



The Voices of Government

The developing Federal-State-local partnership to clean up the environment is reviewed in this issue of the EPA Journal. Recognizing that no agency or governmental office can correct environmental maladies alone, the Journal has asked officials from several levels of government to participate in this assessment.

EPA Administrator Douglas Costle sets the tone with his

editorial, "Partners." He explains that giving State and local governments increased responsibility is based on old democratic principles and helps to meet the vital goal: protection of the environment.

The Carter Administration's philosophy and environmental innovations are explained by White House aide Jack Watson in an interview with the Journal.

EPA's Deputy Administrator, Barbara Blum, shows how the new partnership is beginning to work in addressing one key national concern—the urban environment.

Five public figures present views from different levels of government. Governor Richard Snelling of Vermont explains how this New England State is meeting the environmental challenge. Congressman Norman Y.

Mineta of California reports some of Congress' concerns and goals.

State Sen. Clive DuVal of Virginia reviews obstacles and progress from a State legislative view. Terry Novak, City Manager of Spokane, tells of his city's approach. Environmental protection in an entire metropolis is described by Walter Scheiber, executive director of the Metropolitan Washington, D.C. Council of Governments.

EPA's role in the partnership is outlined by the Agency's Ed Roush, chief of regional and intergovernmental operations. Local concerns and initiatives across the country are reported by Alan Beals, executive director, National Association of Cities, and Bernard Hillenbrand,

executive director, National Association of Counties.

EPA's encouraging experience with areawide environmental impact statements involving many participants is presented by William Hedeman.

Elsewhere, EPA's suspension of most uses of two herbicides —2,4,5-T and Silvex—is related by an EPA press officer, Larry O'Neill. The urgent search for radium lost in the Denver environment is related by Rich Lathrop, Assistant Director for Public Affairs in EPA Region 8.

Findings of a pioneering EPA-funded study on environmental cleanup benefits are reported by Administrator Costle. A citywide restoration effort in historic Lowell, Mass., is the subject of an article by Robert Burke, an EPA Public Awareness officer.

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SEPA JOURNAL

Douglas M. Costle, Administrator Joan Martin Nicholson, Director, Office of Public Awareness Charles D. Pierce, Editor Truman Temple, Associate Editor John Heritage, Chris Perham, Assistant Editors

EPA is charged by Congress to protect the Nation's land, air and water systems. Under a mandate of national environmental laws focused on air and water quality, solid waste management and the control of toxic substances, pesticides, noise and radiation, the Agency strives to formulate and implement actions which lead to a compatible balance between human activities and the ability of natural systems to support and nurture life.

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Opposite: A springtime view of the Nation's Capitol, where passage of recent legislation has helped EPA delegate increasing cleanup responsibility to the States. (Story on P. 2).

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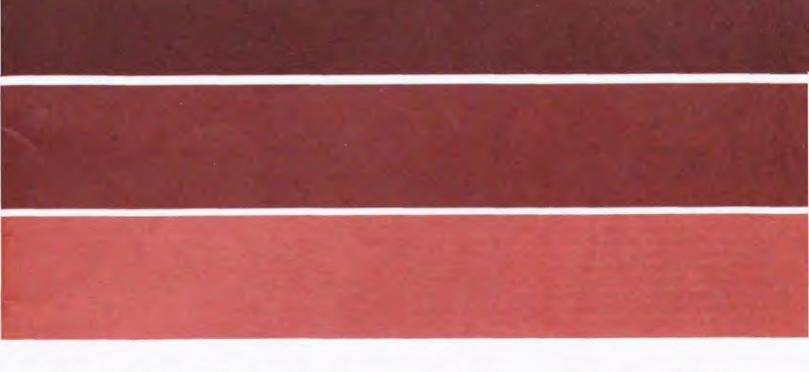
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EPA is giving the States and local governments increased responsibility in the quest for a cleaner environment because this is the sensible thing to do. Nothing could be more foolish than to assume that the Federal Government alone can correct our environmental maladies.

We are going to trust the States to do much of the work because they are in a better position to do it. That may seem to be a radical concept for a Federal administrator. But it would probably seem quite familiar to the folks who set up our government 200 years ago.

President Carter came to office with a mandate to make the government work better. Although centralism lingers on, the real thrust now in the Federal Government is towards responsible decentralization. Over-control doesn't work.

In its environmental laws, Congress has strongly supported government by partnership. It has emphasized the role of State and local officials in carrying out the Clean Air and Water Acts, the solid waste, drinking water, and pesticide programs, and still other environmental activities.

As the former director of a State environmental agency, I know why a major State and local role is essential:

- States and cities are on the front lines.
 Their officials know the local facts and are often in a position to act more quickly, flexibly, and realistically than a Federal Government that is far removed from the problems.
- States and cities have the bulk of the resources—about ninety percent of all governmental dollars and people working for environmental cleanup.

• State and local governments were in pollution control years before the surge of Federal environmental programs in the 1960's and '70's. Now, the new Federal programs are increasingly being delegated to the State and local level. Thirty-one States have authority for issuing permits to control water pollution discharges. Thirty-six States have been granted responsibility for regulating air pollution from newly built industrial facilities.

EPA has put a top priority on meeting the obvious need for a stronger partnership with the States. In just two years, we have taken actions such as:

- More than doubling our grant dollars for State and local programs to a total of \$304 million. We are also making up to \$90 million a year available to help States assume responsibility for managing the wastewater construction grant program.
- Cutting by more than 30 percent reporting requirements on States and localities.
- Negotiating State/EPA Agreements annual contracts between a State agency and EPA defining program objectives and milestones.
- Strengthening our Regional Offices with such actions as the appointment of 40 supergrade level managers in these offices.
 This is a first for a Federal agency.

These steps are already paying off. But they are just a start. It will take more patience, initiative, and innovation to make a Federal-State partnership work better for a clean environment. EPA has set a number of goals to increase further our support of this vital government partnership.

First, the President has asked Congress for a new law—the Integrated Environmental Assistance Act. The measure would provide States and localities with flexibility in managing their grants, encourage greater creativity and program integration, and simplify grant paperwork. It would authorize an additional \$25 million to help start such changes.

Second, we intend to increase State-Federal interchanges of personnel. The loan of Federal staff to the States is being sharply increased.

Third, we must provide better and more timely information for States and localities on existing policies and new developments. We must also develop better mechanisms to involve them in EPA decisionmaking.

Fourth, EPA needs to provide more technical assistance to certain areas faced with unusually complex environmental program and technical requirements.

In these efforts, EPA is not trying to devise a new approach. We are simply going back to basics, trying to make governmental relationships work as the Founding Fathers intended.

A clean environment is a fundamental objective of our society. We believe that only if the Federal, State, and local governments learn to work together more effectively can we achieve this goal.

A Letter from Alsea

By Larry O'Neill

**I we are not trying to make rash, unsubstantiated claims, but we are interested in seeing if there is a cause-effect relationship. Some of us do know that large acreages near our homes and in our water drainages were sprayed within a month before our miscarriages."

From an April 11, 1978, letter to EPA from Bonnie Hill and seven other women from Alsea, Oreg.

This appeal received a response. Too many times, at whatever level of government, pleas aren't heard: phone calls aren't returned, letters aren't answered, problems aren't investigated. But in this case of a group of women from a rural area writing for Federal help to determine whether herbicide spraying was causing their miscarriages, the system worked.

While it wasn't just the letter from parttime school teacher Bonnie Hill and her
neighbors that led to EPA's recent suspension of most uses of two common weed and
brush killers—2,4,5-T and Silvex—the
letter sparked a further study that provided
a sort of "missing link" on the risks of
these herbicides. Years of earlier research
on the potential hazards of these compounds, both of which contain the highly
toxic contaminant, "dioxin", and which
were introduced in the late 1940's, played
a key part.

As EPA Deputy Administrator Barbara Blum said at a Washington, D.C. news conference announcing the suspension: "... It was their (Alsea women) concern, and their writing in to us during the public comment period that exposed this, so that we were able to begin to make that first link that we were looking for."

What was the link? It was the "high probability," to quote Blum, of ill effects among people, apparently attributable to exposure to the dioxin poison in 2,4,5-T.

Larry O'Neill is an EPA Headquarters Press Officer The Alsea research did not prove that women were exposed to dioxin, but it did uncover the kind of ill effect (miscarriages) that scientists would expect to find among women exposed to this toxin, as predicted by the animal studies.

Researchers under contract to EPA from the University of Miami and Colorado State University found that between 1972 and 1977 women in a three-county area around Alsea—a western Oregon town, surrounded by forests regularly sprayed with herbicides—experienced a significantly higher rate of miscarriages than women in an unsprayed control area in eastern Oregon.

These investigators further found that this elevated miscarriage rate peaked dramatically in June, roughly two months after the heaviest spraying in March and April. They determined that a significant relationship existed between the amounts of 2,4,5-T applied and the rise in spontaneous abortions or miscarriages.

Prior to these indications of direct human harm from the use of herbicides containing small amounts of dioxin, information on the toxic effects of low level exposure consisted primarily of animal studies. During the past decade, numerous experiments on mice, rats, monkeys, and other animals have shown that minute quantities of dioxin can cause fetal deaths, birth defects, and cancer.

These studies clearly signalled that people exposed to this contaminant could suffer the same adverse effects. However, for years scientists had been unable to determine whether people were in fact exposed to dioxin under normal conditions of use of these pesticides. This was because only small amounts of this toxin occur in 2,4,5-T and Silvex products, and these amounts drop even further (often to the parts-pertrillion level) as the chemicals are used in the environment. Indeed, only in the past several years have scientists developed a technique for measuring these miniscule amounts.

The studies led EPA to conclude that it was reasonable to assume that the Alsea women were exposed to dioxin, and that other people around the country in similar

exposure situations also might be harmed.

As EPA Administrator Douglas M. Costle noted, "... the Alsea study constitutes a dramatic and troubling new point of departure for analysis of TCDD (dioxin) exposure concerns."

As a result, EPA took the unusual step of issuing an "emergency suspension" of most uses of 2,4,5-T and Silvex—an action designed to protect the nearly 4 million people who otherwise would be unknowingly and involuntarily exposed to these uses.

By suspending most uses of these weed and brush killers, EPA wrote a new chapter in a story that's been as emotionally charged as any in the history of the environmental movement.

Since a 1969 study by the National Institutes of Health demonstrating that dioxin was a "teratogen" (birth defects agent) in rats and mice, numerous environmentalists and health experts have argued for the abolition of pesticides containing it.

In 1971, author Thomas Whiteside wrote in Withering Rain that: "In the absence of positive proof that dioxin is not persistent and cumulative, the continued virtually unrestricted spraying of 2,4,5-T on pastureland and rangeland seems to me to constitute a serious potential hazard to human health."

But the pesticides industry, timber companies, some farmers, and other proponents of the herbicides have been just as outspoken in defense of the chemicals.

For example, a 1975 report by the Council for Agricultural Science and Technology—a coalition of agricultural scientists—stated that: "There is a preponderance of evidence that the phenoxy herbicides are not significantly hazardous to animal life and microorganisms under normal conditions of use and indeed under conditions of substantial misuse."

However, last April EPA began an indepth review of the risks and benefits of 2,4,5-T based upon the animal studies. This information, bolstered by the Alsea findings, "sounded an alarm," according to Blum. "They compel EPA to act to stop use until we have a fuller understanding of these phenomena and their implication for public health."

So on March 1, EPA temporarily halted the use of 2,4,5-T to control unwanted brush, trees, and weeds in forests, pastures, and on rights-of-way areas including alongside highways, railroad tracks, and utility lines.

The same prohibitions were applied to Silvex and broadened to include weed control in home lawns—an extremely widespread use—and weed and brush control in waterways and beside canals and ditch-



Bright sun outlines a logger and a blimp used to airlift logs from an Oregon timber-cutting site near Eugene. The blimp is tethered to a winch on the ground that controls its movements and the placement of the logs that it raises by cables. The herbicide 2,4,5-T is sometimes used in forest areas like this to prevent the growth of non-commercial trees on the cleared site.

Editor's note: Following is the text of the letter received last year by EPA from eight women in Oregon who had suffered miscarriages after herbicide spraying near their homes:

We are eight women who have lived in the Alsea area. We are virtually surrounded by Forest Service, Bureau of Land Management, and private timber lands (mostly Starker and Willamette), all of whom have sprayed literally thousands of acres for years with dioxin-containing herbicides in the spring months of February through April (although the Forest Service also sprays in May, June, and through the summer into September.)

The eight of us have suffered a total of 10 miscarriages in the spring months, starting in 1973. Of course, a certain rate of miscarriages would be normal, but for a population our size (under 1,000), it seems more than coincidental that so many of us have miscarried only in the months of March through early June. We have found only one miscarriage that occurred at any other time of the year. (It happened in October to one of us who lives in an area sprayed in September of that year.)

We have charted the dates of our miscarriages with the dates that these four agencies and industries have sprayed dioxin-containing herbicides, and an incredibly close correlation exists. We are not trying to make rash, unsubstantiated claims, but we are interested in seeing if there is a cause-effect relationship. Some of us do know that large acreages near our homes and in our water drainages were sprayed within a month before our miscarriages.

Each of us was under the care of a physician at the time of miscarriage, and none of our doctors could offer any explanation

for the miscarriage when it occurred. None of us, including our doctors, had thought of the herbicides as a possible threat, or we certainly would have had tests done. In retrospect, two of our doctors have said that they would consider the herbicides as a possible cause of our miscarriages. Even the latest Forest Service Environmental Impact Statement admits on page 88 that "All chemicals are capable of causing toxic effects upon the developing embryo.... Chemicals can become available to the embryo in spite of the mother's excretion and metabolism capabilities."

We are in the process of more research into the problem because we have been able to contact only a relatively small number of women, and cannot help but wonder if there have been more miscarriages in our area. We are not affiliated with any organization or group, and feel that we are unable to do a thorough, adequate job of researching the problem ourselves; we are more than willing, therefore, to cooperate with any agency, group, or industry who would like to help. We realize that many factors can contribute to any miscarriage, but are anxious to determine if the herbicides are one of them.

There are just too many unknowns about the sprays; some laboratory tests have apparently indicated that the dioxins are related to cancer, birth defects, abnormalities in the reproductive systems of adolescents, and a general lowering of peoples' resistance to infection and disease.

Until the herbicides are proven safe, we feel very urgently that their use must be stopped in Oregon. Let's follow the example set by the Oakridge City Council, who demanded that their area not be sprayed. We can certainly afford to be cautious where human health and lives are possibly endangered.

banks. Household uses of 2,4,5-T were stopped by the U.S. Department of Agriculture in 1970.

EPA did not suspend 2,4,5-T treatments in rice crops or on rangeland, in part because these uses do not seem to present exposure hazards similar to those that existed in the Alsea area. For example, spraying on rangeland—defined as sparsely populated, open areas with little surface water—is less likely to harm people through dioxin than rights-of-way treatments such as spraying beside highways.

A suspension is a temporary halt intended to keep hazardous pesticides out of circulation while questions about their long-term risks and benefits can be thrashed out in lengthy "cancellation" hearings.

But the suspension itself is being challenged in hearings. At press time almost 40 manufacturers and users of the herbicides, including the major producer of 2,4,5-T, Dow Chemical Co., had requested such a hearing, presumably to argue that the freeze on distribution and use be revoked.

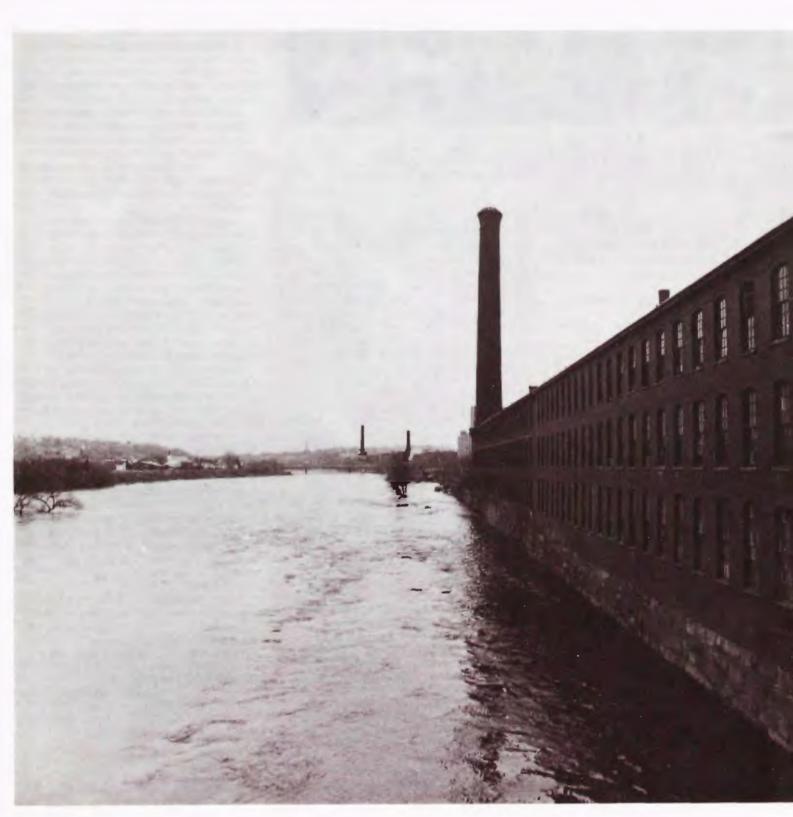
A panel of EPA experts will hear the arguments over a roughly three-month period while the ban remains in effect. Afterward, they will recommend a course of action to EPA Administrator Douglas M. Costle. They could recommend that the suspension stay in place, that it be modified, or that it be lifted entirely. Costle will make a final ruling, and any party who disagrees with the outcome may file an appeal in Federal Court.

Dow's reaction to the suspension was swift and not limited solely to a request for hearings. On March 6 the company, joined by ten other advocates of the pesticides, filed suit against EPA in the U.S. District Court in Flint, Mich., and asked the judge for a temporary restraining order to prevent the suspension from taking effect. Judge James Harvey denied the restraining order but agreed to hear the company's case.

The following day at a Washington news conference, company officials said they were "flabbergasted" at the EPA suspension. They claimed it was based upon "bad science" and a "kangaroo court atmosphere."

Edwin L. Johnson, EPA Deputy Assistant Administrator for Pesticide Programs, responded that, "EPA can't take things off the market without good cause.... We're not acting like a bunch of lunatics. We are trying to be objective about risk and benefits."

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The old industrial city of Lowell, 30 miles north of Boston, has been selected as the site for the Nation's first Urban Historical Park and as the location for the first State Heritage Park in the Common wealth of Massachusetts, Both park systems have been created to preserve and

By Robert L. Burke



The old industrial city of Lowell, 30 miles north of Boston, has been selected as the site for the Nation's first Urban Historical Park and as the location for the first State Heritage Park in the Commonwealth of Massachusetts, Both park systems have been created to preserve and revitalize the historical and economic resources of older cities in much the same spirit as earlier national park programs have preserved America's wilderness areas. They are exciting examples of what Federal, State, and local governments can do collectively to revitalize America's cities, including direct involvement by EPA in programs to improve the urban environment.

Lowell Remembered

We passed through Lowell several times during the 1950's bicycling from Boston to the Mount Monadnock region of New Hampshire. What we saw at that time hardly suggested a past rich in historical precedents.

Partially abandoned brick mills and factories with shuttered arch windows and gloomy smokestacks dominated a rather uninviting skyline. The Merrimack River, which runs through the center of Lowell, was a polluted mess as were a series of old canals in the city which we thought at the time to be open sewers. It hardly seemed possible that Thoreau had once described the Merrimack as "a most beautiful and engaging bounty from God." In later years we would still recall Lowell as a city which appeared to be depressed in spirit as well as appearance.

The city's physical condition was not the only factor that shaped our attitudes at the time. As native born Bostonians, we

Dr. Burke is Urban Team Foreman, EPA, Office of Public Awareness.

were schooled to understand that most events of national significance between the start of the American Revolution and the Civil War took place within a 15 mile radius of Boston. Boston was indeed the "Hub of the Universe" and travelling through Lowell in 1955 did little to shake our predispositions about this matter.

Lowell's Urban Genius

Little did we recognize that there was a time when Lowell moved to centerstage in the Nation during a crucial period of America's early history. Scarcely 50 years after the start of the American Revolution, Lowell emerged from a small farming community to become the recognized birthplace of the American Industrial Revolution. And the Industrial Revolution is as central to what America has become as the preceeding political revolution.

Lowell became an industrial city almost by accident. A large waterfall on the Merrimack River near the city forced construction of a canal in the 1790's as a bypass to move agricultural products from inland areas of New England to the Atlantic Ocean. Two decades later, New England's emerging industrial leadership saw the canal as a natural source of industrial water power and eventually added six new miles of canals to serve a grand collection of cotton mills and related factories. In the process, Lowell became the leading textile center of the world and a visitor's center for all who marvelled at New England's inventive genius.

For in addition to industrial innovation, Lowell was a totally planned community designed to avoid the intolerable conditions associated with British industrialism. The city included complexes of large factories, commercial areas in the downtown area, and corporation-owned boarding houses where young women came from the New England countryside to work under



Left: Old brick factories form the "Mile of Mills" along the Merrimack River in Lowell, Mass. Above; The Frances Lock and Gatehouse in the National Historical Park at Lowell, overlooks the canal.

conditions that were puritanical yet remarkably progressive for the time. As later waves of immigrants came from Europe to work in the mills, these enlightened conditions would deteriorate. But the planned features of early Lowell can still be discerned as one walks the streets of the modern city, and they continue to be linked by the old canal system which has given Lowell the title, "Venice of the Western World."

As we travelled through Lowell to New Hampshire during the 1950's, we could scarcely have envisoned that what we surveyed as decayed urban wreckage would undergo a modern renaissance.

Lowell's Creative Concepts

Even at that time, however, several citizens and government officials in Lowell were beginning to think about ways to bring their city back and in the process fire up the population with new confidence in the community and themselves. They asked. "Might not the unique architectural features preserved from the city's past be in some way employed as the framework for a revitalization program which would thematically stress Lowell's pioneering role in American industrial history?" Long before most other cities were even surveying their total historical inventory, the city of Lowell was developing exciting concepts about how its own could be employed to revitalize the community.

But convincing outside interests that old mills and moss covered canals were important parts of American history was a difficult undertaking. (The story of how Lowell's leaders accomplished this task is a fascinating combination of perseverance and New England ingenuity at work.) Gradually though, the Nation and State became more sophisticated about their urban heritage and many outside sources began to look seriously at what Lowell was proposing.

Two Park Concepts in One City

The growing support for Lowell's ideas ultimately resulted in two urban parks being established there. One is Federal and the other State, with both relying on strong guidance from the city itself. While the two park systems will complement one another, their purposes and functions are to be radically different. It is simpler to describe them in terms of concepts since final funding approval for both has only occurred during the past year.

The Lowell National Historical Park, supported by the U.S. Department of Interior, will be fashioned around parts of the downtown commercial area and the old mill complexes. It will promote programs to revitalize these structures, encourage business concerns to locate in them, and articulate Lowell's industrial history through a remarkable museum and other displays.

The State Heritage Park, on the other hand, will promote a variety of unique recreational and cultural opportunities for city residents and visitors. These will be highlighted by the complete restoration of scattered historical and architectural sites throughout the city linked by barge rides through the canal systems and a series of footpaths and bikeways along the city's streets. The boundaries for the State Park are in essence the boundaries of Lowell itself.

Historical Ironies

Ironically, Lowell's early economic tailspin has been, in part, responsible for this current pioneering venture in the revitalization of America's cities. For if relatively little new construction took place in Lowell following the turn of the century, it also meant that little from the very early past was destroyed to make way for it. There were, for example, plans to tear down many of the old mills, dismantle the antiquated textile machinery, and fill in the canals. All were seen as evesores by much of the citizenry and their public officials. As economic conditions worsened, however, the city simply had to employ a shrunken tax base for more pressing priorities. These industrial legacies were the central reason why Massachusetts chose Lowell as its first State Heritage Park. They readily admit that if the canals had been filled in, there would be no State park and no national park either.

What remains is rich in value for those who continue to be fascinated by all aspects of America's history. Some of the old corporation boarding houses where the working women of Lowell were domiciled remain; yet they look more like dormitories at a New England college than the kinds of crudely regimented housing that would later characterize the American "company town."

The old locks and gatehouses which served to control water levels through the canals remain with several kinds of granite stone housing that have styles unique to Lowell. The several textile mills are dominated by a giant complex along the Merrimack known locally as the "Mile of Mills." This almost seems to flow with the river, creating a harmonious blending of man and nature that is truly awesome even in these days of high rise buildings and ever larger suburban shopping centers.

The downtown area includes a varied combination of early 19th century homes and shops with sharply slanted slate roofs and large brick chimneys that have as much of a continental flavoring as those in Boston. Finally, it's still possible to walk sections of the canal system, particularly near the old locks and gatehouses, and experience scenes and sensations that have

scarcely changed since John Quincy Adams occupied the White House.

Another historical irony is closer to home for EPA but should hardly be interpreted as a defense of water pollution. Inadvertently, dirty water contributed to saving considerable open space along shoreline areas of the Merrimack by making it unfit for housing, particularly during summer drought periods when the stench from the river became unbearable

The New England Regional EPA Office has taken a strong leadership role in supporting local efforts to guarantee that the public has access to these open shoreline areas as the Federal water cleanup program proceeds and increases land values locally. In fact, even the interceptor sewers at Lowell's new waste treatment plant are being designed so that their rights of ways can have multiple uses for bicycle paths and other recreational benefits. It may sound strange to some that a waste treatment plant system could become a recreational asset and, in fact, part of the city's urban park design. But the leadership of Lowell. which has proven itself so innovative in other ways, is pursuing the matter seriously.

Conclusion

The lessons from Lowell's second urban experiment are clear and direct. Historical continuity as well as economic progress dictate that we be more careful as a society about what we destroy in the name of progress. But Lowell's second major contribution to America's urban tradition implies more than the preservation of historic assets. Urban revitalization must concern itself with promoting social, economic, and environmental objectives that are capable of complementing one another.

Combining strategic public investments like the two urban parks to leverage not only private investments but additional public commitments has become the watchword. And the range of public contributions that are important to commercial and industrial growth now clearly includes those historical structures that Lowell is building upon. City after city is beginning to learn what Lowell already knows—that investments which were once thought to fall chiefly in the "quality of life" or "environmental" arenas may also help decide where private dollars choose to flow.

Much remains to be done in Lowell and it will take several years for most of the park projects to be completed. But when finished, Lowell has every chance of becoming once again the "marvel to behold" that Daniel Webster described it almost a century and a half ago. This time, there's a better chance that the city's vitality won't fall prey to other historical ironies and that unlike the first Lowell experiment, this second one will see economic and environmental needs complementing one another.

Radium Search

By Rich Lathrop

Lathrop is Assistant Director of Public Affairs in EPA Region 8.

I thappened as such things often do, almost by accident. Don Hendricks was poring over Bureau of Mines bulletins from the early 1900's looking for references to old mill sites. Hendricks, Director of the Office of Radiation programs in EPA's Las Vegas laboratory, was trying to identify any radioactive waste problems possibly left over from early phosphate ore processing.

Occasional mentions of a National Radium Institute in Denver nagged at him. He couldn't recall having heard of it before. And if he hadn't, maybe nobody else remembered the facility had been there. He decided to call Paul Smith, EPA's regional radiation representative in Denver.

Smith hadn't heard of it either but immediately recognized the potential for a serious problem. If a mill had operated for a number of years in Denver, extracting radium from uranium ore, there was a good chance that substantial amounts of radioactive wastes were lying around a major metropolitan area.

Fresh in Smith's experience was the case of Grand Junction, Colo., where radioactive tailings from 1950's-era uranium

milling were used in and around construction of homes, schools, and businesses. That contamination, discovered in the 1960's, is still being cleaned up under a multi-million dollar remedial program.

A search of old Denver records in the Denver Library's historical archives finally yielded an address for the forgotten Institute, not far from downtown, alongside a major highway, the present day site of Robinson Brick and Tile Company.

Smith telephoned the news to the Colorado Department of Health, which has primary responsibility for control of radioactive materials in the State.

Within hours department experts were at the brickyard with sensitive radiation detection instruments (scintillometers) whose clicking and fluctuating needles confirmed investigators' suspicions. The area was contaminated, with radiation levels as high as ten times those of Grand Junction or up to 200 times the natural background level of radiation normally found in Denver.

Later research would reveal that between 1914 and 1917 the Radium Institute had milled some ten thousand tons of

This commercial firm now operates on a site that once housed a uranium processing facility in Denver, Colo.



high grade uranium ore, a hundred times richer than that being milled today. Richer ore, higher level waste, and nobody knew where those tons of tailings were.

Before World War I's interruption, America's uranium ore was shipped to Europe, processed and radium returned to this country where it served a variety of medical uses before its hazards and limitations were understood.

With the onset of war came the need to develop a domestic radium-producing capability, a need that culminated in the building of the Institute in Denver and the production of hazardous radioactive wastes that would lie forgotten for more than six decades.

But even as health department investigators made their brickyard findings public, other sites were coming to light in Bureau of Mines bulletins, old city records, and State archives. Reporters turned up additional leads in their newspaper libraries. The list of sites with confirmed contamination grew to nineteen by early March. They had been locations of firms dealing in radium milling, refining, or laboratory uses. Today, some are downtown office buildings and warehouses.

Few people have been spending long periods of time in the buildings with the highest radiation readings and so far, tests on those people have revealed no contamination from breathing or ingesting radio-

active particulates. Further testing will be carried out.

Radium is a naturally-occurring radioactive element which was widely used for treating cancer and other medical purposes.. This use has greatly decreased in recent history. Like all radioactive materials, radium constantly decays, in this case forming radon gas which quickly is transformed into other radioactive atoms. These emit gamma and alpha radiation, which pose public health concerns. Radon gas can penetrate concrete walls and decay into its "daughter" products, which can lodge in lung tissue and increase the probability of cancer if enough radiation is absorbed.

Long-term exposure to radium has been linked with leukemia, the disease that killed many early experimenters, including Madame Curie, the discoverer of radium. Ironically, the same tissue-destroying properties of radiation, carefully controlled, can be used to destroy cancerous cells.

When they are loose in the environment, radioactive wastes involving radium can pose a serious health problem. So local, State, and Federal agencies are responding in concert to the Denver hazard.

All available staff at the State level has been working on the Denver situation. The Health Department plans to ask the State Legislature for additional people and money

EPA's mobile gamma scanner (a van specially equipped to detect radioactivity while driving through a suspect area) was moved to Denver from its base in Las Vegas, Nev., for survey work.

A specially-equipped Department of Energy helicopter scanned the city in a series of overflights designed to spot other areas of contamination not yet reported or recorded. Possible new locations are being checked out by the EPA scanner on the ground. Once pinpointed by the scanner (which could detect a radium-dialed clock in your attic from the street near your house), health department teams move in for a thorough examination of the high reading.

Investigators hope most of the tailings and other wastes were buried on the sites where they were produced, rather than trucked over wider areas of the city for construction uses.

After the scope of the contamination is determined comes the tangled task of evaluating the degree of hazard, choosing the best solution for each site, and deciding who will pay what may be a multi-million dollar bill.

The type of cooperation that has marked the discovery and response to the Denver radioactive waste problem could help solve it. □

EPA scientists take the mobile gamma scanner, a van specially equipped to detect radioactivity, into Denver neighborhoods.



News Briefs

Radiation Monitoring

The White House has designated the Environmental Protection Agency as the lead agency for long-term radiation monitoring at the Three Mile Island nuclear plant site in Pennsylvania. Jack Watson, Assistant to the President for Intergovernmental Affairs and Secretary to the Cabinet, selected EPA to do the job. In a memorandum to Administrator Douglas Costle, Watson noted that EPA should not only coordinate collection and documentation of radiation data obtained by all the Federal agencies involved, but should continue to maintain an operations center staffed with radiation specialists at the site, and inform the public through the Nuclear Regulatory Commission of off-site radiation levels. He also instructed EPA to prepare a report on environmental air and water-borne radioactivity for the Presidential Commission investigating the accident.

New Regional Division Directors

The Environmental Protection Agency has made appointments to 27 new Division director posts in the 10 Regional Offices. will be directing air and water pollution control and enforcement programs throughout the country. William Drayton, Jr., EPA Assistant Administrator for Planning and Management, said the appointments were made after examining 7,000 applications from men and women within and outside the Federal Government. The appointees are as follows; Region 1, Charles W. Murray, Water; Merrill Hohman, Air and Hazardous Materials, and Leslie A. Carothers, Enforcement. Region 2, Barbara Metzger, Surveillance and Analysis, and Conrad Region 3, Greene Jones, Water; Stephen Wassersug, Simon, Water. Air and Hazardous Materials, and Sarah R. Compton, Enforcement. Region 4, Paul Traina, Water, and Sanford Harvey, Enforcement. Region 5, William H. Sanders, Surveillance and Analysis; Sandra Gardebring, Enforcement; David Kee, Air and Hazardous Materials, and Charles Sutfin, Water. Region 6, Myron Knudson, Water; Diana Dutton, Enforcement, and Allyn Davis, Air and Hazardous Materials. In Region 7, Allan Abramson, Water; Louise Jacobs, Enforcement, and David Wagoner, Air and Hazardous Materials. Region 8, David Standley, Water, and Robert L. Duprey, Air and Hazardous Materials. Region 9, Frank M. Covington, Water, and Clyde Eller, Enforcement. Region 10, Lloyd Reed, Enforcement; Robert S. Burd, Water, and Douglas Hansen, Air and Hazardous Materials.

States Served by EPA Regions

Region 1 (Boston)
Connecticut, Maine,
Massachusetts, New
Hampshire, Rhode Island,
Vermont
617-223-7210

Region 2 (New York City) New Jersey, New York, Puerto Rico, Virgin Islands 212-264-2525 Region 3 (Philadelphia) Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia 215-597-9814

Region 4 (Atlanta) Alabama, Georgia, Florida, Mississippi, North Carolina, South Carolina, Tennessee, Kentucky 404-881-4727 Region 5 (Chicago) Illinois, Indiana, Ohio, Michigan, Wisconsin, Minnesota 312-353-2000

Region 6 (Dallas) Arkansas, Louisiana, Oklahoma, Texas New Mexico 214-767-2600 Region 7 (Kansas City) Iowa, Kansas, Missouri, Nebraska 816-374-5493

Region 8 (Denver) Colorado, Uteh, Wyoming, Montana, North Dakota, South Dakota 303-837-3895 Region 9 (San Francisco) Arizona, California, Nevada, Hawati 415 556 2320

Region 10 (Seattle) Alaska, Idaho, Oregon, Washington 206-442-1220

A White House View

An Interview with Jack Watson Secretary to the Cabinet and Assistant to the President for Intergovernmental Aflairs



Based on your contacts with State and local officials, do you think the environmental cause is faring well?

Yes. I think there is a substantial consensus in the country that the course we are on with respect to environmental protection is right, and that our environmental goals are essentially sound. People are concerned, I think, about whether or not we are pursuing those goals in the most sensible and cost-efficient ways.

In that regard, the Environmental Protection Agency is doing some innovative things in terms of streamlining regulations and processes, in setting up performance standards, and in creating, thereby, more flexibility for business firms and State and local governments to meet those standards and to fulfill certain pollution-cutting goals.

I personally believe (and I think that this also generally reflects the President's point of view) that to the greatest extent possible, we need to set performance standards and give people as much flexibility, as is feasible, in deciding how to meet those standards, rather than always to be prescriptive about exactly how compliance must occur.

I read a speech not long ago by Fletcher Byrom, a leading Pittsburgh businessman, in which he used a rather good illustration. He said that when you get your car washed, what you really want is a clean car. You don't tell the person that you ask to wash the car whether to use a straight line rubbing motion or a circular motion. You don't tell him how hot to make the water or what kind of soap to use. You simply tell him to get the car clean.

if he doesn't do it, then you can take other action. I don't mean to be simplistic, because this is not a simple subject, and, in many cases, it is necessary to be prescriptive to achieve certain goals.

I simply think that to a far greater extent than we have done in the last ten years or so of our pursuit of environmental protection goals, we need to rely more on performance standards, and less on detailed regulatory prescription.

What do you think of EPA's overall performance thus far?

I work with Doug Costle, with Barbara Blum, with Ed Roush. and others, virtually on a weekly basis. Interestingly, it isn't because of any responsibilities I have in the environmental protection area. It is because I am Chairman of the Interagency Coordinating Council, which the President created as part of our urban policy. The Council consists of the major program heads of the Federal Government domestically, and its function is to coordinate the execution of

urban and other domestic policies and programs.

I have invariably found EPA to be responsive and innovative in producing cooperative interagency agreements where such agreements make sense.

For example, I participated with Doug Costle and Brock Adams, Secretary of Transportation, last year in an announcement of an interagency agreement between the Department of Transportation and EPA in which those two agencies were, in effect, meshing their air quality planning and transportation planning processes. They were making those processes intersect at a much earlier time than ever before, thereby forcing each planning process to take into account the interests and aims of the other.

We recently announced the selection of eight urban areas throughout the country to receive demonstration grants that would help local governments to reconcile the sometimes competing goals of economic development and clean air. EPA is the lead agency in that effort, but the \$4-million in funds for the demonstration program was actually put together by EPA, HUD, Commerce, and Transportation.

Traditionally, it has been relatively rare in the Federal Government for that sort of an arrangement to occur. It is happening with increasing frequency now—where, in pursuit of some common set of goals, agencies pool their monies and mesh their processes in an effort to eliminate inconsistencies and maximize the impact of their combined resources.

Are there any intergovernmental programs to help the small towns in the West that are coping with energy development on a large scale?

One of the things we are quite concerned about in urban policy generally is not only the deterioration of the older cities of the Northeast and Midwest, but also the problems caused by explosive development, including the energy impact expansion in many towns in the West.

I could cite you several examples in Colorado and other Rocky Mountain States where, because of preparation for increased coal production, for example, small communities are having virtually instantaneous demands placed on them for schools, sewer and water systems, streets and street lights, and all the other public facilities that go into making a community.

We are working on another initiative that we will take back to the Congress this year called the Inland Energy Impact bill with funding of \$150-million per year, which seeks to address those problems.

I might also note that, although to most Americar's "urban" connotes "big city," we have defined our urban policy to be applicable to the smaller cities as well. The programs that we are proposing and have already put together are, by and large, as applicable and as potentially helpful to small cities as they are to the large ones.

EPA expects to delegate the management of the construction grant program for wastewater treatment plants to about half of the States by the end of fiscal 1979. How does this approach relate to your concerns for Federal-State relations?

I believe in that approach. Wherever we can spot an opportunity to achieve that kind of delegation, without detracting from national policy or national goals, we should do it.

All too often, we impose several levels of supervision or oversight on government programs when one would be quite sufficient. If a State government has both the legislative authority and the administrative capability to oversee the implementation of a federally-funded program, the Federal Government should think very carefully about letting it do so. In some cases, the responsibility for both the oversight and the execution of a Federal program could go to a local government, without imposing the burdensome requirements of making endless reports and filling out endless forms.

In too many cases, we have one level of government supervising another level which is itself supervising still another. That is inefficient and ineffective, and, because it increases the cost of doing business, it is very inflationary.

In short, I think that what EPA is doing—in delegating the construction grant program management—is a good idea. We should explore whether it is possible to take similar steps in other government programs. I personally believe that it is.

What should be the role of the Federal Government in dealing with local jurisdictions?

Based on my experience working in Georgia State government as Chairman of the Board of a very large State agency, and most particularly on my experience in the last two years, I believe that the Federal Government, at its best, is an enabler, rather than a creator or an innovator. At its worst, it's an obstacle.

That is not to say that the Federal Government and Federal policy carnot be innovative. They can be. But for things to get done in a State or a city or a county, what is really required is the determined, energetic, innovative, commonsense work of people at the local level, using Federal resources in a complementary role. No amount of Federal money or Federal programs can substitute for sound local initiative. In communities without that initiative, things simply aren't going to work very well.

The other side of that coin is that people at the Federal level should do everything they can to remove Federal obstacles to local initiative. That is basically what I see as one of my principal responsibilities as Assistant to the President for Intergovernmental Affairs. When we can spot an area in which a Federal program or policy is acting more as an impediment to local initiative. than as an enabler of it, then it should be changed, consistent, of course, with Federal law and national policy.

When the red tape, or the application process, or the auditing procedures or whatever, however well-motivated they are, are actually making it difficult or impossible for certain program goals to be met by a small town, a city, a county, or a State, then those procedures should be changed.

So, in general, I would say that the Federal Government is a potential partner and funding source that can be used creatively or not, almost in direct proportion to the quality of leadership and ingenuity at the State and local level.

Do you think that consolidating more of the grant programs being provided by Washington or the States would help the State and local governments?

I TRINK TRAT program and grant consolidations are something that need to be considered carefully. There are clearly areas in which consolidations make sense. But I would also be quick to say that I do not view the "block grant" approach as a universal solution, as many people appear to suggest.

The consolidation of program authority across agency lines is not always a wise thing to do. I think it needs to be assessed virtually on a program-by-program basis. Where there are overlaps or duplications, or where, in fact, the existence of multiple program and funding sources is actually impeding the use of those resources, then program or grant consolidation can be a good idea.

But in many cases, we have economic development programs coming out of the Farmers Home Administration of USDA, the Economic Development Administration of Commerce, and the Department of Housing and Urban Development, for example, that, for a variety of reasons, really need to be administered by those separate departments, because of different program emphases, different delivery systems, and different objectives.

Programs do need to be coordinated. Program people need to know what each other are doing and program resources need to be packaged better. But not in all cases do I think that actual program consolidation is the answer.

Are you encouraged by the response to the Regulatory Council so far, and do you think it has a promising future?

It is too early to tell. The Regulatory Council is a good idea, and it is chaired by a very able and sensible man, Doug Costle. It has all of the players on it that it ought to have.

The question now is whether it is going to be effective. I think that the publication twice a year of a unified calendar of regulations, giving everyone an opportunity to review and comment on the entire aggregation of proposed regulations in one place at one time, is a good step. One of the problems I hear about most frequently from businessmen and State and local leaders and other people who are the subject of so many of these regulations, is that they get hit on all sides by rules from different agencies that are never considered in the context of their total impact.

Although the Regulatory Council and the concept of the unified calendar of proposed regulations are both designed to get at that problem, whether or not they do, and to what extent they will be effective, remain to be seen.

I will say this: There are few goals the President is committed to more fully than the goal of finding ways to make our whole regulatory process and the whole body of Federal regulations on both State and local governments and the private sector, more cost efficient, more sensible, and less burdensome.

His views and his instructions on this subject to his Cabinet Secretaries and other Agency heads could not be clearer. Do you feel the sort of initiatives that you are talking about vis-a-vis the urban problems are going to help the environment?

Yes, I do. Too many times, one Federal agency which is pursuing one goal, for example, EPA and the goal of clean air, has had virtually no timely interaction with another government agency, in this case, the Department of Transportation, which is pursuing another legitimate goal, namely, moving people in and around cities efficiently.

What has happened on more occasions than we could count is that separate aims have been pursued with separate systems and completely separate processes along separate tracks. until they have collided with each other.

Or, in other cases, they completely diverged from each other, moving in opposite directions. In either case, it's a bad result. In simple terms, what that DOT-EPA joint planning agreement does is to force those systems to intersect and, thereby, to interact, with each other, hopefully to the benefit of both.

I have absolutely no doubt that the people in EPA will pursue their statutory responsibilities to protect the air just as fully under that agreement as they did before. The same statement would hold true for the transportation planners with respect to their responsibilities. However, I think that the earlier exchange of information, the earlier discussion of problems in pursuit of those goals, the working out of immediate or potential conflicts in a timely way, will produce better results both for transportation systems and for clean air. What have been the barriers in the past to Federal, State, local relationships, and what has this Administration done to overcome those barriers?

Generally speaking, the barriers to really effective Federal, State, and local relationships have been ones of communication.

When the President came into office, he took an unprecedented step. He created the position of Secretary to the Cabinet and Assistant to the President for Intergovernmental Affairs reporting directly to him. The combination of those two roles in one senior White House staff position was. I think, a very well-conceived move by the President because it placed authority for coordinating the Federal departments and agencies in the same person who had responsibility for dealing with intergovernmental affairs.

Since that time, the President has, through executive orders and memoranda to agency heads and cabinet secretaries, undertaken numerous initiatives that underscore his insistence that State and local government leaders be involved in a timely way in the Federal policymaking process.

For example, in March of 1978, the President announced a national urban policy which called upon virtually every department and agency of the government to be more sensi-

tive to the urban impacts of their actions and to increase their participation in urban revitalization.

The policy applies to EPA every bit as much as it applies to the Departments of Housing and Urban Development, Transportation, Commerce, and Labor. The process that we engaged in to formulate that urban policy took almost a year and involved governors, mayors, county officials, State legislators, and others outside the Federal Government in a way that has rarely been done before in putting together a major Federal policy.

The President's insistence upon that kind of collaboration with State and local leaders has been removing a lot of the intergovernmental barriers that have traditionally existed.

I have a meeting this afternoon with all of the intergovernmental representatives in all the departments and agencies. When the President came into office, he asked every Cabinet Secretary to designate a person in his or her Department with the responsibility of intergovernmental affairs who would have direct access to the Secretary, I meet with all those people every month here at the White House. Ed Roush is EPA's intergovernmental representative. We discuss intergovernmental problems and concerns. We use each other to handle matters that come to our attention that fall within the purview of some other departments. It is a valuable network that really works.

What are the main complaints the States and cities seem to have about their relations with the Federal Government?

In no particular order of priority, I would say that the main complaints are, first, that the Federal Government sometimes formulates policies that do not take into adequate account how they will be implemented. By and large, Federal policies are actually executed more by State and local officials than by Federal officials.

Another common complaint from State and local officials is that they are not given as much time as they need to comment on proposed Federal policies and regulations.

Another complaint is that the Federal Government frequently imposes costs on State and local governments in pursuance of Federal policies without considering just how they will be paid, and, in fact, without trying to determine in a cost/benefit analysis whether the program or policy is really justified.

Another complaint—one that everybody hears—is that the Federal paperwork system—the application process to get Federal monies, reporting requirements, auditing requirements from agency to agency and program to program—is duplicative, redundant, and unnecessarily burdensome.

In far too many cases, those complaints are fully justified. The costs that are directly and indirectly imposed on State and local governments to fill out all those forms and to meet

all those reporting and auditing and other requirements could be greatly reduced.

In the context of his antiinflation fight, the President
is cutting red tape, simplifying
the Federal aid system, trying
to see to it wherever we can
that where one report will
suffice in lieu of six, that just
one report is required. We have
been working on such measures
for literally the whole time we
have been here.

Where an annual report would do just as well as quarterly reports, we should move to an annual report. Where one agency has certified a State or local government's compliance with the Clean Air Act, or the Clean Water Act, or the Equal Employment Opportunity requirements of Federal law, or the Endangered Species Act, or whateverother agencies should accept that certification. State and local governments should not be required to prove the same thing over and over again.

Does your office get most of the heat that is generated by some Federal actions such as designating 56-million acres of protected lands in Alaska?

There are lots of heat-conducting channels in the Federal Government. My office would be only one of them. President Carter has been described as the most environmentally-minded President since Theodore Roosevelt. Would you comment on this?

I think that's true, and I think his record of the last couple of years really demonstrates just how true it is. Without reciting a long list of the things the President has done, or that he has underway, as an environmentalist President, I would simply refer to the fact that we now have the first Federal standards for coal strip-mining that have ever been promulgated.

We have greatly improved and, of course, extended the Clean Air and Clean Water Acts. The President, in the past two years, has created a substantial number of national parks and other protected areas in the continental United States and Hawaii, and, of course, in Alaska, he is insisting on the protection of tens of millions of acres of some of the most magnificent wild lands left in the world. He has done that administratively because we were not able last year to get the legislation that we were asking for through the Congress. The President created 17 National Monuments by his own executive action, which covered about 56 million acres of Alaskan wilderness and scenic land. mountains, and forests. He will seek legislative protection of those lands again this year.

He proposed last year, again for the first time in the Nation's history, a comprehensive national water policy. We will seek legislation this year to implement it further. The President is, among other things, trying to increase the role of States in water policy through increased water planning grants and new grants for State water conservation programs. He also wants to draw States into cost-sharing on Federal water projects.

In general, the President continues to insist that we streamline our environmental and other regulations, and that we do everything possible to make a healthy and safe environment compatible with a healthy economy. The President believes that can be done, and his actions in the whole regulatory review process show that commitment on his part. It is a commitment to see to it that we pursue and preserve our interests in clean air and clean water and clean environment, while we do it in ways that make sense. \square

This interview was conducted by Charles Pierce, Editor; Truman Temple, Associate Editor; and John Heritage, Assistant Editor; all of EPA Journal.



s we begin the second year of President Carter's national urban policy, I want to affirm EPA's urban commitment and pinpoint the challenge—and opportunity—which lies before all of us.

At EPA, Administrator Doug Costle and I already had targeted urban issues for new attention. The announcement of the President's policy and my appointment to the White House council to coordinate it boosted our efforts even more.

Working closely with other agencies and groups, EPA's progress has been substantial. And the outlook is for even more. These are some of the developments:

- Urban matters now are a priority, as a matter of policy, at EPA Headquarters and at our 10 Regional Offices across the country.
- Congress currently is considering President Carter's request for a \$76.6 million increase in EPA's budget for the coming fiscal year. The boost demonstrates the President's commitment to cleaning up the environment everywhere, including the cities.
- EPA has put the brakes on subsidizing urban sprawl through changes in our water and sewer regulations.
- Due to new clean air initiatives, it is less likely that local economic growth and antipollution efforts will be pitted in no-win combat.
- With \$50 million for this year alone, EPA will help cities plan how to meet national air quality standards.
- Sixty-eight U. S. cities, with EPA financial assistance, are helping to convert solid wastes into a national asset. As it stands now, U. S. disposal sites are straining to handle the annual load—so great that it would more than fill the New Orleans Superdome from floor to ceiling, twice a day, weekends and holidays included.
- We are awarding more and more contracts to minority businesses, and we're insisting that minority contractors receive more and more EPA contracts from our construction grants program. We're helping senior citizens and the disadvantaged find jobs in environmental fields, and we're involved in training school dropouts, minorities, and others.

Our agency is not the Department of Housing and Urban Development. And neither are we the Department of Commerce, nor the Department of Labor. The mission of EPA continues to be to slow the toll in human health that pollution is taking.

But any time we can focus on an urban

problem that will save lives and the environment without sacrificing jobs or economic growth, we'll do it. In this way, we intend that EPA is part of the solution to what's ailing the cities, not the problem.

Here's a bird's eye view of how the program is working:

An editorial in the New Orleans Times-Picayune predicts our \$200,000 grant to set up an environmental unit in Mayor Morial's office "should open the way" for New Orleans to solve environmental problems—problems which that newspaper says "have received too little attention or been ignored too long."

EPA's Seattle office—working with 20 large cities in the upper Northwest—will pinpoint major economic and environmental problems and the strategies needed to solve them. An EPA staffer will be assigned to each city, and a regional council will coordinate the overall effort.

Our Philadelphia office is working with the Small Business Administration and other agencies to tell companies about Federal and State assistance which can cut the cost of pollution control. Staff also have been assigned to work with State and local environmental officials and with new businesses relocating to the region.

EPA funds are helping Utica, N.Y., plan how to use industrial and residential wastes for fuel to help power a new branch of the State university. The Port Authority of New York and New Jersey is planning to operate an industrial park in much the same way. In Florida, Broward County will convert sludge and wastes into energy to run a wastewater treatment plant.

The campaign to bring cities into compliance with national air quality standards is being waged on several fronts.

In the spring of 1978, President Carter flew to Denver to announce that that city—home of the Nation's most severe carbon monoxide problem—would get coordinated help from 25 Federal programs, including EPA's. Today, many organizations are involved in pollution control, from local companies to a group formed by the League of Women Voters, the American Lung Association, and others who posted signs on city buses saying, "Pledge yourself to take a walk on Sunday."

EPA's "offset" policy is another part of the strategy.

It allows construction of new facilities in areas that have not met air quality standards. But there's a clincher. The firm could move in—if the community cleans up more pollution from existing sources than the newcomer will introduce. To carry this a step further, we also will allow, as a matter of policy, localities to "bank" extra reductions in air pollution—which later can be transferred to new firms in the area.

Eight cities—armed with more ingenuity than EPA money—are gearing up to make the concept work.

Philadelphia, for example, is identifying industries which are both environmentally and economically attractive. Chicago plans to organize a system of technical and financial assistance to help companies solve their air pollution problems. Boston wants to cut emissions which flow from municipal facilities—thus, creating a body of offsets for the city to trade. In Connecticut, the cities of Bridgeport and Waterbury are exploring the purchase of air quality improvements from local companies, with the offsets to be allocated later to new businesses.

There is a related matter—EPA's proposed "bubble" policy. Under the proposal, a company would draw up plans to clean up its polluting processes, keeping in mind that the total pollution from any single facility must not exceed EPA's plant-by-plant requirements.

Controversial? Yes. But concepts like these also could help urban areas attract new businesses—and hold on to older ones. The straightjacket on industry would be loosened. Most of all, cities should have added incentive to improve air quality—a national promise we all have a stake in keeping.

EPA—and many other Federal agencies—are deeply committed to the cities. But neither President Carter nor any of us in this Administration believes that the government has a monopoly on the answers to urban problems—or even all the questions.

Thus, the spotlight shifts to the grass roots—so that solutions fit the full range of local needs. That's why forums with diverse groups focusing on the difficult issues are so vital. City Care, the recent conference on the urban environment, is but one example.

For too long, we as a Nation failed to recognize the dangers of an unhealthy environment. Some of our most productive land and waterways have been needlessly contaminated. The air in some areas became hardly fit to breathe. Hazardous wastes were carelessly dumped out of sight, out of mind.

We were slow to see that the chemical revolution which handed out many benefits also could be an environmental hazard. Only in the last decade have we begun to reverse the generations of neglect. And significant progress has been made. But sadly, the quality of life still depends upon who you are and where you live.

Nowhere is this more true than with the millions of Americans who call the city "home." That's where the most unhealthy concentrations of pollution collide with the greatest number of people.

There are no quick fixes, no easy solutions. But I believe there are solutions, solutions which will not foreclose the future—environmentally or economically.



A Governor's View

At some pivotal moment in the history of civilization, mankind stopped trying to conquer Nature and tried to save it. In too many cases, that moment came too late, after the damage was done.

Vermont was lucky and maybe just a little wiser in that respect. Few other states have as much to be proud of in the area of the environment as the Green Mountain State.

Just why this happened is not easily explained. It may be because we have always been a rural State—100 per cent rural even today, by Federal standards. Development, at least the heavy industrial kind of development, never had a chance in a State that had so many natural barriers, like the mountains, the long winters, and the lack of large population centers.

It might have something to do with the climate. Early frosts, deep snow, icy roads, and short growing seasons can make a person feel very respectful of the ways of Nature.

For whatever reason, the fact remains that as a State we've built a reputation for our commitment to preserving the land, the water, and the air of Vermont. We have the cleanest water in New England, according to the 1978 EPA Water Quality Report. Our land remains unspoiled, and our air, with two minor exceptions, meets the Federal attainment standards.

The golden age of environmentalism in Vermont began in the late 1960's, with the movement that led to the passage of Act 250, the land use law that has served as a model for so many other States across the country. Recently that law's resiliency was tested when a District Environmental Commission decided to deny a land use permit for a suburban mall on the outskirts of our largest city, Burlington, on the grounds that it would threaten the economic and environmental viability of the region that surrounds it. Act 250 is alive and well and still the pride of Vermont.

We passed one of the first billboard laws in 1967, one of the first returnable bottle bills in 1971, and in 1977 we banned the sale of phosphates.

More recently, we centralized the administration of all EPA-funded pollution control programs by putting them under the direction of one division of our Agency of Environmental Conservation. We also brought our water pollution control statutes into line with the Clean Water Act of 1977,

View across Lake Champlain from New York State shows the Green Mountains of Vermont. By Governor Richard A. Snelling of Vermont

so that individual, alternative, and innovative water pollution control systems were eligible for State funds. We also implemented a ceiling grants system, so that no household in Vermont will have to pay more than \$150 a year for municipal sewage service.

These last three innovations are the direct result of the work of Reginald A. "Tex" LaRosa, the Director of the Division of Environment Engineering and Acting Commissioner of the Water Resources Department. We were proud to see Tex awarded EPA Region 1's Environmental Merit Award last November for that work.

Vermont's commitment to the environment continues to be strong and lively, even in an age of fiscal restraint. Within the last few months, two events have reassured us that our leadership in environmental matters is intact. One was the signing of the first State/EPA Agreement in the Nation. The other was the first televised public hearing ever held in Vermont.

The hearing was an opportunity for Vermonters at home to respond to our State implementation plan for meeting Federal air quality standards. Appearing on local educational television, through the cooperative efforts of Vermont ETV and the Vermont Lung Association, the program presented a forum for Vermonters to direct their questions by toll-free telephone connections to a number of panelists, including our Secretary of the Agency of Environmental Conservation, Brendan J. Whittaker, and the Chief of Vermont's Air Pollution Control Program, Richard Valentinetti.

The issue of how the air quality plan would affect growth and development in Vermont, beyond considerations of health, made the hearing timely and provocative and ultimately one of the most successful public participation events in recent years.

The signing of the Vermont/EPA Management Agreement late in 1978 was another landmark in the history of environmentalism in Vermont.

In an age when federalism seems to have outgrown its original definition, as the Federal Government assumed more responsibility for services traditionally left to the States, the agreement represents an encouraging new direction. Vermont and the EPA now share the management responsibilities for the State's total environmental pollution control activities, as a result of the agreement. Vermont now has a dynamic role to play in solving the environmental problems that concern us most.

The agreement itself is now being promoted by EPA as a model for other States. It is only 28 pages long, but it provides twelve separate work plans and time tables for meeting the future environmental needs of the State in the areas of air, water, and noise pollution, solid waste management, control of hazardous wastes, and oil spill prevention.

One example from the agreement will serve to demonstrate its value to Vermont as an effective tool for meeting directly the pressing environmental issues of the day.

In recent years, the Richelieu River in Quebec has been flooding its banks. One proposed solution was the construction of a flood control structure at the point where Lake Champlain flows northward into the Richelieu.

Vermont defended its interests as one State bordering the lake on the grounds that the flood control structure would lower the average lake level to the detriment of Vermont's wetlands. In the course of our defense, we realized how seriously we needed viable wetlands protection laws.

The Vermont/EPA Management Agreement responds to this need through the implementation of Section 404 of the Clean Water Act of 1977. The agreement details a work plan for the coming year for the development and passage of wetlands legislation. The EPA has committed itself to assisting the State with legal and technical support, in exchange for Vermont's commitment of time and resources to the same end. By the end of this year, Vermont will have solved one of its most serious environmental problems, with the help of EPA, as a direct result of the Agreement.

Vermont has good reason to be proud of her achievements in preserving the environment, but that record hasn't come easily. Diligence and the commitment of officials of the stature of Tex LaRosa, without whose work the Vermont/EPA Agreement could not have succeeded, have made it all possible. For the future, Vermont, like every State that feels the pressure of conflict between natural and human needs, will have to guard itself well against unplanned and unexpected threats to its environmental integrity.

A Congressman's View

A comedian has described the Washington political scene as analogous to 10,000 ants floating downstream on a log and "every one of them thinks he's steering."

From the perspective of the local official who has to deal with Washington, however, it is generally feared that no one is steering and no one is even aware of what direction

we are drifting.

I have been at both ends of the Federallocal relationship and have viewed the world from both the Federal and local perspectives. I served as Mayor of the City of San Jose from 1971 through 1974, and since then have served as Congressman from California's 13th District.

During the 1970's, the importance of the Federal-local relationship to the American way of life increased enormously, with Federal grants-in-aid to State and local governments increasing from \$24 billion in FY 1970 to an estimated \$82 billion for FY 1979. Federal grants now constitute 25 percent of State and local government expenditures, up from 19 percent in 1970. And this same decade has seen a great deal of debate over what the nature of the Federal-local relationship would be, with often bitter controversy over "New Federalism," revenue sharing, consolidated block grants, and fiscal assistance to cities facing bankruptcy.

I have been involved in many of those debates, sometimes from the local perspective, sometimes from the Federal perspective, and, where the debate has continued long enough, from both perspectives. Looking back on this decade of an increasingly important but often strained Federal-local relationship, I think we can and should begin to learn what it would take to conduct that relationship more successfully.

The first lesson that needs to be learned is that there is a point of diminishing returns in the increasing compartmentalization of Federal grants into categorical programs. It seems ironic after this decade of "New Federalism" and consolidated block grants and revenue sharing to have to raise once again the issue of an excessively compartmentalized array of Federal programs. But even in the era of the consolidated block grant, the number of categorical grant programs has actually increased, from 442 (in January, 1975) to 492 (in

Congressmen Mineta is Chairman of the Subcommittee on Oversight and Review of the House Committee on Public Works and Transportation. The Subcommittee's oversight includes the Clean Water Act. By U.S. Rep. Norman Y. Mineta (D-Calif.)



The U.S. Congress in joint session.

Jameary, 1978). (EPA administers about 7 percent of those categoricals.) The categoricals' share of all grants-in-aid has been fairly constant in the same period at about 79 percent, with the balance going to consolidated block grants and to general revenue sharing.

Now, there is nothing wrong with categorical grants as one of the devices in the

Federal-local relationship. Most categoricals accomplish commendable goals. They are more easily targetable to specific objectives. The categorical approach is often particularly justified when we are initiating a new effort and wish to insure that this new effort will not be overlooked either by the agency or by local officials. In putting a new item on the priority list we have to recognize that the continuing backlog of the older priorities may crowd out the new efforts unless funds are set aside specifically for it.

But we have shown greater diligence in creating categoricals to deal with new priorities than we have in consolidating them once they have become established. The result has been that the Federal half of the Federal-local relationship has become so compartmentalized and complex that it frequently frustrates the efforts of local officials to rationally carry out their half of the relationship. As the Advisory Commission on Intergovernmental Relations recently concluded, "The proliferation of aid programs in and of itself would be no problem. the Commission believes, if this development did not have aggregate impacts . . . that put the so-called aid system beyond the comprehension of both elected officials and the citizenry. . . . "

I take issue here not necessarily with the goals of those 492 categorical grant programs, but simply with the fact that no matter how justifiable individually, collectively they present an unworkable and confusing array of programs, each with its own conditions and requirements and deadlines. The total impact can be particularly burdensome for a small town or county, which cannot afford the legal and technical talent to cope with the myriad and often contradictory Federal requirements. It is unreasonable on the face of it that none of those 492 programs would duplicate another, or work at cross-purposes with another, or reflect outdated priorities which have been superseded by new priorities and new programs.

Implicit in this argument is the notion that Congress must not only express its concern for a specific problem by creating a specific new program, but it must also return repeatedly to that program to see how it is working in actual practice and what impacts it has had at the local level. This is what Congressional oversight is all about, and I take encouragement from the fact that the 96th Congress has been labeled the "oversight Congress."

In this respect, I consider myself fortunate to have recently been elected by my colleagues to chair the House Public Works and Transportation Committee's Oversight and Review Subcommittee. At the risk of displaying the qualities of a floating ant, I must admit that I am enthusiastic about the challenge. The past record of the Subcommittee shows that oversight can be conducted in a constructive way and can contribute to Congressional understanding of the real-world operations of Federal programs. As an example, the O&R Subcommittee has played a major role in evaluating the national water pollution control effort, and will continue to do so.

Dut if we are truly to make this the "oversight Congress," we must build oversight into the fundamental structure of the Congress as a whole, rather than leave it only to the initiative of a few committees and subcommittees. We need to make oversight systematic and regular and a function of the entire Congress. Comptroller General Elmer Staats has emphasized the need to incorporate oversight requirements into the law itself.

For this reason I have for several years sponsored so-called "sunset legislation," which would build in regular termination dates for all Federal programs, thus requiring their reevaluation and reauthorization by Congress. Because of this feature of forcing Congressional review of the realworld performance of existing programsincluding such problems as categorical confusion in the Federal-local relationship -Comptroller Staats has referred to sunset legislation as "the unfinished chapter" in the effort to improve oversight. And, I would add, it is the unfinished chapter in the effort to force Congress to pay as much attention to the possible consolidation of categoricals as it does to their creation.

A nother lesson we need to learn if we are to make this Federal-local partnership more effective is that each partner must offer the other a reasonable degree of predictability and reliability. Without that, there can be no mutual confidence and each partner would only be willing to apply the partnership to the most marginal and shortrange projects, for fear of being left holding the bag on an important or long-term project.

This is particularly true where the grants program requires matching funds from State or local governments. About 61 percent of all categorical grants programs require some degree of State or local matching funds (among categoricals administered by EPA, about 74 percent require State or local matching). Here in Washington we are all too aware of the drawn-out, complex Federal budget process. The President's budget is submitted to the Congress nine months before the beginning of the fiscal year, while the agencies must submit their requests over a year in advance to the President and may begin preparing their

budgets as much as two years in advance. By the time those budget requests wend their way through Congressional Budget Committees and Authorizing Committees and Appropriations Committees and conference committees, we have subjected the budget to a great deal of possible or real change.

We tend to be so relieved that we have produced a budget at all, that we just assume that State and local governments will be ready and able to step forward almost overnight to pick up their burdens in the form of matching requirements.

We are too quick to forget that local governments, too, have to go down a long road of budgets and taxes and bonding and local decision-making in order to be ready with their half of the bargain. They need some confidence in the continuity of Federal programs in order to begin that process before the Federal budget is a finished work, and they need a reasonable period after the Federal dollars are available in which to complete their own budget and decision-making processes. If we do not allow for the legitimate needs of both partners, we will find that the partnership is far less productive. Nothing is less useful than a bridge which only goes half way across the river. We need both halves to make either half worthwhile.

he same is true of programs which require significant State or local staffing in order to carry out the purposes of a Federal-local effort. State or local governments cannot effectively perform their tasks if they are repeatedly required to hire or fire large numbers of professional staff in order to match erratic levels of Federal commitment. This is particularly critical in a program like the State management of water pollution control construction grants, pursuant to the Cleveland-Wright Amendment. In this case, the States receive a maximum of 2 percent of their annual construction grants allotment for the staffing necessary to administer the program. This poses the problem that every time there might be a dip in Federal funding, State employees would have to be laid off. The uncertainty which that situation breeds makes many States reluctant to take over these management responsibilities, thus frustrating the intent of the Congress in passing the Amendment.

And a third lesson we need to recognize, particularly at the local level, is that the fragmentary nature of local jurisdictions can limit their capacity to deal with many of the problems that are areawide in nature. Just as there is a confusing array of Federal categorical programs targeted at State and local governments, there is also a confusing array of local jurisdictions. Particularly in metropolitan areas, we find a fragmented picture of overlapping and competing towns, cities, counties, States,

special boards, districts, and authorities. Yet the problems we face, in transportation, energy efficiency, air pollution, water pollution, and so on, do not recognize those traditional boundaries. They arise instead by metropolitan area and by air quality basin and by watershed.

Our concept of the town or the city may be left over from an era in which there were no "metropolitan areas," but the hometown is still the most immediate and most fundamental building block in the American political structure. Despite some interesting initiatives in a few metropolitan areas to combine local jurisdictions into some kind of regional unit of government, the town and the city will remain paramount on the local scene for the foreseeable future.

Ye must therefore continue to find ways to work with groups of local jurisdictions in order to overcome the individual limitations of those jurisdictions. We must, in short, continue to work through and to improve the Council of Governments (COG) concept. As a former local official, I have had my share of qualms and guarrels with the COG mechanism. There have been questions of proportional representation in COG's, for example. From the Federal perspective I have often been concerned about the effectiveness of COG's, as in their inability to carry out the operational aspects of Section 208 planning in the water pollution control program. And there have been questions from both Federal and local officials as to which of the two the COG is really working for.

But despite these negative aspects, the nature of the problem we face and the enduring fragmentation of local jurisdictions will continue to require a considerable degree of reliance on areawide COG-type mechanisms. Both the Federal and local partners need the areawide COG intermediary to coordinate their separate efforts and to get the greatest return for their separate investments. We need to work to mitigate the deficiencies of existing areawide COG's, not to weaken or eliminate them.

Categorical fragmentation, predictability and continuity in programs, and local jurisdictional fragmentation: These are three key areas where we can work to improve our intergovernmental relations and can thereby improve the efficiency and "rate of return" on our intergovernmental programs. Because Federal grants-in-aid to State and local governments now comprise 17 percent of Federal outlays and 25 percent of State and local expenditures, and because these programs seek to fulfill some of our most important national goals, we all have a shared responsibility to improve their performance.

An EPA View

An interview with J. Edward Roush, Director, Office of Regional and Intergovernmental Operations



Based on your experience as a former Congressman and one who has travelled widely over the country, how do you think EPA is generally regarded?

would like to say we are the apple of people's eye, but we are not. We are not well regarded in many areas. We are a regulatory agency, and I guess it depends on whom you are talking to as to how we are thought of. For example, many industries and some municipalities think we have no business regulating their affairs, and as a result they balk at everything we try to do. Some environmental groups, on the other hand, think we are much too lenient. Meanwhile, someone else is telling us we are too stringent, too harsh in our application of the rules and regulations. I suppose it all evens out.

But even in this time of questioning the size and actions of Government, I find that individuals regard EPA as an organization that is trying to make the world better for them and their children.

What can EPA do to improve its reputation among those who don't agree with EPA's purpose or actions?

I think the biggest problem we have in building our reputation is to bring into our constituency those people who would advocate the same causes we advocate, who are striving for the achievement of the same goals we are striving to achieve. This includes the other units of government that have responsibilities similar to ours, I am speaking primarily of State and local government.

This interview was conducted by Charles Pierce, Editor, EPA Journal.

Over the years, the relationships between the States and local units of government and the Federal Government had deteriorated. This was not a reflection on EPA; we just happened to be a victim of the general pattern.

When he took office, the President directed that we improve those relationships, and he made some suggestions. And as a result we have a better feeling on the part of State and local people toward EPA than you would have found two years ago.

What we are doing of course is to make them part of the action, not only giving them the responsibility, but trying to provide the wherewithal to accept that responsibility and do the work themselves.

Also we have involved the State and local people when it has come to the development of our own rules and regulations which affect them. We in EPA took the President very seriously when he said that he expected State and local units of government to have input when it came to budget priorities, to policy, and to programs. He expected it to be a timely input, when policy was being formulated and discussed.

We have done that, and it has made a big difference. State and local governments are not quite so likely to complain about a rule or regulation that they had a hand in developing. Before, when they had no hand in it, you proposed a rule and they were sometimes prepared

to throw it back in your face. Now they recognize that they have been a part of the process of developing it. That has made a big difference in the attitudes of the States toward EPA, and our relationship has been greatly enhanced.

We have to recognize though that there will be people who will always knock us. But on the other hand, I think the statistics, the polls, and the thoughtful reflection of many people say that in the eyes of the American people what EPA is doing has to be done.

Which of our various programs, such as air, water, noise, or radiation, seems to be causing the most concern at the State level?

There is no question that at this moment and possibly for the next year or so the air program will be causing us the greatest concern.

Also, I think we can look forward to some difficult times in dealing with the Toxic Substances Control Act. And a very real problem for many of the States is going to be dealing with the Resource Conservation and Recovery Act. We are about to bury ourselves in our own garbage and waste. We have been confronted with improper past disposal of toxic substances and hazardous waste, including nuclear waste. The States are realizing the need for future disposal techniques, but we and the States are just beginning to recognize what a serious problem we have.

EPA is one of the most decentralized Federal agencies. Does this policy work?

Not only are we an example of decentralization, but I think we are an example of decentralization that is working.

It does require a great deal more work in coordinating the

Agency's efforts, in obtaining uniformity in enforcement, in the application of rules and regulations. All of those things make it more difficult.

But there are so many pluses that you tolerate a few of the minuses.

What is it about EPA particularly that seems to make decentralization an effective policy whereas it might not be for some other Federal agencies here in Washington?

Perhaps it is because we are dealing primarily with units of government. When we talk about EPA's sewage treatment program, air program, or solid wastes, we are dealing primarily with units of government, not, for example, with the individual homeowners as in the case of many programs of the Department of Housing and Urban Development.

Second, EPA studied its programs carefully and worked out its headquarters-regional roles and relationships as the Agency was being organized. This gave us a great advantage over other Federal agencies.

What mechanism do we use to insure that one Region won't have a more lenient enforcement policy, for example, and therefore gain more industry at the expense of another Region?

We are decentralized, but in think we have to recognize the fact that policy comes out of Headquarters. The rules and regulations are not promulgated by individual Regions, but by a national Headquarters, ordinarily with the blessing of the Regions that have to implement these laws. And so those rules and regulations themselves tend to encourage consistency.

We can't say that we are always consistent. To achieve consistency, there must be a great deal of coordinating and communication between the various Regions and Headquarters. It is part of the function of the Office of Regional and Intergovernmental Operations to see to it that this communication does take place.

One of the questions that was posed to Douglas Costle during his confirmation hearings as EPA Administrator was how he intended to provide more consistency. We now review in Headquarters each enforcement action recommended by the Regions. Before, Regions sent their proposed actions directly to the local U.S. Attorney.

Then the Clean Air Act Amendments of 1977 required EPA to develop rules and regulations which will prevent inconsistency. Action was required in air because implementation of the Clean Air Act provided more inconsistencies than in other areas.

By and large we have done a good job of overcoming inconsistencies. Although they occur, they're smaller in number and percentage compared to what you might expect considering the nature of this beast that we administer.

There is a tendency for many of the States to have environmental protection agencies of their own. Do you know how many States now have EPA's at their own level?

All but four States have a central authority of some type, but many of them do not have organizations with the same broad mix of functions that EPA has; however, that situation is much better than it was several years ago.

What do you regard as the most important function of your job?

Acting as the link between the Regions and the Administrator and Deputy Administrator. That takes in a lot. For instance, we have staff people who are members of almost every task force at Headquarters. And they rereflect the Regions' concerns.

I consider myself the Headquarters advocate for the Regions and I look after their interests.

Although these links are the most important function that we perform here, the intergovernmental work is becoming more and more significant and important.

What does a governor of a State do if he feels that a Regional Office is being unreasonable in carrying out some law of Congress?

He probably calls Doug Costle and then Costle will in turn call the Region and see what the story is. Or the Governor could call the White House to complain. In that case, I would probably get a call from the White House to look into the matter.

Are regional boundaries pretty well set in concrete now, or is there any thought being given to changing any of them?

hinaven't heard anyone specifically recommend that the boundaries be changed. What we are changing is the allocation of resources among the regions. The Zero Based Budget process focused on this for fiscal years 1979 and 1980. Then for FY 1981 we will begin to more carefully assess the balance between Headquarters and the Regions.

Is EPA's job getting easier or tougher?

It is going to be tougher. We have come through that period when it was all glamorous and we were talking about fishable and swimmable waters. We are now talking about things that are much more complicated, such as hazardous waste, carcinogens, and other chemicals.

We are living through a period of tremendous growth in the chemical industry, and that is going to make it more difficult for us. Consider how many thousands of new chemicals are produced each year.

As our knowledge increases regarding the causes of certain diseases, particularly cancer, it is going to mean the regulation of more chemicals in order to protect present and future public health.

More regulations will mean a greater challenge for us. EPA is entering an era where it is looked upon more as a regulatory agency than as a program agency. When you are viewed as such, you can't expect people to sing your praises. When you clean up their water by building things, they think that is great. When you start regulating their lives, their industries, their businesses, when you start affecting their style of life, they are going to resent what you are doing.

Is there any message that you wanted to give that I haven't touched on here?

I hope I didn't paint a picture of gloom here because I didn't intend to. I think the Agency is filled with bright, intelligent, and above all, dedicated people. They still have a sense of advocacy about them, and I like to see that. And I hope it sticks with the Agency.

The work that we are doing can be exciting. Protecting people's health is exciting. Protecting the aesthetic values around us is exciting.

The work is above all very meaningful. Being part of this mission gives you a good feeling. □

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A State Legislator's View

eaven and earth never agreed to form a better place for man's habitation than Virginia." That declaration by Captain John Smith almost four centuries ago still holds true in many parts of the State. But the rich land, the sparkling streams, and the fish, game, and timber are in jeopardy.

Partly because of the natural attractions, Virginia's population has skyrocketed, especially in recent years. With more than five million Virginians now, the State ranks as the 13th most populous. It continues to grow in population at a rate nearly 50 percent greater than the national average.

Almost 60 percent of Virginians live in the State's "urban corridor" stretching from northern Virginia southward through Fredericksburg and Richmond to the Tidewater. The demands of the growing urban population within this corridor have placed tremendous strains on the State's ecosystems, particularly in coastal areas.

Serious State concern for Virginia's eroding environment was expressed as long ago as 1964. Early that year, at the request of Governor Harrison, the Virginia General Assembly directed a select panel of citizens and legislators to study the growing threat to Virginia's lands and waters. Eighteen months later, the Outdoor Recreation Study Commission submitted its report entitled simply, "Virginia's Common Wealth." The report began:

Virginia's land and waters have abundantly nourished its citizens, in body and in spirit, for nearly four centuries.... Today a sharp change is taking place. The face of Virginia is taking on a new character as it becomes urbanized and industrialized in its commitment to progress. The progress is manifested by population growth and concentration, by increased income, by more cars and better roads, and by more leisure time.

But these forces, which increase the demand for outdoor recreation, are also threatening the very resources which are basic—our brooks and woods, our farms and shorelines.

In January, 1966, the Virginia legislature met again in session. Governor Godwin, newly elected to office, was a staunch conservative, but he knew that the time had come to break with "the old ways." He pushed a sales tax and State bond issue through the legislature and used these new financial resources for educational, health,

Senator DuVal was named the Nation's outstanding State legislator by the National Wildlife Federation in 1969.

By Clive L. DuVal II, State Senator, Virginia, 32nd District



Statue of Captain John Smith on Jamestown Island in Virginia.

and recreational needs. In particular, he placed his power and popularity behind the recommendations of the Outdoor Recreation Study Commission, and almost all of them were adopted. The more important were approval of a greatly expanded State Park System, and assistance to counties and cities to develop regional and local recreational facilities. The legislature also established a Virginia Commission of Outdoor Recreation to coordinate activities in recreational fields, and a Historic Landmarks Commission to protect the State's historic legacy. An Open Space Land Act also was passed to provide legal authority for preservation of open space by localities.

The opening phase of the effort to preserve Virginia's environment lasted until around 1969 when Governor Godwin left office. Before his term expired, the Governor proposed revision of the State's obsolete Constitution. This was largely accomplished in the same year, and the document was ratified by the people in

1970. The new Constitution was notable because it contained for the first time an Article on "Conservation," pledging the State "to protect its atmosphere, lands, and waters from pollution, impairment or destruction, for the benefit . . . of the people

During this period, it became possible to identify some of the forces which worked for or against the adoption of environmental legislation, Clearly in Virginia-a "strong Governor" State-vigorous support by the Chief Executive would usually be essential to enactment of hotly contested environmental legislation, as would organized support by environmental and other citizen groups. Efforts by the Federal Government to influence legislation cut both ways. When Congress mandated legislation or action, it had too many guns to be ignored, and the General Assembly complied, often resentfully. But when "the Feds" sought to influence a measure by persuasion or the proffer of grants, Federal involvement damaged the prospects of the legislation.

In truth, the War between the States has never been completely forgotten in the Old Dominion. In my early days in the legislature, I once played straight man to a Southside legislator who asked me if I knew what made the Virginia clay "so red." When I pleaded ignorance, the answer, delivered courteously and with a smile, was "Yankee blood."

Sometimes other factors and forces were arrayed against environmental legislation. Business, including agribusiness, industry, and utilities, often felt it necessary to challenge such legislation. Well-equipped with funds and able lobbyists, they became formidable opponents. An even more difficult problem was presented by the understandable but fiercely possessive attitude of Virginians towards private property. This attitude springs from deep roots, and any legislation which appears to infringe upon property rights faces real trouble.

Certainly, today, any sponsor of environmental legislation in the Virginia General Assembly must understand that this concern for private property is deeply held and deeply felt among citizens and legislators, and that as a corollary a benevolent view of business needs and interests will be taken by many legislators. I learned the latter lesson at the 1968 session when, with the backing of the Izaak Walton League and other citizen groups, I introduced a bill to strengthen the State's Water Control Law. Persuasive evidence was presented to the Committee considering my bill. This included testimony by a Richmond marina operator that the James River in time of low water was so badly polluted by human and other wastes near the State Capitol that on occasion even surviving catfish, carp, and eels swam ashore and died there in windrows, rather than suffer the torments of the poisoned river. He had taken graphic movies of these mass suicides, which were shown to the legislators. Nevertheless, my bill died in Committee after assertions by establishment legislators that its provisions "would keep business out of Virginia."

he second phase of the effort to protect Virginia's environment lasted about five years-from 1969 through 1973roughly paralleling the term of office of Linwood Holton, who succeeded Godwin as Governor. The new Chief Executive was a confirmed conservationist, and his inauguration coincided with a rising tide of concern among Virginians that stronger action was needed to protect the State's natural resources. Reflecting this concern, the first Earth Day was held in Richmond in the spring of 1970. The conjunction of demands by citizens for environmental action and a pro-conservation Governor made these years a golden era from the viewpoint of environmentalists.

In 1970, my bill to reform the State Water Control Law was re-introduced and passed easily. The explanation was simple: a Federal act now required that much of the proposed language be enacted as State law; refusal risked losing Federal grants to build sewage disposal plants. A parallel bill to strengthen the State's Air Pollution Control Law was opposed by the Virginia Association of Manufacturers and by big industry. But at this time business interests were not well organized, and my legislation carried by a fairly comfortable margin. So did measures to identify and preserve Virginia Scenic Rivers, protect wetlands, provide improved reclamation for areas currently being surface mined for coal, give statutory standing to a State Council on the Environment, establish a Solid Waste Study Commission, and require localities to control erosion and sedimentation caused by construction activities.

The third phase in the effort to preserve Virginia's environment began around 1974 and continues today. It has included the second term of Mills Godwin as Chief Executive and the first two years in office of his successor, John Dalton, Mr. Godwin gave little indication of any keen personal interest in conservation, and in his second term he did not take office with any known commitment to environmental proposals, as he had in his first term. In consequence, he rarely placed the power of the Governor's office behind any environmental legislation. One exception was the Toxic Substances Information Act of 1976 requiring manufacturers of dangerous chemState. This Act became necessary after the story of the Kepone disaster unfolded a year earlier. The present Chief Executive, John Dalton, is a keen hunter and outdoorsman, and could be of great value in support of environmental legislation.

An anti-environmental backlash seems to be developing among citizens and legislators caused in part, perhaps, by recession, inflation, and scalating fuel costs. Business opposition is better organized and in the existing climate it uses cost arguments effectively against environmental legislation.

As a result of all these factors, most important environmental proposals during the last six years have been defeated. The casualty list includes a significant State reorganization plan to establish a separate Secretary and Department of Natural Resources; a bill to require State approval for the siting of key facilities; and a measure to provide State-level protection for socalled "Critical Environmental Areas" throughout the State. It is meager comfort that the General Assembly did manage to add stretches of several rivers to the Scenic Rivers System and enact measures requiring localities to improve land use planning and procedures.

erhaps the hardest blow was the defeat by the General Assembly earlier this year of the proposed Coastal Resources Management Act, a badly needed measure to preserve vanishing coastal resources. The measure had been studied for several years, a number of public hearings had been held, and every effort was made to generate support for it. It was sponsored by an able senator, and planning and staff work were excellent.

As originally introduced, it would have protected from undesirable development not only dunes and unvegetated wetlands, but also adjacent "fast lands," so as to check run-off pollution. The scheme of control was the same as that already proven

action by local boards to approve or disapprove proposed development, with ultimate review and decision authority placed in a State agency. If enacted in a form satisfactory to the Federal Office of Coastal Zone Management, annual grants of up to \$2 million would be available and certain Federal authority to issue permits affecting shorelands would be delegated to the State.

The struggle over this bill was a microcosm of many of the environmental battles
that had taken place in the General Assembly during the preceding decade. In support
were many citizen and environmental
groups and some local governments.
Opposed were developers, builders and
some citizens (who claimed that the measure would take private property without
compensation), major industries, the State
Chamber of Commerce, agribusiness, and
several local governments.

During legislative consideration, the measure was revised several times, and in its final form amounted to an amendment of the Wetlands Act, adding to its protection primary dunes and unvegetated wetlands. If passed in this form, it probably would not have enabled Virginia to qualify for Federal grants, but would have allowed delegation of Federal permit powers to the State. The Act passed the Senate narrowly, but was killed by a House Committee 11-8.

At the final hearing, many opponents were large blue buttons bearing the inscription "Dunes Yes, Feds No." It was not that the developers who were them had any enthusiasm for protecting the dunes. To the contrary. What they did want to convey to legislators was the fact that the Federal Government supported the bill. The Federal connection may well have been the final straw that broke the back of the Coastal Resources Management Act.

But there will be other sessions and other proposals, and better days will dawn for those who seek to protect Virginia's environment.



Wild ponies cross a marsh area on Assateague Island on the Virginia coast.

A Metropolitan View

By Walter A. Scheiber Executive Director, Metropolitan Washington, D.C., Council of Governments



The traffic that streams into the Nation's capital each day is one of many concerns of the Metropolitan Council of Governments.

n many respects, the metropolitan region is the battleground on which the country's major environmental issues are being fought out.

In these complex urban areas we find many of our worst air and water pollution problems, major water supply deficiencies, and solid waste disposal crises. These problems are compounded by population densities substantially greater than those in most American communities, and by a multiplicity of local—and frequently State—governments which makes decision-making on all major public issues especially difficult.

The Washington, D.C., metropolitan area epitomizes many of the dilemmas which confront local and State government officials, as they wrestle with and attempt to resolve the variety of environmental issues with which they must deal if they are to maintain and improve the quality of their communities. The reward for success may be economically and socially sound urban regions; the cost of failure could be economic decline, social instability, and the emigration of both population and business.

The Washington region encompasses the District of Columbia and parts of Maryland and Virginia. Its population is slightly in excess of three million, residing in an area of approximately three thousand square miles. Its major industry is the Federal Government, which employs one in every four workers in the region. It is typical among American metropolitan areas-among which it ranks seventh in population—except for this significant Federal presence, and because of the relatively small number of cities and counties within the metropolitan areas. The Washington area consists of seven counties and fifteen cities, in addition to the District of Columbia. The New York region, by contrast, includes some fourteen hundred units of local government; the Chicago region about one thousand.

The sixteen major local governments of the Washington region are bound together by a voluntary multi-purpose organization, the Metropolitan Washington Council of Governments. The Council, founded in 1957 by representatives of the District of Columbia, Maryland, and Virginia, is one of about two hundred and twenty-five such associations of cities and counties in urban areas across the country.

Beginning as an informal luncheon club open to any local or State official in the Washington area who was interested in the exchange of information or in cooperative action among the region's local governments, the Council has grown to an agency representing 98 percent of the metropolitan population, with an annual budget of six million dollars and a permanent staff of one hundred and fifty. Its local governments voluntarily contribute almost one million dollars annually to its support, with the balance of revenues coming from Federal and State agencies. Its programs cover a wide range, including environmental protection, energy, transportation, land use, public safety, health services, economic development, housing, and human services.

The Council of Governments fills a variety of roles: as the metropolitan planning agency, as the organization responsible for review of and comments on applications for Federal grants, as the forum for the resolution of policy and program decisions on issues of concern to the metropolitan area, as a vehicle for cooperative interjurisdictional projects, as a broker among conflicting interests. It fills each of these roles at various times in dealing with the complex environmental issues which confront the Washington region.

he Council maintains active programs in air quality maintenance, water pollution control, water supply, solid waste disposal, and noise abatement. Some of these programs are the result of Federal mandates: others were started because of local needs. All are carried out on a regional scale by the Council in consultation with affected local governments. Some are in the classic regional planning mold; others are characterized by complex interjurisdictional negotiations over the allocation of Federal funds. A few involve the Council as an instrument of intercommunity cooperation; several involve the Council as a vehicle for providing technical assistance to those local governments which wish it.

The largest and most complex has been the Council's water quality management program, funded by EPA over a period of three years at a level of \$3.5 million. The program brought to the Council a variety of local aspirations, attitudes toward community growth, and willingness to negotiate highly charged issues involving hundreds of millions of dollars in potential development.

It was complicated by the intransigence of one major local official who insisted that the plan include provision for a sixty-million-gallon-a-day advanced wastewater treatment plant in his county. When EPA refused to fund the plant, he sued. The United States District Court upheld the Agency. Shortly before leaving office, the official reduced the proposed size of the plant to twenty million gallons per day. There now appears to be a question as to whether there is a need for any new plant in the county.

In the meantime, a plan was adopted by the Council which left the issue open, while proposing solutions for other significant pollution questions. Happily, the successor to that official and several of the successor's counterparts are more amenable to negotiations which may lead to an equitable sharing of the region's sewage treatment capacity as well as the distribution of its sludge. The next version of the plan may well reflect the fruits of their current deliberations.

The Council's activities in air pollution control are of longer standing, more farranging, and less fraught with controversy. Beginning with the development of a model local air pollution ordinance in 1966 by the Council and its adoption by all the major jurisdictions of the region, the Council has moved into the coordination of an areawide pollution monitoring system, the development of an air quality index (carried daily on all television newscasts, in the metropolitan daily newspapers, and on the telephone company's recorded forecasts, which are heard by 150,000 callers every day), an air pollution alert system, a transportation control plan for the region completed in 1974, and the first areawide plan completed under the terms of the Clean Air Act of 1977. The Council is now moving into the continuing phase of the planning process.

The Council has been involved in issues of water supply since 1965, two years after the Corps of Engineers proposed a series of sixteen dams on the Potomac River to provide an adequate water supply to the region. The proposal evoked a storm of local opposition, especially with respect to one dam which would have flooded major portions of one suburban county and parts of a wealthy community in another. The Council spearheaded opposition to these elements of the plan. In 1966, the Corps returned with a scaled down version of the plan, which was promptly dubbed "The Six Pack" because it encompassed only six of the original sixteen dams. But by now, local opposition had solidified, and construction has actually proceeded on only one of the sixteen, at Bloomington, Md.

n the summer of 1978, an engineer on loan to the Council from the staff of the Interstate Commission on the Potomac River Basin, Dr. Daniel Sheer, began experimenting with a series of mathematical models containing data about the Potomac basin and its water supply system. After several months of work, he developed a scheme predicated on the construction of

only the dam at Bloomington. He presented convincing evidence that the region's water supply could be made adequate simply by some inter-system connection of current reservoirs and by better management of them. Subsequent research has suggested the possibility that the same result might be achieved merely by improved reservoir management without any further connections.

Thus, Council-sponsored research has helped bring the area to a much less costly and capital-intensive solution to a critical environmental issue.

The Council was also the key vehicle in the development of an interiorisdictional sanitary landfill in Fairfax County, Va., a wealthy suburban county. The landfill serves that County, as well as the District of Columbia and Arlington County and Alexandria, Va. The landfill would not have come into being except that all four jurisdictions were concurrently seeking disposal sites because the existing ones were becoming exhausted or incinerators were under threat of being shut down because of clean air measures. The District owned a large tract in Fairfax suitable as a landfill which it could not use without the permission of the latter; Fairfax saw value in the site for the same purpose but did not own it. The Council acted as mediator and broker in bringing the parties together. Today a clean and efficient landfill serves all four jurisdictions on the site.

The Council has also mounted a major program of noise abatement through technical assistance to its constituent local governments, under the supervision of one of its staff members, Dr. Donna Dickman, a nationally known authority in the field. The program has been hailed throughout the country as a model for other regional organizations.

Confronting environmental issues on a regional basis may be logical in geographic terms, but it poses many questions from a political and governmental viewpoint. In an area like Washington, one must face not only local government fragmentation, but the differing traditions, constitutions, and laws of three different State-level jurisdictions. Resolution of difficult environmental questions can be achieved only through consensus developed through the give-and-take of elected officials and professionals representing communities with differing perspectives, goals, resources, and values.

To do so requires political skill, timing, solid professional background work—and a consistent commitment to sound environmental goals: To the extent that these qualities are present, as they are in the Washington area, there is real hope for the alleviation of the Nation's urban environmental problems.

Cleanup Benefits

By Douglas M. Costle EPA Administrator

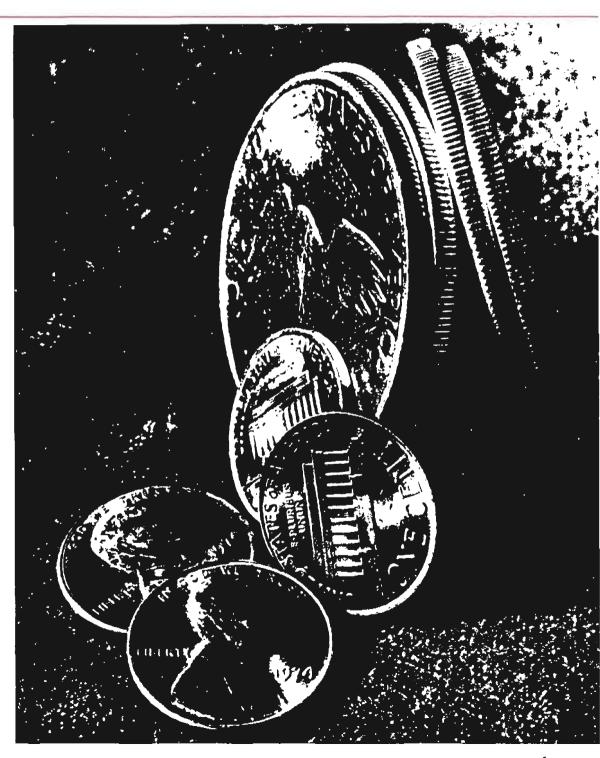
A long with my predecessors at EPA, I am willing to take considerable punishment in a good cause. But there does come a day when you tire of taking abuse because it's easier to calculate the costs than the benefits in environmental cleanup.

Accordingly, late in 1976, EPA commissioned a team of economists to investigate the health benefits of air pollution control.

The interim results of their study-two years into a threeyear project-are now being released. Together with other data, the findings indicate that dollar-benefits flowing from reduced mortality and sickness -and hence more time on the job-are substantially greater than the costs of controlling air poliution from power plants, factories, and other stationary sources. Further, the study indicates there are solid economic benefits from improved visibility.

I will cite the dollar-figures later. First, I'd like to tell you how the researchers arrived at them. Their methods display considerable ingenuity, and illustrate fresh approaches from the still-young field of environmental economics. One approach has to do with health-benefits. The second has to do with the relationship between air pollution and property values.

For the first section of the study, on health benefits, the researchers explored both death-rates and sickness-rates associated with air pollution. They analyzed death-rates from major diseases in 60 U.S. cities. They also analyzed statistics on more than 30 factors that affect



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mortality rates, including occupation, medical care, cigarette smoking, race, age, diet, and air pollution.

Through this process, the researchers were able—by well-known techniques of statistical analysis—to isolate the health-effect of air pollution alone on the entire U.S. urban population. This effect was expressed as a dose-response relationship: simply put, the increased number of deaths resulting from each increase in air pollution.

The findings indicate that the effect of air pollution deathrates has been overestimated in the past. On the other hand, its effect on sickness-rates has been *under*estimated.

This finding posed a new set of questions: how often do people get sick because of polluted air? How often does such sickness prevent them from working—either at an income-producing occupation, in a factory, or at a value-producing occupation, in the home? And what is the total of wages and values lost through such sickness?

To investigate such questions the researchers needed highly specific information on a small but fairly representative sample of Americans. They found it at the Survey Research Center at the University of Michigan; the Center was able to provide detailed data—almost diaries—on the daily lives, work, health, and budgets for 5,000 heads of households, dating back to 1968.

These data showed a strong correlation between days lost from chronic illness and air pollution levels. A detailed statistical analysis allowed the researchers to estimate how much of the sickness was

caused by air pollution, and how much by other factors such as cigarette-smoking and diet. And the income figures, finally, permitted them to calculate time and wages lost because of air pollution. They concluded that if the Nation could reduce air pollution levels by 60 percent, we would realize benefits of \$36 billion a year.

We have not reduced pollution-levels that far yet; that is the target we are shooting at for the 1980's. But we have made progress toward that goal. Between 1970 and 1977, airpollution controls reduced air particulates by 12 percent. Interpolating the research results indicates that a 12 percent reduction—a reduction not only in pollution but in sickness—is saving us \$8 billion a year in workers' wages and productivity.

Even this figure, substantial as it is, does not take into account a number of other benefits we have already experienced. It does not, for instance, take account of the fact that air pollution levels would have risen higher since 1970 without pollution control laws. Thus total benefits include not only those from cleaning up the air, but those from preventing further deterioration . . . and it is likely that the prevention is worth at least as much as the actual improvement.

Nor do the study results include many other types of damage caused by air pollution: lower crop yields on farms in polluted areas; damages to materials as they are eaten away by acidic pollutants; or the cost of more frequent repainting of houses in dirty areas.

For years now, the public has been saying-and the opinion polls confirm-that it wants cleaner air . . . not necessarily for any specific economic benefit, but because it just plain wants it. A second part of the air-quality study tested the strength of that desire . . . and it found that people do, indeed, place a monetary value on environmental considerations that have traditionally been considered intangible. They are willing, in sum, to put their money where their mouths are.

The researchers arrived at that conclusion in two ways: through interviews with homeowners in the Los Angeles area, and through the comparison of the selling prices on homes in the area that were comparable in all respects but one: smog levels.

The interview method—conducted with an ingenious series of maps and views illustrating various levels of smog—indicated that Los Angeles residents would pay \$650 million per year for a 30 percent improvement in air quality. That averages out to \$350 per household.

Such estimates by individuals, no matter how painstakingly arrived at, are always suspect. So the researchers compared these estimates with actual selling prices. Through this method, they determined that 30 percent better air quality brought an annual value of \$950 million—an average of \$500 per house. In effect, far from overestimating the worth of cleaner air and higher visibility, people in Los Angeles are paying more for it than they said they would.

I have no illusions that this pioneering air-quality study will

turn the cost-benefit argument around, and convert the critics of environmental protection into ardent advocates. This new study requires considerable refinement before being used as a policy-making tool. We realize that the study has serious shortcomings, and so—as they emphasize again and again—do the authors.

But we are sufficiently confident in the study's techniques and conclusions to assert that the pollution-control investments we have made on stationary sources so far are paying their own way. Moreover, we believe that this study is among the first of many to come that will enable us to defend environmental protection on the ground of the good things that are happening, rather than to argue for it because of the bad things that are happening.

I will do my best, as head of EPA and the Regulatory Council, to make sure that every regulation pays its own way in terms of avoiding risk and providing benefit.

But I will also do my best to prevent faulty cost-benefit arguments, based on deficient economics and stacked in favor of polluters, from reversing the repair work we have begun on our national home. We can pay for that repair work now, at substantial economic cost and national inconvenience. Or we can pay for it later—at much greater cost.

We have made the right choice. Let's pay now. □

Excerpts from a speech by Costle March 29, 1979, before the Women's National Democratic Club in Washington, D.C.

A City Manager's View

A city's philosophy is not easily practiced. The City of Spokane subscribes to an integrated approach to environmental problems, as do most cities, but our structure, traditions, and resulting actions are not always in accord with that philosophy. Our recent contract with Region 10, Environmental Protection Agency, for "Environmental Coordinator" staffing provides one way to adjust our structure and resolve that gap.

The Contract

The contract is simply a written agreement between EPA Regional Administrator Don Dubois and Spokane Mayor Ron Bair, approved by the City Council. It provides for our employment of an EPA career staff member as the city's Environmental Coordinator. The arrangement is made possible for a limited term without loss of Federal career rights by the Intergovernmental Personnel Act.

The agreement covers three steps: (1) identify local environmental problem areas, (2) assign responsibilities or determine obstacles to solution, and (3) establish the role of the Environmental Coordinator. EPA's Region 10 hopes to arrange similar contracts this summer with Portland, Seattle, and Boise.

The numerous other agencies involved in local environmental control are not direct participants in the contract, but certainly play a vital role. While the list is extensive, the structure of our local agencies is probably less complex than that of many metropolitan areas.

The Start-up

As of this writing we have 45 days experience with the contract. Dan Robison, formerly a senior staff level engineer with EPA's State liaison office, was hired. We began with certain guidelines and minor problems have appeared. A listing of these may assist others to avoid our problems.

We followed three guidelines:

- (1) The Environmental Coordinator is to be treated like any other city department head, including involvement in staff meetings and the social activities of the management staff.
- (2) This position is not to be hidden in the bureaucracy—we seek active involvement with City Council and advisory boards, provide open press access and recently included Robison in our contingent attending the National League of Cities Congressional Conference.
- (3) We began with contact with other agencies for explanation of the arrangement and to learn their roles and viewpoints.

By Terry L. Novak City Manager, Spokane, Wash.

Two difficulties arose. The local media are sensitive to environmental issues and, for their own reasons, sought to "hype" the arrangement. One headline read "Ecology Champion on Duty" and various stories tempted us to cancel his authorization for travel expense, since it was apparent he could simply don his cape and fly from place to place.

The other local agencies involved in environmental management understandably became concerned. While at first surprised, I can now see how we also would be concerned if another agency suddenly became more activist, went in league with the "Feds" and hired Superman.

If we were to begin anew we would consciously seek more moderation in the press coverage (to the degree that is controllable) and make careful pre-arrival contacts to explain the program to the other actors in the local environmental drama.

Nonetheless, the arrangement has been successful to date, largely because of Robison's professional and personal qualifications.

The Social-Political Dynamics

Our involvement in this agreement represents recognition that environmental problems are connected, that all local agencies of government are involved, and that Spokane must actively relate to other agencies and coordinate our own departments—it won't automatically happen.

We also recognize that much lack of coordination arises because of problems in interpersonal relations and stereotyped thinking. We must actively seek understanding and empathy among the parties. As public administrators, EPA and the City also recognize the importance of staff development and see this temporary assignment as an excellent career development tool for Robison.

The roles we hope he will fill include:
(1) Help us recognize and resolve the inter-program conflicts and coordination requirements of the various Federal, State, and local activities. We have a classic example in the effect of the Air Pollution Control Authority's parking lot paving regulations on the urban runoff problem. We also have highlighted the possible scheduling conflict between construction of the North Spokane sewer system (flowing to the central city's treatment plant) and the City's own storm sewer separation project.

(2) Help us become more sensitive to

the needs and roles of the other agencies. This is an educational process, especially in regard to the growing role of the Regional Planning Conference and the fiscal and legislative background of the City-County competition which unfortunately arises.

(3) Translate. The 180,000 citizens of Spokane are served by seven non-partisan, part-time City Council members who are well-qualified in their individual pursuits, but do not specialize in environmental management. They and the various lay advisory boards quite understandably go blank when we tell them, "The CSO project, using 10 percent MBE, with aid from EPA and WDE, will provide BPT in accord with the SMSA's 208 study pursuant to our 201 plan. Similarly the media need help in translating our activity so the citizens will understand, and fund, the programs. Excavating 220 miles of streets to separate storm from sanitary sewers will cause wholesale trauma unless people understand the reasons for doing it.

(4) Help us expand our horizons to see the environmental aspects of other State and Federal programs. Environmental management opportunities are available in transportation planning, energy conservation activities, and many other Federal grant or regulation programs. But we must actively search these out.

These four needs have not been met in the past and the city itself is partly at fault. largely for structural reasons. We suffer from the usual ills of departmentalization; the Council and general management staff have great difficulty keeping long-range problems in mind amidst dog control complaints and neighborhood zoning conflicts; city government suffers from an excess of legalism and is open to litigation on multiple fronts. The local media are highly competitive but have insufficient time or space to cover stories thoroughly. They thus highlight the unique and "catchy," avoiding the dull but often important stories. As members of the oldest and largest local agency, our employees tend to regard newer and smaller ones with skepticism and less than complete candor.

This structure—shared by most cities—tends to cause us to operate on a short-term time frame and not recognize the connections between the various programs. We also tend to shun our responsibility to monitor the work of specialists and consultants. Our structure and traditions support such practices, in direct opposition to the philosophy we avow.

Thus the need for structural adjustments. Our arrangement with EPA Region 10 is a strong first step in making those changes.



The Gull's Way

ne of the most efficient scavengers in many of the world's large cities are the graceful and remarkable gulls.

In the Washington area hundreds of these winged sanitarians, ring-billed and herring gulls, will be consuming the scraps of fried potatoes, hot dogs and other food dropped by swelling swarms of tourists now arriving at the Capital.

The gull is one of those wild creatures that have learned not only to adjust to humans but to thrive on our wasteful habits.

In addition to helping to clean up picnic grounds, gulls also forage at ocean and lake beaches and devour anything edible at municipal waste dumps.

Indeed the easy availability of garbage and other wastes in cities has helped some local gull populations explode.

Laughing gulls often patrol the boardwalk in Atlantic City, N.J.,

and their high-pitched cackles bring a note of levity to the melan- been sucked into jet engines. An choly scene of vacant and dying old hotels. The crowds attracted by the new gambling operations in Atlantic City may well help provide fresh food wastes for these gulls.

In the Pacific Ocean, gulls have been so successful in stealing herring from loaded scows en route to processing plants that commercial fishermen must cover the fish with nets to keep the gulls from making off with their catch.

Gulls fly aerial cover over many of the summer ferry boats sailing to resorts such as Nantucket Island. Some passengers hold food in their hands which is quickly snatched by the screaming and apparently insatiable gulls.

Port cities like Boston and New York often have large populations of gulls because of wastes from fish processing plants.

At airports congregations of gulls and other birds sometimes

cause accidents. Gulls have Inter-Agency Bird Committee appointed a few years ago to deal with this problem found that the best solution would be proper management of the environment around the airports: No open garbage dumps and no untreated sewage discharge nearby to attract the birds.

While high-flying commercial airline flights are occasionally bothered by birds on takeoffs and landings, military planes which skim the ground find gulls and other birds a more serious threat.

The U.S. Air Force is currently having a study made on how it can route its planes to reduce the number of collisions with birds.

While gulls can be a problem, they can also be helpful. In Utah, for example, the crops of the first pioneers were saved by

gulls which flew from their nesting grounds around the Great Salt Lake to eat hordes of invading grasshoppers.

Although gulls are now flourishing, in the 1890's herring gulls were in danger of extermination in America.

Gull nests were often robbed of their eggs. The gulls themselves were frequently shot for their feathers which would be used in ladies' hats.

The conservation movement helped to save these gulls. The fate of gulls and human beings appears to be linked. When gull populations boom it is often because of the extra food provided by the untidy ways of people.

Our relationship with gulls was described well by the noted naturalist Henry Beston when he wrote of all wild creatures:

'They are not brethren, they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendor and travail of the earth." -C.D.P.

The City Link

By Alan Beals Executive Director, National League of Cities

Cities are the essential link in the effort to provide a clean and healthy environment for all Americans.

Environmental problems, like other national problems, are ultimately felt at the local level. Air pollution, water pollution, and growing amounts of solid waste affect the air we breathe and the water we drink, wherever we live, work, and play. These environmental problems are not limited to cities, but they are most certainly intensified by the concentration of people, transportation, and industry in our urban areas.

In the nearly ten years since the establishment of the Environmental Protection Agency, the environments of many American cities have shown steady and measurable improvement. In most cities, according to the Council on Environmental Quality, the two most troublesome air pollutants—photochemical oxidants and carbon monoxide—have been reduced and other air pollution problems have been eased. But there's a long way to go. Hardly a major city in the country could meet the national ozone (or smog) standard before it was relaxed earlier this year, and many still cannot.

Data on water pollution have not been collected for as many years as data on air pollution, but the figures that are available indicate that water quality has been improved in many specific places and that the trend, so far as it can be measured, is positive.

But again, there is much yet to be done. Industrial discharges affect 72 percent of the river basins in the country; the Mahoning River, for example, running through Warren and Youngstown, Ohio, shows increasing amounts of lead, zinc, phenols, and other toxic industrial pollutants. Urban stormwater and urban, agricultural, and construction runoff are major sources of pollution and are harder to control than municipal and industrial pollution.

Solid wastes are another prime environmental problem in urban areas. Industrial waste is increasing at about 3 percent a year, sludge from municipal waste water treatment is increasing, and residential and commercial solid waste hit 130 million metric tons in 1976. Among these wastes are many hazardous or toxic substances that threaten the health and life of countless people unless properly handled.

The American public is acutely aware of the environmental problems that plague us, and is clearly concerned. A recent telephone survey by Resources for the Future showed that three out of four people surveyed at random felt that air and water pollution were serious problems, and a Gallup poll conducted for the National League of Cities last year indicated similar feelings about local pollution problems. The survey by Resources for the Future also indicated that the American public is all for cleaning up the environment—regardless of the cost.

Local officials share these concerns. Like the people who live in our urban areas, the officials who govern them want clean air and water. But they must balance those concerns against many others. They must consider the effect that environmental protection strategies will have on traffic patterns, land use, housing, economic development, trash collection, sewer systems. They must consider the cost of these strategies; while the public support for environmental improvement at any cost shows up clearly in the surveys, it does not always manifest itself at the ballot box.

Achieving our environmental goals is not impossible. It will, however, require very delicate balancing of many apparently opposing forces by national policymakers and administrators, State leaders and administrators, and by local officials. Environmental regulations will have to have realistic goals—goals high enough to protect the natural environment and human health, yet not so high as to severely impair the local economy on which people depend for jobs, incomes, products, and services.

These balances are already beginning to show up in environmental regulations. The offset provisions of the clean air regulations are a good example. By allowing an area to use pollution reductions by one source to offset emissions by another, they should assure acceptable air quality while allowing economic growth.

It is, after all, at the local level that Federal environmental programs must ultimately work. City officials are committed to helping make them work.

City officials know—as they have said in the National Municipal Policy adopted each year by the National League of Cities—that environmental problems are most acute in our urban society.

They know—and they have said so many times—that a national problem cannot be solved at the local level without involving local government. There are signs that this message is getting through. Increasing Federal decentralization is shift-

Ing more decisions and responsibilities to State and local governments, in effect putting the solution closer to the problem.

But where Federal or State legislation, standards, and programs are involved, local governments must be given the opportunity to help develop the standards, the time, and tools with which to meet them, and the flexibility to choose the most appropriate way to do the job. Local governments must be able to weigh the economic, social, energy, and environmental costs and benefits of a range of strategies in order to find the approaches that meet the individual needs of each city and town.

Local officials know, however, that there are no boundary lines for pollution. Air and water are constantly moving, and one area's emissions soon become some other area's problems. This means that planning for environmental improvement must be done on a regional, and sometimes statewide basis. Local officials, however, insist that they be part of that planning, not just the beneficiaries—and sometimes the victims—of it.

One basic idea that local officials feel should be part of environmental planning is that pollution is ideally controlled at its source. Indirect controls should only be used when it is clear that direct controls aren't feasible.

There are a couple of simple reasons behind this preference. One is that the closer to the source pollution is controlled, the less it will cost to control it—less in terms of the control strategy itself, and less in terms of the environmental costs. The other reason is that controlling pollution at the source puts the burden where it belongs—on the polluter.

There are a number of ways to do this. The many machines upon which our society depends—the automobiles, factories, power plants, and others—can be made to add less to environmental pollution. A variety of economic incentives and price adjustments could be used to discourage waste and pollution and encourage efficiency and environmental protection. These same methods could help distribute the costs of clean air and water equitably. And if incentives won't work, regulations might.

Throughout all these efforts, city officials must balance many environmental goals, just as they must balance environmental goals with many other concerns.

If local, Federal, and State officials, the private sector, and individual citizens can achieve and maintain this balance, we can, I am certain, enjoy a clean and healthy urban environment. It is one of the major challenges of our time, and one that will have long term effects. For unlike the early settlers of this country, who were faced with making the best of what they found, we must find ways to deal with the environment we have made.

The County governments. A survey of bilities publish tion Countie county govern

By Bernard-F. Hillenbrand Executive Director, National Association of Counties

ing County, the largest local government in the State of Washington, is one of many county governments managing growth and providing a variety of services all aimed at protecting public health and making their surroundings more livable.

In 1977, King County launched an ambitious campaign to fight water pollution from rural and urban run-off, and to better manage the surface and ground water resources within the county. In 1978, the county government developed a program for purchasing development rights to valuable farmland such as the one first used in Suffolk County, N.Y. Voter approval for the King County program will be sought during 1979.

Studies are now underway by the King County council and administration to develop a strategy for creating new economic opportunities in urbanized areas, to complement agricultural land protection.

America's counties offer a unique and real opportunity in many parts of the country to manage growth or decline, to encourage energy conservation and alternative sources of energy, and to provide a healthier, more fulfilling environment.

Once thought of as administrative subdivisions of State governments, counties in most States have adopted or have been legislated the powers of general purpose local government. They have three important attributes which equip them to meet environmental problems. First they are areawide in character, serving rural, urban, and suburban citizens. Though watersheds and airsheds respect county boundaries no more than State boundaries, there is at least a greater opportunity to meet these challenges because of the wide expanses of land and water governed by many county governments.

Second, counties throughout the Nation have been traditionally responsible for guarding public health. County health departments have not only provided human health services but have mandated responsibility for environmental health protection.

Third, in many areas, governmental services are being elevated from smaller municipalities and service districts to counties.

In 1976 for instance, 75 percent of the change in the solid waste function in the United States resulted in a shift of that

responsibility from cities to county governments.

A survey of county government responsibilities published by the National Association of Counties in 1977 showed that county governments provide the full range of environmental services. Growth management and land use control authorities exercised by a range of county governments provide a strong context for protecting important natural resources and abating air and water pollution.

Collection and disposal of solid waste is the most significant environmental service of county governments. Seventy percent of the reporting counties indicated that they were responsible for disposal, 60 percent on a countywide basis.

The 1977 survey also reported that over half of all counties conducted programs for controlling drainage, soil erosion, and related non-point source water pollution. Fifty-four percent of all counties with populations over 250,000 had responsibility for sewage treatment and 30 percent of all counties conducted activities aimed at controlling water pollution of all kinds. Fifty-seven percent of counties over 250,000 population conducted air pollution control efforts.

Regulating land use and development is a major function clearly supported by survey results. Two-thirds of all counties surveyed said that they conducted comprehensive planning programs. An identical number administered zoning and subdivision regulations. More than 800 counties in the United States employ or retain the services of professional planners. In coastal areas where natural resources and development come most vividly into conflict, over 90 percent of all reporting counties are participating in some form of coastal zone management.

The economics of solid waste management, resource recovery and recycling, water supplies, and sewage treatment is likely to result in increasing transfer of these functions.

Environmental Protection in Palm Beach County

In 1970, the County Commissioners of Palm Beach County, Fla., enacted the **Environmental Control Act for management** of the county's environmental protection efforts. The Act establishes a comprehensive program for enforcement of air and water pollution control standards, sewage treatment, drinking water quality, and solid waste disposal. Action by the Commissioners was based on the belief that State and Federal environmental agencies lacked the time and resources to apply environmental protection laws effectively within the county. The county is now considering the approval of safe drinking water regulations more strict than State or Federal standards.

Pioneering environmental management efforts by four counties have begun to solve major water pollution problems for wide areas of New York, Wisconsin, and Delaware.

The San Diego County Air Pollution Control District is leading efforts to complete revision in clean air implementation plans for transportation related pollutants. It is already enforcing a county-wide hydrocarbon vapor recovery program at gasoline stations and other sources. It has identified existing polluters for cleaning up and offsetting pollution from new development and it serves as the principal monitoring and stationary control agency for the area.

Counties and the National Environmental Partnership

National air and water quality and solid waste management programs rest on Federal enforcement, technical criteria, and financial resources to meet major environmental public health threats. State governments administer these programs, assist with enforcement, and sometimes contribute to meeting the financial burden. Counties, cities, and other local agencies ultimately build sewage treatment plants, implement best management practices, institute control measures, and assure consistency with land use and growth policies. To do this they make financial investments and political commitments often beyond the knowledge of Federal agencies.

The Federal Clean Water Act's Section 208 water quality management program is moving from a long period of planning to implementation, though best management practices and other implementation actions are already underway in many county and local jurisdictions. The history of 208 planning illustrates the need for relying on local political leadership and going beyond planning to adoption of management actions at the earliest possible stage. County and other local government actions to close open dumps and meet hazardous waste disposal problems would profit from the 208 experience by cutting whatever planning is necessary to the minimum and proceeding to close or upgrade landfills and hazardous dumps to meet public health requirements.

National environmental programs and the partnership envisioned by the Congress will be successful only if the Federal Government and the States understand that as in Palm Beach County, they neither have the resources nor the understanding to make these programs work in every community throughout the Nation. The next decade must witness a commitment to placing financial resources and responsibility at the county and city level in order to build on successes already underway.

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Building Cooperation

By William Hedeman

Director, Office of Environmental Review



Phosphate processing.

The use of commercial fertilizer on agriculture crops saves the U.S. public \$17 billion a year or about \$70 a person. Phosphorus is one of the two elements that are the main ingredients of most fertilizers. Nitrogen is the other. Eighty percent of the U.S. and 33 percent of the world production of phosphorus comes from the phosphate rock that is mined in an area of central Florida about 50 miles in diameter near Orlando. Production there is expected to increase by 7 percent a year through the year 2000.

The product of the phosphate mining and manufacturing industry is also its principal pollutant. The phosphorus that helps agricultural crops also promotes the algae build-up in rivers and streams that causes eutrophication. Phosphorus and fluoride, another pollutant from the Florida phos-

phate mines, also contain trace quantities of materials that emit low-level radiation.

These pollutants and their impact on the environment have been the subject of much controversy. Added to the pollution issue is the destruction of wetlands and other sensitive ecosystems. The Clean Water Act requires that a water pollution discharge permit be issued by EPA for discharges from all new phosphate mines and manufacturing facilities. The National Environmental Policy Act further requires that EPA consider all environmental concerns in its decision-making process.

To meet its responsibilities, EPA Region 4 has prepared an Environmental Impact Statement (EIS) covering much of central Florida. It is an overall environmental plan for the continued mining and manufacturing of phosphate rock. The region has successfully involved local and State governments, other Federal agencies, the phos-

phate industry, citizens' groups, and individual citizens.

The areawide EIS approach that produced EPA's plan for central Florida is not only an improvement over the conventional methods for environmental analysis of industrial growth areas but it also involves much less regulatory agency and industry time and paperwork. The areawide approach provides a base from which to estimate the regional significance of the phosphate mining and a guide for consistent pollution limits to avoid an accumulation of environmental problems.

Without the areawide approach, each local environmental statement would first analyze the existing environment and

then the effects of the new discharge on that environment. There would be duplicate collection of data and analyses. With an areawide EIS, much of the data collection and analysis has been completed. Therefore, the evaluation of the unique problems of a new mine or processing plant in a localized EIS will not require as much time or resources. The information already in the statewide EIS can be tapped in the localized study.

The Florida phosphate environmental impact statement considered mining development in seven Florida counties. Region 4 solved the problem of surveying the environment of such a large area by using newly-developed remote sensing techniques. It also applied aerial photographic interpretation methods similar to those used in forestry. Then, to standardize the facts for decisions, the information was analyzed by a mathematical method developed by the U.S. Geological Survey.

EPA's Office of Environmental Review is drafting new regulations for EIS preparation which we hope will promote the use of the areawide EIS in more Regions. These statements not only provide environmental facts in a form that can be easily used for better decisions under the National Environmental Policy Act, but also give EPA the chance to make better judgments with greater public participation without creating unnecessary delays.

Region 4's areawide impact statement was triggered by the concern expressed by Florida citizens groups, local governments, and State agencies over the planned development of the State's phosphate resources. The phosphate industry was also concerned with environmental issues and how they would affect its continued growth.

EPA found that there was also Federal interest in the Florida phosphate industry. In addition to the permit responsibility of EPA and the Army Corps of Engineers, the Departments of Interior and Agriculture were interested in obtaining facts to help judge mining and reclamation practices for phosphate mines that may be located on leased Federal land.

To encourage the greatest possible public, interagency, and industry participation in the drafting of the statement, Region 4 set up a steering committee with representatives from five Federal agencies and the Florida Department of Environmental Regulation.

EPA also named an advisory committee of representatives from the seven counties in the study area, the Florida Audubon Society, the Southwest Florida Water Management District, and the Florida Phosphate Council. Public meetings were scheduled and, during the drafting of the EIS, eleven newsletters were mailed to 300 interested citizens and groups in the study area.

Through the work of the steering committee and the advisory committee, five environmental control/industrial growth alternatives were developed and environmental consequences of each were evaluated.

The result was a recommended approach that will allow permit applicants with plans consistent with the areawide EIS to incorporate by reference the information contained in the areawide statement. If the applicant wants to deviate from the areawide EIS plan, the localized EIS would have to analyze the effects of granting the permit on the entire central Florida area.

The approach will allow the Regional Office to respond more efficiently to permit actions. This is not at the expense of environmental protection, which has been strengthened through an integrated analysis of both areawide and cumulative impacts. This increased protection could not have been accomplished through a permit by-permit approach.

The Areawide Environmental Impact Statement on the central Florida phosphate industry, now in final form, provides a framework of decisions within which industry can plan its growth. It is based on public analysis involving all interested sectors: the industry, regulatory agencies, environmentalists, and the public.

Encouraged by the support and success of the Florida phosphate EIS, Region 4 has begun a similar project in eastern Kentucky. for coal mining. Many new source permits for water pollution discharge will be required. All permits issued will involve an environmental review though not all will necessarily need an EIS.

The areawide study for eastern Kentucky will provide data on the existing environment, to help determine when an EIS is needed for a specific project. It will locate any environmentally critical areas in the State so that all proposals for development in those areas can be identified and adequately evaluated.

The study involves 10,500 square miles and all or part of 34 Kentucky counties. Plans include a massive photo interpretation, literature search, and ground survey effort to properly inventory the area for existing mining activities; current land use; and water, biological, geo-environmental, and cultural resources.

The project is being guided by a task force consisting of representatives from the coal industry, environmental groups, and State and Federal agencies. The site work will be a cooperative effort involving the Kentucky Natural Preserves Commission, EPA's Environmental Photographic Inter-

pretation Center, and private contractors. Use of remote sensing will improve the detail and accuracy of the data base at lower cost to EPA.

Like Region 4, Region 3 is faced with problems and decisions on coal mining and has also gone to an areawide EIS approach similar to that being used in Kentucky, with some key variations. Region 3 expects to receive more than 300 permit applications a year for coal mines in West Virginia. Many of the applications will be for discharges from small surface mines, which may operate for less than a year.

EPA needed a method to expedite the granting of permits because delays could not only harm the development of energy resources in the Eastern United States but could also have a disruptive influence on the economy of West Virginia, the second largest coal producer in the Nation. Region 3 also is required by the National Environmental Policy Act to undertake environmental reviews of the permits.

To resolve these competing requirements, the Region undertook a statewide study designed to document the scope of the problem and develop and consider alternative approaches for meeting environmental review requirements. Region 3 considered existing and projected mining activity, the impact of coal mining on sensitive environmental resources, and alternative environmental review strategies, and concluded that areawide studies of selected locations were the best approach.

The first areas picked for study were the Gauley and Monongahela River valleys, 3,635 and 7,340 square miles respectively. Rather than just a draft and final EIS, a preliminary environmental impact study was developed to highlight those locations within the river valleys that require the most extensive environmental analysis in the EIS draft. This approach is encouraged in the new Council on Environmental Quality regulations and is called scoping. The areawide statements, when completed, will locate those specific sites that will be best suited to coal mining, those requiring additional detailed environmental analysis, and those unsuited to mining.

The work in West Virginia, like that in Florida and Kentucky, is designed to produce an EIS that allows better and faster environmental decisions. The EPA regions are already seeing improvements in efficiency in issuing permits without a sacrifice in environmental protection. The public and industry have been better served by greater opportunities for their input into decision making. Meanwhile, the coordinated, areawide approach to the EIS is achieving a reduction in unneeded paperwork and more accuracy in data gathering and analysis.



Utility to Burn Coal

Region 1 plans to approve a revision to the Massachusetts clean air plan. which will allow the Brayton Point power plant in Somerset, Mass., to burn coal. The plant, operated by the New England Power Company, will voluntarily convert from fuel oil to coal beginning in 1981 and should have all three units converted by 1983, Regional Administrator William R. Adams said that the plant would be permitted to burn coal with a maximum sulfur content of 1.5 percent, equivalent to the sulfur content of the fuel oil it burns now. This will elim- from industrial contribuinate the need for costly scrubbers and will protect overall air quality. The coal conversion offers economic benefits. The Department of Energy estimates fuel cost savings may be as high as \$31 million per year. Through the Fuel Adjustment Clause on electric bills, customers in Massachusetts, Rhode Island, and New Hampshire could save money. The power plant at Brayton Point burns about 12 million barrels of residual oil per year. Coal conversion there will diversify the fuels burned to generate electric power in New England and will reduce the dependence on imported oil by as much as 17 percent. Over a twenty-year period this conversion to coal could divert almost \$3 billion in fuel expenditures from foreign countries to the United States.



Legislators

Region 2 Administrator Chris Beck spoke recently to New York State legislators about hazardous waste problems. He told the Assembly's Environmental Conservation Committee, "As sure as we are sitting here, this State's going to find a lot more landfills leaching. The solution is not just removing the people temporarily, as was done at Love Canal, but, who is going to pay and how we are going to clean things up. "He said that EPA is investigating alternative funding measures such as developing a "superfund" tions to pay some emergency clean-up expenses. Lawsuits against the poiluters could help pay the balance of the bill. Meanwhile, Beck cautioned the Committee, "You have to act, you have to make appropriations. At the Love Canal, the State has done a hell of a job. But you will be in the cauldron for some time."

Love Canal

New York State has temporarily relocated children under two years of age and pregnant women from a four-block area adiacent to the original Love Canal evacuation zone, following confirmation by the State Department of Health that toxic chemicals are continuing to leach beyond the evacuation zone. The State already has moved at least 326 families. Work is proceeding on design and construction of a collection system to lower the water table and drain off the chemical leachate that

has invaded the basements of homes on each side of the Canal. This work has been completed on the lower third of the site. An EPA demonstration grant of \$4 million combined with a \$4 million State grant will pay to complete the system. The funds also will finance leachate treatment, monitoring and epidemiological studies, and possible rehabilitation and landuse alternatives.



Air Workshop

Fifteen vocational-technical instructors from Maryland, Virginia, and the District of Columbia attended an auto inspection and maintenance workshop recently at the Northern Virginia Community College in Alexandria, Va. The Region 3 Air Program sponsored the workshop with the Metropolitan Washington Council of Governments. The Clean Air Act Amendments of 1977 require mandatory auto inspection and maintenance programs for areas that cannot meet air quality standards for carbon monoxide and ozone by December 31, 1982, EPA policy limits the requirement to metropolitan areas with populations over 200,000. Region 3 expects that Baltimore, Washington, Hampton, Norfolk, and Richmond will need the inspection and maintenance programs. The workshop was the first in a series planned to establish groups of qualified instructors who could train mechanics in the latest techniques of auto emissions control main-

any inspection and maintenance program depends commerce is 5 parts per erly trained mechanics. Dates and locations of future workshops will be announced.



Hotline Installed

FPA's Atlanta Office has installed a toll-free phone line to provide answers to environmental questions. The phone will be staffed 24 hours a day by EPA staff members. The number is 1-800-241-1754 for callers in Alabama, Florida, Mississippi, North Carolina, South Carolina, Tennessee, and Kentucky. Callers living in Georgia should use 1-800-282-0239.

DDT Action Set

Region 4 is taking legal action against the U.S. Army over DDT contamination from the Redstone Arsenal in Alabama. In January EPA issued an administrative order giving the Army 30 days to begin a health effects study of area residents, and 9 months to do an engineering study of solutions to clean up DDTcontaminated sediment in affected waterways. When the Army missed the first deadline, EPA called on the Center for Disease Control for a study of the residents of Triana, a local predominantly black community whose residents rely on fish from Indian Creek for a large part of their diet. Indian Creek is contaminated with DDT, and the researchers found that fresh fish and samples from home freezers contained 450 parts per million of DDT residue. The Food and Drug Administration limit for DDT in

fish shipped in interstate on the availability of prop- million. The problem originated with a DDT manufacturing plant established at Redstone Arsenal shortly after World War II. When the manufacturer's lease ended the buildings were dismantled but the soil remained severely contaminated with the pesticide. In 1977 after a meeting with EPA the Arsenal started a program to stop the move-

ment of DDT into the rivers by building diversion canals around the site so that runoff could be treated with activated carbon filters. Despite these efforts studies show that earlier runoff had carried the chemical into Huntsville Spring Branch, through Wheeler Reservoir, Indian Creek, and to the Tennessee River.



State Coordinators

Region 5 has named special coordinators to work with each of its six States, to strengthen the partnership between the States and EPA. Regional Administrator John McGuire said, "These coordinators are all senior EPA specialists who will work closely with me to develop cooperative relationships with the Region's States in implementing all of our programs." McGuire said the coordinators' duties will include reviewing the status of EPA programs, meeting with constituency groups, and providing the Regional Office with information on problems in program areas before any crises develop. The coordinators also will be involved in analysis of the individual characteristics

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tenance. The success of

of each State and will tailor EPA relationships to finding a cylinder should meet the needs of each State, McGuire pointed out that this would be especially useful in developing formal agreements between the States and EPA on the joint management of pollution cleanup programs.



Pesticide Search

The Region 6 Emergency Response Team is coordinating a nationwide effort to recover hydrogen cyanide cylinders that have not been accounted for. The cylinders were used in the 1950's and 60's as a fumigant for rodent control, primarily in agricultural areas. In addition to the threat posed to human health by the pesticide, the cylinders are highly explosive and dangerous when disturbed. Regional Administrator Adlene Harrison said, "The force of the explosion is tremendous. The chemicals are toxic, but the greatest danger is from the shockwaves that occur if a cylinder explodes." In some cylinders the slightest movement can trigger an internal chemical reaction that produces enormous heat and pressure, which explodes the cylinder. After heating begins the cylinders explode within ninety seconds, shattering glass, damaging buildings, and harming bystanders within a three square block area. The pesticide containers are aluminum or silver colored and easily distinguished by the marking 'HCN' on the warning label in big letters. The cylinders were manufactured by various companies but recovery efforts are concentrated at American Cyanamid Co.,

Princeton, N.J. Anyone call the company collect at (609) 799-0400. extension 2184.



Irrigation Practices

Region 7 coordination efforts have resulted in the recent signing of a memorandum of understanding by the Bureau of Reclamation, the North Central Nebraska Reclamation District, and the Niobrara Basin Irrigation District concerning irrigation practices on the O'Neill Project. The Project, which has been the subject of much controversy, will provide irrigation water to approximately 77,000 acres near O'Neill, Nebr. EPA has been actively involved in the review of the draft environmental impact statement because of the possible effect increased irrigation could have on nitrate levels in groundwater. Under the memorandum each project user must follow certain best management practices in order to receive water. Users must take a course in irrigation scheduling, then must begin and continue an irrigation scheduling program. They must use soil moisture measuring equipment and refrain from applying nitrogen fertilizer to project lands during fall and winter. The Bureau of Reclamation will monitor and evaluate the amount and quality of groundwater.

Awards Given

Regional Administrator Dr. Kathleen Q. Camin presented 1979 Environmental Quality Awards recently in Des Moines to

24 people and organizations who have made significant contributions to the environmental movement. The award winners were picked from nominees submitted from the States of Missouri, Kansas, lowa, and Nebraska. At the first in a series of ceremonies, Dr. Camin honored the Homer Broncos 4-H Club of Rowley, Iowa, for their volunteer pesticide cancrushing operation; lowa Gov. Robert Ray for his leadership in the fight for a 'bottle bill' in the State; and James Risser of the Des Moines Register for his investigative reporting of agricultural and environmental issues. She also presented awards to Robert Buckmaster for his part in drafting environmental legislation; to Jan Riggenbach for his articles on pesticides and conservation, and to the lowa Division of the Izaak Walton League for their efforts to prevent soil erosion and nonpoint pollution. Region 7 recognized Recycling Moves other people and organizations that fight pollution at similar ceremonies in Missouri, Kansas, and Nebraska.



Foothills Settlement

The controversy over the Denver Foothills Water Treatment Project has been settled. All parties, including EPA, the Department of Interior, and the Denver Water Board, signed a consent decree. which provides that the two lawsuits on the project will be dismissed and that the Corps of Engineers will issue a 404 permit for the storage dam on the South Platte River without objection from the Fish and Wildlife Service or EPA, in return, the Denver Water Board

will implement a water conservation program with the goal of reducing average water consumption in the Denver area. EPA will enforce this provision. The Denver Water Board also will implement erate electricity. a stream improvement program covering seven miles downstream from the dam to replace the high quality fishery stretch lost to the dam and will have to maintain minimum stream flows in an area covering nine miles downstream from the dam. Other stipulations of the agreement were that the Water Board must open its planning and decision-making process to public participation and that it must form and fund a Citizens Advisory Committee.



Region 9 has approved six applications for resource recovery grants, as part of EPA's effort to make cities more healthy. From the fifteen communities that applied, the Regional Office chose Berkeley, San Francisco, the City of Los Angeles, Long Beach, and the Los Angeles County Sanitation Board, all in California, and Kauai County, Hawaii, to receive financial assistance for recycling programs. The Los **Angeles County Sanitation** Board filed for funds to plan curbside source separation programs in residential areas. The other five communities plan to use grants to investigate the technologies, markets, and costs for facilities that would recover usable materials and use unmarketable substances to produce energy. Long Beach

plans to process municipal solid waste into steam or electricity. The Island of Kauai plans to convert municipal waste combined with sugar cane waste into a fuel to gen-



Fish Processors Cited

Region 10 has charged 10 Alaska seafood processors with violations of their EPA wastewater discharge permits in U.S. District Court. When the civil complaints were filed by the U.S. Department of Justice, at EPA's request, none of the processors had installed screens to prevent the discharge of fish and crab wastes into waters near the processing plants. Permits issued to the firms required the installation of the screens by July, 1977. Fish wastes could be collected on the screen and removed to designated "dumping zones" further offshore or recovered by the processor for re-use in some commercial product. In Kodiak. Alaska, one business firm takes wastes from the local seafood processors and converts them profitably into animal food.

States Assume Duties

Region 10 has agreed to let Idaho follow in the footsteps of Alaska in taking on the day-to-day project responsibilities for managing the Federallyfunded municipal wastewater treatment plant construction program. Under terms of its agreement with EPA, the Idaho Department of Health and Welfare will gradually assume increasing responsibility for the program. All phases of the program will be transferred to Idaho within the next two years. 🔲

Update

A review of recent major EPA activities and developments in the pollution control areas.

AIR

Cost Recovery Rules The EPA is proposing rules designed to recover the costs a company avoids by not complying with air pollution laws, Administrator Douglas M. Costle recently announced.

"While the majority of the country's 24,000 major sources of air pollution are in compliance with State and Federal requirements, many are not, Costle said. "Sources violating the law by failing to install and operate necessary pollution control devices have long enjoyed an economic advantage over those that did what the law required. In many instances, the economic savings resulting from non-compliance have encouraged environmental footdragging by violating industries.

"Prior to the 1977 Amendments to the Clean Air Act, the regulatory and enforcement measures available to EPA and the States lacked direct economic incentives to ensure prompt and continuous compliance." he said.

The proposed rules, however, authorized by Section 120 of the Clean Air Act, would require EPA, without going through the courts, to administratively assess and collect penalties equal to the economic savings a firm enjoys by not complying with the law.

PESTICIDES

DBCP Hearing The EPA will hold a new hearing on whether the remaining uses of the partially banned pesticide DBCP should be further restricted or stopped altogether as a serious health threat. At press time, a hearing date was ex-

pected soon.

The hearing results in part from recent evidence that DBCP (dibromochloropropane)-which has lowered sperm levels in production workers, farmers, and field workersmay leave a residue on crops previously thought unaffected. These crops include oranges, lemons, peaches, and grapes, according to a 1978 California Department of Food and Agriculture study.

Another reason for the new hearing is to consider a request from a farmworkers' organization, the California Rural Legal Assistance Migrant Project, that all uses of DBCP be stopped because they may seriously harm field workers and the general public.

in September, 1978, EPA convened a hearing to determine what the permanent fate of DBCP should be. But legal questions arose as to whether this hearing could reach a decision on the farmworkers' request for a complete end to DBCP use. As a result, EPA now intends to hold the new hearing to consider the farmworkers' request and to further explore the California residue information.

Natural Insecticide The EPA has given the U.S. Department of Agriculture (USDA) emergency permission to use a new natural insecticide to combat grasshopper pests on livestock grazing land this year.

EPA approved the new product, which contains microscopic organisms that destroy grasshoppers internally, from May through September 30, 1979, for any part of the country with serious hopper infestations.

However, because only a limited amount of the compound, which was developed by USDA scientists, is available this year, Agriculture Department specialists will apply it only to about 100,000 acres in northeastern Wyoming.

More widespread use of the natural material could occur in the future if a commercial pesticide producer uses the development and testing information published by USDA to obtain EPA permission to make and sell the product. EPA is prepared to conditionally register the insecticide for routine use pending the completion of some additional EPA safety studies.

TOXICS

Asbestos Alert officials across the country to potential hazards in some school buildings from materials containing asbestos fibers. The Agency also provided instructions for inspecting and repairing the buildings.

"Damaged or deteriorating asbestos materials release asbestos fibers into the air where they may be inhaled into the lungs, creating potentially serious health risks," said EPA Administrator Douglas M. Costie. "We are informing educators and parents how they can assure that school chilto develop asbestosrelated diseases, are not exposed to asbestos.

From the end of World War II until 1973, asbestos-containing materials were sprayed on walls, ceilings, structural components, and pipes of many public schools throughout the U.S. The asbestos, a naturallyoccurring, virtually indestructible mineral, was used primarily for insulation and fireproofing, and in some cases for decoration.

In 1973, EPA banned the use of sprayed material containing more than one percent asbestos for insulation or fireproofing. In 1978 the ban was extended to nearly all uses.

EPA's recently-issued procedures are for educators to use in visually checking their schools for asbestos-containing materials, identified by their soft, easily crumbled

spongy texture. The EPA The EPA has alerted State guidance tells how to take samples of suspected asbestos material for analysis by a qualified laboratory.

EPA will provide extensive technical assistance as schools handle asbestos exposure problems. EPA, working with the States, is mailing Guidance Packages to school officials throughout the Nation. The Guidance Package explains the stepby-step procedure for identifying and correcting exposure problems in a building. EPA will compile data on the steps taken by schools in order dren, who have more time to provide each State with a report on the success of the State program.

> Anyone who would like to obtain the name of their **EPA Regional Asbestos** Coordinator, the name of their State Asbestos Program Contact, or a copy of a Guidance Package should call EPA toll free at 800-424-9065 (In Washington, D.C., call 554-1404).

WATER

Drinking Water Council EPA Administrator Douglas M. Costle has appointed five new members to the National Drinking Water Advisory Council, to replace members whose terms have expired. The body advises EPA on matters relating to drinking water safety.

The new Council members are:

 Jean Auer of Hillsborough, Calif., a Director of the Environmental Defense Fund's San Francisco office. She is also an active environmentalist. being recognized for her work on drinking water and water resources.

- Jerome B. Gilbert of Sacramento, Calif., is Vice President of the American Water Works Association. He is also Vice President of Brown and Caldwell Consulting Engineers based in Sacramento.
- Dr. Joan K. Leavitt of Oklahoma City is Comhoma State Department of Management Training Health. That agency is responsible for implementives. He is experienced water program with the State.
- Dr. Marc Roberts is director of the Harvard missioner of Health, Okla- School of Public Health's Program for senior executation of the safe drinking in the processes of regulatory decision-making and in assessing the economic effects of Federal regulatory requirements.
- · Richard Stamets of Santa Fe, N.M., is Technical Director of the New Mexico Oil Conservation Division. He has also been a representative on the four-member Interstate Oil Compact Commission. In that capacity he worked with EPA staff in the development of reasonable and practical regulations for underground injection control. The regulations are now nearing completion.

Price Rise Due to increasing production costs, the Government Printing Office is increasing the price of subscribing to the EPA

Journal from \$10 to \$12 a year, effective July 1. The price of a single copy will go from \$1 to \$1.20. The subscription cost if mailed to a foreign

address will be \$15 instead of the current \$12. All domestic subscription requests received by GPO before July 1 will be sold at the \$10 rate.

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Louis F. Gitto

He has been selected as Director of the Management Division in EPA's Boston Office. Gitto was previously Chief of the Systems Analysis Branch in Region 1, where he and his staff were awarded EPA's Bronze Medal, In a rotational assignment in 1976-77, he served as Acting Chief of the Program Planning and Development Branch. Earlier he worked in the Office of Water Programs at EPA in Washington, D.C., and with the Federal Water Pollution Control Administration, an EPA predecessor agency. Gitto received a B. S. from Tufts University in 1960 and an M.S. from Harvard University in 1965.

Willis E. Greenstreet

The former Director of EPA's Management Information and Data Systems Division, he has been named Director of Administration at the Merit Systems Protection Board. In his new position he will be in charge of personnel, finance, budget, general services, management, organizations, and data processing. Greenstreet had served as Deputy Director of Administration at EPA's National Environmental Research Center in Cincinnati, Ohio, and as Assistant Regional Administrator for Management in Philadelphia before moving to Headquarters. During his term with the Agency he was awarded a Silver Medal and a Group Bronze Medal.



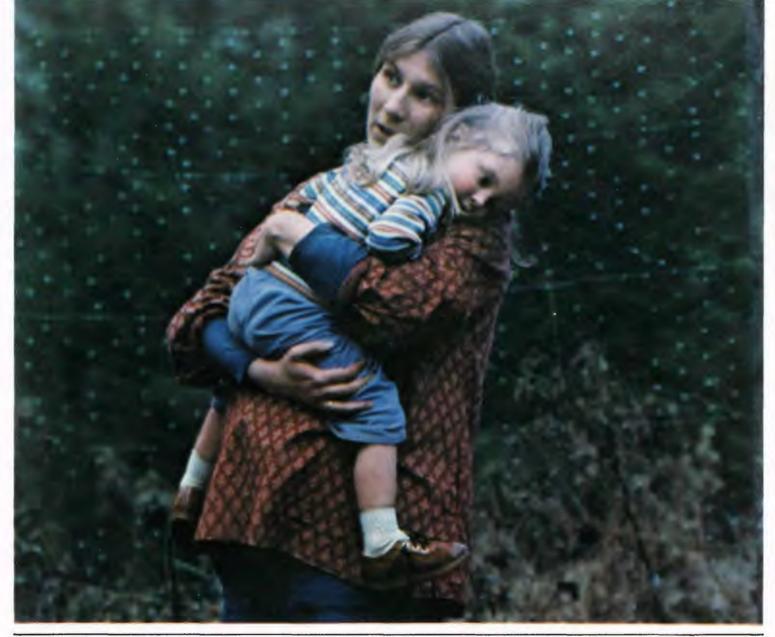
Dr. Adrian Gross

He has been named Chief of the Toxicology Branch for EPA's Pesticide Program in the Office of Toxic Substances. In this position he is responsible for determining the seriousness of the full range of pesticide exposures and absorption in people and domestic animals. He reviews and evaluates data on the toxicity and adverse effects of pesticides for both shortterm and long-term risks. Most recently Dr. Gross was Associate Director for Preclinical Studies with the Food and Drug Administration, where he and his staff monitored the quality of animal laboratory studies of prescription drugs. He served as Deputy Toxicological Advisor for the FDA Bureau of Science from 1968 to 1970 and as Chief of the Pathology Branch there from 1964 to 1968, Dr. Gross received a B.S. from the University of Manitoba, Canada, in 1949. In 1954 he received a joint degree of **Doctor of Veterinary Medicine** from the University of Toronto and Veterinary Surgeon from the Ontario Veterinary College, followed by an M.S. in pathology from Ohio State University in 1956. He has completed further postgraduate work in statistics, biometry, and pathology.



Barbara McDowell and Richard Owen of the Headquarters Facilities and Support Services Division recently viewed the Acid Precipitation exhibit on display at the Main Library in Washington, D.C. The exhibit illustrates many aspects of this phenomenon, which is commonly called acid rain. The panels explain what acid rain is, how air pollution can cause it, and where it originates. Maps show the major parts of the country that are affected by acid rain. Photographs depict some of the damage caused to plant and animal populations by the change in the quality of rainwater. The exhibit was created as part of a general information effort for Agency employees by

the EPA Library System. This exhibit and others will be on display in the libraries of many Regional Offices and Laboratories in the coming months. A wide variety of environmental topics are covered by the exhibits, which include Wind Energy, the Hazards of Asbestos, Oil and Hazardous Materials Spills, Common Carcinogens, Wetlands, Polybrominated Biphenyls, Pesticide Certification, Water Conservation, Environmental Law Sources, Microwaves, and Career Planning. For more information on the individual exhibits and the schedule for display contact Dee Crawford in the Region 6 Library at 513-729-7341.



A Letter from Alsea Continued from page 5

In the meantime, EPA's Enforcement Office had issued about 1,000 orders to the makers, formulators, and major retailers of 2,4,5-T and Silvex products stopping further sale, use, and distribution for the suspended treatments.

(The first outlet to receive such an order was the Peoples Drug Store that shares with EPA headquarters the Waterside Mall complex in Washington.)

Blum urged homeowners and storekeepers with the herbicides on hand to store them in a safe area until the suspension hearings are concluded.

As for the economic effects of the suspension, Blum said that they "should not be serious" over the short term. "This is so because there are alternatives available for pasture and rights-of-way uses and because only a tiny fraction of commercial forest acres are treated in any given year." In addition, Agency economists determined that some suspended uses, such as pasture treatments, could simply be postponed without seriously damaging their value during the two years it may take to decide the herbicides' fate (a suspension action plus "cancellation" hearings.)

However, these economists also calculated possible costs if treatments with other herbicides were continued on a regular basis. These figures showed that the money spent by homeowners who apply chemicals to their lawns would remain about the same. Brush and tree control costs in forestry could increase between \$10 and \$39 million during the two-year period, and pasture costs could increase between \$2 and \$3 million per year.

Public reaction to the suspension was, as it is to many EPA decisions, mixed and intense. As one of the Alsea women who originally wrote EPA put it: "Some people are against us and some people are for us. No one is neutral."

Bonnie Hill, one of the authors of the letter calling for an investigation of a possible link between the spraying of 2,4,5-T and miscarriages in Oregon, holds her daughter, Cedra. (Story on P. 4).

Back Cover: Dredge used to help mine phosphates in Florida rises above grassland in foreground. (Story on P. 34).

Pesticide rulings seem guaranteed to trigger strong emotions, favorable and unfavorable, in a large portion of the population. This will no doubt remain true in the case of 2,4,5-T and Silvex, whatever the final outcome of the suspension.

But certainly anyone who has ever felt helpless before an indifferent bureaucracy can take some satisfaction in the fact that EPA responded to the plea from the Alsea women. Barbara Blum concluded: "The thing I am glad about is that our process is good enough that eight women can write us a letter during the public comment period from Oregon, and that we can listen."



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