information (Note: if your group has trouble completing this worksheet, you may want to consider creating a planning group to help.)

Name	**Stakeholder Interest**	**What would attract them to the project?** *(How would they benefit, what frustration would this alleviate, etc.)*	**Who should recruit the stakeholder?**

A Quick Guide to: Ground Rules

WHAT are Ground Rules?

Ground rules describe how a multi-stakeholder project team decides to conduct itself. There can be tension initially in a multi-stakeholder process as people learn to work together. Developing clearly understood and accepted ground rules can ease this tension and help a project run smoothly.

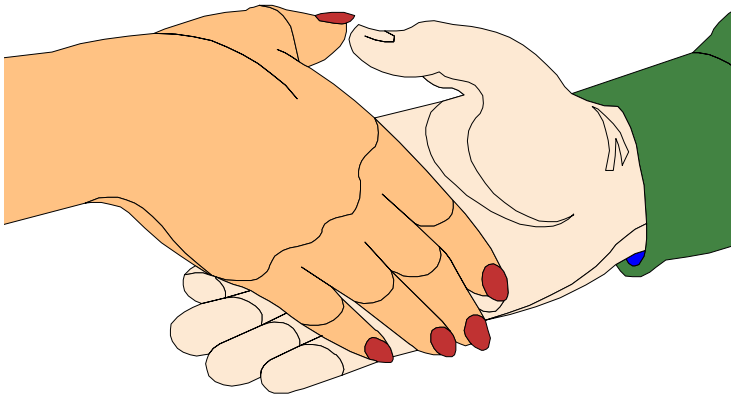
WHY use Ground Rules?

Among other things, ground rules help ensure that all stakeholders feel they have an equal and respected voice in the process and allow the multi-stakeholder project team to make progress toward its agreed-upon goals.

WHEN do you develop Ground Rules?

Once you have brought together a multi-stakeholder project team, the entire team should decide on ground rules for running a project. If new stakeholders join the process, you should ensure that they agree with and understand the ground rules.

Ground Rules



A more sustainable community enables people to feel empowered and to take responsibility based on shared vision, equal opportunity, ability to access expertise and knowledge for their own needs, and a capacity to affect positively the outcome of decisions which affect them.

-Elizabeth Kline-
Tufts University

use ground rules ?

You have gathered a group of talented, busy people to work on a project. They may or may not know each other, and/or they may have preconceived ideas about each other and about the process. You want this multi-stakeholder project team to be able to work together. For this to happen, everyone must understand and feel comfortable with how the project team will operate and make decisions.

Ground rules on how a group decides to conduct itself must be accepted by the entire project team. These ground rules will help the project run smoothly throughout its life.

Ground rules help ensure that:

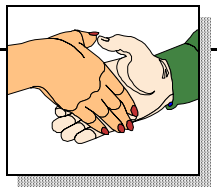
- no one stakeholder dominates the process;
- all stakeholders feel that they have an equal and respected voice in the process;
- your multi-stakeholder project team makes progress toward agreed-upon goals; and
- there is a mechanism to end the process if stakeholders cannot agree.

do you use ground rules ?

There are two approaches to developing ground rules. The first is to start by developing a list of questions the ground rules must answer, and negotiating the answers with the stakeholders. The *Developing Ground Rules Worksheet* beginning on Page 8 lists some questions that can be helpful in developing ground rules. The second approach is to look to other similar processes to see what ground rules they used—for example, the President's Council on Sustainable Development, or formal codes of procedure like Robert's Rules of Parliamentary Procedure (a booklet of these should be available in your local library). These models may be sufficient as is, or your project team may want to modify them. As an example, ground rules for the Great Printers Project are included beginning on Page 5.

The ground rules must answer at least two questions:

1. How and when will decisions be made? Will decisions be made by consensus, majority rule, or some other method? Whatever you choose, make sure the multi-stakeholder project team has a common understanding. For example, people have very different ideas about what "consensus" means. If this is not clear at the outset of the project, it will cause confusion and potentially conflict later. Ground rules should clarify whether a decision can be revisited once it is made and, if so, they should spell out the procedure for doing so. It is also very important that there be a



clear mechanism for giving notice so that everyone is aware of *when* a decision is to be made.

2. Who can speak for the project and how? How will stakeholders' names and affiliations be used? Most groups are understandably sensitive to how their name is used by others on the project team and how their participation is represented. The ground rules should clearly lay out who can speak for the project and how. Having a clear understanding of these issues initially will prevent conflicts later.

Below are some tips that should help the multi-stakeholder process run smoothly and efficiently.

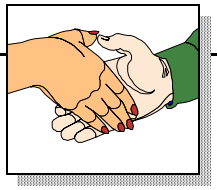
- *Make sure everyone is treated equitably and with respect*. Everyone that is part of the multi-stakeholder project team has something to contribute. All stakeholders are equal partners in the project and all should be heard. Some will be familiar with this kind of decision-making setting. Others will not, and they may not feel comfortable expressing their ideas or challenging others. This is particularly true if you have some well-known or "important" people on the multi-stakeholder project team and others who are not. You, or a facilitator, will have to *help* everyone participate fully.

- *Distribute responsibility among project participants*. Having one or a few people doing all the work can undermine the very premise of a multi-stakeholder process. This is an unfair burden on those that are doing most of the work, while less involved stakeholders can become less committed to the project. Ensure that people take relatively equal responsibility and share the work-load. Breaking into work groups composed of representatives of each stakeholder group is an effective way to make decisions fairly and share work burdens. Additionally, work groups allow different topics to proceed simultaneously. If work groups are used, make sure the whole project team knows what each work group is doing to be certain that all issues are

How is consensus different from negotiation?

A consensus-building process is based on a common vision or shared objective, while a negotiation is used merely to resolve disputes. Instead of "splitting the difference" as in a typical negotiation, participants in a consensus-building process are encouraged to think "outside the box" to generate new options which further multiple objectives simultaneously, and which are acceptable to all participants. Better solutions can result from the ability to see more sides of a problem and to employ the tools of multiple disciplines.

Consensus-building generates lasting results because it creates a sense of joint ownership for a decision on the part of those whose behavior must change. Consensus decision-making also helps build respect among participants as each individual's perspective must be factored into any agreement. By sharing decision-making power, participants concentrate on creative solutions rather than vote-counting. This helps to ensure that everyone plays his or her role in achieving and sustaining the agreed-upon outcome.



addressed.

- *Designate a lead person or persons who will be responsible for the project's progress.* A lead person is a stakeholder who tracks the progress of a project by helping with logistics, meeting agendas, and notes; keeping everyone informed of progress; identifying problems that occur; and ensuring that the process is carefully and thoughtfully managed. More than one lead person or a steering committee could be designated to take on these responsibilities.

- *Meet only when you have something that needs to be done.* Because all stakeholders are busy, it is important not to convene unnecessary meetings. Break into work groups to accomplish tasks that do not require the full project team.

- *Share the credit for work performed together.* It is awkward if one stakeholder is perceived as getting a disproportionate share of the credit for the work of the whole multi-stakeholder project team. This can be particularly touchy if it leads to an advantage for some participants in fundraising.

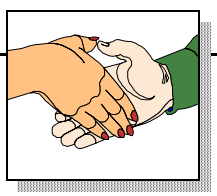
Dealing With Conflict

Because you are bringing together all of the affected interests in a multi-stake-holder process, there is a good chance that there will be some conflict or tension in the group—at least initially. This is not necessarily a bad thing if managed correctly. The following are some tips for managing conflict in the group (from *Building United Judgment: A Handbook for Consensus Decision Making*, Avery, et al., Center for Conflict Resolution.):

1 Understand that conflict is okay.
2 Bring out any hidden conflicts. Your project will not be successful if people have disagreements they are not expressing.
3 Disagree with ideas, but respect the people that express them.
4 Define a conflict clearly, so everyone has a common understanding.
5 Focus on the central issues of a conflict.
6 Discuss a conflict fully. Do not accept an easy resolution that does not solve the central issues.

- *Perform occasional status checks.* Make sure stakeholders are satisfied with how things are progressing. Periodically review goals and strategies to confirm they are still appropriate. In addition, ensure that important problems that arise are addressed.

- *Make the ground rules clear to any newcomers to the multi-stakeholder project team.* If you add stakeholders after your initial meetings, or if a representative from an existing stakeholder interest changes, make sure that the newcomers understand and accept the ground rules.



Ground Rules for the Great Printers Project

GOALS
The goals of the Great Printers Project are:

To make pollution prevention the primary choice of the Great Lakes states printing industry in meeting and exceeding its environmental and human health protection responsibilities.

To recast the U.S. approach to developing environmental policy.

PRODUCT

* The intended product of the Great Printers Project is a report containing recommendations of the mix of public and private actions needed to make pollution prevention standard business practice in the lithographic printing industry. Participants also will develop and work together to carry out an implementation plan for these recommendations.

PARTICIPATION

* Interests Represented. Participants will include representatives of interests that would be substantially affected by the recommendations of the Great Printers Project, including the lithographic printing industry, its customers and suppliers, federal and state government, labor, technical assistance providers, and environmental groups.

* The Project Team. The Project Team shall be composed of the individuals listed in Attachment A.

* Additional Participants. Additional individuals may join the Project Team only with the concurrence of the Team, upon recommendation of the Steering Committee (i.e., the Planning Group).

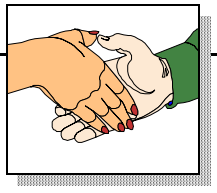
* Constituents Interests. Team members are expected to represent the concerns and interests of their constituents and to ensure that any agreement developed by the Project Team is acceptable to the organization that the Project Team member represents. Ideas and drafts of reports or other information about the project may be shared with constituents to obtain their views.

* Attendance at Meetings. Each Project Team member will make a good faith effort to attend each Team meeting. Participants may consult the Steering Committee if they wish to invite others whom they believe are appropriate to represent their interests, or if they wish to appoint an alternate.

DECISIONMAKING

* Consensus. The Project Team will operate by consensus, meaning all members will make a good faith effort to reach unanimous agreement. On substantive matters, the Team may reach a consensus on an overall report that includes options or alternative views.

* Work groups. Work groups may be formed by the Project Team at the recommendation of the Steering Committee. These groups operate by consensus, but are not authorized to make decisions for the Project



Team. Work groups are open to any Project Team Member or the member's designee, plus such other individuals as the Work groups believe would enhance their functioning.

* Discontinue if unproductive. The Project Team may agree to disband at any time if the project does not appear productive.

MEETINGS

* Open Meetings. Meetings will be open to the public, upon request and to the extent that space permits. Members of the public will attend as observers only. Observers may participate in discussions, if invited, but will not participate formally in establishing the consensus of the Project Team.

* Minutes. Summaries of Project Team meetings will be kept by a member of the Steering Committee or a designee approved by the Steering Committee and circulated to the Project Team. These meeting summaries will be made available to the public on request.

* Agendas. Meeting agendas will be proposed by the Steering Committee for consensus by the Project Team.

SAFEGUARDS

* Good Faith. All participants agree to act in a good faith effort to reach agreement on all issues under discussion. Specific statements made during the process may not be used by other participants for any purpose outside the process. This is intended to encourage the free and open exchange of ideas, views, and information prior to achieving consensus.

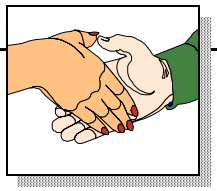
* Right to Withdraw. Any participant may withdraw from the project at any time without prejudice.

* Characterization of Positions. No participant will characterize the position of any other participant in public statements or in discussions with the press, even if that participant withdraws from the negotiations. Participants will refer others to the meeting summaries for information about the committee's deliberations, to the extent feasible, except that participants may share information and recommendations with constituents.

* Other Representations. No participant will use any other participant's name or logo in any communication without individual's or organization's express written report.

* Information. All participants agree to contribute to a sound information base from which to develop useful recommendations. All participants agree not to divulge information shared by others in confidence. If a participant believes he or she cannot or should not release relevant information (e.g., because of its confidential or proprietary nature), he or she may provide the substance of the information in some form (such as by aggregating data, by deleting non-relevant confidential information, by providing summaries, or by furnishing it to a neutral consultant to use or abstract).

* Implementation. At the conclusion of the project, all participants are encouraged to use the report and any non-confidential information gathered during the project as they judge most effective.



* Funding. The Environmental Defense Fund will not accept either monetary or in-kind support, directly or indirectly, from any companies or trade associations involved in the project at any time.

* Independence. All participants shall be free to state their own views and pursue their own interests and goals with respect to any environmental issue, including those related to this project.

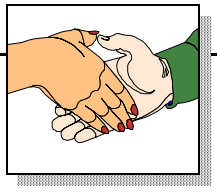
SCHEDULE

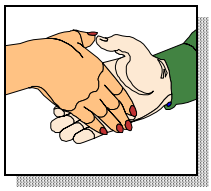
* Unless extended by the Steering Committee and the Project Team, the deadline for reaching agreement on a final report is June 1994. The Project Team may continue after that date to implement its recommendations.

ORGANIZATION

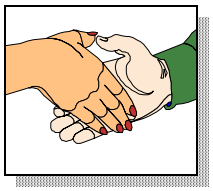
* Steering Committee. A Steering Committee will be comprised of representatives of the Council of Great Lakes Governors, the Environmental Defense Fund, and the Printing Industries of America, as well as the chairs of each working group or study group formed by the Project Team. The Steering Committee will constitute the organizing body of the Great Printers Project and will be responsible for ensuring that the project runs smoothly, including managing logistics, drafting meeting summaries, developing proposed agendas, and making recommendations to the Project Team on funding, organization of working groups, and hiring of consultants, if needed.

* Facilitation. Gail Bingham of RESOLVE will serve as the facilitator. She will be directed by the Steering Committee, but serve at the will of the Project Team. The role of the facilitator usually includes consulting participants, chairing discussions, working to resolve any impasses that may arise, and carrying out other functions the Steering Committee requests. The facilitator will take no positions on the issues before the Project Team.





Worksheet
Developing Ground Rules



Answer the following questions with the multi-stakeholder project team. Based on your answers to these questions, you can begin to design a set of ground rules for your project.

1. What kinds of ground rules are the stakeholders accustomed to?

Written	
Informal	
None	

Boiler Plate rules to include:

- All parties have the right to withdraw without prejudice
- All parties agree to act in good faith

2. How will decisions be made?

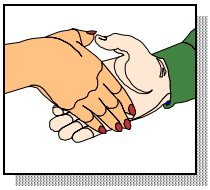
Roberts Rules of Order	
Informal majority	
Consensus	

3. When will decisions be made?

What notice will be given that an important decision is upcoming?	
What input does a person or group have if they miss a meeting?	
Other	

4. Who can participate in decisions?

Specific individuals	
Any representative of a group participating in the multi-stakeholder process	
Non-members	



Worksheet
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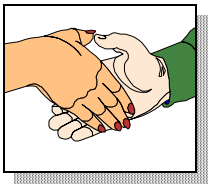


5. How will the multi-stakeholder project team decide to discontinue the project?

3/4 vote	
Majority vote	
Consensus	
Other	

6. Who has the right to speak for the project?

No one	
Anyone, if specifically agreed to for a specific purpose	
Project coordinator(s)	
Steering committee	

7. When and how will groups' names and/or the project logo be used?

Never	
On project letterhead	
Only when agreed to for a specific purpose (e.g., a report or a press release)	

Title: *A Manual for Group Facilitators: Building United Judgment* and *A Handbook for Consensus and Decision Making*
Publisher: The Center for Conflict Resolution
731 State Street
Madison, WI 53703
Contact: 608/255-0479

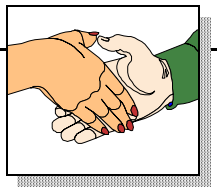
These two documents provide insight and advice on how to run meetings, make decisions, and address any conflicts that arise.

Title: *Don't Panic!*
Publisher: Grassroots Fundraising Journal
Date: April 1987
# of Pages: 3
Contact: Chardon Press
P.O. Box 864
Inverness, CA 94937
415/663-8562

This article provides eleven basic points on how to hold more productive meetings.

Title: *Smoke and Mirrors, Tips and Tricks for the Organizer*
Author: Sue Mihalyi
Date: 1992
# of Pages: 8
Contact: Sue Mihalyi, 716/244-2711

This short paper discusses useful skills and approaches in three areas: Organization Building, Conference Planning, and Meeting Facilitation.



A Quick Guide to: Shared Project Objective

WHAT is a Shared Project Objective?

Clear, shared project objectives will help your multi-stakeholder project team establish endpoints and clarify for the project team and other audiences what exactly it is that you are trying to achieve, why you want to achieve it, and how you plan to achieve it.

WHY develop a Shared Project Objective?

As one of the first consensus decisions of a multi-stakeholder project team, a shared project objective can, among other things, help find common ground among stakeholders.

WHEN should you develop a Shared Project Objective?

You can define key objectives of an environmental sustainability project early on and present these to attract other stakeholders, or you can define these objectives after

Shared Project Objective

The use of multi-stakeholder teams...worked only because participants were asked not *to act as stakeholders...They were to reflect but* not *represent their sector organizations. Many participants reported that this was quite liberating, enabling them to set aside territoriality, to escape cramped adherence to old ways of viewing problems and, instead, to see them on the basis of new information, understanding, and perspectives.*

-Royal Commission on the Future of the Toronto Waterfront-
Regeneration, 1992

WHY develop a shared project objective ?

For your project to succeed, you need to have clear, shared project objectives. These objectives will help your multi-stakeholder project team establish endpoints and clarify for the project team and other audiences what exactly it is that you are trying to achieve, why you want to achieve it, and how you plan to achieve it. These objectives will:

- be the basis on which others, beyond your stakeholders, will decide to participate in or cooperate with a project;
- dictate who plays what role in a project;
- determine what resources you need for a project; and
- show how progress will be measured and how success will be determined.

It is also through discussion about objectives that you can find common ground among stakeholders.

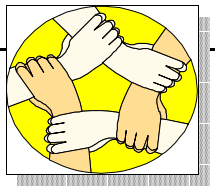
HOW do you develop a shared project objective ?

The multi-stakeholder project team was coalesced with an initial project idea, so most participants already have a general idea of what the project is about. Developing shared project objectives will most likely involve discussions within the project team about what is the core problem or issue that you want to address and then determining what will move you toward those objectives. The diversity of the project team will be a great asset in these discussions, so make sure people feel comfortable and participate.

If the project team is having trouble identifying core issues, there are two other approaches that might work. The group could use a visioning process or do a community assessment to help it identify issues and solutions (see *Developing a Project Idea*). A visioning process can be very helpful in getting people to think broadly and beyond the current articulation of issues. This can create different perspectives on an issue and suggest different solutions. A community assessment will provide a "snap shot" of where your community is now and may suggest linkages that have not been considered.

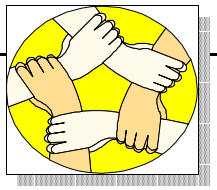
Revising Project Objectives

It is important that you have clear ground rules (see *Ground Rules*) regarding changing or revising project objectives. You do not want your objectives to be constantly debated because this will



undermine their clarity and slow down your process, not to mention being frustrating for those who have to sit through the same debate over and over. When new people are brought into the multi-stakeholder process, it is important that they be given the shared project objectives when they are first approached and that they understand what process there is, if any, to change them.

This is not to say that your shared project objectives should never change. If there is a change in circumstance that either creates opportunities or makes a project unexpectedly more difficult, you may want to discuss changes. Additionally, it is desirable to evaluate the objectives after beginning implementation to check that the project is on the right track.



A Quick Guide to: Strategy Development

WHAT Strategies need to be developed?

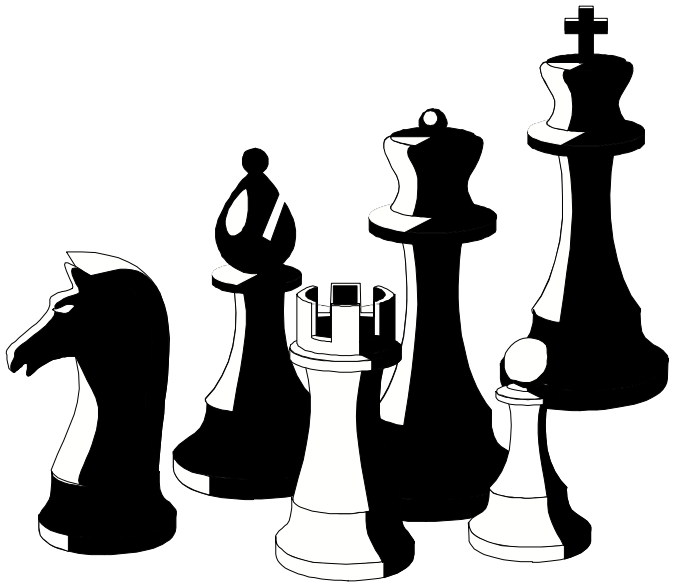
There are two types of strategies that you will need to develop for your project: a **project strategy** and a **communication strategy**. The project strategy will lay out how you will achieve your shared project objective. The communication strategy will determine how and to whom you communicate your project to enhance its chances of success.

WHY use Strategies?

Your **project strategy** will clarify the steps you need to take to accomplish your objectives, the resources you need for the project to succeed, and whether other stakeholders should be involved in the project.

A **communication strategy** helps determine how to talk about your project in a way that will enhance its chances of success. This will help

Strategy Development



We must be the change we wish to see in the world.

-Mahatma Gandhi-

WHAT is a **project strategy** ?

You have defined where you want to go in your shared project objective, and a project strategy is the "road map" that shows how you will get there. Your project strategy will identify the steps you need to take to accomplish your objectives, the resources you need for the project to succeed, and whether other stakeholders should be involved in the project.

HOW do you develop a **project strategy** ?

The following steps will lead you through developing a strategy. Included is an example to help illuminate the steps. It is not entirely complete, but it should give you an idea of how to go about this process.

Step 1: List the goal you are trying to achieve.

Example: Increase the energy efficiency of residential property.

Step 2: Determine what needs to happen to achieve the goal.

Example: Homeowners and landlords need to retrofit their homes and buildings, and new buildings should be energy efficient.

Step 3: Define who needs to act in order to achieve the goal (i.e., identify key stakeholders).

Example: Homeowners, landlords, renters who pay utilities, utility companies, utility regulators, the entity that develops and approves building codes.

Step 4: Figure out what the stakeholders' positions on the issue are likely to be.

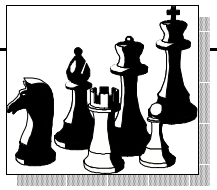
Example: Homeowners and renters will likely be neutral or in favor if there is an obvious financial advantage to them.

Utilities likely will have a mixed reaction. They will not like selling less energy unless it will save them the costs of building new plants, make it possible for them to attract new customers, help alleviate a pollution problem, or improve their public image.

Utility regulators may favor this if it means fewer power plants.

Step 5: Define what the stakeholders will have to do in order for you to achieve your goal.

Example: Homeowners will need to buy and install more efficient appliances and improve windows, doors, insulation, etc. and/or adjust the temperature they use to heat and cool their houses.



Renters will need to persuade landlords to make necessary improvements in their buildings.

Utilities will have to create energy efficiency programs like rebates, energy audit services, etc.

Utility regulators will need to pass rules to require utilities to provide energy efficiency programs.

The Building Code entity will need to amend the code to require energy efficiency.

Step 6: List the most likely reasons the stakeholders will not do what you want.

Example: Homeowners and utilities will probably argue that energy efficiency will cost more than it saves. Renters may fear an increase in rent more than the savings in utility bills.

Step 7: Prepare responses to potential barriers.

Example: Collect information on the payback times and amounts for various types of investment such as replacing a furnace to make it more energy efficient, or insulating the attic, etc. Collect information on the total cost of energy, including the cost of pollution to a community (e.g., time lost from work due to pollution related illnesses), not just the price the utilities charge.

Step 8: Determine who the stakeholders listen to. Are these people already allies, or do you need to recruit them?

Example: Homeowners will probably listen to other homeowners who have made these kinds of changes, academics, and public interest energy advocates.

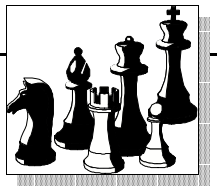
Step 9: If there is a necessary sequence to the events or actions that must be taken, list them in order.

Example: If there is a new development being built, you would want to improve energy efficiency there first, then try to modify building codes over the longer term.

Step 10: Determine what resources you need to implement the strategy.

Example: You might need economic analysis of energy efficiency technologies and expertise in how to get messages out to the public.

Once the project strategy is created, follow it. The best strategy in the world will not work if it is never implemented. If the strategy does not feel right or seems beyond the capabilities of the project team, then you may need to re-evaluate either the strategy or the objectives.



WHAT is a **communication strategy** ?

Message development and delivery is the communications component of your project. A message strategy should be an integral part of your project. You should be thinking of message development, delivery, timing, etc. as you are developing the project strategy.

Most people think of a communications strategy as just a media strategy (i.e., press releases, TV, radio, etc.), but it is broader than that. Your communications work should be carried out in all forms of communication the project engages in, such as fact sheets, white papers, images, photos, logos, the Internet, and so on.

Message Work

It is very important that you understand what this activity is and what it is not. Message work is not the use of media "tricks" to get people to do something they do not understand or might not otherwise want to do. Put another way: *your work must match your message*. Without a connection between your work and the message, the message will be hollow, and ultimately could do more harm than good.

WHY use a **communication strategy** ?

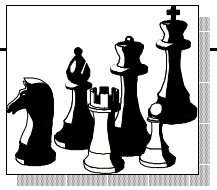
It is through your messages that the power of your ideas and the importance of your work will turn into the support you need to achieve your objectives. If you are trying to convince people to do something that they do not know about or do not understand, your project is less likely to succeed.

Developing a communication strategy will force you to think through these issues and determine how to talk about your project in a way that will enhance, not diminish, its chance of success. This will enable all of your stakeholders to understand the project the same way and to communicate about it in the same manner.

HOW do you use a **communication strategy ?**

Your communication strategy should consider:

- the messages you want to communicate;
- to whom you want to communicate;
- the appropriate language for your audience(s);



- how you are going to deliver your messages to your audience(s);
- the timing of your message delivery; and
- a way to test your messages.

The following are some necessary elements of a good message strategy:

Developing Your Message(s)
As with the project strategy, begin with your objectives. For each objective, make a list of project benchmarks, or milestones, to be accomplished in your project strategy (see *Indicators of Progress*). This is the list of potential issues that you will want to craft messages for. Depending on your resources and the relative importance of the benchmarks, you may want to create messages for all or just a few of the benchmarks.

There are different types of messages that you may want to develop for your project. Three are described here as examples.

- **"Drum Beat" messages** are intended to introduce and reinforce general ideas. For example, the Republicans for years have been saying that "big government is bad." That may be part of the reason why people are now hostile to the federal government.

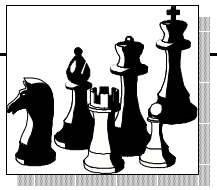
- **"Publicity" messages** are designed to make people aware that your project exists and to interest them in it.

- **"Campaign" messages** are designed to motivate an audience to engage in an action that will achieve one or more of your objectives, such as passing an ordinance, attending a rally, buying "green" products, etc.

Determining Your Audience(s)
Your audience is made up of those individuals, organizations, businesses, governments, etc., with whom you want to communicate. In general, the audience is the actors who can make the change that you are advocating, as well as those people that can convince the actors to change. For example, if you are trying to convince a corporation to create a less toxic product, your audiences are the corporate official who can make that decision and the consumers of the product. You should identify these audiences when you develop your project strategy.

If you have several audiences, you may want to develop a separate message for each. Make sure that all of your messages advance your objective, reinforce each other, and are consistent.

Using Appropriate Language and Public Opinion Research



Once you identify your audience, find out what the audience thinks about your issue, why they think the way they do, and what language they use to describe the issue. This is where public opinion research comes into play.

For example, the general public supports the protections they are afforded by our environmental laws. The general public does not currently like the word "regulation," however, so if your message is that you are for stricter regulations, the public generally will not react favorably to your project. On the other hand, if your message is that you are for protections to ensure safe water to drink and air to breathe, the public likely will have a more favorable response. From an objective perspective, you may have said the same thing, but there is a world of difference in how it is heard.

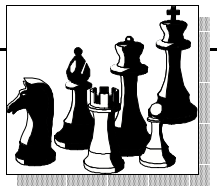
Public opinion research is meant to illuminate what people are thinking about issues and how they respond to different language and arguments. It is important to realize that opinions change over time. Words, like many other things, go in and out of favor. Words or phrases get used by so many different types of groups that their meanings get blurred or lost over time or the entity most closely associated with particular words falls out of favor. For example, one problem with the word "regulation" is that it is associated with the federal government, which is not highly regarded these days. Therefore, it is very important to keep up with any changes in language. Make sure to check and see if your message is working.

Because language is important, do not get trapped or lulled into using your opposition's language. This is easy to do if you just respond to the opposition's rhetoric without thinking through your response. For example, many environmentalists refer to the "Wise Use" or "Property Rights" movement when commenting on positions put forth by those who do not want the community to have any say in how lands are used. The name "Wise Use" was selected because it strikes a positive chord with core values of prudence, balance, and stewardship. If environmentalists use the same name when referring to their opponents, they run the risk of enhancing that favorable image even further, and undermining their own objectives.

Public opinion information is generally derived from two sources: *polling* and *focus groups*. These tools are very useful but not infallible, particularly if you do not know how to interpret the information they generate.

A *poll* is a survey of a subset of the population that is statistically chosen to reflect the larger population. A poll gives a snapshot of what people are thinking, but it does not tell why respondents answered as they did. Poll results are dramatically affected by how questions are asked and how the sample group is selected.

A *focus group* is a group of people with some common background (e.g., voters, Democrats, working mothers), that are brought together to discuss an issue. A focus group is used to figure



Sources of public opinion information

There are many public-interest public opinion firms that are available to help you if you have the resources. A few are listed at the end of this section. The stakeholders in your project team also may have access to this kind of information through marketing departments, etc. Finally, you may be able to generate some of this information inexpensively by partnering with groups that have door-to-door or phone canvasses.

Media marketing and sales departments out how a particular type of person thinks about certain issues or how they respond to certain language. Again, results are affected by how the focus group is chosen.

Selecting Delivery Mechanisms

Once you have developed your messages, you need to determine two things: how can you expose your audience to your message, and who should deliver your message.

You can determine the media from which your audience gets its information—newspapers, magazines, TV, and radio—by looking at the circulation of newspapers or magazines or the demographics of television and radio stations, etc. will have this information.

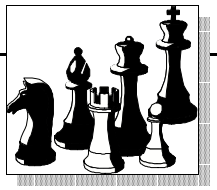
Use as many media outlets as you can, but remember: good delivery over fewer outlets will probably get you farther than poor delivery over many outlets. TV, radio and print media, in particular, require building and maintaining relationships which take time and effort. Call these media before an event to make sure a reporter is coming, and talk to her/him afterward to make sure the story is correct. If you feel like you have been misrepresented, call the reporter and talk to him/her about it. If it is a serious error, ask politely for a retraction. If it is not serious, urge the reporter to check the facts with you before turning in the next story.

Do not assume that even "beat" (or environmental) reporters understand an issue or will report it the way you want. You should provide reporters with enough detail so they feel comfortable. Do not use jargon even with reporters who may understand it, because you do not want them to report the story in jargon. You must be as clear and simple as possible while still conveying your message.

You also need to determine who is the best person or organization to deliver your message. Different audiences will trust and/or respect different messengers. You can get a sense of this by talking to some people in your target audience. Sometimes publications like the *Chronicle of Philanthropy* have stories on different audiences and whom they believe.

Determining Timing

Just as your project strategy probably has a certain sequence, so will your communication strategy. You need to ask, based on your objective, will your message be received in time for your audience to act? If the objective is general education, this may not be a concern. However, if your objective relates to a legislative vote, a rally, or anything that is time- sensitive, timing will



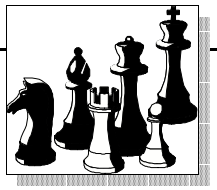
be critical. Check and see when your message will be run, either as a story or as an advertisement.

- If the message is contained within a newspaper story, will it run the next day or on the weekend?
- If you are using a magazine, is it weekly? bi-weekly? monthly? When do new issues reach subscribers?
- Radio and TV are usually pretty fast if it is a news story or if you buy time. If you are relying on a public-service announcement, however, a station may only air it at two o'clock in the morning.

Test Your Messages

If you can afford it, you can use focus groups to test your messages. If you cannot afford focus groups, try testing your message on people not familiar with the project to see if they understand your point.

On the following page are some things to keep in mind when crafting your messages. Also included is a *Message Strategy Development Worksheet* beginning on Page 10 to help you develop and clarify your messages. Following the worksheet are an example of a local proclamation on Page 12, and an example of an opinion/editorial piece on Page 14, both of which can be modified to be used in an environmental sustainability project.



Message Development Tips

Keep it simple. Jargon, in any form, turns people off. They either think it is used to confuse the issue, or they become convinced that they cannot understand what the real issue is. Terms like "groundwater" and "zero discharge" are considered jargon and are not well understood. In rare cases, you may want to bring a new term into the lexicon, but this is generally a very long process.

Make it relevant to people's lives. People have a hard time relating to "the ozone hole" or "water quality standards." The public is more likely to understand an issue if you talk about avoiding skin cancer and protecting crops, or being able to eat the fish they catch in their local streams or lakes.

Connect to people's basic values. If your message honestly touches on people's basic values like responsibility, honesty, fairness, etc. it will be more readily accepted and more easily understood.

Use arguments that people can relate to and understand. It helps to use something familiar and well-understood to present something not so familiar. For example, the fact that a Tylenol dosage is smaller for a child than for an adult is a good line of reasoning to follow when contending that pesticides are more harmful to children. Similarly, people believe taking vitamins and medicine is healthy, and the dose of any one of these is in the range of parts per million or below. This analogy can be used to show that even extremely small amounts of things can affect the body—and can even be toxic.

Be reasonable. People are wary of exaggeration and are more trusting of a common sense, matter- of-fact approach. For example, people know that extinction happens naturally, so an Endangered Species Act pitch saying you want to protect all species forever does not make sense to them. This is not to say that you should not advocate for new or innovative ideas. It does mean that in doing so you need to present them in a way that will relate to people's ideas of common sense.

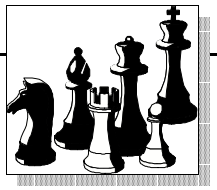
Have an alternative. People will respond better to your message if you offer a solution to the problem that they can relate to and that they think is possible.

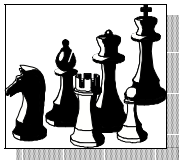
Make it visual. Use pictures whenever you can to demonstrate what you are for or against. We live in a very visual society, so a picture really is worth a thousand words.

Be careful about generic attacks. First, not all members of a broad class (like "business and industry") are bad. In fact, you may want to highlight good actors. Second, if you are specific, people can choose not to patronize a business if they wish. Third, most people work for some business or industry, and you do not want to attack the source of a person's paycheck. Finally, if a business or industry you are concerned about is the main employer in an area, (for example, IBM or the Mayo Clinic in Rochester, MN), that could have an impact on your strategy.

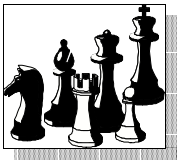
Back up your message with a slogan or "catch phrase." Below is an excerpt from Kevin Coyle's article in the Spring 1996 addition of *River Voices*, which is the publication of the River Network.

Let's say the topic is non-point pollution from poultry waste. The issue is whether actions can be taken to stop the pollution of the city's drinking water. The message is that farmers are carelessly threatening our community's drinking water and they expect us to pay $x million to clean up their





Worksheet
Message Strategy Development



Step 1. What objective is the message trying to advance?

Objective:_____

Step 2. What value(s) does the message evoke?

Examples: Personal responsibility, hard work, spirituality, community, etc.

Value(s)_____

Step 3. What action do you want people to take that moves you toward your objective?

Action:_____

Step 4. List the solution(s) you are advocating and why they are realistic alternatives.

Solution:	
Rationale:	

Step 5. List the audience(s). For each audience, list who will motivate that audience to act. This could be whom the audience listens to, or whom they believe is credible, and/or whom they have to listen to (e.g., politicians have to listen to voters).

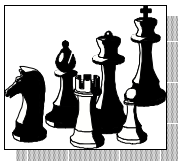
Audience(s):	Motivators:
_____	_____
_____	_____
_____	_____

Step 6. How does each audience understand an issue? List the words and phrases that are effective and those that are ineffective or counterproductive.

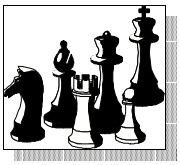
Effective Vocabulary:	
Ineffective Vocabulary:	

Step 7. Based on your objective and the vocabulary lists, can you develop a slogan to help people remember your message?

Slogan:	



Worksheet
Message Strategy Development



Step 8: List the media outlets to which your target audience(s) is exposed and when the message will appear in each outlet.

Print: newspaper(s): _____ Date(s):____
magazine(s): _____ ____
newsletter(s): _____ ____

Electronic:
TV: _____ Date(s):____
radio: _____ ____
Internet:(news groups, bulletin boards etc.): _____ ____

Other: billboards, bus signs, flyers, etc.

Step 9: Is the timing of the message appropriate for your audience to act?

Step 10: Compare this message with other messages of the project. Are they consistent? Do they reinforce each other?

Current Message:

Other Project Messages:

1. | |
|---|
2. | |
|---|
3. | |
|---|

Example
Proclamation

Elements of a Comprehensive Pollution Prevention Commitment At the Community Level

The town/city/county/tribal nation of _____ agrees to endorse and carry out the following:

Whereas, _____ [*name of place*] has unacceptable levels of pollution, and;

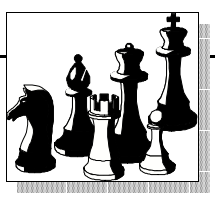
Whereas, the pollution jeopardizes the physical health of our residents and our nearby ecosystems, and;

Whereas, the pollution jeopardizes the economy of _____ [*name of place*] by requiring costly treatment or disposal and creating potentially severe liability, and;

Whereas, businesses and government that reduce or eliminate their use of toxic materials are more efficient, likely to be more profitable, and therefore more sustainable;

Let it be resolved that _____ [*name of place*] shall [*pick any or all of the below*]:

- Codify a sound definition of pollution prevention.
- Develop aggressive but achievable goals for reducing, or where possible, eliminating solid, hazardous, and toxic waste for government agencies, businesses, farms, and residences.
- Develop a right-to-know program for toxic chemicals, beyond duplicating federal or state requirements and including public library access to facility-specific information.
- Require pollution prevention planning for municipal facilities of all types, and for new and expanding businesses.
- Work toward a goal of pollution prevention planning for all businesses within a reasonable time-frame.
- Ensure that pollution prevention information is easily accessible at the community level.
- Commit community-level resources (sewer/air district personnel, occupational health departments, fire or waste disposal departments, technical schools, extension services,



community colleges, etc.) to pollution prevention technical assistance, including educating the public.

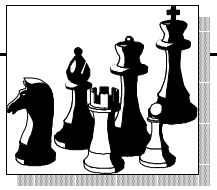
- Collaborate with the local business community wherever possible to promote community-wide pollution prevention. Focus on businesses common to the area such as particular types of manufacturing, services, and transport or transit in urban and suburban areas, and agriculture, mining, oil and gas production, forestry, and fishing, in rural areas.

- Fund community-level pollution prevention efforts with toxic chemical release fees, solid waste fees, or sewer fees.

- Establish "green" procurement guidelines covering materials and equipment used by government and its contractors.

- Develop incentives for government staff to identify strategies to reduce materials use or waste.

- Governmental facilities covered by this program should include fire departments, highways, hospitals, jails, laboratories, office buildings, libraries, parks, pools, schools, water and wastewater treatment facilities.



Example 3
Opinion/Editorial

Achieving an Environmentally Sustainable [*name of place*]
(can be adapted and edited for local newspapers)

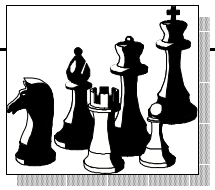
In 1993, the President assembled a highly diverse group of industry CEOs, Cabinet Secretaries, and environmental, civil rights, and tribal leaders to participate in the President's Council on Sustainable Development. They agreed on the need for America to be sustainable, and their report issued in February 1996 contains ten bold goals to achieve a "Sustainable America." If the diverse, nationally-based Council membership could reach agreement on a goal ensuring long-term social, economic, and environmental benefits for ourselves and future generations, we can do it for [*name of place*]. What would a "Sustainable [*name of place*]" look like and how do we get there?

A "Sustainable [*name of place*]" would have clean air, water, and land, and healthy surrounding ecosystems with a dynamic economy. Children from all walks of life would play together, and have equal access to a quality education. There also would be opportunities for meaningful employment that supports families. Public transportation would serve everyone, and the layout of streets would encourage walking and biking to work, stores, and recreation. Neighbors would participate in community and neighborhood organizations, and purchase safe and fresh food that is often locally produced. All people would be valued and would recognize the intimate yet often invisible connections between things as varied as meaningful education and street safety, or park land and neighborhood vitality, or ecological integrity and public health.

To achieve this vision would require a long-term community and national commitment toward these goals. There are elements of these goals, however, that can be accomplished now and that will help us move towards the larger objectives. In particular, there are many things that we can do to make [*name of place*] environmentally sustainable.

How do we create an action plan for an environmentally sustainable [*name of place*]? Here is a menu of some of the specific actions we can take to move [*name of place*] toward sustainability in the areas of pollution, energy use, transportation, land use, and "environmental equity."

Pollution Prevention
To begin, we need to minimize, and eliminate where possible, pollution by community businesses, government and residents. Since the burden of addressing pollution by businesses should not be placed entirely on the businesses themselves, a relatively small percentage of the [*add wastewater treatment plant name*]'s $[*???*] annual budget could be allocated to staff trained in "pollution prevention." These staff would help small and medium-sized businesses reduce their use and generation of toxic chemicals and solid waste through informational materials targeted to particular types of businesses, technical assistance during inspections, referrals to organizations that can provide more extensive pollution prevention technical assistance, and improved designs during business construction and expansion.
The usage and release of toxic chemicals also could be reduced locally by allocating existing tax breaks and other financial incentives for new and expanded businesses in [*name of place*] in a manner that



favors "clean" businesses over those that increase pollution. [*Add specific examples of applicable local industrial development programs*]

Federal, state, and local government purchases are at least 18% of the Gross National Product. Changes in governmental purchases, including purchases for governmental offices and schools, can significantly minimize [*add community name*]'s use of materials. Municipal managers should provide incentives for staff to identify strategies that reduce paper use and for staff who purchase government supplies (e.g., paper, furniture, cleaners, lights, vehicles, and batteries) to seek the most "environmentally-friendly" and cost-effective supplies available.

Energy Efficiency/Renewable Energy

[A*dd local electric utility name*] should expand its ability to assist government, business, and household customers in maximizing energy efficiency, so growth in its customer base can occur without construction of new power-generating capacity. Over time, more and more of the region's energy needs should come from renewable resources like solar and wind power.

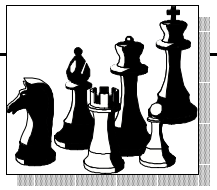
Transportation Options

An environmentally sustainable [*name of place*] also should ensure that regional transportation and land use decisions promote alternatives to the single passenger car. Even if the energy needed to operate cars in the future was completely pollution-free, increased traffic congestion eventually would choke the region's economic development. To avoid this result, new business and residential development should be clustered in areas where most trips could be made by public transit, walking, or bicycle, new public transit routes should be created for the now poorly served suburb-to-suburb market, and current subsidies that encourage car commuting such as free parking should be changed to give commuters greater travel choices.

Environmental Equity

Finally, an environmentally sustainable [*name of place*] should identify and minimize inequity of environmental problems, and of environmental assets such as park land. For example, both poor and wealthy sections of [*name of place*] should have access to clean drinking water and safe, lead-free homes. To ensure equitable opportunities for high quality relaxation and recreation, park land per capita should be roughly equivalent in quality (e.g., in trail maintenance) and quantity throughout the region. [*Add examples wherever applicable*]

Such a plan for an environmentally sustainable [*name of place*] is ambitious, yet achievable. The plan described here allows for growth and opportunity, but alters the way businesses, government, and households use resources so the end result is acceptable to the community as a whole. If we wish to leave our children healthy communities, all sectors of the community need to work together to reach consensus on environmental goals and ensure progress toward these goals.



Project Strategy

Title:	*5th Discipline Field Book: Strategies and Tools for Building a Learning Organization*
Authors:	Peter Senge, Art Kleiner, Charlotte Roberts, Richard Ross, Bryan Smith
Publisher:	Doubleday New York, NY
Date:	1994
# of Pages:	593
Contact:	Your local bookstore

This a good hands-on guide on how to look at complex situations. It has many resources, activities, and practical examples. This book allows readers to explore paradigm shifts, and how to make them happen.

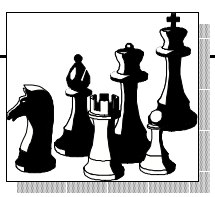
Title:	*How You Can Influence Congress*
Author:	George Alderson and Everett Sentman
Publisher:	E.P. Dutton New York, NY
Date:	1979
Contact:	Your local library or bookstore

While geared towards a legislative campaign, this book has some sound advice for developing any project strategy. The book discusses how to organize, how to maintain an organization, how to structure an issue campaign, and how to use the media.

Title:	*Nothing Can Be Done, Everything is Possible*
Author:	Byron Kennard
Publisher:	Brick House Publishing Andover, Massachusetts
Date:	1982
Contact:	Your local library or bookstore

This book has some interesting ideas about how to think about environmental issues and how social change occurs. The book should help stimulate thinking about what is possible over the long term versus what is feasible in the short-term.

Communication Strategy



Resources
Strategy Development

Below are a few organizations and consultants that do communications work. This is just a sample to get you started. It is by no means an exhaustive list or necessarily the best groups for your organization. A local organization that knows your area or an organization that works specifically on your issue may be better.

Belden & Russonello
1250 I St. NW, Suite 460
Washington, DC 20005
202/789-2400

Communication Consortium Media Center
1200 New York Ave., NW Suite 300
Washington, DC 20005-1754
202/326-8700

Lake Research
1730 Rhode Island Ave., NW Suite 400
Washington, DC 20036
202/776-9066

Research Strategy Management
9344 Lanham-Severn Rd, Suite 102
Lanham, MD 20706
301/306-0844

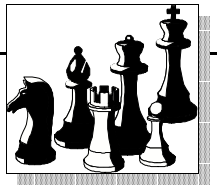
Safe Energy Communication Council
1717 Massachusetts Ave., NW Suite 805
Washington, DC 20036
202/483-8491

MacWilliams, Cosgrove, Snider,
Smith and Robinson
6 Grant Ave.
Takoma Park, MD 20912
301/891-2230

Title: *Change is Good*
Producer: Greater Milwaukee Toxics Minimization Task Force
Type: Video
Contact: Lake Michigan Federation, 312/939-0838

This video is an excellent tool to communicate the value of pollution prevention to small businesses from an economic and environmental standpoint. The video can be distributed to local media as part of a communication strategy.

Communication Strategy (continued)



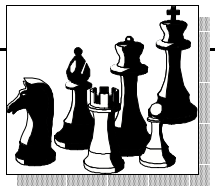
Resources
Strategy Development

Title: *Developing Your Message Effectively: Crafting a Message to Help, Not Hinder, Your River Work*
Author: Kevin Coyle
Publisher: River Voices
Date: Spring 1996, Request Vol 7 Number 1
Contact: River Network P.O. Box 8787, Portland OR 97207-8787,

This article takes you through an example of how to develop a message for a specific project.

Title: *Environmental Values in American Culture*
Author: Willeh Kempton, James Boster, and Jennifer Hartley
Publisher: MIT Press
Cambridge, Massachusetts
Date: 1995
Contact: Your local library or bookstore

This book talks about how Americans understand and misunderstand issues regarding the environment. The book explores the role of beliefs, values and culture in how people understand and react to environmental issues. For example, religious and spiritual values relating to the environment, as well as concern for future generations, are as important as economic concerns.



Indicators of Progress

A Quick Guide to: INDICATORS OF PROGRESS

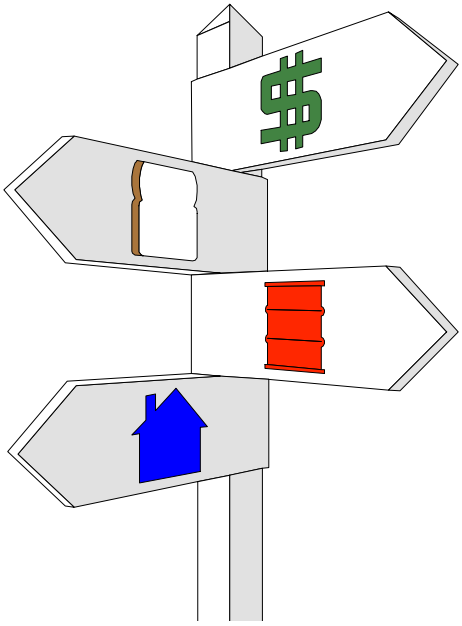
WHAT are Indicators of Progress?

Two types of **Indicators of Progress** help you measure progress towards the goals of an environmental sustainability project. **Environmental Sustainability Indicators** show the status of a community and its movement toward larger sustainability goals.
Benchmarks are milestones on the path to achieving specific project objectives.

WHY use Indicators of Progress?

Indicators help a sustainable communities project by:

- generating a common understanding of what success means to various stakeholder groups;
- allowing progress to be reported to the media and public on a periodic basis; and
- identifying opportunities for additional progress.



The indicators a society chooses to report to itself about itself are surprisingly powerful. They reflect collective values and inform collective decisions. A nation that keeps a watchful eye on its salmon runs or the safety of its streets makes different choices than does a nation that is only paying attention to its GNP. The idea of citizens choosing their own indicators is something new under the sun--something intensely democratic.

-Donella Meadows-
Beyond the Limits

W H A T are indicators ?

An "indicator" is a piece of information that reflects what is happening in a larger system. It allows observers to see the "big picture" by looking at a smaller part of it. Indicators are often quantitative measures such as physical or economic data.

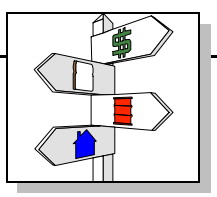
We suggest two ways of tracking the progress of an environmental sustainability project: by periodic measurements of **environmental sustainability indicators**, and by defining and achieving **benchmarks**. While environmental sustainability indicators can be used to show the status of a community and its movement toward larger sustainability goals, benchmarks are milestones on the way to achieving specific project objectives.

Both environmental sustainability indicators and benchmarks are useful for educating the public and showing movement toward your goals. For example, if your overall goal is to reduce pollution and prevent or decrease the release of toxic substances into the air or water, environmental sustainability indicators would include the level of toxics in the air or water. The benchmarks might include first developing, then negotiating and signing a "Good Neighbor" agreement with a local business willing to take steps to prevent pollution. The following chart shows the distinction between the two indicators:

What is the Indicator of Progress?	**What is the Goal?**	**Example Indicator of Progress**
Environmental Sustainability Indicators	Overall Project Goals	Reducing total toxic chemical releases per capita
Benchmarks	Specific Project Goals (milestones)	Designing a "Good Neighbor" agreement with a local business that ensures changes that promote pollution prevention

W H Y use indicators ?

The process of identifying appropriate indicators of progress in a multi-stakeholder project team is itself valuable because, by determining how to measure progress, different stakeholders gain a common understanding of what success means for various stakeholder interests. Diverse stakeholders should be able to agree on certain basic indicators of progress—e.g., that reducing



pollution, reducing the use of toxic chemicals, and increasing the number of safe, family-supporting jobs are all desirable steps towards a more sustainable community. Indicators of progress can help a sustainable communities project in several ways, including:

- *Making it easy to report progress to the media and the public on a periodic basis.* If progress is being made, the project can give credit to the appropriate stakeholders. If no progress is being made, the project can explain why. Moreover, periodic reporting of progress keeps project participants engaged and the public interested.

- *Identifying opportunities for additional progress.* Indicators of progress can highlight the need for action (e.g., high pollution levels within an entire community or within certain parts of a community), when certain indicators lag compared to others either at the start of a project or during its course. This type of ongoing feedback is important during project implementation.

- *Educating decision-makers, resource users, and the public on what project participants consider important measures of community sustainability.* An informational campaign can help those not directly involved in the project to change their own activities in a way that promotes project goals—for example, by obeying warnings not to use outdoor grills or drive unnecessarily during high ozone-pollution days.

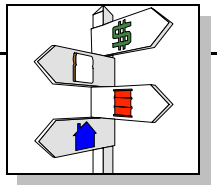
H O W do you use indicators **?**

Environmental Sustainability Indicators

Environmental sustainability indicators should be readily measurable. Whenever possible, they should be based on existing sources of information that the public accepts as reliable. This allows anyone to check the numbers and avoids debate on whether the numbers are correct, while keeping the focus on whether progress is being made towards project goals.

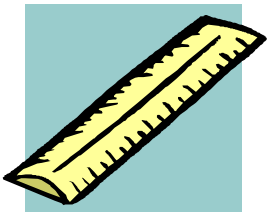
We suggest that you consider progress to be improvement in any of the project's indicators measured from the community baseline— i.e., where the community is when the project starts. It is easier to focus on continuous improvement rather than claiming success only when a goal set arbitrarily by project participants is reached.

The *Indicators of Progress/Community Assessment Worksheet* beginning on Page 5 contains a list of potential environmental sustainability indicators that can be used to assess current community status compared to a federal or state baseline. Note that environmentally-relevant



health indicators are not included because, with only a few exceptions, such data are not collected uniformly or nationwide. In addition, we have included information on selected social and economic indicators that may be useful to measure in a broader sustainability project.

Benchmarks



You can measure your progress towards specific project goals by using benchmarks. Benchmarks are distinct from environmental sustainability indicators in that they are essentially mini-goals or milestones to measure the success of your efforts in achieving your larger objective.

An environmental sustainability project should have a mix of benchmarks, where some are "hard" to achieve and some are "easy" to achieve. An "easy" benchmark does not mean it is unimportant. It may be relatively easy to change governmental procurement policies—as opposed to changing consumer demand—yet such changes can have a significant impact on the success of local pollution prevention efforts. A mix of benchmarks also helps ensure successes throughout a project's lifetime, which (most importantly) helps to sustain public interest and support.

The following are examples of specific project goals and the benchmarks that help measure progress towards these goals:

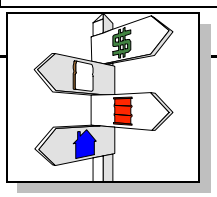
Example
Benchmarks

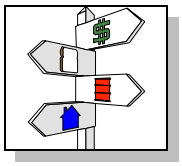
Goal 1 Establishing city, county, or tribal government procurement guidelines so that government agencies buy environmentally-preferable materials

Benchmarks
* Identify governmental purchasing authority
* Evaluate governmental purchasing needs and environmentally-preferable alternatives
* Identify local vendors of environmentally-preferable products
* With governmental assistance and support, change governmental purchasing guidelines

Goal 2 Implementing pollution prevention practices in print shops

Benchmarks
* Number of printers that participate in project
* Number of printers who switch to low VOC (volatile organic compounds) fountain solutions
* Number of pounds of VOC reductions from printers
* Number of printers using environmentally preferable inks and papers

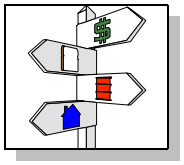




Worksheet 1
Indicators of Progress/Community Assessment

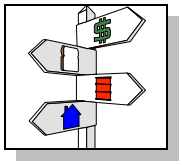
Use the following worksheet to perform an initial environmental c*ommunity assessment* by filling in the Community Baseline and comparing it with the National/State Baselines. These *indicators* also can be tracked throughout a project's life. Also included are select social and economic indicators that may be useful in a broader sustainability project. (Note that special emphasis has been given to Great Lakes state baselines because it is the focus of the work of the Pollution Prevention Alliance.)

Environmental Indicator	**Importance**	**National/State Baselines**	**Community Baseline**	**Where to Obtain Community Information**
Total toxic chemical releases and transfers per capita reported to the Toxics Release Inventory (TRI)	Measures the annual rate of toxic chemical releases and off-site transfers to air, water, and land (i.e., multi-media) from major manufacturing facilities; identifies areas of high toxic chemical pollution from operating facilities	U.S. average = 22.93 lbs/cap. IL = 27.99 lbs/cap. IN = 58.40 lbs/cap. MI = 38.88 lbs/cap. MN = 11.35 lbs/cap. NY = 8.19 lbs/cap. OH = 39.65 lbs/cap. PA = 27.71 lbs/cap. WI = 26.69 lbs/cap. **(1994 data)**		EPA hotline on TRI: 800/535-0202 Right-to-Know Network (an on-line network run by a non-profit): 202/797-7200, or on the World Wide Web at http://www.rtk.net
Attainment of federal air quality standards for: ozone, carbon monoxide, sulfur oxides, nitrogen dioxide, lead, and small particulates (PM-10)	Characterizes air quality compared to health-based standards	U.S. population living in attainment for: ozone - 81%; carbon monoxide-94%; sulfur oxides - 99.98 %; nitrogen dioxide-100%; lead - 98%; small particulates - 95%; all standards - 76% **(1994 data)**		World Wide Web at http://www.epa.gov/airs/nonattn.html
Percent of waters that meet state water quality standards, which must comply with the "fishable and swimmable" goals of the federal Clean Water Act	Characterizes water quality for drinking, swimming, boating, agriculture, fish and shellfish consumption, and aquatic life	U.S. rivers and streams / lakes, reservoirs, and ponds that meet all state water quality standards: 57% / 50% **(1992-3 data)**		State or tribal water quality agency (prepares the Clean Water Act 305(b) report): IL EPA - 217 782-3362 IN DEM - 317 243-5037 MI DNR - 517 335-3310 MN PCA - 612 296-8861 NY DEC - 518 457-8819 OH EPA - 614 728-3385 PA DER - 717 783-3638 WI DNR - 608 266-0152
Percent of population served by a drinking water system with no health violations	Measures the quality of the drinking water supply	81% **(1994 data)**		Local drinking water utility



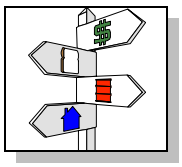
Worksheet
Indicators of Progress/Community Assessment

Environmental Indicator	**Importance**	**National/State Baselines**	**Community Baseline**	**Where to Obtain Community Information**
Residential water use per capita	Measures how efficiently water is used	370 gallons per capita/day **(1990 data)**		Local drinking water utility
Solid waste generated per capita; percent of solid waste recycled and composted	Measures how efficiently materials are used and produced, respectively	4.4 lbs of solid waste generated per capita/day; 24% recycled and composted **(1994 data)**		Appropriate local government department, e.g., public works, sanitation, solid waste
Residential energy use per capita; percent of energy from solar or wind energy	Measures how efficiently energy is used; measures how much of the energy used comes from sources with relatively negligible environmental impacts	U.S. average = 63 mil. BTU/cap. IL= 73 mil. BTU/cap. IN= 75 mil. BTU/cap. MI= 74 mil. BTU/cap. MN=69 mil. BTU/cap. NY= 55 mil. BTU/cap. OH= 75 mil. BTU/cap. PA= 70 mil. BTU/cap. WI= 70 mil. BTU/cap. < 1% from solar or wind **(1992 data)**		Local electric and/or gas utility
Vehicle miles traveled per year per household	Measures how much pollution is generated from car use and time spent in cars to meet personal needs	15,100 miles/household **(1990 data)**		Local or state transportation agencies or local metropolitan planning organization; Bureau of Indian Affairs (BIA) Transportation Department
Percent of all trips using public transit / walking / biking; percent using public transit to work	Indicates availability and use of public transit and use of walking and biking	Public transit = 2.0% of all trips Walking = 7.2% of all trips Biking = 0.7% of all trips Public transit to work = 3.9% **(1990 data)**		Local or state transportation agency or local metropolitan planning organization; Bureau of Indian Affairs (BIA) Transportation Department



Worksheet
Indicators of Progress/Community Assessment

Environmental Indicator	**Importance**	**National/State Baselines**	**Community Baseline**	**Where to Obtain Community Information**
Acres of public park land per capita	Indicates availability of public space for relaxation and recreation	National Recreation and Park Association (Arlington, VA) rough guidelines: 1.25-2.5 acres/1,000 residents for neighborhood parks within 1/2 mile; 5-8 acres/ 1,000 residents for community parks within 1-2 miles; 5-10 acres/1,000 residents for regional parks within a 1-hour drive of urban areas		Appropriate local government agency, e.g., planning, parks, etc.
Population growth rate; birth rate	Indicates pressure to increase land development and utility and transport infrastructure; indicates potential growth in local consumption	U.S. population growth rate 1990-94 = 4.7% IL = 2.8% IN = 3.8% MI = 2.2% MN = 4.4% NY = 1.0% OH = 2.4% PA = 1.4% WI = 3.9% U.S. birth rate in 1992 = 15.9 births/1,000 people		State public records office or local metropolitan planning organization; Bureau of Indian Affairs (BIA) or tribal government Office of Vital Statistics



Worksheet
Indicators of Progress/Community Assessment

Potential Social/Economic Indicators

Social Indicator	**Importance**	**Community Baseline**
Percent of Households Below the Poverty Line	Measures the health of the local economy	
Percent of Households in Each Income Group From Below $10K Per Year to $50K+	Measures disparities in local income	
Dollars Expended Per Student Per School Year	Indicates educational opportunities	
Percent of 9th Graders Graduating With Their Class	Indicates local educational success	
Percent of Eligible Population Voting In Local Elections or Primaries	Indicates interest and confidence in democratic institutions	
Infant Mortality Rate	Measures community health including prenatal care, maternal nutrition, teen pregnancy, and health habits	

Economic Indicator	**Importance**	**Community Baseline**
Diversification and Stability of Regional Economy	Indicates economic health and vitality	
Income Disparity Between Suburbs and City	Indicates urban decay and sprawl	
Percent of households whose income is at least 30% of the median rent	Indicates the affordability of local housing	
New Business Permits Applied For	Indicates the health of the local economy	
Percentage Unemployment	Indicates the health of the local economy	

Title: *Indicators of Sustainable Community*
Author: Sustainable Seattle
Publisher: Sustainable Seattle
Seattle, WA
Date: 1995
# of pages: 57
Contact: Sustainable Seattle, c/o Metro Center YMCA, 206/382-5013

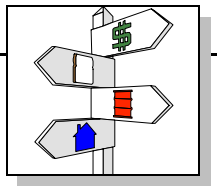
This report is the first complete survey of key long-term trends affecting the Seattle area's sustainability—its capacity to thrive and prosper in the decades ahead. These 40 indicators, selected and researched by over 250 citizen volunteers, cover a full range of cultural, economic, environmental and social issues that affect the future of the Seattle city and region. These indicators and the trends and linkages identified are useful for many community sustainability projects.

Title: *Monitoring Sustainability in Your Community*
Author: Benedict J. Hren, Nick Bartolomeo and Michael Signer
Publisher: Izaak Walton League of America
Date: 1995
# of pages: 20
Contact: Izaak Walton League of America, 301/548-0150

This publication describes indicators for monitoring and evaluating community sustainability. The indicators were selected based on their suitability for many different communities across the country.

Title: *Environmental Indicators of Water Quality in the United States* and *Fact Sheets*
Author: Office of Water, U.S. Environmental Protection Agency
Publisher: U.S. Environmental Protection Agency
Date: 1996
# of pages: 25 + 18 Fact Sheets
Contact: EPA Office of Water
Mail Code 4503F
401 M Street, S.W.
Washington, D.C. 20460
Internet: http://www.epa.gov/OW/indic

This report describes water quality in the United States using a set of 18 environmental indicators that measure progress toward national water goals and objectives. The fact sheets accompany the environmental indicators report. They provide further details on the 18 environmental indicators that measure progress toward national water goals and objectives.

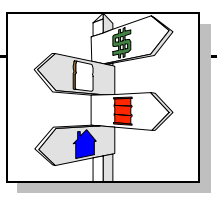


For more information on indicators projects contact:

Jacksonville Community Council Inc., JEA Tower, 11th Floor, 21 West Church St., Jacksonville, FL 32202, 904/356-0800

Olympia Sustainable Community Roundtable, 2129 Bethel St., NE, Olympia WA 98506, 206/754-7842

Sustainable Seattle, c/o Metrocenter YMCA, 909 Fourth Ave., Seattle, WA 98104, 206/382-5013



A Quick Guide to: Case Studies

The following case studies are excellent examples of what can be accomplished within communities to promote sustainable communities through pollution prevention. These case studies include references and contacts to help others carry out similar projects.

List of Featured Case Studies

1. Sewage Treatment Plant Staff Can Promote Pollution Prevention

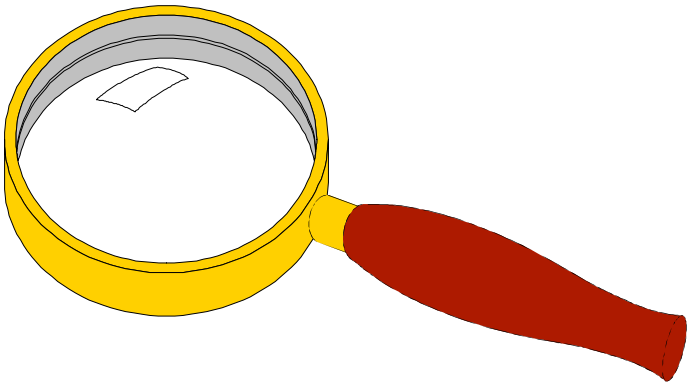
2. Using "Good Neighbor Agreements" to Promote Pollution Prevention

3. Replicating a Proven Strategy Used in Graz, Austria Which Promotes Pollution Prevention Among Local Businesses

4. Community Supported Agriculture Promotes Healthy Land, Water, and Food

5. Environmental Investment in West Harlem Using Penalty Dollars

Case Studies



The Council was inspired by communities throughout the country that are using innovative approaches to reinvigorate public involvement in finding solutions to community problems...While none of these communities has been transformed into a utopia, much can be learned from their efforts and progress. By building upon their leadership and innovation...and creating new standards for process and participation, strengthened communities can provide the foundation for a stronger, revitalized America.

-President's Council on Sustainable Development-
Sustainable America, February 1996

Sewage Treatment Plant Staff Can Promote Pollution Prevention

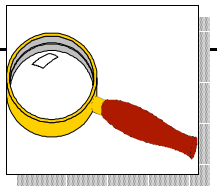
Within the Great Lakes states, there are several excellent examples of proactive efforts by sewage treatment plants to promote pollution prevention among dischargers to sewers. In Milwaukee, the Greater Milwaukee Toxics Minimization Task Force, an advisory body sponsored by the Milwaukee Metropolitan Sewerage District (MMSD) and composed of local business, labor union, environmental group, state/local agency, and engineering and law firm representatives, produced a Toxics Reduction Strategy document for MMSD in 1991 containing 22 recommendations to promote local pollution prevention, with expected time frames and implementation costs. The Task Force continues to serve as an independent citizens advisory group to MMSD. The business/community/government partnership model utilized in Milwaukee provides a broad base of support for ongoing efforts by MMSD to promote local pollution prevention.

Since 1990, the Western Lake Superior Sanitary District (WLSSD) in Duluth has worked to reduce overall mercury inputs to the sewage treatment plant. Among its activities, WLSSD and a local manufacturer collaborated to identify that the reason for the manufacturer's high discharge of Mercury was the use of mercury-contaminated sulfuric acid from one of its sulfuric acid suppliers. The manufacturer no longer uses this supplier, and has developed procurement standards covering mercury content for all its purchases of raw material. WLSSD staff are also actively collaborating with the local dental community to reduce the amount of mercury-containing dental amalgam entering sewers, while simultaneously ensuring that the remaining waste is not merely transferred into solid or medical waste streams. This mercury can be captured before entering the waste stream and WLSSD is identifying mercury recovery facilities for local dentists.

Background: Sewage treatment plants and their staff typically represent the largest local investment in environmental quality. Though the plants generally are designed to treat only conventional municipal sewage, significant quantities of toxic organic and metallic chemicals may be released to sewers by businesses, governments, and households. Many of these toxic chemicals pass through the plants untreated and enter surface water, air, and plant sludge.

Actions Needed By the Community: Commitment by community stakeholders and decisionmakers to invest in increased efforts by sewage treatment plant staff to promote local pollution prevention.

Actions Needed By Plant Staff: 1) Train sewage treatment plant staff in general pollution prevention strategies (e.g., schedule processes to minimize cleaning needs, cover all evaporative materials, etc.), and in specific strategies for locally-prevalent small and medium business sectors such as metal finishing, lithographic printing, etc. Plant staff then can educate businesses through



correspondence, workshops, inspections, referrals to organizations that can provide more extensive pollution prevention technical assistance, and during business construction and expansion. Information on training opportunities is available from the National Pollution Prevention Roundtable (Washington, DC, 202/466-7272).

2) Analyze the sources of harmful chemical releases to sewage treatment plants (e.g., businesses whose discharges to sewers are already regulated by the plants, businesses whose discharges are unregulated, and households). Develop a plan to reduce these releases through new and modified regulations and/or through education, as appropriate. 3) Utilize all applicable pollution prevention strategies for sewage treatment plants (e.g., using environmentally-friendly supplies and processes—including less-toxic alternatives to chlorine disinfection, practicing good housekeeping by preventing spills, and not allowing inventory to expire, etc.)

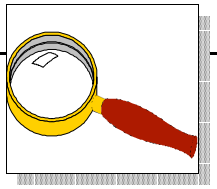
Benefits: 1) Reduced toxic chemical use and releases in the community by businesses, government, and households. 2) Easier and potentially cheaper compliance by sewage treatment plants with state or federal requirements limiting toxic substances in water and air releases and in sludge. 3) Prevention of unnecessary exposure of plant workers to toxic chemicals. 4) Protecting treatment plant processes, which can be disrupted by certain chemicals.

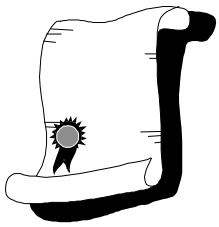
For More Information:

Promoting Pollution Prevention Among Dischargers to POTWs, Lois N. Epstein (Environmental Defense Fund, 202/387-3500) and Steven A. Skavroneck (Lake Michigan Federation, 312/939-0838). Presented at the Water Environment Federation 68th Annual Conference and Exposition (WEFTEC '95), Miami Beach, FL, October 21-25, 1995.

A Toxics Reduction Strategy for the Greater Milwaukee Area, Greater Milwaukee Toxics Minimization Task Force, Milwaukee, WI, 1991. Contact MMSD's Chris Magruder, 414/ 225-2174.

Survey of Sewerage Districts on Pollution Prevention Activities, Steven A. Skavroneck, Milwaukee Metropolitan Sewerage District in cooperation with the Association of Metropolitan Sewerage Agencies, Milwaukee, WI, 1992. Contact MMSD's Chris Magruder, 414/225-2174.





Using "Good Neighbor" Agreements to Promote Pollution Prevention

In order to reduce pollution from local industry above and beyond regulatory requirements, several Minnesota community groups and Citizens for a Better Environment (CBE) are working with nearby businesses to develop "Good Neighbor" agreements. Finalized agreements follow extensive dialogue between industry, community, and worker representatives, where the concerns and goals of all participants are discussed. Signed "Good Neighbor" agreements generally contain provisions covering pollution prevention policy and implementation specifics, job opportunities for community residents, and mechanisms to ensure continuing dialogue between the industry and the local community to address new concerns and opportunities.

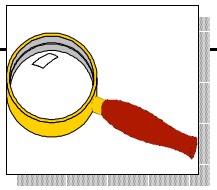
For purposes of these agreements, CBE typically has provided technical analysis of pollution prevention opportunities using a retired engineer with pollution prevention training. As of spring 1996, there were two signed "Good Neighbor" Agreements in Minnesota—between Smith Foundry and People of Phillips/CBE in Minneapolis, MN, and between Crown Cork & Seal and Faribault Citizens/CBE in Faribault, MN. Crystal Cabinet Works, Inc. of Princeton, MN was very involved in pollution prevention education, analysis, and goal-setting, and near completion of its "Good Neighbor" agreement with the Princeton community.

Background: Following a year of research compiling and analyzing federal right-to-know data and community demographics and resources, CBE published a study that identified those industries throughout the state which were the organization's highest priorities for "Good Neighbor" agreements. This study contained business, financial, and environmental (permitting, enforcement, and right-to-know data on facility chemicals) information about the industries. It also provided profiles of the communities in which the businesses were located, including locations of schools and health care facilities, population and demographics, and community organizations. Since the study's publication, Minnesota community groups and CBE have been working with several industries throughout the state, some which were listed in the study and some which were not, with the goal of reaching "Good Neighbor" agreements.

Actions Needed By the Community: Commitment by nearby residents to develop shared pollution prevention goals with local businesses.

Actions Needed By Local Industry: Written agreement by a company to identify, assess the feasibility of, and implement facility-wide changes that enhance pollution prevention and other community goals in a collaborative, open manner with community representatives.

Benefits: 1) Reduced toxic chemical use and releases in the community. 2) Potential for monetary savings to companies through reduced toxic chemical use and/or reduced waste generation. 3) Enhanced worker health and safety. 4) Improved relationships between local

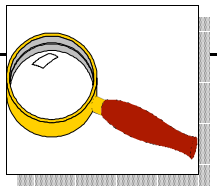


companies and the community. 5) Potential to ensure that good industrial jobs are offered first to community residents.

For More Information:

Get To Know Your Local Polluter: Profiles of Minnesota's Top 40 Toxic Polluters, Lisa Doerr, John Jaimez, and Jo Haberman, Citizens for a Better Environment, Minneapolis, 612/ 824-8637, Minneapolis, MN, 1993.

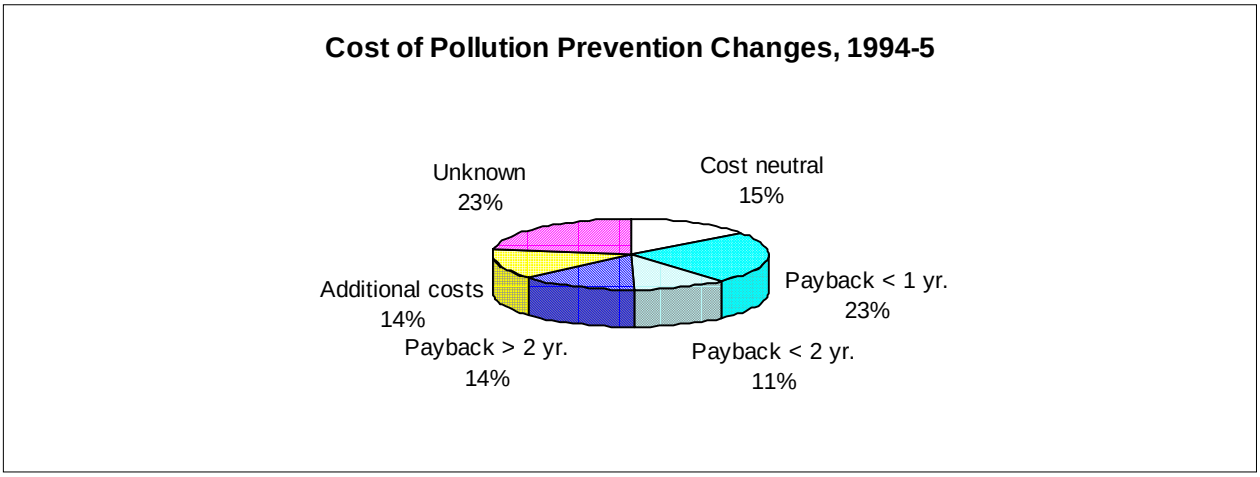
The "Good Neighbor" Handbook: A Community-Based Strategy for Sustainable Industry, Sanford Lewis, 617/ 354-1030, Waverly, MA, 1992.



Replicating a Proven Strategy Used in Graz, Austria Which Promotes Pollution Prevention Among Local Businesses

Graz, Austria, a city of 250,000 in population, has made clean production (the European term for pollution prevention) and energy/water use efficiency among city businesses high priorities. Twenty-five companies involved in the city's multi-facetted pollution prevention program in 1994-95 have implemented 189 changes that promote pollution prevention and energy/water use efficiency in 1995, and they expect to implement 137 additional changes in 1996. More than half of these changes are cost neutral or have a payback time of less than two years (see Figure below). For a quarter of the changes (e.g., organizational changes), the economic benefits are unknown or very difficult to estimate.

Participants have found that the program's broad-based look at pollution prevention, including its organizational, economic, legal, and technical aspects, is probably more effective than dissemination of individual case studies in motivating businesses to implement pollution prevention changes. Additionally, the program's annual award motivates businesses to initiate changes because top management often expect their staff to finish with an award. The program also publishes an annual report to highlight its accomplishments and those of participating businesses.



Background: Graz's successful pollution prevention program has involved workshops and awards for businesses, subsidized consulting for local businesses, business-to-business coaching, and pollution prevention education in vocational schools. Businesses involved in the program range in size from six to 3000 employees.

Actions Needed By the Community: Commitment by community stakeholders and decisionmakers to assist local businesses in identifying pollution prevention opportunities and to educate the next generation of workers in pollution prevention.
Actions Needed By Local Government and/or the Local Business Community: Offer a series

of approximately nine workshops annually for local businesses on various pollution prevention topics (e.g., setting up an environmental team and program, what is pollution prevention, pollution prevention economics, etc.), with participation open to all interested businesses. Contrary to most expectations, a mix of business sectors is valuable at the workshops because organizational and even technical problems are often similar, and businesspersons are generally receptive to learning from their local counterparts. Begin each workshop with company representatives describing the activities they have undertaken since the last meeting, then have an expert present a new topic using practical worksheets and case studies, then follow with small and large group discussions of the topic.

To assist in implementation of workshop topics, subsidize technical assistance for local businesses, particularly small and medium-sized businesses, including performing materials and energy balances to identify and prioritize reduction opportunities. After the first year, give businesses the option of continuing to meet quarterly with interested local counterparts and the consultant(s) for ongoing pollution prevention networking and education.

Recognize effective implementation and plans for additional pollution prevention strategies by having businesses apply for annual pollution prevention awards given by the local government. Additionally, developing a brochure devoted to this pollution prevention program for local businesses strengthens the connections among the diverse participating businesses.

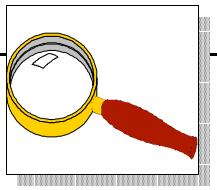
Graz's ECOPROFIT staff recognized that vocational schools offered an additional opportunity to enhance local pollution prevention, because recent graduates are less wedded to particular materials and practices than those working for many years, and because younger generations generally are more aware of environmental concerns. In 1995, ECOPROFIT staff contacted a vocational school headmaster and then collaborated with hairdressing and graphic arts teachers to present several pollution prevention topics through interactive class exercises.

Benefits: 1) Reduced toxic chemical use and releases in the community by businesses. 2) Increased awareness of pollution prevention strategies and their value among local businesses and the public.

For More Information:

ECOPROFIT - a Progressing Cleaner Production Programme, Jan Sage (STENUM, 0043-316-367156) and Hans Schnitzer (Graz University of Technology, 0043-316-873-7467), Presented at the Second European Roundtable on Cleaner Production and Cleaner Products, Rotterdam, The Netherlands, November 1-3, 1995.

Karl Niederl, Barbara Moshammer at the City of Graz Department for Environmental Protection, 0043-316-872-4300.



Community Supported Agriculture Promotes Healthy Land, Water, and Food

Developed by: Alison Clarke (Politics of Food, Rochester, NY); Sue Mihalyi (New York Sustainable Agriculture Working Group, Rochester, NY); and Cynthia Cone (Hamline University, St. Paul, MN).

The Genesee Valley Organic Community Supported Agriculture (GVOCSA) farm was the first cooperative project of urban consumers contracting with an organic farm in upstate New York. The project has grown from the original 25 shares in 1989 to 130 shares in 1996 representing about 150 households.

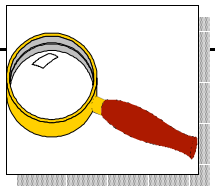
Urban shareholders provide labor for the farm to produce and distribute crops, pay some of the costs, and share some of the risks of small-scale farming. In return, each week during the 25-week growing season, shareholders receive fresh, certified organic vegetables, fruits, and herbs. The intangibles of community supported agriculture participation include the sense of community formed while working together in the fields.

GVOCSA has tried to be as inclusive as possible for urban participants by offering a sliding scale of payment, acceptance of food stamps, some scholarships, and shared transportation. The farm also now sells produce in inner city communities in Rochester, NY and has three farm stands which the owners hope eventually will be run by community members. (The community being served is currently 80% Hispanic and African American, and the unemployment rate is 67%).

Background: The concept of Community Supported Agriculture (CSA) has its origins in Europe and Japan. The first documented CSA farm in the United States began in 1985 in Western Massachusetts. Four years later, there were thirty-seven projects CSA in the U.S. and Canada. By 1995, there were over 500 CSAs in the United States alone.

Actions Needed By the Community: Urban shareholders in CSA projects need to be sufficiently committed to their farm to cope with the vagaries of harvests. Depending on the organization of the farm, members may be expected to contribute some labor on the farm or to help with deliveries, newsletters, farm festivals and events. To increase CSA diversity, the community needs to focus outreach and support structures in target neighborhoods, including educating farm stand proprietors on small business practices, and introducing regional and seasonal foods to community residents.

Actions Needed By Farmers: CSA farmers, in addition to becoming skilled in organic farming techniques and the production of a wide variety of vegetables, need to be interested in investing time and effort in community-building and education. Additionally, farmers should be willing to provide some basic education for farm stand proprietors and residents and explore creative forms



of payment from low-income shareholders, and should be flexible enough to grow foods demanded by the local population.

Benefits: 1) CSAs promote sustainable agricultural practices and thus protect topsoil and ground and surface water quality. 2) CSAs create direct links between farmers and consumers. These contacts can increase awareness of environmental issues and nutrition among urban dwellers, who are often low-income families. 3) CSAs and farmstands can offer opportunities for employment/entrepreneurship. 4) CSAs support local food production, thus utilizing fewer resources for crop transportation.

For More Information:

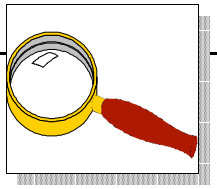
"Community Supported Agriculture: Building Moral Community or Alternative Consumer Choice?" Cynthia Abbott Cone and Ann Kakaliouras, *Culture and Agriculture*, Numbers 51/52, Spring/Summer 1995.

Farms of Tomorrow: Community Supported Farms/Farm Supported Communities. Trudger M. Groh and Steven S.H. McFadden, Biodynamic Farming and Gardening Association, Kimberton, PA, 1990.

Community Supported Agriculture: Making the Connection: A Handbook for Producers University of California Cooperative Extension, 916/889-7397, Auburn, CA.

Madison Area Community Supported Agriculture Coalition (MACSAC). Karen Foley Strauss 608/437-5971; Margaret Krome, 608/238-1440.

Western Wisconsin-Minnesota Community Supported Agricultural Association (WWMCSAA), Verna Kragnes, 715/294-3136; Dan Guenthner, 715/294-2331; Jim Bruns, 715/455-1663.



Environmental Investment in West Harlem, New York Using Penalty Dollars

An excellent strategy for mitigating the effects of excessive pollution in low-income communities and communities of color is to invest money from penalties for environmental violations into those same communities for pollution prevention and improvements to public health and welfare. In West Harlem, New York, a diverse 19-person advisory committee drawn from this community of 70,000 is helping to determine how to spend $1.1 million in penalty dollars within the community. Included in the advisory committee's recommendations are projects that seek to empower residents to act on environmental issues now and in the future. Project recommendations that are currently being pursued cover five areas: pollution prevention, open space, health assessment, environmental education, and green businesses.

To develop its project recommendations, the advisory committee held three public forums, including one for Spanish speakers. In December 1993, the North River-West Harlem Environmental Benefits Program Advisory Committee along with the New York City Department of Environmental Protection, issued its list of project proposals. As of Summer 1996, the following two projects or programs are under way with the help of contractors: 1) Pollution prevention technical assistance for the governmental facilities and private businesses in the community which primarily impact local air quality, including bus depots, transfer stations, manufacturers, and small businesses. 2) Formation of a local conservancy organization to promote long-term urban lot reclamation and development projects such as community gardens and greenways. The health assessment, environmental education, and "green" business projects are developing their scopes of work as of summer 1996.

Background: The North River-West Harlem Environmental Benefits Fund was established in 1992 as part of a joint consent decree between the New York City Department of Environmental Protection and the New York State Department of Environmental Conservation. Instead of the state receiving penalty dollars from the city for odor violations from the North River Water Pollution Control Plant in West Harlem, the consent decree requires that the $1.1 million in Environmental Benefits Fund money be used for environmental programs in the North River-West Harlem community that are not required by law and which will benefit the community living near the plant. A consent decree is a type of settlement agreement which is approved by a judge; non-compliance with a consent decree can lead to "contempt of court" proceedings.

Actions Needed By the Community: Residents should identify governmental enforcement actions and/or citizen suits against environmental violators that offer opportunities for this type of innovative, community investment settlement. (Note that most federal enforcement actions and some state enforcement actions may require "penalty" dollars to go to federal or state treasuries, but this often can be avoided by not calling the funds "penalties.") Once these enforcement

opportunities are identified, residents should work with government or private attorneys to develop settlement agreements which include community-driven investments for pollution prevention and improvements to public health and welfare.

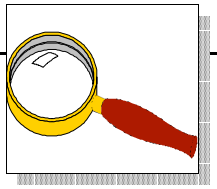
Benefits: 1) Communities now disproportionately impacted by pollution will have enforceable agreements to reduce future pollution and/or enhance public health. 2) Establishing local advisory committees with meaningful input ensures that community investments are consistent with local priorities.

For More Information:

North River-West Harlem Environmental Benefits Program: Program Proposals, North River-West Harlem Environmental Benefits Program Advisory Committee and the New York City Department of Environmental Protection Office of Service Delivery - Community Environmental Development Group, December 30, 1993. Contact NYC DEP's Darryl H. Cabbagestalk, 718/595-4451.

Interim Revised EPA Supplemental Environmental Projects Policy Issued, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, published in the Federal Register, Vol. 60, No. 90, (May 10, 1995), pp. 24856-24862.

Requiring Pollution Prevention in Enforcement Actions (factsheet), National Environmental Law Center, 617/422-0880, Boston, MA, 1994.



A Quick Guide to: Resources

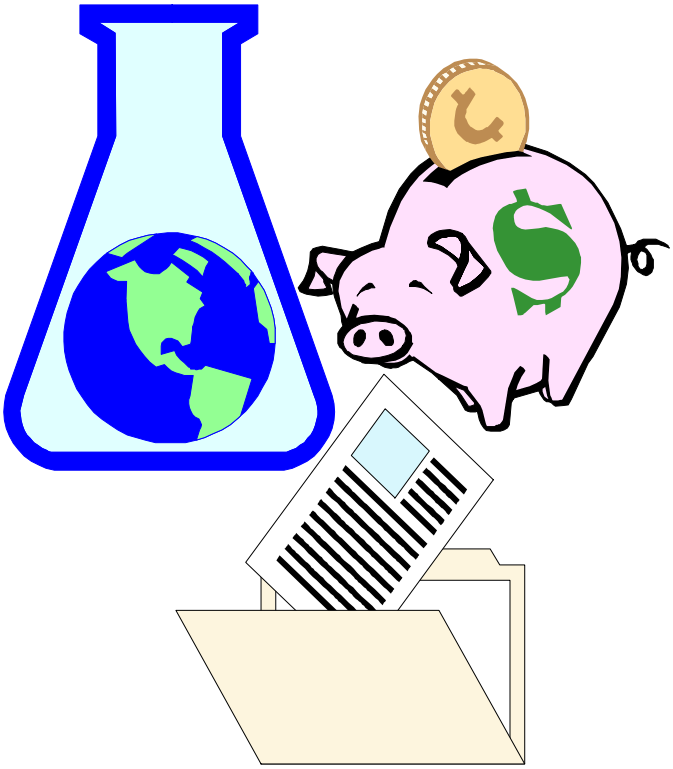
WHAT Resources are needed?

Most resource needs will become apparent after you develop a shared project objective and chart out your strategy. Depending on the project chosen, you may require certain resources to help implement your goals. In general, **technical resources**, **financial resources**, and **legal/ organizational resources** could be useful in your sustainability project. In addition, valuable **written and visual resources** are available to help inform your decisions and educate the public.

WHEN do you need Resources?

Before beginning to implement a project, you should have an idea of what resources you will need to reach your goals. By having a general idea of short- and long-term resource needs, you can determine how to meet those needs in effective ways.

Resources



A sustainable community in the broadest sense, resembles a living system in which all resources—human, natural and economic are interdependent and draw strength from each other.

-Susan Boyd, director-
CONCERN, Inc.

resources are needed ?

Before implementing your project strategy, you should have an idea of what resources you will need to reach your objectives. By having a general idea of short- and long-term resource needs, you can determine how to meet those needs in effective ways.

The following are some questions you might want to ask to help you determine your resource needs.

What are your objectives?
For instance, if your main objective is to affect public opinion on a particular issue, media or message development/delivery resources and expertise might be one of your primary resource needs.

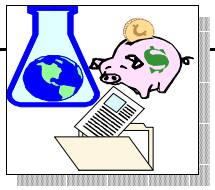
Whose behavior or what policies or practices need to change to accomplish those objectives?
For example, if your goal is to increase pollution prevention among local businesses, you would need relevant technical assistance to offer advice and guidance to these businesses.

Can you bring representatives of affected interests to the table? With whom do you need to work in order to reach the right people?
One of the most effective ways to meet your resource needs is to select stakeholders for your project team who will help you accomplish your goals. For a project that requires intensive legal expertise, you may want to bring a law firm to the multi-stakeholder project team. Similarly, for a media-intensive project, a message specialist is a good choice.

Who are other audiences for the project?
If you want regulatory approval for your recommendations, you need to ensure that regulators are on your multi-stakeholder project team. If you want to convince scientists of your conclusions, you need to have the capacity to formulate scientifically-defensible positions.

What skills do you have available?
Skills are a resource. You should begin by determining the skills of your own project team participants. Particularly in a multi-stakeholder process, these skills might include the ability to understand the opinions of other stakeholders, the ability to work well with others, diplomacy, and project management. Depending upon the project, technical, legal, scientific, or financial skills might also be very valuable. If the project is geared to be transferable on any large scale, you must ensure that you have a good record keeper. If your project does not have individuals with facilitation skills, consider enlisting a facilitator for the process.

Are there any analogous projects to which you can look for a sense of what resources are needed



and what skills will be most useful?
It can be very valuable to talk with others that have undertaken a process similar to yours. Their experience can help you better understand what resources you might need to achieve your goals, and they can provide advice on pitfalls and how to avoid them.

These questions will direct the fine-tuning of your project strategy and resource needs. By thinking long-term, you will find that the need for resources throughout the project will become clearer. It also forces you to be realistic about what resources you most likely can and cannot attract to the project. This can result in rescoping the project to fit the available resources, or filling the niche in resource needs by selecting a stakeholder who can expand your project team's capabilities.

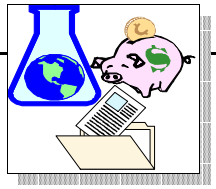
HOW do you address resource needs ?

As discussed in the *Stakeholders* section, the best way to address specific resource needs is to try to include as project participants representatives of constituencies that can provide important resources (e.g., academics). If that is not possible, the following information can help address the technical, financial, and legal/organizational resource needs of your project. Additionally, we have included information on available written and computer resources.

TECHNICAL RESOURCES

A project may require technical assistance to help local businesses or government implement pollution prevention by identifying alternative technologies or chemicals, alternative processes, and good housekeeping opportunities. Community groups may require assistance to interpret technical data including Toxics Release Inventory (TRI) data, to identify worst-case accident scenarios, and to find opportunities for pollution prevention improvements. There are several ways in which the technical assistance needs of a pollution prevention project can be addressed.

A ***University-Community Partnership*** can assist an environmental sustainability project in several ways. A "service-learning" partnership between university engineering, science, or agriculture departments and community organizations can fill unmet technical resource needs by integrating technical assistance for communities into a college curriculum. A model curriculum is being developed through the Environmental Engineering Program at Northwestern University to provide technical assistance to Chicago-based community organizations. This curriculum is available by contacting Meena Palaniappan at



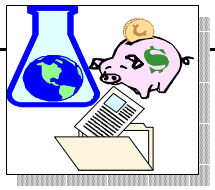
the Environmental Defense Fund, 202/387-3500. Additionally, university professors and graduate students in a variety of disciplines often can be approached for pro bono or consulting work. Local colleges also might make loans of library resources, labs, or equipment to community organizations and projects.

The ***National Pollution Prevention Roundtable (NPPR)***, a United States-based membership organization dedicated to pollution prevention, publishes the *Pollution Prevention Yellow Pages*. The Pages list all known state and local pollution prevention programs, contact names and numbers, areas of expertise, and services provided. Most of these state and local programs provide pollution prevention assistance to companies including on-site consultations, assessments, facility plans, and training services. These state and local programs can also provide pollution prevention assistance to community groups. To order a copy of the *Yellow Pages*, contact NPPR at 202/466-P2P2.

The ***National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP)*** has its own environmental program. Through the MEP infrastructure of 60 centers throughout the country, the environmental program promotes environmentally superior manufacturing by providing technical assistance to smaller manufacturers. MEP builds on the foundation of state and local industrial extension resources, and focuses on needed services that the private sector cannot deliver economically to smaller manufacturers. Contact the NIST center in your area by calling 800/MEP-4MFG.

The ***Science and Environmental Health Network (SEHN)*** serves as a clearinghouse for community groups seeking technical assistance on environmental issues. SEHN keeps track of the governmental and non-governmental organizations with an emphasis on public-interest science, as well as nationally-known experts who can assist communities. To date, however, SEHN has provided more technical assistance contacts for communities in the area of toxic chemical exposure than in the area of pollution prevention. For more information, contact Carolyn Raffensperger of SEHN at 701/763-6286, or 75114.1164@compuserve.com.

The ***Appropriate Technology Transfer for Rural Areas (ATTRA)*** provides the latest information about sustainable agriculture free of charge to U.S. farmers, researchers, cooperative extension personnel, and others. ATTRA's goal is to help U.S. farmers boost profits and provide healthier food for consumers, while becoming better stewards of the environment. ATTRA has prepared over 73,000 reports for callers on how to institute organic farming practices, improve soil fertility and water quality, and improve farm income by diversifying, among other strategies. ATTRA accepts requests for information Monday through Friday 8 am-5 pm CST at



800/346-9140.

Environmental Defense Fund (EDF) Pollution Prevention Alliance engineers can provide assistance with technical issues associated with pollution prevention within Great Lakes communities and other communities upon request. Staff expertise is primarily within the oil refining, lithographic printing, and auto assembly sectors, as well as some expertise in pollution prevention for particular types of small businesses. Contact the Pollution Prevention Alliance at 202/387-3500.

FINANCIAL RESOURCES

The following information covers where to look for funding, if needed, for your environmental sustainability project. Keep in mind that some of these sources only give to certain types of organizations, e.g., most foundations only give to tax-deductible, nonprofit organizations.

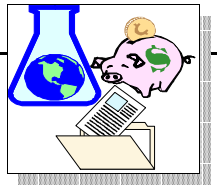
For **foundation grants**, use the Environmental Grantmakers Directory (available through Environmental Data Research Institute, 800/724-1857) to identify foundations that support the type of work you are undertaking and that provide money to your geographic region. The **National Grants Library** in Cleveland, Ohio also provides information on available grants (1422 Euclid Avenue, Cleveland, OH 44114, 216/861-1933). Talk to non-profit organizations in your area to see what success they have had with particular foundations.

Contact the public relations office of **corporations** in your geographic region to see if they have grant-making programs or corporate foundations.

Beyond needing resources for planning and developing an environmental sustainability project, implementing the effort will likely require financing. For example, a project may need funding to provide worker training, attract a new business, or to help an existing business invest in environmental improvement or expansion. To determine financial needs and help ensure public or private financing for your project, consider the following questions:

How much money is needed and for what purpose?
If money is needed to help a business purchase equipment, expand operations, or otherwise improve its environmental performance and efficiency, identify what will be purchased or done and provide a breakdown of estimated costs. Likewise, if funding is needed to assess or clean up contamination before redeveloping a property, obtain estimates from site assessors or cleanup contractors by developing a description of work to be done.

What are the expected results? or—What will be the benefit of the financing?

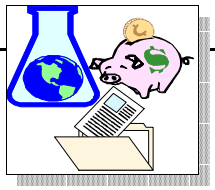


Answering this question is especially important in convincing private or public financing institutions to lend money. A private lender, who will be concerned about whether or not a loan will be repaid, will want to know how the financing will increase the profitability of a business (for example, through increased efficiency, expanded operations, etc.) If projections are for rapid growth, then some kind of equity financing through a venture capital organization may be best. Alternatively, if the primary results are public benefits, such as increased jobs, property values, or tax revenue, then public agencies may be the best source of funding.

What type of financing is needed?
Many options exist with various pros and cons, depending on your needs. For example, if funds are needed upfront to pay for cleanup or the acquisition of equipment or property, then some kind of grant, loan, loan guarantee, bond, or interest subsidy may be best. Alternatively, if help is needed to defray operating expenses, tax breaks (credits, deductions, or abatements) may be most appropriate. The following pages list common financing options and some local, state, and federal financing programs.

How will you find funding?
To investigate what sources of funding are available, start with the local (city or county) department of economic or community development or a local bank or credit union. Quasi-public entities, commonly known as community development corporations, have been established in many areas and should also be contacted. Also, every state has at least one Small Business Development Center (SBDC), and most states have several. The SBDCs are funded by the federal Small Business Administration to provide technical and financial information and assistance. Many SBDCs are located at academic institutions.

Keep in mind that any lender will be primarily concerned with the economic status of an endeavor



Financial Resources: Common Financing Options

Grants have no repayment obligation and are typically given for one-time only expenses such as site preparation or training. Check with local and state agencies on the availability of sustainable development, pollution prevention, or other relevant grant programs.

Loans allow companies to borrow funds up front for virtually any kind of business activity. Since they require repayment, loans are best suited for situations where the money will improve the profitability of a company. Small or innovative businesses that are unable to obtain financing from private lenders may find it easier to obtain a loan from public sector agencies or public/private development corporations which often offer low-cost financing or have special programs for "risky" businesses. In addition, many government agencies offer ***loan guarantees*** for certain categories of businesses. In these instances, the government agency works through private lenders or community development corporations (CDC) which agree to lend to otherwise risky or small projects in exchange for a pledge by the agency to repay the loan if the borrower defaults. For either loans or loan guarantees, it is best to start with a private lender. If the lender is unwilling, or the terms of the loan are unworkable, then a CDC or public agency may be able to help.

Interest subsidies are payments by a public agency to a private lender to reduce the interest rate charges, often lowering interest rates several points below market levels and making a loan affordable for small or innovative enterprises. ***Linked deposit programs*** are an indirect interest subsidy program—a city or state deposits its funds in a few designated financial institutions which agree to reduce interest rates charged to certain types of borrowers. Check with the local development office or Small Business Development Center (SBDC) on whether such a program exists in your area and what lenders are participating.

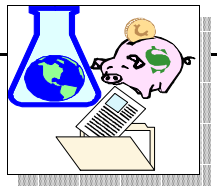
Tax increment financing (TIF) is a tricky but increasingly common tool used for many brownfield redevelopment projects and other community renewal efforts covering many different businesses. With TIFs, the local or state government estimates how much property tax revenues would grow once redevelopment happens. Monies equal to that anticipated growth are then invested in improvements that would otherwise not be financially viable. Check with the local economic development agency on the feasibility of using TIFs for your project.

Tax-free zones are targeted geographical areas in which special incentives (such as exemptions from income or property taxes) are offered or activities allowed (the federal Empowerment Zone program, described on the following page, is one example). Check with the local economic development agency for information on existing or potential tax-free zones.

Bond financing programs take many forms. General Obligation (GO) bonds are issued and backed by state or local governments and often are used to fund large public projects, although some states have issued GO bonds to fund multiple, small development, or even environmental projects. ***Industrial development bonds (IDBs)*** are issued by a city, public agency, or development authority which uses the proceeds to finance industrial projects (typically acquisition of buildings, equipment, etc.). The project is responsible for repaying the bonds. Check with the local development agency on the feasibility of bond financing for your project.

Equity financing programs make funds available (for example, via public or private venture capital funds) to needy businesses with substantial growth potential by investing in the business in exchange for an ownership interest in a company. The local community development office or SBDC may know of available equity finance programs.

Tax credits can increase a company's cash flow by directly reducing the amount the company has to pay in taxes. ***Tax deductions*** reduce a business's taxable income, meaning that the actual benefit to the business will depend on its tax rate. With ***tax abatements,*** municipalities or states will forgive or defer taxes or reduce tax payments based on company performance in creating jobs or achieving some other goal. Tax credits, deductions, or abatements will not help a business that needs money up front to make improvements, but can improve cash flow so that a company has a better chance of obtaining private financing. Local or state economic development agencies and SBDCs should be contacted for information on available tax incentive programs.



Financial Resources: Available Public Financing as of Spring

Local, state, and federal agencies are increasingly targeting funds to "sustainable development." Below is a list of the principal financing programs of this type as of spring 1996.

Empowerment Zone/Enterprise Communities (EZ/EC)
Thousands of urban and rural communities developed plans to create jobs and revitalize communities and, based on these plans, applied for special federal attention and resources such as tax breaks, grants, etc. In 1994, nine empowerment zones and 95 enterprise communities were selected and are now proceeding with implementation. This may affect your sustainability projects. Even if your community was not selected, the local development authority may have compiled an EZ/EC application that can serve as a guide to local financial resources and sustainable development opportunities.

Brownfields Grants
The U.S. Environmental Protection Agency (EPA) and several state environmental agencies now offer financing for redeveloping contaminated industrial sites, or "brownfields." To avoid creating future brownfields, be sure to integrate pollution prevention into any redevelopment plans so that new businesses are as "clean" as possible.

The EPA brownfields initiative has awarded grants of $200,000 spread over two years to 50 cities or states. Call the EPA hotline at 800/424-9346, or check with local authorities on whether your city or state received such a grant. In addition, the following Great Lakes states have established comparable funds:

- *Michigan* provides funds to municipalities to investigate and cleanup contamination. (Contact: Michigan Department of Natural Resources)

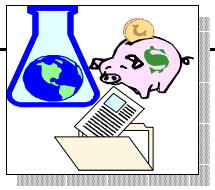
- *Minnesota* offers grants for cleanup and site development. (Contact: Cindy Hilmoe, Minnesota Pollution Control Agency (612) 296-7783; or Hal Freshly, Metropolitan Council, 612/291-6369)

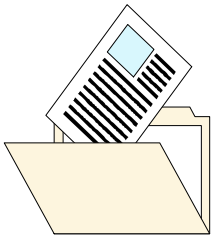
- *Ohio* offers low-interest loans for site cleanup. (Contact: Ohio Environmental Protection Agency)

- *Pennsylvania* offers several sources of funding for cleanup and redevelopment efforts. The Industrial Sites Reuse Program provides loans and grants for site assessments and cleanup. The Infrastructure Development Program provides loans for site preparation activities.

Pollution Prevention/Sustainable Development Grants

Minnesota awards annual grants for sustainable development and pollution prevention projects. Contact Phillip Muessig at Minnesota Office of Environmental Assistance 800/657-3843.





and you will have to sell your project accordingly, for example, by demonstrating that the project will have sufficient cash flow to cover loan repayments, provide an adequate return on investment, create enough jobs, etc. Private lenders often view new, small or innovative businesses as too risky and may insist on a higher return or greater financial strength than a public entity requires.

Ideally, someone from a financing institution or at least someone with financing expertise should be included as a project team participant. They can help raise issues and questions that lenders will need answered. In addition, they can help package a project in terms that lenders understand and help to promote a project within their institution or with other potential funders.

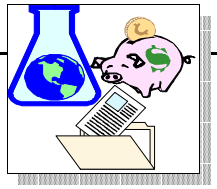
LEGAL/ORGANIZATIONAL RESOURCES

You may need legal resources for a sustainable communities project for two reasons. Legal assistance can help in organizational development, such as non-profit incorporation for community organizations and legal advice on compliance. Groups may also require litigation assistance to address environmental problems that directly affect individuals, communities, and regions.

The **Environmental Support Center (ESC)** helps local, state, and regional non-profit environmental organizations strengthen their organizational capabilities through assistance in fundraising, planning, organizing, board development, communication, financial management, and leadership development. ESC partially subsidizes the cost of individual and group training and coalition-building efforts, and it also has a program that provides computer software to environmental organizations for only the cost of shipping and handling. For more information contact ESC at 202/966-9834.

Your environmental sustainability project also may need legal resources to incorporate or ensure legal compliance (e.g., to accept grants). Free legal assistance may be available for your project locally, for example in Chicago from organizations such as the **Chicago Legal Clinic** (contact Keith Harley, 312/731-1762) or the **Community Development Economic**

Table of Written and Computer Resources



Law Project (312/939-3638). Also, the **American Bar Association** has published a directory of free legal service providers for environmental justice projects (contact Anne Dunn, 202/662-1693, *dunna@staff.abanet.org*). State bar associations also might have a list of lawyers who work in the public interest for free.

WRITTEN AND COMPUTER RESOURCES

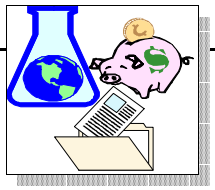
The following **written and computer resources** can be utilized to support your environmental sustainability project:

Sustainable Communities

Title: *Regeneration*
Toronto's Waterfront and The Sustainable City: Final Report
Author: Royal Commission on the Future of the Toronto Waterfront
Publisher: Minister of Supply and Services Canada
Toronto, ONT
Date: 1992
# of pages: 530
Contact: Royal Commission, 613/990-3306

This book provides an overview of the philosophy, planning, and implementation of the Royal Commission on the Future of the Toronto Waterfront, established to regenerate and recover the Toronto waterfront. The book provides a good overview to an ecosystem approach to regenerating cities and urban watersheds.

Title: *Securing Your Future: Pathways to Community Sustainability*
Author: Benedict J. Hren, Nick Bartolomeo, and Michael Signer
Publisher: Izaak Walton League of America
Gaithersburg, MD
Date: 1995



# of pages: 28
Contact: Izaak Walton League of America, 301/548-0150

This guide provides a brief introduction of sustainability and sustainability case studies (Sustainable Seattle and Chatanooga) and information on how to develop a sustainability project in your community.

Title: *Sustainable Communities Resource Package*
Author: Ontario Roundtable on Environment and Economy
Publisher: Ontario Roundtable on Environment and Economy
Toronto, ONT
Date: 1995
# of pages: 1000+
Contact: Ontario Roundtable, 416/327-2032

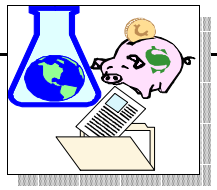
This hefty resource package includes, in detail, an introduction to sustainable communities, ideas on profiling and taking action in the community, and descriptions of case studies. The focus of the document is on a four quadrant (social, economic, environmental, and health) approach. It also provides detailed information on finding resources in provincial government.

Title: *U.S. Department of Energy Sustainable Development Home Page*
Author: U.S. Department of Energy
Washington, DC
Internet: http:\\sustainable.doe.gov

This sustainable development tool kit provides access to other web sites, interesting articles on sustainability, case studies, manuals, workbooks, models, and presentation materials. The topics covered are broader than this Kit, and include extensive information on energy efficiency issues.

Business/Environment Connections

Title: *Developing an Environmental Action Plan for Business: Environment as Standard Operating Practice—A Case Study*
Published In: Environmental Strategies Handbook
Rao V. Kolluru, Editor-In-Chief
Author: Jackie Prince, Richard Denison
Publisher: McGraw-Hill, Inc.
New York, NY
Date: 1994
# of pages: 20
Contact: EDF Publications, 202/387-3500



This paper describes how companies can build environmental ethics into their standard operating procedures at every level. The paper highlights the experiences of the Environmental Defense Fund-McDonald's waste reduction task force.

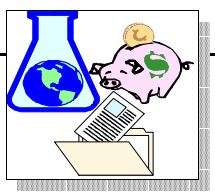
Title: *Sustainable Manufacturing: Saving Jobs, Saving the Environment*
Author: Valjean McLenighan
Publisher: Center for Neighborhood Technology
Chicago, Illinois
Date: 1990
# of pages: 67
Contact: CNT, 312/278-4800

This pamphlet describes the pathbreaking work of the Center for Neighborhood Technology and small manufacturers in the metal finishing industry in Chicago to reconcile the interests of environmentalists and business. The publication contains a guide to local industrial retention, including how to overcome obstacles such as overlapping and inconsistent regulations, inaccessibility of capital, inadequate incentives for pollution prevention, etc.

National Consensus Reports

Title: *A National Water Agenda for the 21st Century*
Publisher: Water Environment Federation/Water Quality 2000
Alexandria, Virginia
Date: 1992
# of pages: 158
Contact: WEF, 800/666-0206

This report presents the consensus recommendations of five multi-stakeholder work groups supporting Water Quality 2000's vision for the nation -- a society living



in harmony with healthy natural systems. The 125 work group participants developed recommendations for government at all levels, business and professional leaders, and others whose actions influence water quality over a four year period. These recommendations contain a pollution prevention emphasis and cover the following areas: Protecting Aquatic Ecosystems, Protecting Groundwater, Controlling Runoff from Urban and Rural Lands, Providing Safe Drinking Water, and Focusing on Toxic Constituents.

Title: *Sustainable America: A New Consensus for Prosperity, Opportunity, and a Healthy Environment for the Future*
Publisher: President's Council on Sustainable Development
Washington, DC (pcsd@igc.apc.org)
Date: 1996
# of pages: 186
Contact: US Government Printing Office, 202/512-1800

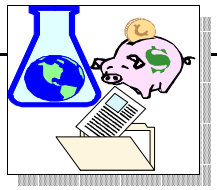
This report presents the consensus vision, common beliefs, goals, indicators of progress, and policy recommendations to the President on a wide range of sustainability issues. The Council was composed of 25 government, business, environmental, civil rights, labor, and Native American organizations (including CEOs and Cabinet Secretaries), who worked together over a three-year period.

Pollution Prevention, General

Title: *Environmental Dividends: Cutting More Chemical Wastes*
Author: Mark H. Dorfman, Warren R. Muir, Ph.D, Catherine G. Miller, Ph.D
Publisher: INFORM
New York, NY
Date: 1992
Contact: INFORM, 212/361-2400

Documents new evidence of the environmental and economic benefits of source reduction of toxic and hazardous wastes--preventing the generation of waste in the first place instead of cleaning up after it has been created--through an analysis of 181 specific source reduction activities at the 29 organic chemical manufacturing plants first studied in INFORM's 1985 *Cutting Chemical Wastes.*

Title: *Forty Ways to Make Government Purchasing Green*
Author: Eleanor J. Lewis and Eric Weltman
Publisher: Center for Study of Responsive Law



Washington, DC
Date: 1992
# of pages: 102
Contact: Government Purchasing Project, 202/387-8030

This booklet provides extensive background and resource information on the communities in the U.S. where 40 types of environmentally-friendly purchasing is ongoing. The types of governmental purchases covered are those that promote pollution prevention, solid waste reduction, and energy efficiency.

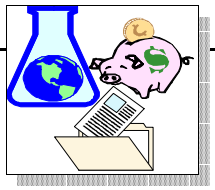
Title: *Massachusetts Clean State Program: A Practical Guide to Developing a Pollution Prevention/Resource Conservation Plan for Your Agency*
Author: Massachusetts Clean State Coordinating Council
Date: 1993
# of pages: 150
Contact: Executive Office of Environmental Affairs, 617/727-9800

This Guide addresses developing pollution prevention/resource conservation plans and provides a brief summary of environmental laws pertaining to compliance matters. This user-friendly guide offers worksheets and planning tools to implement pollution prevention.

Title: *Overview of Environmental Problems*
Author: Erica Phillips, National Pollution Prevention Center for Higher Education
Publisher: University of Michigan
Ann Arbor, MI
Date: 1996
Contact: NPPC, 313/764-1412

This document provides basic information and data on most major environmental concerns, which can be useful background to prepare students working on pollution preventing projects. Topics include energy, global climate change, stratoshperic ozone depletion, land use and development, waste, air and water quality, and human health.

Title: *Pollution Prevention Success Stories*
Author: Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency



Publisher: U.S. Environmental Protection Agency
Washington, D.C.
Date: April, 1996
Contact: US EPA, 202/260-1023

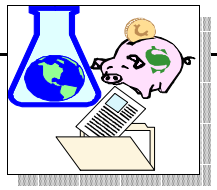
This document describes a variety of pollution prevention success stories in EPA programs, agriculture, consumer goods, energy, enforcement, federal facilities, industries, local government, waste water treatment plants, state government, and transportation.

Title: *Proceedings of the Building Solutions to Toxics: Using Pollution Prevention To Protect Groundwater Conference*
Author: Jacob Hollinger/Pollution Prevention Alliance
Publisher: Environmental Defense Fund
Washington, DC
Date: 1992
# of pages: 64
Contact: PPA, 202/387-3500

These conference proceedings cover the Environmental Defense Fund/Pollution Prevention Alliance's November 1991 Great Lakes regional conference which explored the connections between three related subjects: pollution prevention, groundwater protection, and environmental justice. Conference tracks covered small businesses, petroleum and hazardous substances, mining and drilling, agriculture, and consumer products.

Title: *Wellhead Protection Programs: Tools For Local Government*
Author: Office of Water / U.S. Environmental Protection Agency
Publisher: U.S. Environmental Protection Agency
Washington, DC
Date: 1989
# of pages: 50
Contact: US EPA drinking water hotline, 800/426-4791

This booklet contains helpful information on land-use controls (e.g., zoning, building design standards, storage prohibitions, etc.), educational methods, and other non-voluntary and voluntary strategies that are used by communities to prevent groundwater pollution, and which are also applicable to other types of pollution prevention.



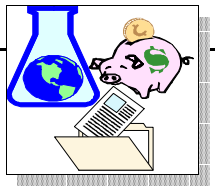
Pollution Prevention, Industry-Specific

Title: *Directory of Industrial Pollution Prevention Experience: A Survey of Government Programs*
Author: Warren Weinstein (compiler and editor)
Publisher: National Pollution Prevention Roundtable
Washington, DC
Date: 1995
# of pages: 80
Contact: NPPR, 202/466-7272

This booklet provides the most comprehensive list to date of the industrial pollution prevention experience by business sector (i.e., by Standard Industrial Classification code) of governmental, academic, and non-profit entities throughout the U.S. The list includes contact names and phone numbers, number of site visits, and a breakdown by industrial process of pollution prevention techniques.

Title: *EPA Sector Notebooks*
Author: EPA Office of Compliance Sector Notebook Project
Publisher: U.S. Environmental Protection Agency
Washington, DC
Date: 1995
Contact: Superintendent of documents/U.S. Government Printing Office, 202/512-1800 electronic copies - http://wastenot.inel.gov/envirosense/

In 1995, EPA released comprehensive environmental and technical profiles (sector notebooks) of 18 industries, and the Agency plans to develop more sector notebooks. Each profile contains information on the overall enforcement and compliance history of the industry, applicable federal laws and regulations, industrial processes, the amount and type of pollutants generated, pollution prevention opportunities, and current programs designed to improve the environmental performance of the industry. The 18 industries are: dry cleaning; electronics and computers; wood furniture and fixtures; inorganic chemicals; iron and steel; lumber and wood products; fabricated metal products; metal mining; motor vehicle assembly; non-ferrous metals; non-fuel, non-metal mining; organic chemicals; petroleum refining; printing; pulp and paper; rubber and plastic; stone, clay, glass, and concrete; and transportation equipment cleaning.

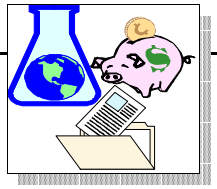


Title: *The Great Printers Project: Recommendations to Make Pollution Prevention a Standard Practice*
Authors: Council of Great Lakes Governors, Environmental Defense Fund, Printing Industries of America
Publisher: The Great Printers Project Team
Date: 1994
# of pages: 62
Contact: EDF Publications, 202/387-3500

This report discusses the recommendations of the Great Printers Project, the first in the nation to seek to create a business environment conducive to pollution prevention for an entire industry sector. The background and project objectives are discussed, as well as recommendations for printers, print buyers, print suppliers/distributors, government regulators, and technical and financial assistance providers.

Title: *Potential for Source Reduction and Recycling of Halogenated Solvents: Summary Report, Lifecycle Inventory and Tradeoff Analysis, and Ten Technical Support Documents*
Author: Jacobs Engineering Group, Pasadena, CA
Publishers: Metropolitan Water Dist. of Southern Cal. Los Angeles, CA Environmental Defense Fund Oakland, CA
Date: 1992
# of pages: Each volume is approximately 100 pages
Contact: EDF-California, 510/658-8008

This in-depth technical report demonstrates how ten industries (adhesives, aerosols, chemical intermediates, dry cleaning, electronics, flexible foam, paint stripping, parts cleaning, pharmaceuticals, and textiles) can reduce their use of virgin halogenated solvents by up to 65 percent (estimated conservatively). The

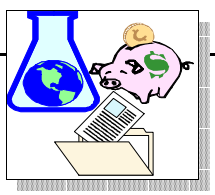


five halogenated solvents covered by the study are methylene chloride (used primarily as a paint stripper), perchloroethylene (PERC, used primarily in dry cleaning), 1,1,1-trichloroethane (TCA, used primarily as a solvent), trichloroethylene (TCE, used primarily as a solvent), and 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113, used primarily as a solvent).

Title: *Reinventing Refineries: A Community Guide to Preventing Pollution at Oil Refineries*
Author: Lois Epstein and Matthew Wiener
Publishers: Environmental Defense Fund Washington, DC Citizens for a Better Environment Chicago, IL
Date: 1994
# of pages: 45
Contact: EDF Publications, 202/387-3500

This booklet provides an understandable overview of oil refinery operations, describes pollution prevention and other environmentally beneficial strategies applicable to refineries, and identifies the locations and comparative sizes of U.S. refineries.

Title: *Summary of a Report on Multiprocess Wet Cleaning*
Author: Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency
Publisher: U.S. Environmental Protection Agency
Washington, DC
Date: 1994
# of pages: 10
Contact: US EPA, 202/260-1023



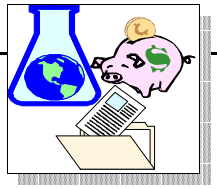
This booklet describes the favorable results of a study on the economic viability and effectiveness multiprocess wet cleaning, which relies principally on soap and water to clean clothes, with some solvents (not perchloroethylene) for stain and dirt removal.

Pollution Prevention, Place-Based

Title: *Get to Know Your Local Polluter: Profiles of Minnesota's Top 40 Toxic Polluters*
Authors: Lisa Doerr, John Jaimez, and Jo Haberman
Publisher: Citizens for a Better Environment
Minneapolis, Minnesota
Date: 1993
# of pages: 280, plus appendices
Contact: CBE, 612/824-8637

This report contains extensive business and community-related information about 40 Minnesota facilities that report the greatest emissions in the state for 17 specific toxic chemicals under the federal right-to-know law. The report also contains extensive background information on the "Good Neighbor" process as part of facility pollution prevention planning, and on the report's measures and methodology, as well as an overview of the characteristics of these 40 facilities and communities.

Title: *Preventing Industrial Toxic Hazards: A Guide for Communities*
Author: Marian Wise and Lauren Kenworthy
Publisher: INFORM
New York, NY
Date: 1993
# of pages: 191
Contact: INFORM, 212/361-2400



This guide leads community groups step by step through a process for encouraging local plants to reduce their use of toxic chemicals and their creation of toxic waste. By researching the plants and developing a constructive dialogue with plant managers, citizens can help businesses become better, cleaner neighbors.

Title: *Preventing Pollution in our Cities and Counties: A Compendium of Case Studies*
Publishers: The National Association of County and City Health Officials, National Association of Counties, National Pollution Prevention Roundtable, Municipal Waste Management Association, The U.S. Conference of Mayors (all in Washington, DC).
Date: 1995
# of pages: 78
Contact: NPPR, 202/466-7272

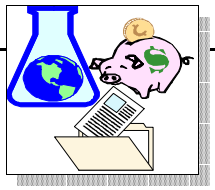
This booklet describes the pollution prevention activities of 19 city and county governments in the U.S. Certain case studies also include recycling, reuse, or other forms of solid waste management which are considered pollution control rather than pollution prevention. The booklet includes information on community demographic characteristics, pollution prevention budgets and other budgetary information, and relevant contacts.

Transportation/Agriculture

Title: *An Agriculture That Makes Sense: Profitability of Four Sustainable Farms in Minnesota*
Author: Charlene Chan-Muehlbauer, Douglas Gunnink, and Jodi Dansingburg
Publisher: The Land Stewardship Project
St. Croix, MN
Date: 1994
# of pages: 43
Contact: Land Stewardship Project, 612/433-2770

This report provides detailed case studies on four family farms in Minnesota employing a variety of profitable and environmentally-sound crop and livestock management practices. It contains very useful tables on profitability of the farms compared to the Farm Business Management Program averages, and detailed text on the sustainable agriculture practices and philosophies.

Title: *Inside the Blackbox: Making Transportation Models Work for Livable Communities*
Author: Edward Beimborn, Rob Kennedy, William Schaefer
Publisher: Citizens for a Better Environment Environmental Defense Fund



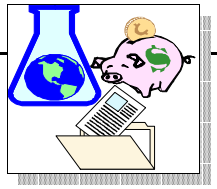
Milwaukee, Wisconsin Washington, DC
Date: 1996
# of pages: 63
Contact: EDF Publications, 202/387-3500

This report describes how transportation models are made, shows how transportation affects land use, and provides tips on how to advocate for better transportation models.

Title: *Sustainability: A Vital Concept for Transportation Planning and Development*
Author: Michael Replogle/Environmental Defense Fund
Publisher: Journal of Advanced Transportation
Durham, NC
Date: Spring 1991, Volume 25, Number 1
# of pages: 15
Contact: EDF Publications, 202/387-3500

This paper outlines some of the differences between the current paradigm for transportation planning and an emerging national and international paradigm for sustainable transportation and land development. The paper identifies the following strategies as more sustainable: clustering land development, increasing the types of travel options, and changing commuter subsidies to favor alternatives to the single-passenger automobile.

Title: *Transportation Action Guide: Fair and Sustainable Mobility in the 1990s*
Authors: Rob Kennedy and Sarah Clark Stewart
Publishers: Wisconsin's Environmental Decade Environmental Defense Fund
Madison, WI Washington, DC
Date: 1993



# of pages: 154
Contact: EDF Publications, 202/387-3500

This booklet is a primer for individuals interested in becoming more active in local, state, and regional transportation issues. The booklet identifies the relevant federal laws and local/state institutions, and emphasizes development of fair and sustainable transportation strategies.

Native American Resources

Organization: Indigenous Environmental Network
Contact: Tom Goldtooth, National Coordinator
P.O. Box 485
Bemidji, MN 56601
Phone: 218/751-4967
E-mail: ien@igc.apc.org

This national network unites a range of Native American communities and organizations to address environmental problems facing Native Americans. IEN works on pollution prevention and environmental sustainability initiatives in Native American communities.

Organization: Seventh Generation Fund
Address: P.O. Box 4569
Arcada, CA
Phone: Seventh Generation, 707/825-7640

This organization provides funding support for tribal communities and supports sustainable development initiatives.

Legal/Financial Resources

Title: *Directory of Pro Bono Legal Service Providers of Environmental Justice*
Editors: Elissa Lichtenstein, Kelly Given, Steven Juris
Publishers: American Bar Association; Center on Race, Poverty, and Environment; California, Rural Legal Assistance Foundation; National Conference of Black Lawyers.
Date: 1996
Contact: ABA, 202/662-1693