June 2003

ADVANCING ENVIRONMENTAL JUSTICE THROUGH POLLUTION PREVENTION

A Report developed from the National Environmental Justice Advisory Council Meeting of December 9-13, 2002

This Report represents the efforts of the NEJAC on the topic of Advancing Environmental Justice through Pollution Prevention to identify and discuss the myriad of opportunities in applying pollution prevention to benefit environmental justice communities. Aspects of the issues related to the relationship between pollution prevention and environmental justice are covered in a consensus report. The individual perspectives of each of the four stakeholder groups - communities, tribes, business & industry, and government- are also contained in this Report. The NEJAC would like to acknowledge the many individuals and groups that have already shared their experience and expertise.

The NEJAC is grateful for the contributions from the NEJAC Pollution Prevention Work Group with assistance from Ms. Samara Swanston. In addition, the NEJAC thanks the Chemical Engineering Branch of the EPA Office of Pollution, Prevention and Toxics for the picture on the cover of this report, courtesy of ArtToday (arttoday.com).

.

DISCLAIMER

This Report and recommendations have been written as part of the activities of the National Environmental Justice Advisory Council, a public advisory committee providing independent advice and recommendations on the issue of environmental justice to the Administrator and other officials of the United States Environmental Protection Agency (EPA).

The EPA has not reviewed this report for approval and, hence, its contents and recommendations do not necessarily represent the views and the policies of the Agency, nor of other agencies in the Executive Branch of the federal government.

, Promote efforts to institutionalize pollution prevention internationally, particularly in developing countries.

Theme II: More Effective Utilization of Tools And Programs

, Identify and implement opportunities to advance environmental justice through pollution prevention in federal environmental statutes.

, Promote local area multi-media, multi-hazard reduction planning and implementation.

, Promote efforts to incorporate pollution prevention in supplemental environmental projects (SEPs).

, Provide incentives to promote collaboration among communities, business and government on pollution prevention projects in environmental justice communities.

Theme III: Sustainable Processes and Products

, Encourage "Green buildings," "Green businesses," and "Green industries" through EPA's Brownfields and Smart Growth programs.

, Promote product substitution and process substitution in areas which impact low-income, minority and tribal comand tri.ðae04.ts (SEPs).

Recommendation #II-4: Provide Incentives to Promote Collaboration

CHAPTER 5: BUSINESS & INDUSTRY PERSPECTIVES (83)

NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL (NEJAC)

ADVANCING ENVIRONMENTAL JUSTICE THROUGH POLLUTION PREVENTION REPORT

Summary

The National Environmental Justice Advisory Council ("NEJAC") is a formal federal advisory committee of the U.S. Environmental Protection Agency (EPA). Its charter states that the NEJAC is to provide advice and recommendations on matters related to environmental justice to the EPA Administrator. The EPA Office of Environmental Justice requested that NEJAC examine how the innovative use of pollution prevention can help alleviate pollution problems in environmental justice com

This report consists of two parts. The first part is the Consensus Report and contains two

Recommendation #II-4: Provide Incentives to Promote Collaboration Among Communities, Business and Government on Pollution Prevention Projects in

1gk[pter 6 begins by reviewing the histor

CHAPTER 1: C1: C1: C1: 175.219.98 90 C

economic policy, social development based upon investment in health and education and responsible stewardship of the environment."[2] Secretary Powell described our time as a "century of promise" but cautioned that the great potential evident comes with a responsibility to turn it into a "century of hopes fulfilled and sustained development that enriches all people without impoverishing the planet."[3] Secretary Powell's comments

their attendant adverse health effects,[6] and have included executive directives and statutorily based strategies ranging from new state legislation to litigation using existing environmental and civil rights laws or regulations.

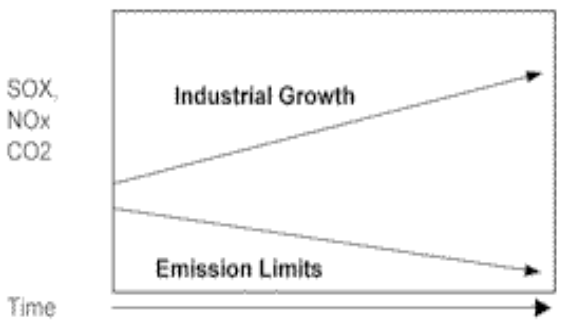
In addition, an ever-growing body of research has been accumulated from several programs initiated by both private and public entities, some concomitantly. EPA alone has a myriad of voluntary partnership programs that are based in pollution prevention principles and improved environmental management systems. Many individual major corporations and business organizations have undertaken important sustainable development initiatives. For example, in the United States the Global Environmental Management Initiative, a consortium of major corporations, developed tools for use by corporations managing their environmental issues, including guidance for addressing sustainable development, and The Conference Board has conducted and published research concerning corporate environmental management and corporate social responsibility. Internationally, the World Business Council for Sustainable Development, which includes U.S. as well as international corporations, has taken a leadership role in promoting sustainable development. Another important initiative involves representatives of major corporations, venture capitalists, and small companies, academic and non-profit organizations in looking at how to provide low cost, high quality, low environmental footprint products to poor communities worldwide.

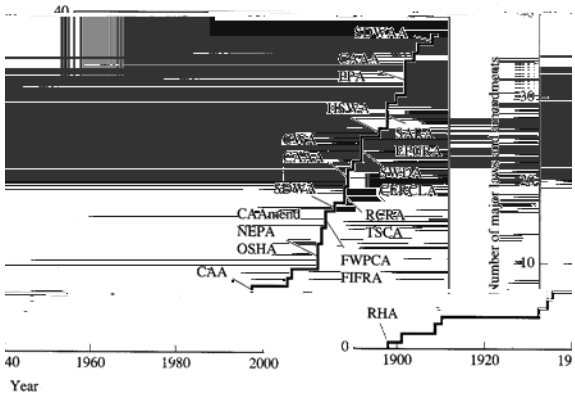
While a variety of these strategies have been effective, environmental justice communities still need even more tools to eliminate and reduce toxic exposures. Nevertheless, exploring all of these strategies has allowed us to get to this point where we can more clearly see and capitalize on our opportunities. Today, there appears to be a host of benefits in promoting pollution prevention, especially as a means of achieving environmental justice objectives**.**

These are complex times for new initiatives and short-term trends are unsettling. The recent chilling of the recently robust economy means less available resources and more competition for a dwindling supply of public and private dollars. A heightened concern over terrorism and national security has re-directed government priorities at both the state and national levels. Longer-term structural shifts in the national economy also present major challenges. Increasing globalization with a transition from traditional manufacturing to services and information technology has emerged in developed countries and growing operations of transnational corporations across the world accompanied by a growing distance between those who are doing well and those who are not. Longer-term trends such as habitat loss and alteration threaten resource conservation, biodiversity and the benefits that result from it.[7] Climate change and fresh

[6] Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994.

[7] National Geographic News, Near Total Ape-Habitat Loss Foreseen by 2030, United Nations Environment Program, Great Ape Survival Project (The report, released at the World Summit on Sustainable Development, indicated that less than 10% of the remaining habitat of the great apes will be left relatively undisturbed if the road building, mining and infrastructure developments continue at current levels.)





Definition

Pollution prevention ("P2") is the reduction or elimination of wastes and pollutants at the source. By reducing the use and production of hazardous substances, and by operating more efficiently, we protect human health, strengthen our economic well-being, and preserve the environment. Conventional pollution prevention encompasses a wide variety of activities including:

More efficient use of materials, water, energy and other resources
Substituting less harmful substances for hazardous ones
Reducing or eliminating toxic substances from the production process
Developing new uses for existing chemical-and process wastes
Recycling and reuse
Conserving natural resources

Reducing pollution at its source, or source reduction, allows for the greatest and quickest improvements in environmental protection by avoiding the generation of waste and harmful emissions. Source reduction helps to make the regulatory system m

methods to be applied can do this. Finally, action must be taken to implement the plan that best reduces the production of wastes and pollutants. Throughout this three-step process, the government can act definitively and reliably as an enabling partner in fostering pollution prevention.

e e n v 6 1

Additionally, pollution prevention involves multi-media approaches that work to solve environmental problems holistically rather than focusing on pollution in a single medium such as air, land, or water. Rules, regulations and solutions that are not multi-media may make existing problems worse. Sometimes this can result in the shifting of pollution from one medium to another. For example, in some cases, by requiring hazardous air emission controls for industri604P <<>>BDCBT/TT0 1 Tf0 Tc 0 Tw 12 0 ontro13001 584.06 Tm(s worse.

EPA defines environmental justice to mean the fair treatment of people of all races, cultures and incomes with respect to the development, implementation and enforcement of environm

As previously stated, Administrator Christine Todd Whitman confirmed [20] EPA's commitment to environmental justice, saying "[e]nvironmental justice is the goal to be achieved for all communities and persons across this nation" and that it will be achieved when everyone enjoys the same degree of protection from environmental and health

POLLUTION PREVENTION AND ENVIRONMENTAL JUSTICE

Pollution prevention, as a concept, was identified at the First People of Color Environmental Leadership Summit as a policy necessary for achieving environmental

For communities to have a direct influence on preventing, minimizing or eliminating pollution, capacity building in communities must be a priority of government and other stakeholders. This means comm

> regulatory requirements, while at the same time ensuring that companies in compliance will be able to benefit from the public good will that pollution prevention efforts usually bring. Enforcement is the "stick" counterpart to the economic "carrot" represented by pollution prevention. In that sense, strong enforcement plays an important complementary role to pollution prevention efforts.

Thus, rigorous enforcement is the companion of pollution prevention. Complexities emerge when this principle is applied at the facility and sector level. Smaller, less sophisticated firms often have difficulty understanding their permitting obligations and conforming to them. For large firms, the dynamic between pollution prevention and compliance is relatively simple: pollution prevention projects cannot be used to evade meeting the environmental performance mandated by applicable regulatory standards. Pollution prevention means exceeding an established standard, reducing an organization's environmental footprint in a manner not required by regulators, or improving environmental performance by reducing unregulated sources of emissions. A company subject to enforcement action for an instance of non-compliance does not forfeit the opportunity to engage in pollution prevention activities (which, after all, by definition reduce ambient pollution); but at the same time its participation in pollution prevention activities does not bar appropriate penalties for non-compliance.

For small businesses with challenges in understanding and achieving compliance, enforcement may need to be coupled with compliance assistance tools such as education and training before pollution prevention opportunities emerge. A more flexible approach may be required to achieve pollution reductions with sectors struggling to achieve baseline compliance. For currently unregulated sources (those not subject to permit requirements or other specific regulatory obligations), any voluntary step to reduce pollution could be termed pollution prevention. This designation of course goes away if the applicable regulatory authority creates mandatory compliance standards. In other words, pollution prevention is a rolling target, always exceeding the environmental standards promulgated as necessary to protect human health and the environment.

THE PRECAUTIONARY PRINCIPLE

Pollution prevention is consistent with the cautious approach to evaluating and addressing environmental risks that has been a cornerstone of many U.S. regulatory programs. Currently law and guidance are replete with examples of caution exercised in the face of scientific or technological uncertainty:

> The Clean Air Act's focus on health impacts without reference to cost
> New chemical review standards under the Toxic Substances Control Act
> The Food and Drug Administration's new drug approval process
> The Occupational Safety and Health Administration's implementation of the general duty clause

This report’s recommendation to continue rigorous enforcement of regulatory standards while also stimulating use of pollution prevention that goes beyond compliance can be

cause (or is causing) the environmental impacts that the community wants to stop. It is likely that, in addition to the tribe, a federal government agency or two also has some authority over the facility, but the tribe's status as a sovereign government is always an important factor in dealing with polluting facilities within reservation boundaries.

So, the tribe is the environmental justice community and the tribe is also a government with some measure of authority over the facility. In addition, the tribe may also be the business that operates, or seeks to operate, the polluting facility. The tribe might do this through a tribal enterprise or through a joint venture with a private business. Sometimes

increased morbidity and mortality locally[27] and throughout the world[28]. Research supports the community's view that asthma and other respiratory diseases, cancer, birth defects, liver and kidney damage and premature death, are all attributable, at least in part, to air pollution exposures[29]

Pollution prevention can also reduce the risk of cancer and non-cancer health effects in the occupational context for workers who are typically the first to be subjected to environmental exposures. However, improperly designed pollution prevention activities may increase workers' environmental burdens. For exam

how pollution prevention measures can benefit tribes.[35] As sovereign governments,

Economic Impacts

Communities believe that pollution prevention would be a proactive way to address the adverse economic impacts of pollution that exacerbate poverty and reduce earning ability. Pollution exposure has adverse economic impact on the cost of access to health care in environmental justice communities. Pollution exposures place a huge economic burden on society. Just four diseases associated with environmental causation cost the United States and Canada as much as 397 billion dollars a year.[40] There is emerging evidence of economic impacts associated with reduced intelligence from pollution exposures. Pollution also jeopardizes property values in impacted communities. Decreased property values translate into loss of equity for use in getting bank loans, and makes it more difficult to sell the property and relocate. Economic data indicates that residence near the fence line of industrial facilities has an adverse economic effect on property values whether or not the property is actually contaminated.[41] Property that is actually contaminated by a nearby source or with contaminated drinking water may be essentially worthless.

Communities inundated with brownfields, Superfund sites, and other abandoned, contaminated lands suffer adverse economic impacts and continuing health risks. Though some funding opportunities exist via new initiatives for brownfields redevelopment, funding is limited. Despite the Superfund and Brownfields programs, many contaminated sites have yet to be addressed.

In communities and indigenous lands throughout the country, subsistence farmers and fisherman depend on the land to provide food for their families. Pollutants, especially PBTs and heavy metals that enter the food chain can devastate this way of life. In addition, those small community businesses such as fish farms that depend on the environmental health of the water and land are also economically harmed.

In urban centers, abandoned properties create blight, accelerating the economic decline of the surrounding area. Rural communities may suffer similar harms when large tracts of land become contaminated and are then abandoned.

International Impacts

Pollution prevention has the potential to reduce pollution impacts on an international level. Globalization has resulted in the shifting of industrial production to developing

[40] Tom Muir and Mike Zegarac, Societal Costs of Exposure to Toxic Substances, Environmental Health Perspectives, Volume 109, Supplement 6, December 2001.
[41] Paul S. Kibel, FAB Quarterly Viewpoint, Full Cleanup Preserves Full Value, www.fablae.com/cleanup.htm.; Mundy Associates, LLC, Contaminated Property: Issues and Answers, June 2002, www.mundyassoc.com/contaminated.htm.

countries along with accompanying pollution and adverse health-related effects.[42] Global warming due to fossil fuel use, increased use of pesticides, and exploitation of natural resources in Third World countries cause loss of biodiversity, erosion and deforestation. Unsustainable policies and practices could be reduced through pollution prevention measures.[43] Most developing countries also do not have effective environmental regulation. History shows that lack of environmental regulation enables industries that produce toxic waste to be less vigorous in preventing pollution.

Pollution prevention is, at heart, a highly ethical concept that is wholly consistent with notions of environmental justice. That is why reduction of the use of non-renewable resources was identified at the First People of Color Environmental Leadership Summit as the 10th Principle of Environmental Justice – using as little as possible, through the Earth's resources." This principle is about sustainable development and fairness to subsequent generations. International efforts to promote sustainable development have resolved that issue and adopted the concept of "intergenerational equity" as a way to consider toxic EPAs."

Pollution prevention can help us meet environmental challenges faced by the human

A community-driven multi-stakeholder pollution prevention collaborative model would need to involve all major stakeholders as equals and incorporate sustainable economic development with a focus on improving the quality of life and health of community members. The model would be a means of addressing environmental quality and economic justice issues through community-driven multi-stakeholder pollution prevention collaborations.

Initial Scoping Meetings: Drafting the Petition

A community driven multi-stakeholder pollution prevention collaboration would begin with initial scoping meetings during which the impacted community would get together as a group and identify their issues and basic concerns in general terms. The universe of their issues or a specific issue could be the focus of the discussion. The issues would be discussed orally and issues articulated in a draft Environmental Justice Petition that would ultimately be presented to a regulatory agency.

The initial scoping meetings would only involve the community and its technical assistants. Communities routinely have their concerns dismissed and need to be assured that their instincts can be trusted. The community would need to work with an organizer, advocate, technical and/or legal support personnel to preliminarily investigate the issues identified using available data and information on line. The community concerns and identified issues should be validated and confirmed for the community using preliminarily available information in an initial training/capacity building meeting.

Building the Collaboration

After the initial scoping and submission of petition meeting, an entity or organization would help the community organize the initial multi-stakeholder meeting. Working with its technical support or organizers, the community needs to identify all stakeholders pertinent to addressing the issues and concerns raised regarding pollution reduction. The stakeholders should include industry, small business, municipal government, state, tribal and local environmental regulatory agencies, state, tribal and local health agencies, elected representatives and emergency responders. Other key stakeholders include Chambers of Commerce, health organizations, civic organizations, environmental organizations, as appropriate, and technical assistance organizations, as appropriate. All stakeholders must be invited to join the collaboration. Reluctant or missing stakeholders should be strongly urged to participate.

Organizing the Initial Collaboration Meeting

At the initial collaboration meeting, all stakeholders should identify who they are, what

At this juncture, the community draft environmental justice petition should be shared with the other stakeholders. In small breakout groups, information and capacity building needs for each stakeholder should be identified, articulated and documented.

At a minimum, government agencies need a training and information package on how this collaboration will improve the process and develop trust within the community. Government needs to know what benefits it can anticipate from this process. A major function of government in a multi-stakeholder pollution prevention collaboration is education. Government needs education on how it can more effectively carry out its role and provide technical assistance. Government needs to commit resources, including an identified staff person to participate. Government also needs to commit staff persons or consultants who can serve as technical assistance providers to identify appropriate and available specific pollution prevention approaches designed to address the concerns raised. A facilitator may be employed to assist in developing a consensus process. Finally, an independent observer can assist by documenting the process and measuring pollution reductions achieved.

The needs of industry must also be met in order for industry and small business to successfully participate in this process. At a minimum, industry needs an information package on how they can benefit from the process, including how pollution prevention can improve profitability. Industry can benefit from compliance assistance centers developed with the support of government, training on the collaborative process and how

nt, trainin5reenf l,se2c-works,0008 Telpd h.1709113 Tm(nim)Tj12 0 0 12 337.8829 460.5613 available spec

through[illegible] information [illegible]ange arranged to take place before the next multi-stakeholder collab[illegible]ve meeting.

C[illegible]ining; [illegible]ni[illegible] Setting Goals

Involv[illegible]nt of a non-s[illegible]lder expert or o[illegible]ing entity [illegible]oth partnership bu[illegible]g and t[illegible]evant subject[illegible]s crucial to the s[illegible]s of mul[illegible]keholder dialogues. partn[illegible] builder or c[illegible]zing entity would [illegible] to catal[illegible]mmunity based ac[illegible] by re[illegible]ning the local[illegible]erns, identifying[illegible]ngaging EPA [illegible]odology and [illegible]gue model to the [illegible]unity c[illegible]n in question, facilitating the in[illegible]discussion be[illegible]n stakeholders an[illegible]blishing [illegible]ms for ongoing comm[illegible]-based actio[illegible]esolve the concer[illegible]ith assist[illegible]from the organizing entity [illegible]mmunity orga[illegible]s or technical ass[illegible]e provider[illegible]information excha[illegible]oughl[illegible]ewed by technica[illegible] legal advis[illegible]

The community training/educational session should be based upon identified issues and information exchanged. The summary of this information should be fully developed and if needed, materials in appropriate language should be developed at this juncture to assist in the training.

The identified issues should be assessed, prioritized and refined by the community. The assessments should include discussion of the magnitude of the issues, the severity of the

mobile sources. Pollution prevention initiatives that will advance environmental justice must include a wide range of sources and activities. Focusing on stationary sources alone is inadequate to address the range of sources adversely impacting upon low-income communities and communities of color. At least fifty percent of the impacts of air pollution result from mobile sources. Pollution prevention initiatives for small facilities that are numerous such as dry cleaners, printers or auto body shops located in impacted communities may be just as important as reductions from individual stationary sources.

4. Pollution prevention should involve collaborations between all stakeholder groups and build capacity (through relevant tools, knowledge and education, and resources, where needed), should include adequate resources at the state and federal level and should promote new and emerging and existing technologies. Pollution prevention initiatives that promote environmental justice mu

7. Pollution prevention should apply relevant lessons from global experience. Successful international examples, especially in developing countries, of waste minimization, energy conservation and toxic use reduction can be incorporated into existing pollution prevention progr0009 Tc -0.000 7330.3061 667.5602 Tm(s and policies. Sim)

Chapter 2: Consensus Recommendations

The National Environmental Justice Advisory Council (NEJAC) is making the following consensus recommendations to the U.S. Environmental Protection Agency (EPA) on advancing environmental justice through pollution prevention. In making these recommendations, the NEJAC urges that EPA implement these recommendations with the full participation of all appropriate stakeholder groups. These include impacted communities, government at all levels (federal, state, tribal, and local), business and industry, and others. Implementation of the recommendations will improve the quality of the environment for all people, in particular low-income, minority and tribal communities. However, without the active engagement of these communities, sustaining the benefits of these recommendations will be virtually impossible. An involved community has a vested interest in the process and this will enhance the chances for immediate and long-term success. Business and industry also benefit through reduced environmental impacts as these types of changes often lead to more efficient processes, save money, and create jobs. By truly involving other groups, government fulfill its promise as an instrument of empowerment. Therefore, the active participation of all groups is to everyone's benefit and key to the successful implementation of these recommendations. pl630.782U153l 4.1808 TmV12 0 0 1truomendationtht ah(savbefte(grouceunoldet tee dif

b. Identify opportunities to integrate the use of the multi-stakeholder collaborative model to advance environmental justice though pollution prevention.

c. A program such as Perform

Actions items:

a. Provide resources to facilitate community and tribal participation in pollution prevention projects.

b. Utilize and widely disseminate pertinent educational materials already developed and translated into other languages.

c. Develop a Citizen Primer for Pollution Prevention technologies and strategies accessible to the laymen. Utilize pertinent materials already developed.

d. Create a pollution prevention-training academy for communities including a mobile academy that uses a cooperative approach among academic institutions, public and private training institutions, and resource centers, especially those designed for the environmental justice communities. This training should be inclusive of national and international laws that provide guidance in protection of rights and resources.

e. Create a pollution prevention-training academy for tribes, tribal colleges and Native organizations.

f. Compile a collection of case studies with viable examples featuring community and tribal representation in pollution prevention. Collaborations would be useful as an example of successful pollution prevention partnerships. A clearinghouse with the case studies could be placed on a Website. The multi-stakeholder collaborative model, once developed, should be provided to local governments and community organizations. The model will detail the steps to an effective community involvement process in pollution prevention projects.

g. Where appropriate, compliance penalties in environmental justice communities should be directed to pollution prevention projects that benefit the health, environment and quality of life of community members, rather than directing these funds to state and local general funds, or to the U.S. Treasury. Community members and facility employees should oversee these projects jointly in order to assure that community needs are met and improved collaboration between the penalized facility and its neighbors is facilitated.

I-3. Strengthen Implementation of Pollution Prevention Programs on Tribal Lands and Alaskan Native Villages.

Background: Tribal governments, tribal communities and Alaska Native villages face significant challenges in safeguarding their lands and treaty protected tribal resources on and off the reservations. When a viable tool to assist tribal governments in fulfilling their duty is available, it should be shared among the tribes and considered for adoption. The National Tribal Environmental Council (NTEC), an inter-tribal organization comprised of some 170 tribes, provides an important mechanism for sharing information on successful tribal government programs, through its annual conferences, its web site and other means.

Many other organizations can serve as resources for educational programs and for sharing information, including the Institute for Tribal Environmental Professionals (ITEP) at Northern Arizona University and the National Tribal Environmental Research Institute (NTERI), operated by the Inter Tribal Council

high quality, environmentally benign products at affordable cost. These activities not only reduce world pollution, but they seek to extend economic vitality to all.

Actions items:

a. Promote sustainable consumption and production patterns both locally and on an international level.

b. Continue the establishment and support cleaner production programs and centers. Additionally, the concept of waste minimization circles and clubs (currently in India, South Africa and Europe) can be expanded to involve greater community participation. This strategy could help to improve the profitability of SMEs and be an integral part of local poverty reduction strategies.

c. Continue cooperation with the CEC for implementation of pollution prevention programs in North American countries.

d. Expand U.S. technical assistance program to governments for development of environmental protection policies, regulations and laws.

e. Review existing federal program to identify ways to assist indigenous peoples in realizing the potential benefits of pollution prevention, through technical assistance for sustainable development within indigenous communities and through measures to avoid imposing environmental burdens on indigenous peoples in order to provide benefits for others.

II. MORE EFFECTIVE UTILIZATION OF TOOLS AND PROGRAMS

II-1. Identify and Implement Opportunities to Advance Environmental Justice through Pollution Prevention in Federal Environmental Statutes.

Background:

II-2. Promote Local Area Multi-Media, Multi-Hazard Reduction Planning and Implementation.

Background: Multiple sources of pollutants raise concerns because they may be concentrated in densely populated geographic areas where large numbers of people may be exposed. EPA recognizes that pollutants come from new and existing sources and in many cases from the cumulative contribution of sources including hazardous emissions from large and small businesses, agricultural run-off and other non-point water pollution sources and transportation related sources. Pollution prevention should target local sources with effective solutions. In order to accomplish this goal, toxics reduction plans should be developed that reduce overall pollution levels equitably in geographic areas covered by the plans, and assure that potential increases are not disproportionately borne, local areas covered by the plans should receive benefits and incentives, and the public should be meaningfully included in the development, implementation and evaluation of the plans. In addition, hazard reduction in industrial facilities, a key concern for environmental justice communities, EPA and the nation as a whole, should be addressed.

The potential of these efforts is enormous. More than 113 million lbs/yr (56,500 tons/yr) of hazardous chemicals and more than 152 million lbs (76,000 tons to date) of solvents have been eliminated through Green Chemistry initiatives. This includes elimination of CFC and VOC solvents as well as persistent, toxic, and bioaccumulating chemicals. These programs have also saved 55 million gallons/yr of water, saved 88.9 trillion BTU/yr of energy, and eliminated 57 million lbs/yr of carbon dioxide emissions.[48]

Action Items:

a. Local areas with multiple sources of pollution should develop toxics reduction plans that reduce overall levels of pollution and allow for assimilative capacity while assuring that overall toxic levels are going down. These plans should distinguish between permitted and non-permitted sources and activities and include proposals for source reduction and elimination. A key component of these plans should be creation of an inventory of specific sources of toxic exposure covered by the plan including the amounts of pollution released into the environment. This inventory should be developed with information from EPA as well as from environmental and health departments of state, tribal and local governments.

b. Toxics reductions plans should encourage state, local and tribal governments to use the broadest possible set of strategies to reduce air emissions, water pollutants and/or solid and hazardous waste that impact upon communities at risk. Actions can be source specific or community based and local planning and land use issues should be incorporated into these plans. Plans can be based upon voluntary actions or existing statutory authority to require specific reductions from new or

existing sources, to assure that new sources in the area still result in overall reductions in pollution and to assure the consideration of health impacts of exposure reductions and increases. Plans should identify opportunities to include pollution prevention in permitted facilities. Plans should include measures to prevent or eliminate potential unacceptable impacts. Plans should use the myriad of EPA and other methods and approaches in multi-hazard reduction planning.

c. Toxics reduction plans should include measurable goals and mechanisms for addressing overburdened areas and reducing pollution from permitted and non-permitted sources. Goals developed should be explicit, measurable, equitable and consistent with existing statutory and regulatory requirements. Goals should be developed in coordination with residents of the affected communities, and once developed, activities should be selected and measures should be chosen to achieve the goals of the plan while including the impacted community as a key partner.

d. Toxics reduction plans should include the affected community and keep the community informed of progress in achieving the goals of the plans. This can be done by providing regular progress reports and creating a public forum where the reports can be discussed. The community covered by the plan must be given sufficient information in advance to meaningfully review and comment on the plans. Communities should also be involved in updating and evaluating the success of the plans. Options for measuring the success of the plans can include ambient and/or source monitoring, inventory tracking and activity tracking.

e. State, tribal and local governments that develop and implement multi-hazard toxics reduction plans using a multistakeholder collaborative model should be eligible to receive administrative benefits as incentives for development of the plans. These benefits can include regulatory flexibility, financial support and recognition.

II-3. Promote efforts to incorporate Pollution Prevention and Environmental Justice in Supplemental Environmental Projects (SEPs).

Background: A SEP is an environmentally beneficial project, not otherwise required by law, which an individual, corporation or government entity (entity) a6 4c2 0 m

the project reduces adverse impacts to public health or the environment from the violation; or (3) the project reduces overall risk to public health or the environment from the violation.

Pollution Prevention SEPs involve changes that reduce or eliminate some form of pollution, or reduce pollutants, toxicity prior to recycling, treatment, or disposal. In the context of SEPs, pollution prevention is synonymous with source reduction. Examples of pollution prevention SEPs have included: use of less toxic materials to make products; modifications in the production process to reduce materials losses; changes in product design which require less pollution processes; and improved housekeeping. Pollution Prevention SEPs that implement source reductions are especially favored.

Pollution prevention assessments, which fall within the broader category of "Assessments and Audits," are systematic, internal reviews of specific processes and operations designed to identify and provide information about opportunities to reduce the use, production, and generation of toxic and hazardous materials and other wastes. To be eligible for SEPs, such assessments must be conducted using a recognized pollution prevention assessment or waste minimization procedure to reduce the likelihood of future violations. Pollution prevention assessments are acceptable as SEPs without a specific commitment to implementation. Implementation is not required because drafting implementation requirements before the resul,i6 aion assessm

c. Increase the number of Pollution Prevention-Environmental Justice SEPs by encouraging states, tribes, and municipalities to establish SEP policies; establishing system of incentives both within EPA and outside; and increasing comm

Action Items:

a. EPA, in partnership with states and tribes, should implement pollution prevention program and outreach efforts that target environmental justice communities. EPA should provide incentives to communities to participate in collaborative pollution prevention activities by offering resources for capacity building, disseminating literature and written information concerning pollution prevention and considering input from and environmental risks to communities when issuing permits and setting standards. Literature should include plain English and multi-lingual descriptions of pollution prevention resources. Permitting processes should include discussions among communities, business and government of opportunities to implement pollution prevention. EPA should designate within its Office of Enforcement and Compliance Assistance a knowledgeable technical assistance staff to coordinate EPA outreach efforts and facilitate dialogue among the community, business and government, help identify specific pollution prevention projects suitable for the community, and educate companies and communities about the existence of proven, cost-effective technologies and innovation opportunities.

b. EPA should identify "priority pollution prevention communities" based upon the risk posed to communities from the aggregation of polluting sources. This initiative should focus on communities of color and low-income communities, thereby reflecting the stated commitment of EPA to environmental justice. EPA should provide compliance assistance and pollution reduction and elimination incentives targeted at activities within these communities.

c. EPA should develop and implement programs, initiatives and incentives to encourage businesses to engage in collaborative partnerships to implement pollution prevention, use green technologies and non-toxic materials and design innovative processes in minority and low-income communities. These incentives may include special recognition of the business for its pollution prevention activities; low interest loans or grants for research into pollution prevention solutions to community risks; expedited permitting; consolidated multi-media reporting; flexible, multi-media, facility-wide permits with a single agent point of contact; "smart permits" that authorize a range of operating scenarios contemplated by the company obtaining the permit; compliance options in permits based on pollution prevention technologies or innovation; and increased emissions reduction credits or higher trading ratios where pollution prevention is used in the context of an emissions trading program to reduce pollution in an environmental justice community. EPA should also communicate pollution prevention ideas to industry sectors through trade associations, an integrated website, or other means and enhance the existing pollution prevention Roundtable. EPA should encourage groups supporting corporate environmental reporting (GEMI, the Conference Board, UNEP, ISO) to include separate line item reporting on pollution prevention in environmental justice communities.

d. EPA should initiate, and encourage states and tribes to initiate, programs to assist small businesses in developing and implementing pollution prevention activities including source reduction, waste minimization and recycling.

e. EPA should facilitate the formation of government-private sector partnerships to encourage businesses that cannot eliminate wastes to recycle them. EPA should develop programs to increase the volume of recyclable and reusable materials collected from public and private sources (e.g. electronics and paper from businesses and consumers). EPA should provide incentives to increase use of products made from recyclable materials. Without product use, collection of recyclables is unsustainable.

III. SUSTAINABLE PROCESSES AND PRODUCTS

III-1. Encourage "Green Buildings," "Green Businesses," and "Green Industries" through EPA's Brownfields and Smart Growth programs.

Background: Businesses, communities, and tribes share a common interest in returning properties with actual or potential environmental contamination to productive use. Brownfield projects, which by their nature often reduce pollution by remediating and reusing formerly impacted properties, routinely incorporate dialogue with neighboring community members to identify their goals for site response and reuse, whether these projects are coordinated by EPA, states or performed independently under the ASTM standard for brownfields. The new brownfields legislation, the Small Business Liability Relief and Brownfields Revitalization Act, encourages environmentally friendly redevelopment through brownfields grant selection criteria, e.g. "The Administrator shall establish a system for ranking grant applications received under this paragraph that includes... [t]he extent to which a grant would facilitate the use or reuse of existing infrastructures." EPA has also been active in facilitating recreational community enrichment projects, such as converting brownfields into community parks and recreation fields, where is has been demonstrated that contamination no longer exists. EPA currently is developing guidance for implementation of the Brownfields Revitalization Act to clarify that cleanups undertaken under these programs will incorporate robust public participation measures, such as those included in the ASTM Standard Guide for Process of Sustainable Brownfields Redevelopment. (November 1, 1998).[49]

Projects should address equity issues and promote green industries development as well as the use of existing infrastructure. One such "green building" brownfields development is a project by Bethel New Life project in Chicago. Similarly, EPA worked with community group members, local government, the school district and the site owner to transform the closed, remediated H.O.D. landfill and its buffer property into a multi-use recreational facility. Efforts were made to ensure that no further contamination from the

landfill would impact the new walking and running trails, ball fields and a planned ecological education laboratory. To assure long-term environmental protection and provide "green energy," landfill gas collected at the closed facility will be collected and used to heat school buildings and homes. In additional examples, New York state remediation projects, which benefit the environment and have potential for public or recreational use of cleaned up property, are eligible for grants.

Actions items:

a. EPA, in cooperation with other federal agencies, should provide clear, readily accessible information to encourage new development, construction or redevelopment. These efforts should include green building materials, sustainable energy options and sustainable transportation options.

b. Brownfields projects should use the opportunity to reuse land to support more sustainable use of the land that does not leave contamination for future generations. One way to do this would be to encourage and promote a green

to move themselves and freight in an environmentally sound way. Similarly, they would enable communities and economies in a planned manner so as to function with less need to move people and goods. These strategies are critical for improving the quality of life of minority, low income and tribal communities and other transportation disadvantaged and sensitive populations such as those with respiratory illnesses, the elderly, the disabled, and children, which historically receive the least benefits of adequate transportation systems while often bearing the greatest burdens.

While only 8% percent of American households do not own motor vehicles on average, that number jumps to approximately 22% for black families. Also approximately 80% of all vehicle-less households earn less than $25,000 annually. This makes access to clean, affordable mass transportation an area of concern from an environmental justice perspective. Programs that promote building of transit oriented communities (land use), reducing the cost of mass transit use (commuter choice) and retrofitting of the existing transit fleet with cleaner engines (retrofit) help assure that all people have access to high quality and affordable transportation systems.

Important pollution prevention challenges in the area of transportation from an environmental justice perspective include meaningful community involvement in the transportation planning process and proper consideration of land use issues. Additionally, greater utilization of environmental friendly and non-polluting vehicle technologies and tools would help address potentially adverse and disproportionate air quality and other environmental and health impacts from transportation related pollution.

Due to Clean Air Act requirements for cleaner vehicles, engines, and fuels today the average new car is forty percent cleaner than in 1990. Everyday, across nation, clean air programs prevent 600 premature deaths; 2,000 cases of chronic illness such as asthma and bronchitis; 300,00 cases of minor respiratory illness such as aggravated asthma; and 75,000 people from missing work. However air pollutants still present a significant health risk. The Journal of the American Medical Association recently found that airborne pollutants generated by diesel-powered vehicles caused reduced lung function, lung dam

c. Ensure that transportation planning and environmental impact studies consider the impacts of transportation policies and projects and promote use of clean transportation technologies as part of pollution prevention and mitigation measures where impacts are or ma

interagency agreement negotiation support, compliance monitoring, targeting support and technical assistance and capacity building.

FFEO provides pollution prevention training, policy and guidance, funds pilot projects and advocates the use of Environmental Management System Reviews as a way of identifying areas at federal facilities where environmental quality improvements are possible. FFEO also coordinates environmental justice initiatives related to federal facilities with the Regions.

Federal facilities offer a wide range of opportunities to improve environmental performance that can benefit low-income communities, communities of color and tribes, particularly when those facilities are near or in impacted communities. Public information and input on compliance and performance improvements at 800,000 regulated facilities, including federal facilities, has recently been made available through an on-line database, Enforcement and Compliance History Online ("ECHO"), that provides users with detailed facility reports as well as a demographic profile of the surrounding area. This service allows communities to identify facilities in compliance and ascertain where improvements beyond compliance are possible. Examples of pollution prevention successes are detailed in FFEO's FEDFACTS, published by EPA.

Action items:

a. EPA should expand initiatives to improve compliance at federal facilities on Indian lands. Demonstration pollution prevention partnerships should develop with DOI and other agencies whose activities impact upon Indian lands. Workshops that include all stakeholders should be held to improve capacity building and compliance assistance. These workshops should be targeted towards tribal, Bureau of Indian 84eyb8g area126.0049 6taIAhat pro8 Tc -0.0008 Tw 12 0 0 12 90 501.96321

areas where mercury use reductions were possible. Successful projects that reduce toxics use should be showcased and replicated whenever possible.

c. Recycling of formerly used defense sites ("FUDs") should be accelerated in impacted communities in order to reduce risk to those communities from nonsustainable disposal practices and develop economic opportunities there. Accelerated reuse of FUDS increases the return of formerly used contaminated lands into productive sites for the community-- effectively recycling those sites. One such site, Brooks Air Force Base in San Antonio, Texas, was recently issued the first "Ready for Reuse" certificate for a federal facility nationally. Other communities that can benefit from successful reuse of FUDS should be prioritized based upon the impact upon the community and community characteristics so that reuse can be targeted to maximize the greatest benefits.

94 05 m 9 501 961 l S h(2 ar i 412 0 0 12 126 0122 48 474 36 13 Fi 4 m)T834543.3609 Tm(t8 47

d. Facility compliance records should be reviewed on line. Facilities in compliance should be targeted for pollution prevention improvements, including use of less toxic materials, more efficient energy use, green purchasing, and recycling of formerly used facilities.

e. Facilities that are not in compliance can benefit from

Reduction of toxic and hazardous emissions;
Protection of human health and the environment along the entire life cycle of a product (material extraction to ultimate disposal); and,
Utilization of concepts such as industrial ecology and eco-efficiency that promote careful attention to material flows, the reuse of waste products, and continuous efforts to improve the efficiency of energy and resource use.

Cleaner production is rooted within the concept of a circular, life-cycle vision of the economy, meaning that a product's impacts are considered from raw material extraction through final production and disposal and ways are identified to reduce the negative impacts throughout the whole process. This concept of cleaner production was adopted into "Agenda 21" of the 1992 United Nations Conference on Environmental and Development and is used internationally to characterize production practices geared towards sustainable forms of development.

Cleaner production and cleaner energy can play an important role for pollution prevention proponents in environmental justice and tribal communities in at least six areas.

First, promoting cleaner production and cleaner energy at existing industrial facilities offers environmental justice communities positive ways of encouraging business/community partnerships that can jointly seek safer, less energy and resource intensive, and more environmentally friendly businesses that stay in communities and continue to offer local jobs. Confronting polluting facilities with confident expectations that there are alternative technologies and processes that can be adopted within the production operations that would reduce or eliminate the worst hazards offers environmental justice advocates a valuable "solution-oriented" perspective on how to work directly with local businesses

Second, using cleaner production concepts as decision specifications provides a means of promoting employment opportunities and economic returns on Brownfields development sites without reinvesting in the kind of production facilities that originally created those contaminated sites. Where environmental justice advocates have the opportunity to participate in decision-making about the future uses of Brownfield sites or other abandoned industrial facilities, they should urge that only firms guaranteeing the highest state-of-the-art clean technologies and practices should be considered for those future developments.

Third, cleaner energy production means relying on decentralized forms of energy generation that derive energy directly from renewable sources (wind, solar or biomass) rather than non-renewable sources (fossil fuels) that must be mined from the earth's crust. Distributed energy generation sources means that lower income neighborhoods can generate energy off the grid and away from centralized fuel-fired power plants. Wind and solar energy generation means reduced levels of pollution from coal and oil fired energy generation facilities that are often sited in

environmental justice communities. Reduced reliance on oil, natural gas, coal, and nuclear energy reduces the need to explore, mine and pump in rural areas and on Tribal lands.

Fourth, energy conservation and cleaner fuels can encourage the diffusion of the next generation of transportation systems that prioritizes mass transit and decreases reliance on single passenger motor vehicles that congest highways and increase the pollution that harms the public health and dimi

d. Promote the use of recycled products and secondary materials in local businesses and institutions in order to reduce the need for mining virgin materials or producing new synthetic materials.

e. Encourage the participation of low-income, minority and Tribal communities in the purchase of cleaner energy through blended or block products or green energy certificates that promote market transitions towards renewable energy sources.

f. Promote energy conservation programs such as federal, state and local low-income weatherization programs, the Commuter Choice Leadership Program, the Green Vehicle Guide, and the Clean Air Transportation Communities Grants to reduce the negative health impacts on inner city neighborhoods of oil derived fuel consumption in motor vehicles.

g. Provide assistance to tribal government in using their sovereign powers to

greater risk of release of harmful substances to the environment. Household waste often contains some toxic substances that can reach dangerous levels when high volumes of waste are concentrated in landfills. More waste means more trucks may need to enter a community to transport that waste, leading to increased emissions, safety concerns in neighborhoods, and risks of waste spills.

A gap in the in the Resource Conservation and Recovery Act (RCRA) has made municipal waste regulation on tribal reservations an area of special concern. RCRA does

minimization plans, and encourage the sharing of this information (allowing for confidential processes to remain confidential).

c. EPA should encourage collaborative partnerships between governments, communities, and businesses to create and implement solutions to waste generation.

d. EPA should encourage businesses to design products that are recyclable or have extended useful lives and promote the reduction of packaging in consumer goods. EPA should encourage businesses to develop product-recycling programs that accept and recycle old products in a safe and responsible manner.

e. EPA should facilitate the creation of incentives for the purchase of recycled materials and work with other agencies within the federal government to offer recycled products as viable alternatives.

f. EPA should identify and eliminate economic barriers to waste minimization, as well as provide incentives and eliminate existing regulatory disincentives to market development for recycled products.

g. EPA should provide technical assistance, grants, and loans to small businesses and communities and educate them in the potential benefits of waste minimization.

h. EPA should provide technical assistance to tribal governments for the regulation of municipal waste.

i. EPA should develop award programs for businesses or communities that achieve excellence or show innovation in waste minimization

j. EPA should investigate impediments in the recycling process that prevent wastes from actually being recycled and develop procedures to overcome these im

[Page Intentionally Blank]

PART II: STAKEHOLDER PERSPECTIVES

CHAPTER 3: COMMUNITY PERSPECTIVES

CHAPTER 4: TRIBAL PERSPECTIVES

CHAPTER 5: BUSINESS AND INDUSTRY PERSPECTIVES

CHAPTER 6: GOVERNMENT PERSPECTIVES

[Page Intentionally Blank]

CHAPTER 3: COMMUNITY P

or technologies should also employ the precautionary principle for guiding decision-making under conditions of uncertainty.

Pollution prevention lacks the enormous impediments to implementation that are shared by the other approaches requiring legislative action, enforcement or success in litigation. As a concept it has the support of communities. However pollution prevention has many definitions, several definitions vary depending on which stakeholder group is defining pollution prevention, and is used to describe many activities including those that do not involve communities. Pollution prevention could be more accessible to communities if they could see themselves more directly involved and invested in it. For communities to turn to pollution prevention as a way of addressing environmental inequities, they need to have an established role in pollution prevention planning, projects and activities. Recognizing the importance of that role, communities define pollution prevention as it applies to environmental justice as "activities that include community involvement and participation to reduce, minimize and eliminate pollution through sustainable practices that demonstrate sustainable development and activities that go beyond compliance." Communities also need to feel that their role will have an impact on the process rather than being used to play a public relations role. This chapter describes the community perspective on pollution impacts, the value of pollution prevention to communities and measures to more fully integrate pollution prevention to advance environmental justice.

UNDERSTANDING POLLUTION IMPACTS

Communities of color, low-income and tribal communities suffer from numerous adverse pollution impacts from non-sustainable environmental practices that could be reduced or eliminated through pollution prevention measures. These impacts include unfavorable health effects and adverse impacts which are environmental, societal, economic, and international. Reducing all of these adverse impacts from pollution is a key concern of communities that is also shared by the Environmental Protection Agency. The chief goals of the major environmental protection statutes administered by EPA are "protection of public health and the environment". EPA's Framework for Pollution Prevention acknowledges the relationship between preventing adverse health impacts and preventing pollution by stating that partnership with the public health community is a key objective in order to demonstrate that "pollution prevention is disease prevention". [1]

Health and Environmental Impacts

Pollution prevention measures can reduce poor air quality that is believed to contribute to illness and premature death in communities. Outdoor air pollution is responsible for

[1] EPA Pollution Prevention Policy Framework, Guiding Social Principles, www.epa.gov/p2/p2ppolicy/framework.htm.

Pollution prevention can also reduce the devastating effects of pollution on the environment for plants, animals, marine life and other living things including people who rely on the environment for subsistence food gathering. Some pollutants are persistent (degrade slowly) and bioaccumulate in the environment, often becoming part of the food chain ultimately consumed by people. These types of pollutants, persistent bioaccumulative toxics, are commonly referred to as PBT's. Health effects from subsistence food consumption can translate into extraordinarily high risks for cancer and non-cancer health effects.[6]

Native American and Alaskan Native Nations can benefit from pollution prevention because they are exposed to many of the same environment threats as other communities of color. They suffer from adverse effects of pesticides and other hazardous substances.[7] These exposures result into a variety of adverse health effects including asthma, hypertension, thyroid disorders, cancer and leukemia. Pollution has also impacted upon their ability to engage in traditional cultural practices.[8] However risks to Native Nations are increased because they have not had adequate resources on a government-to-government basis to address those risks.[9]

Societal and Developmental Impacts

Societal and developmental impacts that communities believe that are pollution related can be reduced through pollution prevention. Disparities in socioeconomic status result in health disparities that are exacerbated by environmental exposures.[10] Health care

---

[6] According to the NEJAC Fish Consumption Report, low-income communities, communities of color and tribes have subsistence fish consumption rates ranging from the 90th to the 99th percentile rates for the general population. These fish consumption rates translate into extraordinarily high risks for cancer and non-cancer health effects;Industrial Technology Associates, EPA Cumulative Exposure Assessment for Greenpoint-Williamsburg, 2000 (concluding that total cancer risks from fish consumption range from 1 in 10 to 1 in 1000); Jason Corburn, Combining Community-Based Research and Local Knowledge to Confront Asthma and Subsistence Fishing Hazards in Greenpoint-Williamsburg, Brooklyn, New York, Environmental Health Perspectives Supplements, Volume 110, Number 2, April 2002.

[7] Lorraine Halinka Malcoe, Robert A. Lynch, Michelle Cozier Kegler and Valrie A. Skaggs, Lead Sources, Behaviors and Socioeconomic Factors in Relation to Blood Lead of Native American and White Children, Environmental Health Perspectives Supplements, Volume 110, Number 2, April 2002; Somini Sengupta, A Sick Tribe and a Dump as a Neighbor, The New York Times, April 7, 2001.

[8] U.S. Fish and Wildlife Service, Division of Environmental Quality, Pesticides and Wildlife, Pesticides and Wildlife, July 2001, http://contaminants.fws.gov/Issues/Pesticides.cfm.; Lisa Mastny, Coming to Terms with the Artic, Worldwatch Institute, Worldwatch, Volume 13, p. 24, January 2000.

[9] Mary Arquette, Maxine Cole, Katsi Cook, Brenda LaFrance, Margaret Peters, James Ransom, Elvera Sargent, Vivian Smoke and Arlene Stairs, Holistic Risk-Based Environmental Decision Making: A Native Perspective, Environmental Health Perspectives Supplements, Volume 110, Number 2, April 2002

[10] Nancy E. Alder, and Katherine Newman, Socioeconomic Disparities in Health: Pathways and Policies: Inequality in Education, Income and Occupation Exacerbates the Gaps Between the "Haves" and the "Have-nots", Health Affairs, April 2002

There are also adverse economic affects and viability impacts on the communities inundated with brownfields, superfund, and other abandoned lands, especially when those sites are contaminated. In addition, these sites provide continued exposure to contamination. Though some funding opportunities exist via new initiatives for the communities with brownfields, the funding is limited and few receive these benefits. In

despite the efforts of government. The phenomenon of unequal environmental protection in communities of color and low-income communities has been documented in a growing body of research, including the National Law Journal's 1992 study on EPA's superfund program titled "*Separate but Unequal*

ranking state economic performance with environmental measures has consistently found that the states that work to promote a healthy environment have sound economies.[28]

A third premise supporting the concept of pollution prevention as a way of improving advancing environmental justice and environmental quality is acknowledging the importance of enforcement. Enforcement is not a substitute for pollution prevention nor is pollution prevention a substitute for enforcement. Enforcement is necessary in the absence of compliance and often involves the imposition of fines or penalties intended to have a deterrent effect. Inadequate fines fail to achieve deterrence and lead to the conclusion that fines and penalties are a cost of doing business that can be absorbed.[29] Anecdotal evidence from the U.S. Department of Justice indicates that certain environmental programs which lack strong criminal sanctions (such as the mobile source requirements under the Clean Air Act) often have high rates of violation, suggesting that criminal sanctions create a deterrent effect.[30]

Pollution prevention must start from a baseline of compliance with existing local, state, Tribal and Federal environmental laws and better enforcement when needed. Increasing fines and penalties in the case of flagrant violations of environmental law is a mechanism available to reduce pollution and should be used when warranted. Pollution prevention should also include fully implementing the Pollution Prevention Act by identifying the opportunities in existing federal environmental laws for more fully incorporating pollution prevention.

A forth premise for implementing pollution prevention to achieve environmental justice affirms the relationship between pollution prevention and sustainable community development. A multifaceted approach to building grassroots capacity for pollution prevention strategizing and project implementation begins with a vision for a strong, healthy and sustainable community. Community development organizations must include pollution prevention as a requirement for community planning and project development. Planning for a thriving, productive, healthy community is a proactive approach to restoring communities and safeguarding them from future damage.

A fifth premise for incorporating pollution prevention as an environmental justice strategy is the recognition that pollution prevention measures must address the needs of special populations. Children, the elderly, individuals with compromised immune systems, women of child-bearing ages and other susceptible populations must be considered when developing measures to reduce pollution. Cumulative impacts must also be addressed.

---

[28] Mark Douglas Whitaker, Green and Gold 2000, Institute for Southern Studies, November 2000, www.southernstudies.org
[29] Sharon Begley and Bob Cohn, One Deal That Was Too Good for Exxon, Newsweek, May 6, 1991.
[30] Suellen Keiner, Esq., Forum on Deterence of Environmental Violations and Environmental Crime, Environmental Law Institute, July 1999

In order to make a significant difference in environmental quality a final premise is that opportunities and areas for incorporating pollution prevention to advance environmental justice currently exist. These are areas where pollution prevention can make a huge difference now in the lives of low-income communities and communities of color.

AREAS WHERE POLLUTION PREVENTION CAN IMPROVE ENVIRONMENTAL QUALITY

Pollution prevention technologies can reduce the impacts of fugitive emissions from stationary sources. Integrated pest management can reduce health and other pollution impacts to farmworkers from pesticides and agricultural chemicals using source reduction, process changes and product substitution. Dry cleaners, printers and metal shops have all been involved in pollution prevention measures that involved source reduction, product substitution and production or process changes. Auto repair facilities have been successfully involved in a number of pollution prevention initiatives to reduce exposures through best management practices.

In the beauty care field, beauticians and customers in a Boston community concerned about toxic exposure to chemicals in hairdressing solons focusing on hair straighteners and artificial nails products came up with an idea for healthy hair shows using environmentally sound hair using nontoxic hair care products. A Massachusetts beauty

ENVIRONMENTAL QUALITY

Emissions from older facilities, especially coal-burning power plants, are especially troublesome as they contribute tons of pollutants annually and are either not bound by regulations, or those regulations are not being enforced. In order to maintain standard of living while protecting human health and the environment, fundamental changes are required in the area of product and process substitution, focusing on the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. Human health and environmental benefits can be realized by designing toxicity and hazard out of the chemical manufacturing process. Pollution prevention should target local sources with effective solutions. The potential through these efforts is enormous. More than 113 million lbs/yr (56,500 tons/yr) of hazardous chemicals and more than 152 million lbs (76,000 tons to date) of solvents have been eliminated through Green Chemistry initiatives. This includes elimination of CFC and VOC solvents as well as persistent, toxic, and bioaccumulative (PBT) chemicals. These programs have also saved 55 million gallons/yr of water, saved 88.9 trillion BTU/yr of energy, and eliminated 57 million lbs/yr of carbon dioxide emissions.

4. Pollution prevention resources and funds should be directed primarily at impacted communities and their selected representatives which are addressing environmental justice and pollution prevention issues, not other external bodies such as organizations set up by polluters.
5. Increase community awareness. Diesel education project were effective in terms of level of awareness. Dry cleaner project raised awareness.
6. A national disease registry, beyond cancer, of diseases associated with chemical releases should be established. This registry should monitor disease associated with chemicals being released should exposure occur and develop innovative responses to reduce it. Most states have cancer registries or lead poisoning registries and several states have legislation calling for epidemiological research into the prevention of environmentally related diseases. Disease registries and especially lead poisoning registries have resulted in reductions of lead exposures to children as areas of disproportionate lead exposure are identified.
7. The environmental justice community strongly recommends that the precautionary principle be incorporated in environmental decision-making and the development of environmental regulations, policy and programs particularly in over-burdened communities (exposure to cumulative and synergistic affects).
8. Incentives should be developed that encourage businesses to employ a precautionary approach in their production processes.
9. A variety of improved enforcement mechanisms can serve as effective pollution prevention tools in appropriate cases including increased use of Supplemental Environmental Projects that focus on pollution prevention.
10. Fines and penalties imposed for noncompliance should be set aside to fund environmental initiatives for the burdened community. There is precedent for this and it serves as a way to assure that local benefits result from the imposition of fines.
11. Better oversight by EPA and review of delegated programs should be employed to improve enforcement measures in cases of environmental protection failures. At the same time, governmental efficiency can be improved by streamlining bureaucracy unless public health or the environment is imperiled.
12. Brownfield projects should focus on green building, green business and green industry incubation models.
13. Restoration of on and off-site areas impacted by pollution should be accomplished using sustainable remediation practices such as photo-remediation.
14. Where cumulative impacts are apparent, a pollution reduction plan should be developed with the help of the federal government and should be memorialized in an enforceable agreement even if the surrounding facilities operate within the legal limits. The federal agency should also provide resources to the local government to assist in the plan.
15. Small businesses and entrepreneurial enterprises should receive technical assistance and support if they are willing to incorporate pollution prevention in their business philosophy and practices. Communities that are heavily

supports the reduction of pollution impacts on public health and the environment. These shared values offer the potential for the stakeholders to work collaboratively in a way that may not have been available to them previously, to develop innovative strategies that meet their interests that do not require enforcement, to build trust and improve communications in their relationships, and to work together towards the goal of achieving environmental justice.

The federal government has not always lived up to its obligations to Indian tribes. In contemporary America, many Indian tribes live with the legacy of the "allotment" era of 1887 to 1934, when federal laws sought to force Indian people to give up their tribal ways of life and become assimilated into the mainstream of American society. During the allotment era, the federal government forcibly took commonly owned lands from many tribes, allotted these lands to individual tribal members (generally to encourage farming), and invited non-Indians to settle on the so-called "surplus" lands.[6] Congress repudiated the policies of the allotment era in 1934, but the legacy is that many reservations have substantial populations of non-Indians, many of whom are landowners. In the last quarter century, although Congress and the Executive Branch have consistently supported tribal self-government, the Supreme Court has imposed new limits on the sovereign powers of tribal governments, in effect resurrecting the repudiated policies of the allotment era.[7]

Some indigenous communities are not currently recognized as sovereigns by the federal government, but such communities may nonetheless have environmental or public health concerns that are different from other groups or the general public due to a subsistence lifestyle or unique cultural practices.[8] As citizens of the United States, indigenous groups or organizations and individual members of recognized tribes also have the rights to environmental and public health protection from federal agencies available to other citizens.[9]

Federal agencies must interact with tribes in a manner consistent with their sovereign status and rights under federal law. To accomplish this aim, the Environmental Protection Agency has adopted a formal policy statement governing its relationship with tribes and the implementation of its programs on Indian reservations.[10] EPA's policy states that EPA will incorporate Indian Policy goals into its planning and management activities including, among other things, its budget, legislative initiatives and management accountability system.[11] Beginning in 1986, several of the major federal environmental statutes have been amended to authorize EPA to treat tribes like states for various purposes, and EPA has issued numerous sets of regulations to carry out these

---

[6] *See generally* Id. at 127-39.

[7] See generally David H. Getches, Conquering the Cultural Frontier: The New Subjectivism of the Supreme Court in Indian Law, 84 CAL. L. REV. 1573 (1996); Philip P. Frickey, A Common Law for Our Age of Colonialism: The Judicial Divestiture of Indian Tribal Authority Over Nonmembers, 109 YALE L. J. 1 (1999).

[8] National Environmental Justice Advisory Council, Indigenous Peoples Subcommittee, Guide on Consultation and Collaboration with Indian Tribal Governments and The Public Participation of Indigenous Groups and Tribal Members in Environmental Decision Making, November 2000 at p. 10.

[9] Id.

[10] Environmental Protection Agency, American Indian Environmental Office, EPA Policy for the Administration of Environmental Programs on Indian Reservations, 1984, www.epa.gov/indian/1984.htm.

[11] Id

statutory amendments. Many tribes have made substantial progress in developing environmental regulatory programs pursuant to federal law, but many obstacles have proven difficult to overcome. Some obstacles are matters of funding and other kinds of assistance; other obstacles have to do with challenges to the exercise of tribal sovereign powers. The result is that in much of Indian the environmental regulatory infrastructure is simply not comparable to that in most of America.

TRIBAL POLLUTION CONCERNS THAT CAN BE ADDRESSED BY POLLUTION PREVENTION

Tribal pollution prevention concerns can be categorized by a variety of owner-operator interests. Pollution may be generated by nongovernmental entities, by tribal members, by nonmember Indians, by non-Indians, by corporate and business entities and by small businesses that may be tribal operating on tribal trust lands, on individually-owned Indian trust lands, or on private lands within reservation boundaries.

The tribal entities with the authority to address these pollution prevention concerns include the legislative and executive branches of tribal governments, tribal government agencies and departments and tribal business enterprises. Federal agencies, acting in a manner consistent with their trust responsibilities, also have the authority to implement pollution prevention measures in the context of their land management or financial assistance roles. These agencies include, the Bureau of Indian Affairs, the National Park Service, the Fish and Wildlife Service, and the Indian Health Service, Department Housing Development, and the Administration for Native Americans. Some agencies manage lands outside reservation boundaries (and in some cases within reservation boundaries) where pollution prevention measures could benefit reservation environments or off-reservation resources in which tribes have treaty or statutory rights or other interests. Such agencies include the Bureau of Land Management, the National Park Service, Fish and Wildlife Service, Forest Service, and the Department of Defense. Each agency responsible for generating pollution on Indian lands, or affecting off-reservation resources of importance to tribes, should have a fully funded viable pollution prevention program in place that was developed in consultation with tribes.

State and local agencies including municipalities also have the ability to address pollution concerns through pollution prevention measures in consultation with tribes. Nonfederal projects on tribal lands that are permitted or funded cause additional pollution impacts.

Pollution concerns of some tribes, particularly those with reservations near international boundaries, may also be addressed by entities that have transboundary authority such as the International Joint Commission which oversees water quantity and quality in the

rivers and lakes that lie along or flow across the United States-Canada Border,[12] the Commission for Environmental Cooperation which studies and makes recommendations on the long range transport of air pollution, the International Air Quality Advisory Board,[13] the United Nations Economic Commission for Europe,[14] Environment Canada or Partners in Flight which oversees populations of migratory birds and others. There are wide ranges of pollution generating activities that take place on tribal lands and each activity creates different adverse environmental impacts. These activities include mineral extraction, agriculture, forestry, waste disposal, and storage and processing activities, industrial plants, schools, federal and tribal governmental facilities and infrastructure and Department of Defense facilities.

These activities result in numerous adverse environmental impacts. For example mineral extraction is extremely damaging and causes air, water and soil pollution. Agriculture and forestry causes soil and water pollution and results in habitat loss and loss of biodiversity, wildlife and marine life. Waste storage, disposal and processing may cause air, soil and water pollution. Operation of industrial plants, schools, and federal and tribal governmental facilities may result in air, water and soil pollution as well as impacts upon cultural resources, cultural practices and sacred sites. Finally Department of Defense facilities have had devastating pollution impacts on tribal lands including impacts on air, water and soil. All of these polluting activities can have adverse impacts on historical resources. All of these activities have adverse impacts on human environmental and ecological health.

ent

ADVANCING ENVIRONMENTAL JUSTICE THROUGH POLLUTION PREVENTION
NEJAC Pollution Prevention Report
June 2003

A

CHAPTER 5: BUSINESS & INDUSTRY PERSPECTIVES

This chapter was authored by members of the Business and Industry Stakeholder group to elaborate on the views of the members of that group, not necessarily reflect the views of members of other stakeholder groups or of the NEJAC Executive Council.

INTRODUCTION

Business and industry's perspectives on pollution prevention have several premises in common with other stakeholders. First, business agrees that the term is broad and can 0.0793n90 701.34 re views

relations, economic and other incentives, businesses may devote resources toward invention, innovation or adoption of new technologies that can reduce or eliminate pollution and save costs, or alternatively utilize well-established but less innovative techniques to satisfy rigid regulatory prescriptions. If communities can be assured that affording increased flexibility to businesses will yield enhanced environmental performance, particularly in the aspects of most concern to community members, pollution prevention may produce tangible benefits for both businesses and communities.

Business statements on pollution prevention make clear that, for the most part, such efforts, if they are to be sustainable and effective, must be voluntary rather than prescribed by regulation. In 1998, The Business Roundtable published a benchmarking study of pollution prevention planning among the Fortune 250 companies the association represents, and three conclusions were drawn:

> Pollution prevention planning will be important for years to come.
>
> Pollution prevention planning should be tailored to an organization's unique needs and circumstances – wherever possible, integrated into core business activities.
>
> Pollution prevention planning practices do not lend themselves to a "one size fits all" approach. Mandates can be beneficial in some circumstances but are detrimental in others.

"A Benchmarking Study of Pollution Prevention Planning: Best Practices, Issues, and Implications for Public Policy" (August 1998).

The third bullet is worth explaining. In the study, the Roundtable found that state-level pollution planning requirements were useful in giving a planning framework for companies unfamiliar with pollution prevention. For companies already participating in pollution reduction planning, however, these state-mandated paperwork requirements were duplicative of company practices and in some cases actually discouraged innovation, development of substantial new initiatives, and integration of pollution prevention planning into core business strategy. In effect, pollution prevention required by regulation became a paperwork exercise relegated to environmental, health and safety managers rather than an element of senior management's strategic design and operating plans. A well-designed government program would provide planning, education and assistance to less sophisticated companies while affording all companies the flexibility to implement pollution prevention strategies in innovative ways best suited to their organizations and cultures.

Business and industry's pollution prevention efforts routinely include public participation elements intended to communicate to the general public and to communities in which they operate company initiatives to improve environmental quality. For example,

pollution prevention efforts undertaken under EPA's Common Sense Initiative and Project XL include substantial dialogue and collaboration among facilities, regulators and community members on how changes to operations can reduce pollution while avoiding particular regulatory impediments. Precise and extensive public reporting of pollution prevention initiatives are part of the corporate environmental reports advocated by such groups as the Conference Board, the Global Environmental Management Initiative (GEMI), and the United Nations Environmental Program's (UNEP) Sustainability projects, as well as industry pollution prevention initiatives such as the chemical industry's 33/50 program. Brownfield projects, which by their nature voluntarily reduce pollution by remediating and reusing formerly impacted properties, routinely incorporate dialogue with neighboring community members to identify their goals for site response and reuse, whether these projects are coordinated by EPA, states or performed independently under the ASTM standard for brownfields.

The business literature on pollution prevention thus far has not focused on the opportunity to address environmental concerns in environmental justice communities in particular, but this focus could be a natural one. The broad-based organization called the Business Network for Environmental Justice, for example, was formed to engage constructively on means by which business and industry can successfully respond to environmental justice community concerns. Many existing environmental projects, although not developed with environmental justice in mind, actually provide benefits to communities of color and low-income populations. What has been lacking – and this report can begin to provide – is education on the ways in which targeted pollution prevention efforts can address the environmental quality concerns of environmental justice communities. To accompany this educational effort and to the extent resources and opportunities are available, it would be particularly important to create tangible incentives for business and industry to direct their pollution prevention efforts to such communities.

Many groups can participate in this education and response effort. For example, EPA and state-level pollution prevention programs and outreach efforts could target environmental justice communities in their literature, as part of their discussions with facilities in permitting and other proceedings, in their standard-setting activities and as part of their technical support in compliance assistance efforts. Groups supporting corporate environmental reporting (GEMI, the Conference Board, UNEP, ISO) could encourage separate line-item reporting on pollution prevention in environmental justice communities. Industry sectors with extensive community outreach programs like the chemical industry's Responsible Care and other "good neighbor" policies could focus on pollution prevention initiatives for environmental justice communities. They also could make consideration of the affected populations an element of audits and other environmental management techniques. Brownfields redevelopments could be tracked to identify where these efforts have lead to pollution reduction in environmental justice communities and brownfields grants targeted to these communities. Pollution prevention techniques could be considered in lieu of potentially less reliable end-of-pipe controls as

elds r12 Tw74.96lorts could target

means of satisfying performance standards. Most effectively, regulatory and economic incentives and public recognition opportunities could be created to incentivize pollution prevention initiatives in environmental justice communities. EPA appropriations, or regulatory reform and streamlining efforts, could specifically reward business and industry voluntarily reducing pollution, conserving energy or using cleaner renewable energy sources, or using cleaner technology in environmental justice communities.

The following chapter attempts to lay the groundwork for the education and response outlined in the previous paragraph by describing an array of current business and industry

CURRENT BUSINESS AND INDUSTRY EFFORTS

This section will briefly summarize the array of voluntary activities currently being taken by business and industry to prevent pollution. It is important to outline these activities in the NEJAC report on pollution prevention and environmental justice because it will help inform both community members and the broader business community about opportunities to improve environmental quality in environmental justice communities. Knowledge of existing success stories can inform future projects.

Regulatory opportunities for pollution prevention: The flexibility inherent in current regulatory programs has provided the opportunity to explore means to reduce pollution to a greater extent, and often more efficiently, than the usual command-and-control requirements prescribe.

Multi-Media Approach

Members of the business community have participated in EPA pilot program

containerboard mill at Big Island, Virginia with a black liquor gasification system. Gasification converts by-products from the wood pulping process into a clean burning hydrogen fuel. The technology will be the first full scale gasification system used in the pulp and paper industry. The new technology is designed to reduce air emissions by 90 percent, save energy and increase safety. In exchange, in the event the new technology does not function as anticipated, Georgia-Pacific will be allowed to operate its smelters without otherwise needed control modifications for a limited period of time to allow for installation of a conventional recovery boiler.

EPA's Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Perm

applicable requirements, measurable targets, monitoring, measurement and correction, and senior management review. Voluntary standards promulgated by the International Standards Organization and the European Union Eco-Management and Audit Scheme specify characteristics of the voluntary programs and stress the need for continual improvement.

By including environmental considerations in an organization's decision-making process, an EMS encourages decisions such as selection of raw materials, process design and choice of energy supplies to be made with an eye toward minimizing environmental impacts. EPA policies already provide some incentives for implementation of EMSs, for example by reducing enforcement penalties when violations are identified, promptly reported to EPA and promptly corrected.[9]

EPA should be encouraged to design incentives for companies to establish EMSs on a voluntary basis using techniques best adapted to the company's business sector and individual culture. EPA should also encourage legislation allowing m

National Partner Award in 2001, which emphasizes the need to build coalitions and engage all interested stakeholders.[10]

Principles.” CERES principles have since been expanded by the partnerships of the United Nations Environment Programm

COLLABORATIVE ENGAGEMENT TO PREVENT POLLUTION

Brownfields Revitalization

Businesses and communities share a common interest in returning properties with actual or potential environmental contamination to productive use. The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601 et seq., imposes liability on, among others, current owners and operators of facilities. The specter of liability inhibited prospective purchasers and resulted in abandonment of environmentally impaired properties. Many of these properties are in environmental justice communities.

In the past several years, states have responded to the need to rehabilitate such sites by establishing voluntary cleanup programs. The programs generally set risk-based cleanup goals that depend on the property's intended use, and afford protection from state liability when the cleanup goals have been attained. Requirements for public notice and comment often exist and community participation in reuse decisions is encouraged. Grants, loans and tax incentives are sometimes also provided. The federal Small Business Liability Relief and Brownfields Revitalization Act enacted in January 2002, provides incentives to redevelop Brownfield sites by conferring federal liability protection in various circumstances, including when state voluntary Tm(stances, including when state v8w0 12.229VuL.)TjETE

running trails, ball fields and a planned ecological education laboratory. To assure long-term environmental protection and provide "green energy," landfill gas collected at the closed facility will be collected and used to heat school buildings and homes. Similar brownfields reuse projects involving work group member Waste Management include development of equestrian trails, constructed wetlands, wildlife preserves, golf courses and a youth golf academy, and reef regeneration.[14]

Some of these projects have been certified by the Wildlife Habitat Council (WHC), which has developed standards for quality in development of new and restored wildlife habitats.[15]

Responsible Care

The American Chemistry Council's Responsible Care program obligates each member company to "achieve ongoing reductions in the amount of all contaminants and pollutants released to the air, water, and land." Each company practices responsible care by establishing a continuing dialogue at the face-to-face level with local citizens on any areas of their concern, as well as regular evaluation of the effectiveness of these communications. Moreover, each member company must establish an ongoing program to promote waste and release reduction by its customers and suppliers; assist in establishing regional air monitoring networks; participate in consensus approaches to evaluating environmental, health and safety im

VOLUNTARY EFFORTS

Product substitution/clean production

A principal method of reducing pollution involves designing products, selecting raw materials and choosing energy sources with the goal of minimizing waste production. Companies generally best understand their businesses and technologies, and can develop innovative responses to pollution if given the latitude to do so. When companies make innovative changes in products, processes or equipment, significant reductions in waste quantity can be achieved. For example, manufacturing changes in the chemical industry have achieved dramatic pollution reduction dividends.[18]

EPA required by 1999 that printing companies capture 92% of toluene emissions. Toluene is a chemical used in ink formulations during gravure printing. R.R. Donnelley in Chicago not only met the initial standard by 1990 (nine years before the regulatory target), but it continued on the path of continuous improvement beyond regulatory obligations. By the first quarter of 2002, R.R. Donnelley had achieved an overall 97% emissions reduction.

Sustainable production/renewable resources

Business commitment to production that minimizes impact to human health and the environment and utilizes renewable raw materials is growing. Often this commitment is embodied in a corporate sustainability vision. For example, General Motors has stated a commitment to integrating economic, environmental and social objectives into business planning and has adopted the CERES Principles. GM has stated its intent to achieve its vision through technology, innovation and partnerships with stakeholders including the community. As part of its focus on life cycle management, GM promotes recycling of vehicle materials. In addition, GM had reduced its non-recycled, non-product output by 42% by the end of 2000. Similarly, Georgia-Pacific demonstrated a commitment to sustainable forestry by implementing a program of third-party verification to ensure the health of the timberland managed by its suppliers. GP's audits include a focus on training, outreach, forestry best management practices, support for water quality, wildlife habitat and protected species, and guidelines related to daily operations.

Energy Efficiency

U.S. industry continues to become more energy efficient largely due to efforts toward sustainable development. U.S. industry's share of energy use has declined steadily since 1949, while its share of real Gross Domestic Product has stayed the same. (Energy Information Administration. Annual Energy Review.) Investments in new technologies are helping manufacturers realize performance benefits and greater efficiency. A few of these technologies include Combined Heat and Power Systems, which achieve high levels of thermal efficiency, energy efficient motors, and improvements in steam system performance. More effective use of energy by industry has the benefits of improving the environment through reduced emissions of carbon dioxide (CO_2), sulfur dioxide (SOx) and nitrogen dioxide (NOx), and creating a safer working atmosphere with better productivity. Greater energy efficiency has additional long-term benefits such as system reliability, and increased value to shareholders. (Alliance to Save Energy. Energy Efficient Technologies for Industry.) Voluntary efforts such as the Energy Star, AgStar and Natural Gas Star programs help corporations and consumers achieve greater efficiency and reduced emissions, while improving the bottom line.[19]

Conservation and Green Space Initiatives

An important element of pollution prevention is preservation of existing green spaces and creation of new areas that are not only non-polluting but also serve to remediate existing pollution. A number of non-profit/business coalitions have formed to sustain these preservation initiatives. The Nature Conservancy, for example, partners with businesses to reforest developed areas, preserves pristine habitats and restores coral reefs.[20] Many
102
States have dedicated funds to provide green space. The New York State Department of Environmental Justice Advisory Committee has recommended that these funds give due consideration for urban green space in order to respond to the needs of environmental justice communities.[21] Combining these green space-funding opportunities with community-based brownfields reuse projects provide substantial resources for community improvement.

---

[19] See EPA. "Methane and Sequestration" section.
[20] See www.nature.org

Sector Identification of "Best Management Practices"

The Northeast Waste Management Officials Association, working with the lending industry, developed a pollution prevention guide for loan officials, educating them on how pollution prevention investments provide short and long-term returns. For example, the loan officer for Hubbardton Forge understood the potential liabilities extinguished by investing in a new electrostatic powder coating system and approved the loan. After two years, the payback was elimination of toxic emissions and 98% reduction in use of toxic chemicals.[22] The forestry industry through the American Forest and Paper Association implemented the Sustainable Forest Initiative, "a comprehensive system of principles, objectives and performance measures developed by professional foresters, conservationists and scientists to combine the perpetual growing and harvesting of trees with the long-term protection of wildlife, plantssional foresters,

The new CLEAR Act includes important provisions supporting the development and use of alternative fuel trucks and needed fueling stations. Because these renewable fuels dramatically reduce the level of pollutants from trucks and other service vehicles, these tax incentives are vital to improving urban air quality in the considerable interim period until fuel cells are operational.[27]

Other legislative proposals support the development of projects collecting and transferring for beneficial use landfill gas otherwise controlled by flaring or emitted into the ambient air. Uncontrolled landfill gas has the potential to create a fire hazard, is odorous and contributes to local air pollution and increased ambient greenhouses gases. Incentives to go beyond regulatory gas control requirements and install gas-to-energy systems improve local air quality and provide clean-burning renewable fuel.

Brownfields Redevelopment Incentives: Federal and state remedial statutes require that contaminated properties be addressed to assure protection of health and the environment. To go beyond these statutory mandates and implement land reuse options that reduce current and future pollution often requires financial incentives. The Small Business Liability Relief and Brownfields Revitalization Act of 2001 have created a such an incentive. Total moneys available from EPA have expanded, and non-profit organizations as well as local government units are eligible for funding. The legislation confirms the importance of community dialogue about redevelopment options and assures that recreational and green space initiatives, as well as commercial and industrial options, will be considered. There are a number of other federal programs from which brownfields revitalization funding is available as well, ranging from the Department of Housing and Urban Development to the Department of the Interior.

State programs are equally important in providing incentives beneficial for reuse projects. For example, Illinois' Renewable Energy Resources Program funds brownfields projects employing renewable energy. The Wisconsin Department of Commerce awards brownfields grants to projects assuring a positive effect on the environment.[28] New York state remediation projects, which benefit the environment and have potential for public or recreational use of cleaned up property are eligible for grants.[29] Municipal governments also have taken the lead to inform property owners and community members about grants and other financial resources available to community groups and the public and private sector to move remediated sites into beneficial reuse.[30]

Subsidies for Installation of Green Technology: There are a myriad of mechanisms to incentivize and reward use of green technology, ranging from disbursement of funds

[27] See www.energy.gov/transportation/sub/altfuel.html
[28] See http://commerce.state.wi.us/CD/CD-bfi-grants.html
[29] See www.dec.state.ny.us/website/der/bfield/index.html

from taxes or special charges to issuance of bonds or outright grants. EPA advisors have comprehensively outlined these mechanisms.

Single media bubble approach: When government has chosen to regulate by establishing caps on total emissions, allocating emission allowances to companies and allowing trading of those allowances, greater emission reductions have been achieved at lower cost compared with traditional command and control approaches. For exam

resources.[38] Individual offices have their own programs.[39] The agency's "Partners for the Environment" program in the year 2000 included 11,294 partners who reduced 37.3MMTCE of green house gas emissions, recycled 17,788 tons of municipal solid waste, saved 768.8 trillion BTUs, and reduced nitrogen oxide by 158,172 tons and sulfur dioxide by 288,627 tons.[40]

The agency provides practical advice on how office workers and farmers can prevent pollution,[41] and provides extensive information on pollution prevention equipment, products and services.[42] All of this information could be made more user friendly by communications efforts that might include compilation of all information on an integrated web site, plain English description of pollution prevention resources and information for broad public dissemination, and staff training on the available information.

EPA can also provide important environmental protection by using its discretionary authority to issue "best practice" guidance. Previous work by the NEJAC Waste and Facility Siting Subcommittee provides examples of the ways agency guidance can shape local and state government and voluntary private approaches. These examples reflect ways that facilities with potential pollution can go beyond regulatory compliance to further reduce emissions and to assure robust community collaboration. For example, the NEJAC Subcommittee report on brownfields revitalization included recommendations about soliciting "green" redevelopment and conducting business/community collaborative dialogue that have shaped EPA and other governmental policies on brownfields redevelopment.[43]

Similarly, the Waste and Facility Siting Subcommittee's report recommending ways to reduce the environmental and health impacts of waste transfer stations[44]

PUBLIC RECOGNITION

Government awards/communication of good practices

As evidenced in the number of corporate environmental reports listing awards received from EPA and state environmental agencies, issuance of public recognition is one of the simplest mechanisms by which pollution prevention efforts can be encouraged. Express recognition of pollution prevention initiatives that reduce and eliminate pollution in the "priority pollution prevention communities" described above would provide tangible reward for new business efforts to advance environmental justice.

Stakeholder Group Recognition

Many business and other associations designated sector-based awards for outstanding achievement in sustainable environmental practice. By incorporating links to these recognition systems in EPA's descriptions of its own award systems, the agency could acknowledge and enhance stakeholder efforts to prevent pollution.[45]

Multi-Stakeholder Group Recognition

EPA could facilitate a system whereby environmental justice group members could provide positive recognition for facilities and activities that have resulted in meaningful pollution prevention in their communities. In a time of limited governmental resources, creation of aition for facilities and acti40 0 12 22.9601 21m(creation ofn for fazo ththat have rBy ifor)Tj12 0

FACILITATION OF COLLABORATIVE ENGAGEMENT

Interagency Working Group Template

The Interagency Working Group (IWG) was created by Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Under Executive Order 12898, federal agencies are directed to make achieving environmental justice an integral part of their missions. The IWG is a collaborative demonstration project-based approach, with the federal government as the facilitator that allows for the full exhaustion and dissemination of information by all stakeholders. It tackles a manageable set of issues and parties, and allows for trial and error. Where good models emerge from the demonstration projects, they can be replicated and expanded in future efforts. Bad ideas can be discarded. Business is approached as a potential partner, is part of the dialogue, and is expected to contribute fairly based on its contribution to the problem presented.

Expansion of IWG Pilots with Funded Pollution Prevention Projects: The EPA is conducting the next round of demonstration projects, which will build upon the creative and comprehensive solutions that the last projects accomplished. These projects could be a good opportunity to encourage pollution prevention projects in environmental justice communities. To accomplish this, however, funds should be allocated, through EPA 0i1tthe dialogue, and is

Eight categories of projects are acceptable as SEPs. These include: Pollution Prevention, Pollution Reduction; Pubic Health; Environmental Restoration and Protection; Assessments and Audits; Environmental Compliance Promotion; Emergency Planning and Preparedness; and other. The SEP Policy strongly supports the implementation of SEPs resulting in pollution prevention, providing that "SEPs involving pollution prevention techniques are preferred over other types of reduction or control strategies...".[47] The SEP Policy provides for mitigation of penalties for Pollution Prevention SEPs. Pollution Prevention SEPs that implement source reductions are especially favored. Indeed, while as mentioned above mitigation percentages typically do not exceed 80 percent of the SEP cost, if "the SEP implements pollution prevention, the mitigation percentage of the SEP cost may be set as high as 100 percent if the defendant/respondent can demonstrate that the project is of outstanding quality." [48]

While the SEP Policy singles out Pollution Prevention SEPs for special treatment, other categories of SEPs related to pollution prevention are also included. An example of one of these categories is "Pollution Reduction" SEPs. Pollution Reduction SEPs address pollutant or waste streams already generated or released. These SEPs typically employ recycling, treatment, containment or disposal techniques. A pollution reduction project is one which results in a decrease in the amount and/or toxicity of any hazardous substance, pollutant or contaminant entering any waste stream or otherwise being released into the environment by an operating business or facility by a means which does not qualify as "pollution prevention." This may include the installation of more effective end-of-process control or treatment technology, or improved containment, or safer disposal of an existing pollutant source. Pollution reduction also includes "out-of-process recycling," wherein industrial waste collected after the manufacturing process and/or consumer waste materials are used as raw materials for production off-site.

To promote the use of SEPs that address environmental justice issues, the SEP Policy provides that EPA should consider mitigating penalties when the proposed SEP benefits a community with environmental justice issues. The SEP Policy provides:

> After the SEP cost has been calculated, EPA should determine what percent of that cost may be applied as mitigation against the amount EPA would settle for but for the SEP. The quality of the SEP should be examined as to whether and how effectively it achieves each of the following six factors listed below. . . .
>
> Environmental Justice. SEPs which perform well on this factor will mitigate damage or reduce risk to minority or low income populations which may have been disproportionately exposed to pollution or are at environmental risk. . . ."[49]

47

SEPs must be undertaken by the entity entering into the agreement with EPA. While the entity may contract, or make other arrangements, with an outside party, the entity cannot discharge its SEP responsibility by, for example, agreeing to donate funds to a community-based organization or stating that a third party has assumed responsibility for the SEPs implementation. This is not to say that a community-based or other organization cannot have a role in either recommending a particular SEP or helping an entity to implement a SEP. Community-based organizations can participate in the development of a SEP by, for example, recommending to EPA that particular projects be undertaken as a SEP. This recommendation can be made either in advance of an enforcem

production processes, resulting in deceased operating and compliance costs, and increased eff

Enforcement policy
Where appropriate, compliance penalties in environmental justice communities should be directed to pollution prevention projects that benefit the health, environment and quality of life of community members, rather than directing these funds to the U.S. Treasury. Community members should oversee these projects jointly and facility employees in order to assure that community needs are met and improved collaboration between the penalized facility and its neighbors facilitated.

EPA information initiative
EPA needs to inform its staff and other stakeholders about the array of pollution prevention projects and ideas developed throughout its media-specific programs. To that end, its annual pollution prevention roundtable should receive the kind of financial support and publicity that its annual brownfields conference enjoys. During that conference, best practices should be publicized and rewarded.

Sector initiatives
EPA should approach the major sector trade associations to develop pollution prevention best practice guides and a list of contacts for further information. Pilot projects should be initiated with companies willing to try bold new approaches to pollution prevention. To encourage participation, the Agency should assure a "soft landing" in the event a new approach is unsuccessful, i.e., if new technology or practices not only fails to reduce pollution beyond applicable regulatory standards but is less effective that the standard requires, the company should be required to meet the regulatory standard by other means but shall not be penalized for the earlier failure.

State source reduction plan certification

CHAPTER 6: GOVERNMENT PERSPECTIVES

This chapter was authored by members of the Government Stakeholder group to elaborate on the views of the members of that group, not necessarily reflect the views of members of other stakeholder groups or of the NEJAC Executive Council.

HISTORICAL AND REGULATORY FOOTPRINTS

With the publication of Rachel Carson's book *Silent Spring* in 1962, the modern environmental movement quietly began. The environmental movement had transformed from the conservationism era to a new form of environmentalism that now considered the impacts on human populations as well as the natural environment. Carson's book, one of many important antecedents to the new environmentalism, detailed a potential correlation between the overuse of pesticide and diminishing songbird populations. Many readers became understandably concerned over this perceived environmental threat. However, many more feared the parallel implications that environmental exploitation could possibly have on human populations. The correlation of environmental misuse and its effect on living species reinforced the concept that we should appropriately manage our environment to mi

Further regulations were adopted to address the growing concerns over past actions of environmental polluters. These regulations would prioritize and tackle the cleanup or reme

Recycling and reuse
Conserving natural resources

Reducing pollution at its source (source reduction) allows for the greatest and quickest improvements in environmental protection by avoiding the generation of waste and harmful emissions. Source reduction helps to make the regulatory system more efficient by reducing the need for end-of-pipe [after generation] environmental control by government.

The process of pollution prevention involves identification, resolution, and action. First, governme

Government and other stakeholders are implementing several key initiatives that are aimed at supporting pollution prevention and environmental justice.

Yet another question arises when we consider how environmental justice programs and pollution prevention programs are implemented. Environmental justice programs often call for additional scrutiny where environmental-decision-making, permitting decisions, environmental impact reports or other environmental review mechanisms relate to disenfranchised communities. Most pollution prevention programs focus on broad public benefits without respect to any particular community, race, or income. The goal of pollution prevention is to prevent pollution for everyone, not a particular sector. Yet, it can be argued that communities of color, low-income and disenfranchised communities host facilities using the oldest technologies. Where these communities also carry a disproportionate share of industrial facilities there should be a natural draw for pollution prevention initiatives.

It is obvious that both environmental justice and pollution prevention appear to have similar goals; however, their implementation can sometimes have divergent effects. For example, pollution prevention strategies may be costly to small industries in communities with perceived environmental justice concerns. The cost could force some business to think about closure. Nevertheless, the benefits that can be derived from these pollution prevention strategies far outweigh the perceived negative effects.

For instance, pollution prevention programs have resulted in improved health, social and economic conditions, along with aesthetic improvements in the community. Currently, some states are moving to support small business pollution prevention activities through innovative projects such as Environmental Results Program (ERP) in Maryland. In this context, the Maryland Department of Environment (MDE) encourages pollution prevention as a tool to achieve compliance. This approach has proven to be very popular among business interest and community members in the piloted Maryland community. The use of pollution prevention as a tool to compliance and to promote environmental justice is an example of how local, federal, and state governments, and industry, and organizations can collaborate their efforts to attain desirable outcomes for all stakeholders.

Additionally, pollution prevention, like environmental justice, is often difficult to measure in terms those regulatory agencies and legislatures use to interpret the success or efficacy of programs. Enforcement programs can tally dollars collected or actions filed. Media-specific programs such as air, water, or waste can point to actual pounds of pollution emitted or discharged, thereby gauging pounds of pollution reduced or eliminated. It is difficult, on the other hand, to calculate totals for pollution *prevented* from entering the environment. In essence, this pollution never existed and therefore cannot be measured. Similarly, it would be difficult to assign a numerical figure to the number of facilities that are *not* sited in communities of color or low-income

communities. To fully quantify the positive impacts of pollution prevention and environmental justice may require a significant shift in environmental regulation.

One approach for elevating environmental justice and pollution prevention on the EPA's priority list may be to engage the Environmental Council of States (ECOS). ECOS is the national non-profit, non-partisan association of state and territorial environmental commissioners. ECOS touts the membership of the environmental commissioners of 51 of the 55 U.S. states and territories. Its mission is to champion the role of states in environmental management through, among other methods, promoting state positions on environmental issues to Congress, federal agencies, and the public. ECOS works with EPA through EPA's Assistant Administrator for Congressional and Intergovernmental Relations.

GOVERNMENTAL INTEGRATION OF POLLUTION PREVENTION AND ENVIRONMENTAL JUSTICE

The United States Environmental Protection Agency (USEPA) has tried to encourage the use of pollution prevention within environmental justice communities. Pollution prevention was promoted as another available tool for use as these communities addressed environmental concerns. The EJP2 Grant Program was established to promote pollution prevention in environmental justice communities. EJP2 provided funding to qualified applicants for pollution prevention projects in environmental justice communities. Any non-profit, local, or tribal organization could submit an application for funding. Applicants were required to demonstrate that they worked with affected communities on pollution prevention initiatives and that they could garner substantial community involvement. Organizations could also foster partnerships between local industries and the environmental justice community. The EJP2 Grant Program was a starting point for pollution prevention in several minority and low-income communities. The program funding was eliminated in FY 2002. It is uncertain whether the program will regain funding in the future.

This disproportionate exposure to environmental hazards in environmental justice communities may be a result not only of industrial discharges but also of occupational exposure.[54] Pollution prevention is an effective tool in addressing both sources of exposure. Sometimes a facility may claim that implementing pollution prevention strategies may be costly and use this as an excuse for draconian actions (such as shutting down). However, this may really result from the confusion between pollution *prevention* and pollution *control*. This confusion can result in apparent tension between environmental justice and pollution prevention. *(note – good point but should be moved for the flow)*

[54] Geiser, Ken *Pollution Prevention and Environmental Justice: Some Cautions*, July 2002

Environmental justice and pollution prevention have complementary goals. However, the implementation of pollution control techn T/<<>ies can ve counintended

§13103(b)(2) required EPA to develop and implement a strategy to promote source reduction. Specifically, the Administrator was required to:

> Ensure that the Agency considers the effect of its existing and proposed programs on source reduction efforts and shall review regulations of the Agency prior and subsequent to their proposal to determine their effects on source reduction . . .

The Clean Water Act of 1977 (CWA) is one of the many federal statutes that can be used to support prevention pollution. Specifically, CWA regulates the discharge of pollutants into U.S. waters, making it unlawful for any person to discharge a pollutant into any U.S. body of water without a permit. Under CWA, the EPA also has the authority to set wastewater standards for industry, thus controlling the concentrations of pollutants

must, “improve, protect, or reduce risks to public health or the environment.”[56] The violator must actually implement and complete the SEP that is proposed as part of the

national policies on pollution prevention, including RCRA, CWA, CAA, FIFRA, and TSCA leave to the states a lot of the implementation, enforcement, and opportunity to enact regulations that are more stringent. The next section, will detail the states role in pollution prevention.

SUMMARY OF STATE POLLUTION PREVENTION LEGISLATION*		
	Legislation	
State	Facility Planning Prevention	Other Pollution Requirements
Alaska		X
Arizona	X	
California	X	X
Connecticut	X	X
Delaware	X	X
Florida	X	X
Georgia	X	
Illinois	X	X
Indiana	X	X
Iowa	X	

Kentuck8523.9 364.92 Tm(K)Tj12 9

Pennsylvania	**X**	
Rhode Island		**X**
South Carolina		**X**
Tennessee	**X**	
Texas	**X**	
Vermont	**X**	
Virginia		**X**
Washington	**X**	**X**
Wisconsin		**X**

STATE GOVERNMENT AND POLLUTION PREVENTION

States have the opportunity to promote and encourage pollution prevention through regulatory programs (permitting, compliance inspections, and enforcement actions) as well as by acting as information clearinghouses–disseminating information about pollution prevention; and establishing and supporting state pollution prevention programs. Industries are required to meet fa0.502 0.502 scn106.ral,even2 0 0 localevndards 26.tion

State	*Pollution Prevention Legislation*	*Goal*	*Operation*
		1/2 reduction of toxic waste generation by 1997	for technical assistance to industries Report Toxic Substance Report and Toxic Reduction Plan
New Jersey	Pollution Prevention Act (1991)	To shift from industry pollution control to pollution prevention Reduction of hazardous waste and discharge by 1/2 over 5 years.	Requires reporting State offers technical assistance Funding provided by the Pollution Prevention Fund

Adopting pollution prevention practices and techniques often benefits industry by lowering a company's operational and environmental compliance costs. By preventing the generation of waste, pollution prevention can also reduce or eliminate long-term

In Allegheny County, Pennsylvania, the local government has adopted and modified the EnviroStars Program. The program is recognizes industries that implement pollution prevention practices and strategies. The program acknowledges three levels of excellence in pollution prevention. To meet any of the three recognition levels, an industry must go beyond the minimum regulatory requirements.

The Florida Hazardous Waste Management Program. This program provides pollution prevention training for local governmental agencies. The training assists in the development of a local pollution prevention program and provides necessary training for local industries.[61]

California's Consortium of Pollution Prevention Committees has joined in on the pollution prevention effort. This organization is comprised of chairpersons of local voluntary pollution prevention groups. The committees organized the first National Pollution Prevention Week. During this week local government, environment, economic development programs, industry trade associations and environmental groups sponsor numerous events. The events focus on highlighting pollution prevention as a “way of doing business.” Local government agencies "implement the activities such as pollution prevention workshops, 'model' facilities tours, storm

entity of one or another of these categories, for example, both a state and a federal agency, or more than one minority community that is up in arms.

In Indian country, the tribe might fit into all three of these categories. The people who comprise the tribe might be seen as an environmental justice community, in that they are generally considered an ethnic minority (and perhaps a racial minority) and most of the families may also be low-income. The tribe is, of course, also a sovereign government, and as such may exercise regulatory or permitting authority over the facility that would cause (or is causing) the environmental impacts that the community wants to stop. It is likely that, in addition to the tribe, a federal government agency or two also has some authority over the facility, but the tribe's status as a sovereign government is always an important factor in dealing with polluting facilities within reservation boundaries.

So, the tribe is the environmental justice community and the tribe is also a government with some measure of authority over the facility. In addition, the tribe may also be the business that operates, or seeks to operate, the polluting facility. The tribe might do this through a tribal enterprise or through a joint venture with a private business. Sometimes the tribe's role as owner/operator may be through a governmental institution, for example a utilities department that operates facilities such as wastewater treatment plants and landfills.

In non-Indian America, governments may also be involved on both sides of the regulatory regime, that is, as regulators and as operators of regulated facilities. There are usually some pretty well established walls, though, between government agency as

regulator and operator
q 612.00 0 0 792.00 0 0 cm
BT
/F1 12 Tf 1 0 0 1 72.00 720.00 Tm 14.4 TL
0 0 0 rg
0 0 0 RG
1 Tr
0.5 w
(entity of one or another of these categories, for example, both a state and a federal) Tj T*
(agency, or more than one minority community that is up in arms.) Tj T*
T* T*
(In Indian country, the tribe might fit into all three of these categories. The people who) Tj T*
(comprise the tribe might be seen as an environmental justice community, in that they are) Tj T*
(generally considered an ethnic minority (and perhaps a racial minority) and most of the) Tj T*
(families may also be low-income. The tribe is, of course, also a sovereign government,) Tj T*
(and as such may exercise regulatory or permitting authority over the facility that would) Tj T*
(cause (or is causing) the environmental impacts that the community wants to stop. It is) Tj T*
(likely that, in addition to the tribe, a federal government agency or two also has some) Tj T*
(authority over the facility, but the tribe's status as a sovereign government is always an) Tj T*
(important factor in dealing with polluting facilities within reservation boundaries.) Tj T*
T* T*
(So, the tribe is the environmental justice community and the tribe is also a government) Tj T*
(with some measure of authority over the facility. In addition, the tribe may also be the) Tj T*
(business that operates, or seeks to operate, the polluting facility. The tribe might do this) Tj T*
(through a tribal enterprise or through a joint venture with a private business. Sometimes) Tj T*
(the tribe's role as owner/operator may be through a governmental institution, for example) Tj T*
(a utilities department that operates facilities such as wastewater treatment plants and) Tj T*
(landfills.) Tj T*
T* T*
(In non-Indian America, governments may also be involved on both sides of the) Tj T*
(regulatory regime, that is, as regulators and as operators of regulated facilities. There are) Tj T*
(usually some pretty well established walls, though, between government agency as) Tj T*
ET

Although the legal framework is largely in place for tribes to become partners in cooperative environmental federalism, and quite a few tribes have taken on some of the roles of states pursuant to the federal statutes, most tribes have not, for a variety of reasons. One important factor is that, unlike states, most tribes do not have revenue sources and tax bases comparable to those of the states. Another key factor that renders tribes different from states is the body of recent Supreme Court decisions regarding limits on tribal sovereignty, especially in the context of regulating the conduct of non-Indians. The Court's recent Indian law decisions have been criticized by many scholars for their departures from long-standing principles of federal Indian.[63] In response to the uncertainty brought about by the Court's recent case law, EPA has become increasingly reluctant to approve tribal applications to be treated like states for the administration of regulatory programs (except in the context of the Clean Air Act, which EPA has interpreted as a delegation of federal authority to tribes).

Because of such factors – having been invited into cooperative federalism fifteen or twenty years after the states, having inadequate resources to build programs that are comparable to those of the states, and the specter of having aspects of their sovereignty taken away by court decisions – the environmental regulatory infrastructure in much of Indian country is just not comparable to what it is in most of America. This relative lack of environmental protection infrastructure has been identified as a major environmental justice issue.[64] Pollution prevention can be part of the solution, by promoting economic development activities that do not cause much in the way of environmental degradation and, as such, do not either exploit the relative lack of regulatory programs or require the creation of regulatory programs as a pre-condition for development.

For a more detailed treatment on tribal governments, please refer to Chapter 4, *Tribal Perspectives.*

GOVERNMENTAL PARTNERSHIPS

The Environmental Council of the States (ECOS) exemplifies another governmental effort/partnership. ECOS was formed as a non-profit organization "to improve the environment of the United States." This goal would be accomplished through:

---

[63] *See general*

Being a champion of the states' role in environmental management
Providing for the exchange of ideas, views and experiences among states
Fostering cooperation and coordination in environmental management
Articulating state positions on environmental issues to Congress, federal agencies and the public

ECOS "conducts research on federal environmental programs that have been delegated to the states, state contributions to federal environmental databases, state environmental and natural resource funding, and state contribution to enforcement and compliance."[65] ECOS has catalogued the research and reporting done by the various states and facilitates the dialogue on environmental management between the states. As noted earlier the states are mainly responsible for support and encouragement of both pollution prevention and environmental justice. It is imperative that ECOS, as a facilitator of state dialog and cooperation, be a contributing partner in the promotion and integration of environmental justice and pollution prevention in state programs.

The National Environmental Performance Partnership System

The purpose of the National Environmental Performance Partnership System (NEPPS) is to improve and strengthen the State/Federal relationship and to improve environmental performance. Under NEPPS, the USEPA identifies environmental goals and then the states decide how those goals may best be attained. NEPPS establishes a partnership between the states and EPA and facilitates dialogue and planning. The majority of states participates in NEPPS with either Performance Partnership Grants (PPG) or Performance Partnership Agreements (PPA) and uses this as a platform to leverage resources and maximize possible environmental protection and results. NEPPS identified core performance measures for environmental results. The states have assessed under NEPPS that three pieces of information are necessary to measure the environmental results of a program. The three information pieces are:

1. Environmental indicators
2. Program outcomes
3. Program outputs[66]

Each of the three information pieces provides the states and EPA with different measurable outcomes. The compilation of the performance measures (collected throughout the 50 states) provides a national picture of environmental protection and will initiate insights on measures that can be taken in the future to improve environmental

[65] 5 Aug. 2002. <http://www.sso.org/ecos/GeneralInfo.htm.
[155]"Addendum to 1997 Joint Statement on Measuring Progress under NEPPS: Clarifying the use and Applicability of Core Performance Measures." ECOS. 5 Aug. 2002. <http://www.sso.org/ecos/projects/CPMs/JSA.htm>.

invaluable support to participating facilities helping them to improve processes and increase efficiency. When these programs concentrate on environmental justice communities, then there is the added bonus of community involvement and everyone wins.

Another cooperative grant assistance program is the National Industrial Competitiveness through Energy, Environment, and Economics ($NICE^3$). $NICE^3$, sponsored by the U.S. Department of Energy (DOE), sponsors an innovative, cost-sharing program to promote energy efficiency, clean production, and economic comp

Effectively communicate the activities and accomplishments of the state and local agencies to policy makers
Improve program management
Measure progress toward goals
Provide those who fund programs with relevant activity and outcome information
Influence policy development

One method for measuring success is mathematical. This means that the amount of a particular pollutant (pounds, gallons, grams, etc.) is m

"quality of life." A quality of life survey could address the aesthetics of the community, the status of health in the community, as well as the environmental education of community members. Maryland has proposed the use of quality of life survey as a tool for measuring the success of its ERP.

Education can also be measured by K-12 curricula to determine the extent of integration of environmental issues. A much more difficult measure is health of the community. Although a pollution prevention program may contribute to improving public health, assessing this impact requires careful planning and support of the public health agencies.

Hence, several methods can demonstrate that pollution prevention is a success. The method that most states have chosen is to look at net reduction of waste. However, looking at behavior, community involvement in environmental projects, and education can also measure success.

POLLUTION PREVENTION MODEL

For most governmental agencies pollution prevention is voluntary and the result of a very dynamic and fluid process. It requires flexibility, innovation, partnerships, and commitment. However, no pollution prevention project will ever make it beyond "being a good –even great–idea" unless the person who makes the decision about whether to implement a pollution prevention project is convinced of the need as well as the benefit of doing so. A viable pollution prevention program recognizes that decision makers in business and industry are influenced by both environmental and financial factors when they consider whether to implement a project.

Environm

Goals for pollution prevention
Industry and community concerns
Effective pollution prevention strategies

Continued partnerships may be used to advance the complementary goals of pollution prevention and environmental justice. There are many opportunities within the existing regulatory framework for integration of pollution prevention and environmental justice ethic and rhetoric. Additionally, this integration may be applied to other partnership agreements such as NEPPS, PPIS, and other voluntary program

example, in the permit application process this would happen when permit applicants meet with agency staff at pre-application conferences.
Use technical screening tools, Geographic Inform

APPENDICES

APPENDIX I: POLLUTION PREVENTION & ENVIRONMENTAL JUSTICE CASE STUDIES

APPENDIX II: CURRENT POLLUTION PREVENTION MANDATES IN FEDERAL STATUTES

APPENDIX III: POLLUTION PREVENTION PARTNERSHIP PROGRAMS

APPENDIX IV: POLLUTION PREVENTION WORK GROUP MEMBERS

APPENDIX I – P

The project targeted specific chemical emissions of each plant that were selected for toxicity and volume and in the three years of its existence identified six citizen requests. The first was an aggressive fugitives emissions monitoring program. The plants had numerous leaks and fugitive emissions. The second request was to reduce flaring. These facilities had large flares that light up, create sm

Case Study #2: The Park Heights Auto Body/Auto Repair Shop Case Study

Presented by Bernard Penner, Tom Voltaggio and Henri Thompson

The Park Heights community in Maryland is a 96% African American community and the largest urban renewal district in the nation, but it is not a federally designated empowerment zone. It therefore does not receive the benefits associated with the economic and community development. This community was once an upper middle class community bursting with diversity and residential and business vitality. However, today the Park Heights community, like many inner city urban areas, has more than its share of crime, grime and abandoned houses, which have a devastating effect on family, children and businesses. The average income level of the residents residing in southern Park Heights is between $15,000 and $24,000. Almost 50 percent of the community receives public assistance. One third of the children live in poverty and in families headed by females. Over half of the units are rental properties with many substandard units contaminated with lead based paint. Approximately 35 percent of the youth are not in school. The teen pregnancy rate is about 14 percent, compared to the overall city rate of 10 percent. Park Heights has the fourth highest juvenile arrest rate in the city, with over 12 percent of these arrests among young people age five to six. The community has significant health problems, with over 3,000 residents that have been diagnosed HIV related illnesses. The community rates in the top five for lead poisoning, asthma and prostate cancer cases. Its residents, children and businesses have been neglected and overlooked when it comes to economical, social, environmental and physical development.

Park Heights is clearly an environmental justice community and this project, while still a work in progress, can be a model for improving the working relationships between the regulators, the regulated community and the residential community. There are three essential components to this project. The first component is dedicated to finding a way to talk about compliance rates that makes sense. This project aims to evaluate the effectiveness of compliance assistance to the auto body shop sector. The project goals also included improving community between the regulators and the regulated community, improving the quality of life in this community and raising the awareness of the community respecting shops that are doing a good job and shops that are not doing a good job.

There were numerous auto body shops located in a fairly small area and hardly any enforcement actions were taken in that area. Auto body shops were selected because the community believed there were an inordinate number of facilities and because auto body shops had multimedia impacts. There is an air impact, a waste impact and a water

be delivered to every shop identified in the community. Then again, using the guide, the project led training sessions.

After the training, there will be a period for the compliance assistance to be implemented and then there will be a final round of inspections. The inspectors, with their book and with their checklist, will go back and again inspect a random sample set of facilities. The goal is we take what was observed at the beginning of the process, observe conditions at the end of the compliance assistance process, compare the two, and try to understand what can be learned.

The anticipated benefits of the project are improved compliance, improvement in the quality of life for the people that are living in the community and getting the regulators, regulated and residential community all talking to one another. These workshops will create that environment for improved communication. The shops have got to be willing to participate, but if they do they are given limited amnesty. If they disclose a violation to the regulators, no enforcement action is taken against them. There is nothing unique in this. This is an environmental audit policy. The goal is also to improve the regulatory process. The regulators are able to gain additional information and the regulated community understands that it can come to the regulators for help in solving its problems.

Currently, more than 40 baseline inspections have been done and the plain English guidebook is in its final draft and is being selectively reviewed by several auto body shops to see if it makes sense. The training sessions are in the planning stages and the project is also planning the introductory training sessions to show the whole community how the project is working. But the compliance assistance phase has not been completed and there have not been any follow- up inspections. However, other communities in South Carolina and Florida have had success following similar models, so there is reason to believe that this project will also be successful.

APPENDIX II – CURRENT POLLUTION PREVENTION MANDATES IN FEDERAL STATUTES

Federal Act	Section	Pollution Prevention Mandate
Pollution Prevention Act (PPA)	2103	EPA is mandated to develop and implement a strategy to promote source reduction.

Federal Act	Section	Pollution Prevention Mandate
Emergency Planning and Community Right to Know Act (EPCRA)		Emergency planning requirements for pollution and fire control. Provides substances and facilities covered under this act.
	11021-11022	

Federal Act	Section	Pollution Prevention Mandate
Clean W		

APPENDIX III – POLLUTION PREVENTION PARTNERSHIP PROGRAMS

Program	Goal	How it Works

Program	Goal	How it Works
Common Sense Initiative[6]	Partnership with representatives from federal, state, local governments, community-based and national environmental groups, environmental justice groups, labor, and industry with the EPA to examine environmental requirements impacting the following industries. o Car manufacturing o Computers/Electronics o Iron/Steel o Metal finishing o Petroleum refining o Printing	Reduction of costs and burdens of compliance with air regulations in manufacturing sector. Developing new ways to address iron/steel cleanup. Making it easier for computers and electronics sector to achieve pollution prevention Other projects relating to specified industries.
Performance Track[7]	Public/private partnership To recognize and encourage top environmental performers To go beyond compliance with regulatory requirements To attain levels of environmental performance that benefit people, communities, and the environment	Facilities must have: Adopted and implemented an environmental management system (EMS) Commit to improving their environmental performance Commit to public outreach and performance reporting Have a record of sustained compliance with environmental requirements
Green Star[8]	Encouragement of businesses to practice waste reduction through pollution prevention	Education Technical Assistance Award Programs

[6] "EPA's Common Sense Initiative (CSI)." EnviroSense. 19 July 2002. <http://es.epa.gov/partners/csi/csi.html>.

[7] National Environmental Performance Track. August 14, 2002. http://www.epa.gov/performancetrack.

[8] Green Star. 19

VOLUNTARY PROGRAMS

Regulatory initiatives are not the only method in which industry, federal, state, and local governments can team up to prevent pollution. There are several voluntary programs that are also out to promote pollution prevention and get industry and the community involved. The following are some examples of voluntary pollution prevention programs.

Program	***How it Works***
Green Building Programs[9]	Promotes environmentally friendly construction of buildings Providence of environmentally friendly homes. Promotion of homes meeting environmental criteria. Technical assistance/training
Energy Star[10]	Offers consumers and businesses energy efficient solutions Solutions save money and provide for environmental protection.
WasteWise[11]	Open to all organizations Promotes waste reduction through municipal solid waste elimination Flexible — allows partners to design their own solid waste reduction programs tailored to their needs
Waste Prevention[12]	Involves altering the design, manufacture, purchase, or use of products Reduce the amount and toxicity of waste Helps shift the nation's emphasis from pollution cleanup to pollution avoidance

[9] "Community Green Building Programs." U.S. Department of Energy. 19 July 2002 <http://www.sustainable.doe.gov/buildings/gbprogrm.shtml>.
[10] Energy Star. 19 July 2002. <http://www.energystar.gov/default.shtml >.
[11] WasteWise. 14 August 2002, http://www.epa.gov/wastewise/about/overview.htm
[12] Waste Prevention. 14 August 2002, http://www.epa.gov/epaoswer/non-hw/reduce/prevent.htm

OTHER PROGRAMS

The federal, state, local, and non-profit plans for pollution prevention and environmental protection provide important regulations and strategies to reduce pollution. The identification and implementation of opportunities for pollution prevention integration in these regulations, plans, and strategies is critical to the success of all pollution prevention programs. To ensure the success of pollution prevention programs, government and other agencies must encourage and promote innovation (innovation of pollution-prevention technologies, innovation of pollution prevention methodologies, etc) and education. A key component to compliance is understanding why and how pollution control is imperative. Community leaders, “champions,” should be identified and trained so that they can promote the importance, implications, significance, and benefits of pollution prevention in their communities.

Compliance assistance should be provided for small businesses and the non-regulated community to aid in understanding the regulations and beneficial pollution prevention practices. Promotion of innovation, fostering pollution prevention education, and training pollution prevention ”champions” is costly. Funding support is crucial to the success of this plan. Pollution prevention and environmental justice have traditionally been referred to as federal priorities but have not been awarded sufficient and consistent budget appropriations to support full implementation and success. The adequacy of funding, innovation, education, and leadership are paramount for the success of the partnership between governme

APPENDIX IV – POLLUTION PREVENTION WORK GROUP MEMBERS

DESIGNATED FEDERAL OFFICER
Sharon Weil. Austin (P2 Work Group)
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW (MC7406M)
Washington, DC 20460
Phone: (202) 564-8523
Fax: (202) 564-8528
E-mail: austin.sharon@epa.gov

Charles Lee (NEJAC DFO)
Associate Director for Policy and Interagency Liaison
Office of Environmental Justice
US Environmental Protection Agency
1300 Pennsylvania Ave. NW
Washington, DC 20460
Phone: 202-564-2597
Fax: (202) 501-1163
E-mail: lee.charles@epa.gov

CO-CHAIRS
Wilma Subra
LEAN Representative
Subra Company, Inc.
P. O. Box 9813
3814 Old Jeanerette Rd.
New Iberia, LA 70562
Phone: (337) 367-2216
Fax: (337) 367-2217
E-mail: SubraCom@aol.com

Kenneth J. Warren, Esq.
Chair of Environmental Department
Wolf, Block, Schorr and Solis-Cohen
1650 Arch Street

Veronica Eady, Esq.*
Dept. of Urban & Environmental Policy & Planning
Tufts University
97 Talbot Avenue
Medford, MA 02155
Tel. (617) 627-3394
Fax (617) 627-3377
E-mail: veronica.eady@tufts.edu

Ken Geiser
Massachusetts Toxics Use Reduction Institute
University of Massachusetts / Lowell
Lowell, MA 01854
Phone: 978-934-3275
Fax: 978-934-3050
E-mail: kgeiser@turi.org

Tom Goldtooth
Indigenous Environmental Network
P. O. Box 485
Bemjidi, MN 56619-0485
Phone: (218) 751-4967
Fax: (218) 751-0561
E-mail: ien@apc.ipc.org

LeAnn Herren
Industrial Ecology Program
University of South Carolina
School of the Environment
7th floor Burnes Building
Columbia, SC 29298
Phone: (803) 777-9061
Fax: (803)
E-mail: herren@environ.sc.edu

Debra Jacobson
Executive Director
Great Lakes Regional P2 Roundtable
1010 Jorie Blvd, Suite 12
Oak Brook, IL 60523
Phone: (630) 472-5019
Fax: (630) 472-5023
djacobso@wmrc.uiuc.edu

Neftali Garcia Martinez
Scientific and Technical Services
RR-2 Buzón
1722 Czó

Dean B. Suagee *
Vermont Law School
First Nations Environmental Law Program
Chelsea Street
South Royalton, VT 05068
Phone: (802) 763-8303 Ext. 2341
Fax: (802) 763-2940
E-mail: dsuagee@vermontlaw.edu

Connie Tucker
Southern Organizing Committee for
Economic and Social Justice
P.O. Box 10518
Atlanta, GA 30301
Phone: (404)-755-2855
Fax: (404) 755-0575
E-mail: cttucker@mindspring.com

Joanna Underwood
President
INFORM, Inc.
120 Wall Street, 16th Floor
New York, NY 10005
Phone: (212) 361-2400 x 222
fax: (212) 361-2412
E-mail: underwood@informinc.org

Richard Wells
President
The Lexington Group
110 Hartwell Avenue
Lexington, MA 02421-3136
Phone: (781) 674-7306
Fax: (781) 674-2851
E-mail: richard.wells@lexgrp.com

Dianne Wilkins*
Oklahoma Dept. of Environmental Quality
Pollution Prevention Program
P.O. Box 1677
Oklahoma City, OK 73101-1677
Phone: (405) 702-9128
Fax: (405) 702-9101
Fed Ex: 707 N. Robinson, 73102-6010
E-mail: Dianne.Wilkins@deq.state.ok.us

Donele Wilkins
Detroiter's Working for Environmental Justice
P.O. Box 14944
Detroit, MI 48214
Phone: (313) 821-1064
E-mail: dwdwej@msn.com

Consultant

Samara F. Swanston, ESQ.
205 W. 80th St., Apt. 1D
New York, New York 10024
Office (718) 384-3339
Home (212) 799-1068
Cell: (917) 324-0541
E-mail: fotlah@aol.com