

**EPA**  
**REGION 10**  
**FY94-97 STRATEGIC PLAN**

**JANUARY 1992**



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Reply To  
Atten Of: MD-142

MEMORANDUM

SUBJECT: Region 10 Strategic Plan for FY94-97

FROM: Dana Rasmussen *Dana Rasmussen*  
Regional Administrator

TO: F. Henry Habicht, II  
Deputy Administrator

I am pleased to submit to you Region 10's Strategic Plan for FY94-97. I am proud of the hard work Region 10 staff and managers have put into this, our third, strategic plan. I believe the result is a strong, sound statement of direction for the future, which contains a number of innovative and exciting initiatives.

This year's plan continues many of the themes and directions established in prior plans, including a strong focus on risk reduction, broad participation in the plan's development, "media" program initiatives targeted at areas of high risk (e.g., urban pesticides, indoor air, small communities, critical resources), and cross-media initiatives on education and enforcement.

In addition, for the first time this year, we broadened our planning process so as to include planning by support offices - the Management Division, and the Offices of Enforcement and External Affairs - and develop proposed initiatives above the "base" program level.

I was pleased to see the completion of an Agencywide Strategic Plan, and we paid special attention to the ten themes highlighted in that plan as we reviewed existing directions and considered new initiatives. As you know, I have signaled the importance of several of the themes in Region 10 by creating new Offices of Enforcement, International Affairs and Sustainable Development. While we believe all of the themes are important, we found two of them to be particularly useful in organizing ongoing activities and encompassing new initiatives. This plan emphasizes geographic targeting to accomplish pollution prevention and outlines four multimedia, geographic pilot projects: Puget Sound/I-5, Portland/Willamette Valley, Coeur d'Alene Basin, and Southeast Alaska.

I am excited by the prospect of continuing close Regional participation in the budget process in the months ahead, and exercising direct Regional budget flexibility for the first time through the establishment of a Regional budget "target" for FY94. I look forward to discussing these and other important issues with you and the rest of the Agency management team at the upcoming Annual Planning Meeting.

The Region wishes to express our appreciation for the consistent support you and the Administrator have shown for improved planning and management in EPA. We believe benefits are already evident, both in substantive policy and in the way managers think about their programs. Even more significant benefits will be realized in future years, as the Agency is more successful in exercising continued environmental leadership, adapting its processes to change, and achieving constantly improving environmental results.

Enclosure

cc:           Assistant Administrators  
              Regional Administrators  
              Region 10 Policy Review Group

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**(AVAILABLE UPON REQUEST)**

## INTRODUCTION AND OVERVIEW

This FY94-97 Plan is Region 10's third strategic plan. Like the first two plans, this year's plan is driven by the desire to reduce human health and ecological risks as effectively as possible, and is guided by the findings of the Region's Comparative Risk Project. It continues many of the strategic directions outlined in prior plans, which, upon reflection, we believe are good directions. In addition, it incorporates some significant enhancements, including a more comprehensive and multi-media approach, a description of proposed Regional investments above its base budget, and an emphasis on the Agencywide Strategic Plan's ten themes. In particular, geographic targeting to accomplish pollution prevention is now a central thrust of the Region's strategy.

## STAYING THE COURSE

The priorities and initiatives outlined in prior strategic plans are by and large carried forward in this strategic plan. Indeed, the Region is now in the process of implementing many of the initiatives outlined in its first, FY92-95 Strategic Plan. Key elements of earlier plans continued in this plan include:

- o Risk Reduction Focus. This plan represents a continuing effort to understand risks and direct resources toward areas of greatest ecological and health risk. The Region's Comparative Risk Project continues to be a central analytic foundation, and efforts continue to refine and extend that analysis.
- o Broad Participation. The Region continues to emphasize the involvement of a broad spectrum of the organization - staff, mid-level managers and senior managers - in developing its strategic plan.
- o Media Program Directions. Risk-reducing program initiatives from earlier plans, such as the indoor air program, urban pesticides initiative, small community assistance, critical resource projects, and a "worst sites first" approach to hazardous waste clean-up, continue to be emphasized in this strategic plan. Most initiatives outlined in the FY92-95 plan are now being implemented, although some have been modified due to changes in circumstances and an unexpectedly tight budget. (See Appendix: Media/Program Plans for a complete description of strategic directions by program.)
- o Cross-media Initiatives. Past plans outlined multimedia education and enforcement initiatives. These initiatives are being implemented. This plan significantly increases the emphasis on a cross-media approach by outlining a process for integrating media/program initiatives through multimedia geographic projects (see below).
- o Working with State and Local Agencies. Several years ago, the EPA co-sponsored a Washington State comparative risk/environmental planning project, Washington Environment 2010, which was highly visible and quite successful. The Region is following up with Washington State by attempting to provide

flexibility to target risks through grants and the Washington/EPA Agreement. The EPA also provides financial and technical assistance to a local risk-based priority-setting effort, the Seattle Environmental Priorities Project. Future directions for the Region include working more closely with the other Northwest states to promote risk-based priority-setting, and involving the states more extensively in the Regional planning process.

## NEW DIRECTIONS

In addition to continuing and implementing the strategic directions outlined above, Region 10 has, this year, added some new wrinkles to the planning process, outlined some new initiatives and made some organizational changes in support of its strategic direction. These include:

- o Ten Agencywide Themes. In reviewing past directions and considering new initiatives and redirections, the Region paid special attention to the themes outlined in the Agencywide Strategic Plan. The Region found all ten themes to be relevant and consistent with the emerging direction of the Regional strategy. For example, nearly every program outlines education as a critical program activity to reduce the bulk of remaining risks from dispersed, small, often unregulated sources. Building state and local capacity is another essential activity in nearly every program area, as evidenced by the near-universal emphasis on increased help to small communities and tribes. Improved science is embodied in the Region's groundwater mapping and risk-based enforcement targeting efforts, and strategic implementation of statutory mandates is accomplished by promoting risk-based resource allocation in the Region and states, and through geographic targeting and other forms of multimedia integration.
- o Strategic Initiatives Above "the Base." This year's planning process was designed to identify possible initiatives and enhancements above the current program base, as well as identify desired "zero-sum" shifts within current resources. This was done, at both the program and Regionwide/senior management levels, to prepare the Region better to participate in the budget process, and to provide a clearer picture of desired strategic direction than the more constrained approach.
- o A More Comprehensive Plan. For the first time this year, the planning process was broadened to include support offices - the Management Division, and the Offices of Enforcement and External Affairs. The inclusion of these offices has resulted in a more balanced and complete plan, and in a number of initiatives in new areas, such as reducing paper and increasing efficiency through automation, reducing hierarchy through project-oriented organization, and achieving "enforcement through compliance" via more effective outreach.
- o Organizational Changes. The Region has emphasized the importance of key activities, consistent with the Agencywide Plan's themes, by creating new Offices of Enforcement, International Affairs and Sustainable Development.

Implementation of Total Quality Management is also supporting strategic planning and management. One Quality Action Team is examining the customers and uses of the Region's Environmental Indicators program, while another has reviewed the Region's Consolidated Grants to states and recommended important changes in the Region's process for working with states to develop grants and State/EPA Agreements. Finally, the Region has just completed its first Pollution Prevention Action Plan. The across-the-board emphasis on prevention is reflected throughout this plan.

## **POLLUTION PREVENTION THROUGH GEOGRAPHIC TARGETING**

The "umbrella" concepts that unify the initiatives and directions in this plan are pollution prevention and multimedia, geographic projects. The Region's long-run strategic goal is to move from programs dominated by control/regulation of current problems and cleanup of past mistakes, to one emphasizing prevention of pollution before it becomes a problem. In the short run, management and cleanup are both high priorities. In the long run, however, prevention is the most effective way to protect the environment and human health, and we must gradually shift our program emphasis to prevention.

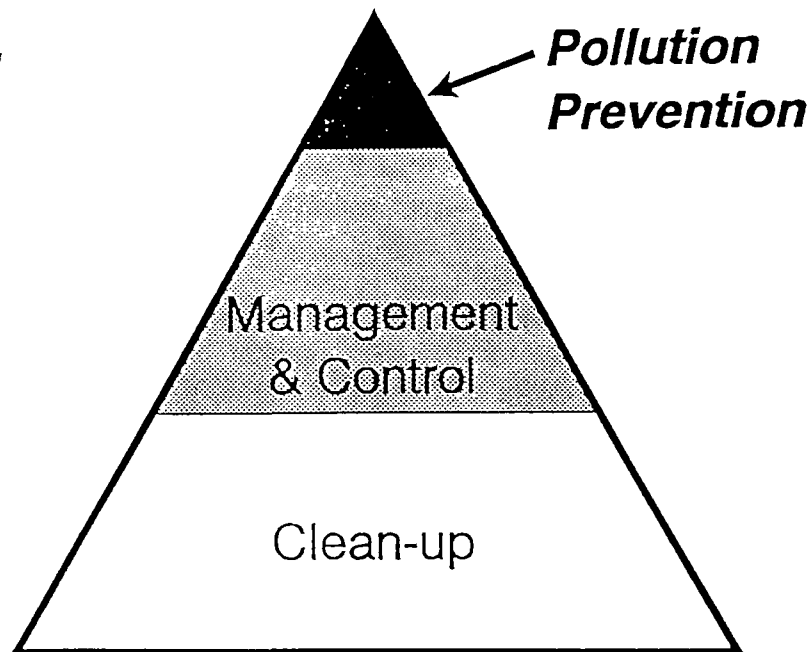
The Region believes that cross-media projects in targeted geographic areas provide the most promising way to integrate activities across media programs, and gain experience with a holistic approach to environmental protection that includes prevention, management and restoration. The Region has chosen four geographic areas to emphasize in the FY94-97 period:

- o Puget Sound/I-5 Corridor,
- o Coeur d'Alene Basin,
- o Portland/Willamette Valley, and
- o Southeast Alaska.

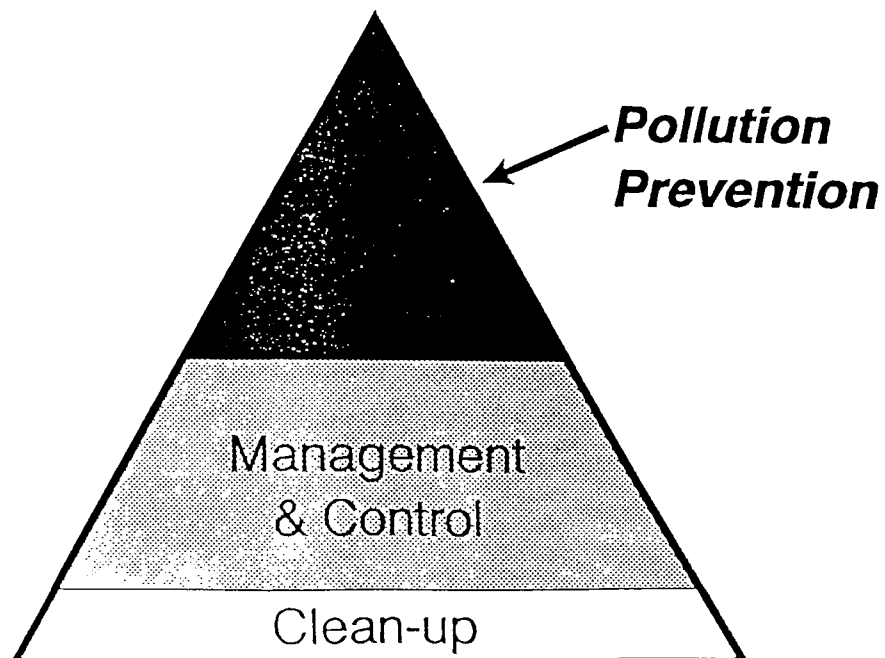
These areas represent a range of conditions, from urban and populated to mostly rural, and from quite polluted to fairly pristine. State and local political conditions also differ in the different areas, as do the capacities of local and state governments to deliver services. The Region believes that this diverse set of projects will help it gain experience about multimedia, geographic projects in differing circumstances.

## Region 10's Strategic Vision

***From This...***



***To This...***



The Region's proposed approach in each geographic area is summarized in the sections following this overview. Because of the differing situations, each area calls for a somewhat different approach. For example, Southeast Alaska is an area rich in natural resources and with a currently small population. The strategy for this area emphasizes prevention to protect the existing resources. The Coeur d'Alene Basin, on the other hand, is heavily polluted from many years of mining and will, at least at first, emphasize cleanup and containment.

Despite differing circumstances and some differences in approach, all the strategies also have a good deal in common. Some proposed activities - such as pollution prevention, public education, assistance to small communities, wetlands restoration, better groundwater protection - are emphasized throughout. These same activities are also described as future directions in the media/program strategies (see Appendix).

## NEXT STEPS

Strategic planning and management is a dynamic, ongoing process - which is another way of saying you're never quite done. Next steps for the Region include:

- o Successful implementation of FY92 and FY93 initiatives.
- o Further development and refinement of the geographic initiatives in this plan, including full consultation with the states, leading to Regional budget proposals for the FY94 budget.
- o Better integration of strategic planning with Regional resource allocation, state grant, evaluation and accountability systems, in a predictable, logical process that takes appropriate account of environmental information and customer needs.
- o More emphasis on Regionwide direction and guidance by Regional senior managers as a team.
- o More timely and effective inclusion of the states in the Region's planning process, and continued promotion and support of risk-based planning in the states' own management processes.



## **GEOGRAPHIC INITIATIVES**





## PUGET SOUND/I-5 CORRIDOR INITIATIVE

### Description of the Problem

The Puget Sound Basin is one of the ecological treasures of North America. Approximately 70% of Washington State's population currently lives in this unique piece of geography, the locus of economic growth in the Region. It supports many values and uses, including transportation, commerce (e.g., fisheries), recreation/tourism, and key ecosystems and habitat. It also has cultural and historic value for a variety of groups, including 14 tribes.

Because of its heavy use, and the increasing pressures of population and economic growth (especially along the Interstate-5 Corridor), the Puget Sound Basin is a threatened resource. Parts of it are already degraded, and pollution and development around the Sound pose both human health and ecological risk. Many shellfish beds are closed to commercial harvesting because of biological and toxic contamination. Some of the Region's most significant Superfund sites, including Commencement Bay and Harbor Island, are in the Puget Sound Basin. Hazardous and solid waste disposal is increasingly a problem. Over 80% of the extremely valuable and productive wetlands around the Sound have been filled in. Sediments in urban bays are contaminated with toxics. This pollution, along with overharvesting and habitat losses, has threatened anadromous salmon species. Many of the region's significant sources of air pollution are found in the Puget Sound Basin. Seven cities in the Puget Sound/I-5 Corridor currently violate the national health based standards for particulates. Most of King, Pierce, and Snohomish counties as well as the Vancouver area violate the ozone and carbon monoxide standards. Damage from ozone has been documented in the forested areas of the Puget Sound Basin.

The Puget Sound/I-5 Corridor is thus an excellent target for a geographic initiative. It is an area of extremely high resource values and significant existing and threatened problems. Additionally, and very importantly, the citizens of the area place a high value on the area's natural resources. They have historically supported strong efforts to protect the environment as evidenced by the Puget Sound Water Quality Authority and the active regional air pollution control agencies. Washington State growth management legislation, which mandates growth management planning by the counties of the Puget Sound basin, was also recently passed.

### Four-year goals and objectives

The overall goal of this initiative is to ensure that future development in the basin occurs in a manner consistent with the long-term protection of the environment, i.e. to achieve "sustainable development." Specific projects are proposed (1) to improve the effectiveness of existing programs targeted at the protection of the Puget Sound/I-5 Corridor environment, and (2) to initiate activities to cover gaps in management under existing programs. Through geographic targeting, emphasis will be given to coordinating

the activities of multiple agencies and layers of government to assess cumulative effects and protect ecosystems area-wide through risk-based targeting of activities. Innovative approaches used in individual components of this initiative include pollution prevention, market incentives, cross-program integration, multimedia enforcement, building state and local program capacity, education, and outreach. By FY97, this initiative will result in improved water and air quality due to reduced releases of pollutants and clean-up of existing problem areas.

### Proposed FY94-97 Activities

Because of the concentration of people and valuable environmental resources in Puget Sound, every EPA program focuses significant attention on the area. The water program has historically taken the most integrated, basin-wide approach, through the Puget Sound Estuary Program. EPA, in cooperation with state, local and tribal authorities, helped develop a model estuary program, the first approved National Estuary Comprehensive Conservation and Management Plan. EPA also directs significant energies to Puget Sound problems in virtually every other program: Superfund cleanup, hazardous waste management, air pollution control, wetlands protection, pesticides and toxic substance control, and so on.

This solid base of program activities and working relationships, coupled with the Region's commitment to finding ways to manage its rapid growth responsibly, put EPA in a unique position to lead development of a multimedia environmental management system for the Puget Sound Basin that would link efforts of federal, tribal, state and local entities to make regional development decisions that take account of environmental consequences.

The multimedia geographic approach to environmental problems in the Puget Sound/I-5 Corridor will build upon the experience of the Puget Sound Estuary Program and the more recently formulated "Watershed Approach" promoted by the EPA's Office of Water. Efforts under this initiative will occur on three levels: (1) coordination and focusing (on this geographic area) of existing base program activities of EPA and other federal, state, and local entities; (2) special projects to improve management and infrastructure for EPA and state and local programs; and (3) longer range projects to achieve sustainable economic activity and lifestyles in the area through pollution prevention, improving the scientific basis of our actions, and educating businesses and the public.

## **WATER**

**Critical Resources / Watershed Approach** This component will be the integrating umbrella for the Puget Sound/I-5 Corridor Initiative. The Office of Watersheds, Oceans, and Wetlands provides a summary of this approach in their October 1991 document, "The Watershed Protection Approach: An Overview" (EPA/503/9-92/001). The Office of Coastal Waters will take the lead in coordinating

and focusing the ongoing base program activities of the various EPA programs with other applicable federal, state (e.g. Ecology & Puget Sound Water Quality Authority), and local (e.g. the air pollution control agencies) programs. The "FY93 Special Regional Initiative -- Puget Sound" and the "1991 Puget Sound Water Quality Management Plan" describe significant proposed activities which this initiative would help implement or build upon, as appropriate. Three FTE's to work in-house, with other federal, and with state and local entities & \$300K.

**Wetlands -- Local Management Plans** The requirements of the Growth Management Act will be causing county governments to be reevaluating current and future land uses in their jurisdictions. This initiative is aimed at increasing efforts to build state and local government capacity to provide appropriate management of wetlands. The goal would be to integrate federal, state and local regulation to promote regulatory consistency and predictability. This can be achieved through development of local wetland management plans that provide for preservation of high value wetlands and allow development of low value wetlands subject to compensatory mitigation via a local wetland mitigation bank. The State of Washington can play a vital role in this effort by providing statewide guidelines for local wetland planning efforts that are consistent with the requirements of the Clean Water Act as well as state laws and regulations. State Wetland Conservation Plans would be a key to making this a successful effort. Federal funding could be passed through the state to local governments in targeted "hot spots". Local governments that completed plans consistent with state and federal guidelines could then be granted regional 404 permits to implement their plans. This initiative would require 1 FTE to work with local governments in the Puget Sound area to develop or improve their local wetland management plans.

**Drinking Water** By FY94 state drinking water and groundwater protection programs will have established reasonably accurate inventories of how many persons are served by what type of drinking water system. They will also have new data on the occurrence of contaminants that have not been regulated before. This strategic planning initiative would build upon the state inventory data and identify the ownership characteristics of the systems that must monitor for and report contaminant levels under the ten major federal/state regulations (identify and report the risks in their drinking water supplies) and focus technical assistance, training and enforcement on "customer needs". (For example, target resources on outreach, training; construction funding and education campaign for all of the public water systems owned and operated by mobile home park operators; target resources on systems operated by rural subdivision homeowner's associations or municipalities and districts serving fewer than 250 people--prioritize resource allocations based on reducing risks to the largest number of drinking water consumers or sensitive populations first.) Since drinking water is obtained from either surface water or groundwater, close coordination with programs managing those resources will be necessary.

Resources in FY94 would be allocated to identify the specific needs that public water systems and domestic well users throughout Puget Sound / I-5 have in order to reduce and prevent drinking water risks. FY95 through FY97 resources would be

allocated by targeting resources needed to reduce, eliminate and prevent risks in systems and wells with contaminated drinking water. (Estimate 0.5 FTE and \$100,000 for survey of PWS and domestic well user "needs" to comply with regulations and reduce risks.)

**Groundwater** Ground water is one of Washington's most important yet vulnerable natural resources. It is the source of drinking water for nearly two-thirds of the state's population. The protection of ground-water in the Puget Sound region is becoming even more important given the increased demand on water supplies due to the area's rapid population growth and the subsequent increase in sources of ground-water pollution. Sources recognized as needing increased attention and control efforts include on-site septic systems, underground storage tanks, animal waste from dairy operations, urban pesticide use, stormwater disposal via dry wells, and the intrusion of seawater into coastal aquifers.

The hydrogeologic setting of the Puget Sound basin increases the potential for contamination of the region's aquifers. Thick sand and gravel sediments deposited by ice-age glaciers and streams provide permeable conduits for pollutants to seep into aquifers. Contaminated ground water can also discharge to surface water and adversely affect sensitive ecological habitats such as streams, wetlands, and the Sound's shellfish growing areas.

Pollution Prevention efforts can be prioritized within Wellhead Protection Areas established for public water supplies and by mapping the relative vulnerability of the region's aquifers. These activities require the coordinated collection and management of both hydrogeologic and multimedia contaminant data. Such efforts are consistent with EPA's National Ground-Water Strategy which proposes a new partnership with states in developing comprehensive ground-water protection programs.

## AIR

**Market Based Incentives** State and Local Air Program Directors have expressed great interest in market based incentive programs. Such programs increase flexibility and stimulate the use of less costly attainment strategies, as well as provide incentives for continuing development and implementation of innovative emission reduction technology and strategies. Federal leadership, technical assistance, and seed money is needed for pilot programs.

Difficult to control area sources (especially woodstoves and mobile sources) are a major component of air quality problems in the Puget Sound/I-5 Corridor and provide especially good opportunities for market based programs. For woodstoves, a marketable permits program might be pilot tested. For mobile sources such items as sales tax rebates based on vehicle fuel efficiency, employer-based trip reduction programs and alternative fuels programs could be implemented. One FTE and \$100,000 are proposed to promote and test such programs.

## RCRA

**RCRA Education/Outreach** Educating the regulated community is an important aspect of the RCRA program. The Washington Dept. of Ecology currently has a "welcome wagon" staff whose purpose is to target waste generators and provide information on RCRA rules, regulations, and expectations. The goal in targeting generators is to reach current notifiers who have yet to be inspected and to link education and compliance/enforcement priorities. R10's proposal is to provide further support to Ecology's program and supplement R10 staffing to more effectively educate the states and regulated community about new federal requirements. This will require 0.5 FTE & \$20,000.

**Indian Tribes** Few Indian Tribes in the region have the resources to manage municipal solid waste. Tribes recognize solid waste management as an environmental concern; however, if we cannot assist them in their efforts to responsibly manage solid waste, it is unlikely to be done in an appropriate manner. R10 has one of the largest Tribal workloads and the release of Subtitle D Criteria rule will seriously strain the Region's resources. This proposed initiative would provide resources to work with Indian Tribes in the Puget Sound area to continue capability development activities, provide technical information and assistance, and fulfill the commitments to Indian Tribes as expressed in EPA's Indian Policy.

## TOXICS

**TRI & 33/50 Programs** By FY93, the Toxics Program plans to have new and reallocated resources to facilitate expanded use of the Toxics Release Inventory (TRI) data through outreach to States and local communities and through training of Regional staff (e.g. for multimedia compliance/enforcement activities). With approximately 40% of the Region's TRI reporters, the Puget Sound Basin is an area of major focus for these activities. Such outreach efforts will remain a priority for several years but will involve declining demands after FY94 assuming early efforts are effective. The related and recently initiated 33/50 program has the worthwhile goal of reducing by 50% releases of 17 target chemicals to the environment and will require additional resources. One FTE and \$20K are needed in FY94 through FY97 to carry out this important pollution prevention program in the Puget Sound/I-5 Corridor without cannibalizing the core Toxics Program.

## PESTICIDES

**Urban Pesticides Initiative** Pollution from pesticides was ranked in the highest risk category in the Region 10 ecological risk assessment. Approximately a million pounds of pesticide active ingredients are used annually in urban areas of the Puget Sound Basin. This represents approximately half of all pesticides used in the basin. These pesticides are used by people largely ignorant of proper uses and risks associated with these pesticides. To prevent pollution by pesticides (and nutrients) in the urban

sector, a pilot effort has begun in Washington state. Six agencies have signed an agreement to participate in an Urban Pesticide Initiative. The purpose of this initiative is "to reduce the risk of pesticides to human health and the environment in urban settings by preventing inappropriate, unnecessary and illegal releases of pesticides and by ensuring safe application of pesticides when they are necessary".

· Six educational projects which leverage the resources of several agencies to provide information to the public have been funded with \$80,000.00. An Urban Integrated Pest Management Summit for Washington was held on December 17 and 18, 1991. This Summit brought together, for the first time, all the IPM players: industry and landscape professionals, agency representatives, and environmental groups in all disciplines involved in urban pest management. 1.0 FTE & \$50K are needed to support educational activities in FY94 to follow up on the promising start to this initiative.

## MULTI-MEDIA

**Enforcement** Currently all major media programs meet to select compliance priorities for the new fiscal year. By FY93 the region will be using the national compliance data integration system (IDEA), regional data bases, and a risk based approach to target multimedia inspections. Using the Puget Sound basin as a geographic priority area, large scale multi-media inspections will be planned for facilities that discharge in the basin.

The multi-media inspections that will be scheduled for Puget Sound will undoubtedly generate various types of enforcement action. These may be simple administrative actions or more complex civil judicial referrals involving RCRA, CWA, TSCA, and CAA participation. The complex actions are resource consumptive and at least \$100K will likely be needed in FY94 for hiring expert witnesses, ambient or point source monitoring, laboratory costs, and other litigation expenses to fully pursue enforcement actions in the basin.

## PORTLAND/WILLAMETTE RIVER BASIN INITIATIVE

### Description of the Problem

The geographic area that is the focus of this strategy is a complex mix of urban areas, agricultural lands, and forests. The basin is 150 miles long by an average of 75 miles wide and covers 11,450 square miles (12% of the state). There are over 5,000 miles of rivers and tributaries in the basin, many of which are prime habitat for anadromous fish and other species. The basin also contains large areas of forest ecosystem, much of it heavily managed for forest products production. There are also significant areas of wetlands habitat within the basin. As of the 1990 Census, the population within the basin was 2,842,000. Approximately 65% of the state population is located within the basin and 25% within the greater Portland urban area. There are also significant concentrations in several other cities in the central core of the Willamette Valley (Eugene/Springfield, Salem, Corvallis, etc.)

The environmental problems to be addressed by this plan are both current and emerging. Further on in this section an overview of current priority concerns is presented. Beyond these more immediate and traditional environmental concerns outlined below, there is a more fundamental environmental protection issue which is emerging. As an area, the Willamette Basin is perhaps the most threatened area in Oregon in terms of long-term risks of environmental degradation. A priority concern for the long-run is the impact of continuing growth and changes in natural resource management practices on the long-term sustainability of environmental quality and ecosystem integrity within the basin. The Willamette Basin is the focal point for much of the urban growth and industrial/commercial development occurring and projected within Oregon. At the same time, there is a fundamental rethinking underway regarding how natural resources within the basin are managed. Changes in both of these areas will have profound implications for both future economic activity and environmental quality within the basin. Examples of the kind of questions raised by this dynamic situation are:

Will the continuing growth in population prevent achieving and maintaining healthy air quality over the long term?

Can the integrity of aquatic ecosystems in or near growth areas be maintained in the face of continuing population growth?

How will emerging patterns of natural resource management and use impact future environmental quality?

How can the pressures and issues be addressed in terms of basin-wide benefits and impacts rather than in isolation on a case-by-case basis?



What kinds of programs, policies, education and assistance will best enable the decision-makers at the state, county, and local level, business, and the public to address this dynamic situation in an environmentally sound way?

How should long-term development in the basin proceed so as to insure both economic and environmental sustainability?

What are the implications for the agricultural and forest products industries of potential local regulation of pesticides within some areas of the basin?

Addressing these and many other similar issues on a reactive, case by case basis is not adequate to insure protection of environmental quality and ecosystem integrity over the long-term. A comprehensive and coordinated approach is needed. Without such an approach, many of the current problems described below cannot be effectively controlled. Traditional regulatory programs must be complemented by broader interagency and public/private partnership approaches if both economic and environmental sustainability based on wise use of resources is to be achieved.

There are also many more immediate issues. The basin currently has a cross-section of environmental concerns typical of both urban and rural areas in the Northwest. The current priority problems are highlighted below for each media.

**Air Quality** - The Portland urban area currently exceeds the national air quality standards for carbon monoxide and ozone and may have violation problems for particulate matter. The Eugene/Springfield area is also in violation of the particulate standard. Difficult to control area sources such as woodstoves and mobile sources are major components of the air quality problem. There are also significant contributions from agricultural field burning and slash burning on forest lands within the basin.

**Water Quality** - The Willamette River and its tributary streams are under increasingly heavy and often conflicting demands. In the urban areas, growth related runoff and waste discharges are lowering water quality in the face of growing demands for higher water quality. In rural areas, constraints on logging practices in certain areas are generating increased pressures on other timberlands, increasing the threats to in-stream and riparian habitat and associated species.

**Wetlands/Riparian Zone** - The Willamette Basin contains an extensive amount of both wetland and riparian ecosystems, both large and small scale. Continuing development pressures in urban and rural areas, coupled with current and new agricultural/silvicultural activities and changing management criteria, contribute significantly to the loss and/or degradation of wetland and riparian areas. The result is a loss of functional values of significant economic and environmental importance. These include fishery and wildlife habitat, floodwater retention, and water quality benefits such as sediment entrapment and nutrient uptake. These pressure will only increase in the future.

**Drinking Water** - Within the basin, there are large populations that are obtaining drinking water from small supply systems that are difficult to monitor and regulate or from domestic wells. The number of people who use unprotected groundwater from domestic wells exceeds those using the small supply systems. Health risks are potentially very significant but in some cases very little information is available for an adequate assessment. Programs to address these current and potential concerns are both small and underfunded.

**Groundwater** - There is growing concern within the basin about maintaining groundwater quality. There is a high level of dependence on groundwater (see above). Threats to the groundwater resource are increasing due to growth in industrial activity and population as well as residual from past practices. Examples of the latter include the continuing discovery of hazardous waste sites, leaking underground storage tanks, and the impacts of agricultural chemical use.

**Hazardous Waste** - In the urban areas of the basin, there are many businesses and industries which generate hazardous wastes. Poor waste management practices in the past have resulted in a number of sites needing remediation under Federal RCRA/Superfund authorities or state analogs. Changing federal and state regulations are bringing more waste streams under management programs (small businesses, service sector enterprises, etc.). Strong technical assistance and guidance programs are needed. There is also a strong need within the basin for development of household hazardous waste collections programs to avoid improper disposal. Similar programs for small business, the agricultural sector, etc. are also needed. A new problem which is emerging is inadequate closure and clean-up of wood products plants closed due to changing timber management practices within the basin. These past practices and current management problems present significant potential and actual risks to groundwater and other media in portions of the basin.

**Solid Waste** - As population in the basin increases while management standards are tightened, many more closures of existing landfills are expected. These closures, and the alternative disposal procedures/locations used, must be environmentally sound to avoid long-term problems within the area.

**Physical Modifications to Stream Systems** - There is growing concern regarding the cumulative effects of activities which physically modify the stream systems in the basin. In-stream gravel mining coupled with reduction in new gravel recruitment due to storage reservoirs and bank modification are threatening long-term viability of in-stream habitat. Stream channelization and bank protection, often driven by poor riparian land-use practices, are also degrading both instream and riparian values.

**Degradation of Terrestrial Habitat** - Population growth and related development continue to increase both the degradation and fragmentation of terrestrial habitats within the basin. The long-term viability of wildlife populations which

rely directly on this habitat, and the adjacent wetland and riverine systems which rely on healthy and diverse terrestrial systems to maintain quality, is in question.

In addition to the current suite of known problems, there are several other priority areas which represent health or environmental risk that have received little attention to date. These include:

- o Health risks due to indoor air contaminants, and
- o Ecological and health risks due to urban use of pesticides

### The Strategic Plan

The strategic plan for the Willamette Basin/Portland Urban Area geographic initiative covers the FY94-97 time period. It has as its foundation the base program work to be done in this area during the FY92 and FY93 period plus the initiatives incorporated in the strategic plans for those years. In addition to the above, it is also assumed that between now and FY94, EPA Region 10 and the Oregon State Department of Environmental Quality, with input from others, will develop a risk-based set of priorities for the basin. This set of priorities will address not only actions needed to remedy the most pressing current problems but will also integrate priorities for work needed to address and prevent some of the emerging, longer-term concerns.

The goals and related actions outlined below contain many elements that are clearly media-specific. There are also components that are more general and that focus on the development of skills, programs and information which will enable the longer-term environmental protection concerns to be effectively addressed. These are not media specific but are an integral part of the whole. Reviewers of this plan should not write-off these elements because they do not relate explicitly to their media program but rather should look to see how they support and complement achievement of media specific environmental goals.

### Goals for FY97

Base Program - During FY94-97 There will be an increased use of base program resources to focus on priorities within the initiative area. The jointly developed set of risk based priorities described above will guide this effort. The program activities will be selected and managed from a perspective of maximum allowable flexibility for state programs to address priority problems in the area. Operational coordination with the appropriate state agencies will be enhanced. EPA and the state agencies will reach a yearly accord through the SEA process on a division of labor in the area to minimize duplication. Examples of efforts in this area include coordinated compliance and enforcement efforts, joint technical assistance programs, coordinated outreach programs, etc.

### Specific Initiatives

1.     **Problem Area:       Watershed Protection**

Goal:           To establish a watershed protection program which reduces threats to critical watersheds and provides a framework for long-term watershed protection and enhancement throughout the basin.

Objectives:    To have in place a comprehensive, citizen-based "Watershed Walk" program for all the priority sub-basins within the initiative area.

- o       Development, through a multi-agency coordination and management process, of watershed protection programs for the three most critically threatened sub-basin watersheds within the initiative area.

2.     **Problem Area:       Wetlands Protection**

Goal:           Minimize or prevent continuing loss of wetlands to insure no net loss of function and values.

Objectives:    Adopted local wetlands management plans for the priority wetlands within the basin and a coordinated local/state/federal system to support their implementation.

3.     **Problem Area:       Groundwater Protection**

Goal:           Reduce or eliminate threats to priority aquifers within the basin through effective implementation of state/local protection and management programs.

Objectives:    Completion of detailed groundwater vulnerability assessments for the entire basin.

- o       Establishment of an integrated data base which incorporates location and activity information for all major activities potentially impacting groundwater in the area.

4. Problem Area: **Drinking Water Quality**

Goal: Reduce or eliminate current population exposures to contaminated drinking water and prevent further contamination problems.

Objectives: A strong state-run program for public water supply supervision.

- o Establishment of an effective public education/public health protection program for the population served by domestic wells.

5. Problem Area: **Air Quality**

Goal: Attainment of National Ambient Air Quality Standards in all areas of the basin and adoption of plans and a management framework which insures long-term protection of the airshed.

Objectives: Attainment of standards through full implementation of State Implementation Plans.

- o Implementation of an aggressive education/outreach program providing pollution prevention information and technical assistance to small businesses.
- o Development of an ongoing interagency effort to address air quality issues associated with population growth and related transportation requirements.

6. Problem Area: **Indoor Air Quality**

Goal: Effective local programs in major urban areas within the basin for public education and, as appropriate, regulation of, indoor air quality and related factors.

Objectives: Availability of a comprehensive set of educational materials and delivery systems addressing indoor air quality in both residences and commercial/public buildings.

- o Functioning interagency coordination and program development groups established in Portland urban area and selected other cities within the basin.

7.     **Problem Area:**       **Impacts of pesticide use in urban areas**
- Goal:**           Establishment of a comprehensive multi-agency program to identify and minimize ecological and health risks due to pesticide use in major urban areas in the basin.
- Objectives:**   Completion of assessments for the three largest urban areas which identify pesticide use patterns(quantity, type, frequency) and determine highest priority health and ecological risks.
- o       Establishment of on-going interagency committees to coordinate and guide assessment and risk-reduction work in priority urban areas.
  - o       Development of on-going information/education delivery systems using schools, extension agents, the indoor air program, etc.
8.     **Problem Area:**       **Environmental impacts of toxic materials/hazardous waste**
- Goal:**           Minimize risks to public health and the environment within the basin due to unnecessary or avoidable exposures to toxic/hazardous materials.
- Objectives:**   TRI data reliably show significant reductions in releases of priority toxic chemicals.
- o       The data from the TRI system are extensively used by the public, private sector, and government at all levels within the basin for measuring progress and establishing priorities.
  - o       Completion of a comprehensive education/outreach program covering all hazardous waste generators within the basin.
  - o       Completion of an aggressive pollution prevention program targeted on medium to small waste generators not effectively covered by pretreatment programs.

- o Development of effective collection programs for household hazardous waste for 75% of the urban population of the basin.

### Environmental Sustainability Infrastructure Initiatives

#### 9. Problem Area: **Environmental Literacy**

**Goal:** Adoption and implementation of an on-going, comprehensive (schools, community, business) environmental education program to raise general environmental awareness and provide specific knowledge about Willamette Basin ecosystems and related threats.

**Objectives:** Availability of a comprehensive set of environmental education and training materials for use within both the school system and business/industry.

- o Measurable increases in environmental literacy when compared to FY94 baseline.
- o Building on the existing environmental education planning framework, establishment as needed of an appropriate set of planning and steering committees with both public, business sector, and government participation to guide and enhance environmental education efforts on a sustained basis.

#### 10. Problem Area: **Environmental Information and Analysis**

**Goal:** Establishment of appropriate environmental information acquisition and analysis systems to support effective environmental decision-making at all levels within the basin.

**Objectives:** Development of a long-term ecological monitoring system to assess status of atmospheric, terrestrial, and aquatic systems and identify positive or negative trends.

- o Adoption of a set of indicators to be used on a sustained basis for informing the public and guiding public and private sector decision-makers.

- o Establishment of a comprehensive system for accessing and integrating data bases on environmental quality and related factors to enhance planning and analysis at all levels.
- o Adoption of agreed-upon forecasting methods to use in projecting long-term impacts of development patterns, demographic shifts, management policies, etc.
- o Establish appropriate training and support systems for local, citizen-based monitoring programs.

**11. Problem Area: Use of Market Incentives**

**Goal:** Utilization of selected market incentives to enhance achievement and maintenance of long-term environmental objectives.

**Objective:** Completion of an analysis of potential market incentives which might be utilized to address priority long-term problems within the basin (for example, use of tradeable air permits, discharge fees, etc.).

- o Adoption of a priority set of market incentives at the appropriate level (city, county, state) with appropriate measures and baselines to assess progress.

**12. Problem Area: Environmental Management Capabilities  
At The Community Level**

**Goal:** Enhanced capabilities for environmental management and planning in small to medium sized communities.

**Objectives:** Develop and implement an assistance program for 2-3 communities within the basin representing a mix of size, problems, and capabilities.

- o Develop and implement an on-going technical assistance program to facilitate sharing approaches and successes with other communities in the basin.



**13. Problem Area: Wise Use of Resources**

- Goal:** Establishment of long-term programs to foster conservation and wise use of resources within the basin (energy, water, soil, raw materials, etc.).
- Objectives:** Based on existing and potential conservation programs establish a long-term set of conservation goals
- o Develop and implement a public/private coordinating mechanism to guide and promote conservation efforts.

**14. Problem Area: Program Coordination and Development**

- Goals:** Effective coordination and management of programs and initiatives within the basin on an on-going basis.
- Objective:** Establishment of an appropriate set of institutional/coordinating mechanisms with broad representation to guide efforts on a sustained basis.

**FY94 Activities**

Specific objectives and activities for the FY94 time period will be dependant on number of factors. These include the proposed agreement on risk-based priorities, progress on program implementation during FY92/93, state and federal funding for FY94, potential legislative changes, etc. At a general level, FY94 will be the start-up year for work on many of the objectives outlined above. Two key elements will be the refocussing of the base programs to increase the emphasis on the initiative area and the establishment of program coordination mechanisms. These will set the stage for what can be accomplished on the specific initiatives.

## COEUR D'ALENE BASIN RESTORATION INITIATIVE

### Description of the Problem

The Coeur d'Alene Basin (3,700 square miles) includes Coeur d'Alene Lake, the Coeur d'Alene River and its North and South Forks, the St. Joe River, the St. Maries River, the Spokane River and the Rathdrum Prairie Aquifer which underlies Eastern Washington and Northern Idaho. This geographic hydrologic basin supports key regional uses and values including:

- o A sole source regional drinking water aquifer
- o Commercial and industrial uses
- o World class recreation and tourism
- o Ecosystem and habitat preservation
- o Traditional (including tribal) cultural values

The Coeur d'Alene River and Lake system has been adversely affected by heavy metals contamination from over 100 years of metals production. The South Fork Coeur d'Alene River is designated as water quality limited as a result of this metals loading from point and non-point sources and has become the most contaminated stretch of river in Region 10. It includes the Bunker Hill Superfund Site as well as a federal facility Superfund Docket site.

The real potential exists for major impacts as a result of the ongoing metals loading on this linked hydrologic system. For instance, heavy metals interact with Coeur d'Alene Lake sediments in a way which may create anoxic conditions in the lake. A major part of a regional sole source aquifer is recharged by Coeur d'Alene Lake and the Spokane River, which originates from the Lake. These anoxic conditions can be accelerated by the nutrient enrichment of Coeur d'Alene Lake.

The effort to address the Coeur d'Alene Basin environmental issues poses a major challenge to public and private restoration and management efforts. Sensible solutions demand coordinated use of the resources available to environmental agencies and parties contributing to past and ongoing contamination. Current activities in the Water and Superfund programs have had some affect; however, they have been fragmented and therefore not as effective as they might be. No one program or agency has historically been able to approach the pollution control and remediation efforts in a "basinwide fashion" necessary to protect and restore the aquatic ecosystem to its desired condition.

Success will require development of a coordinated long term strategy and commitments by EPA, Idaho DEQ, Coeur d'Alene Tribe and other governments and private parties. Region 10, in conjunction with Idaho DEQ, has already begun to move in this direction. We have already redirected resources from the Idaho Operations Office, Water, Environmental Services and Hazardous Wastes Divisions in Region 10--

and have initiated a coordinated approach to the Coeur d'Alene Basin. This coordinated approach is proving to be the catalyst to the development of a framework for the restoration of the Coeur d'Alene Basin. However, long-term resource support is necessary if our efforts are to have a chance to succeed. EPA has a unique leadership opportunity to "catalyze" and lead, but it requires the resource support outlined in this proposal.

This document outlines the draft framework developed to address heavy metals contamination, as well as, the control of nutrient and sediment producing activities in the basin. This basinwide multimedia effort is enabling EPA and other authorities to move ahead in the Coeur d'Alene Basin in a coordinated fashion, especially in the more severely contaminated portions.

### Goals

The goals for the Coeur d'Alene Basin Restoration project have been developed into a conceptual framework for which all components are not funded. The goals of this project are the following:

- o Control point and nonpoint sources of pollution to surface and ground waters from heavy metals and nutrients utilizing Clean Water Act and Superfund mechanisms.
- o Manage other environmental and human health problems impacting the streams, lakes, rivers and groundwater of the Coeur d'Alene Basin.
- o Demonstrate that EPA, state and local governments can use tools and authorities to address a major environmental challenge with a cross-media, geographic focus.

### Agencywide Strategic Plan Themes

The Coeur d'Alene Basin Restoration Initiative is multi-programmatic and involves numerous themes from the Agency-Wide Strategic Plan in its development and implementation. These are as follows:

#### **o Geographic Targeting on an Ecosystem Basis**

The Coeur d'Alene Basin extends over an estimated 3700 square miles, from the Idaho-Montana border to the Spokane, Washington. The basin includes the Coeur d'Alene Lake and River, its North and South Forks, the St. Joe River, the St. Maries River, the Spokane River and the Spokane-Rathdrum Prairie Aquifer, which underlies a large portion of Northern Idaho and Eastern Washington.

**o Pollution Prevention: The Solution of Choice**

The control of eutrophication of Coeur d'Alene Lake is key to the prevention of release of heavy metals into the water column and subsequent poisoning of aquatic life in the Lake and contamination of a sole source drinking water aquifer. This would be accomplished through control of point (NPDES) and nonpoint sources (State and Local Control) of nutrients to surface and ground waters.

Containment of the heavy metal pollution in and outside the Bunker Hill Superfund site is a critical step in the prevention of long term human health problems. A combination of controls measures would be utilized through Superfund (Removal and remediation) and the Clean Water Act (NPDES and State/Local Section 319 NPS programs).

**o Strategic Implementation of Statutory Mandates**

The develop of a TMDL for the South Fork Coeur d'Alene River is a requirement under Section 303(e), Clean Water Act (CWA) for all Water Quality Limited Segments. This requires that waste load and load allocations for all point and nonpoint sources, respectively, of surface water pollution be developed and implemented.

A federal facility docket site owned by the Bureau of Land Management (BLM) is located on the Lower Coeur d'Alene River, downstream from Bunker Hill. EPA has a statutory (CERCLA) and court ordered deadline of 1993 for deciding whether to list this site on the NPL. The court-ordered Preliminary Assessment deadline is July 1992. Additionally, discrete locations will be evaluated through the PA/SI program to determine if they should be included on the NPL.

**o Environmental Education and Outreach**

The control of nonpoint source pollution from agriculture, logging, onsite sewage, urban runoff and construction will all require an extensive education and outreach effort. A Citizens Advisory Committee is being formed as part of the management structure for the Project. A Public Involvement Coordinator position is being established with FY92 Superfund resources to facilitate all aspects of this part of the project.

Where heavy metal pollution has already occurred there is a need to educate the public on how to best minimize contact with soil, food and dust. The Superfund Program has an active public outreach program ongoing associated with the Bunker Hill site.

**o Improving Cross-Program Integration and Multimedia Enforcement**

This project reflects unprecedented coordination and redirection of resources from the EPA-Region 10 Hazardous Waste (Superfund), Water and Environmental Services Divisions, the Idaho Operations Office, EPA-Region 8 Mining Reclamation Program and the Idaho Division of Environmental Quality over the past nine months.

**o Targeting Health and Ecological Risks**

The metals containment (prevention of release from lake bottom sediments due to anoxic conditions) through nutrient management to control the eutrophication of Coeur d'Alene Lake has significant implications to risk management decisions. The release of heavy metals into the water column will have a direct impact on the aquatic life of the Lake and those who recreate in/on the Lake. Also, it has been estimated that one-third of the Rathdrum Prairie Aquifer is recharged by the Lake and the Spokane River, which originates from the Lake. This aquifer is designated as a regional sole source drinking water aquifer.

The containment of the mine/milling spoils, as sediments in the Coeur d'Alene River and soil/fugitive dust on the river banks are also major considerations. Instream contamination is impacting the viability of terrestrial and aquatic life. Recently, the posting of fish and wildlife consumption advisories have occurred due to heavy metal contamination.

**o Science/Data: Improving EPA's Knowledge Base**

The Coeur d'Alene Basin has been an area studied extensively for the past twenty years, yet there has been little coordination of what was studied and where the data has been deposited. Therefore, as part of this effort, an integrated data base, available to all local, state, federal and tribal authorities is being developed.

Environmental Indicators

Environmental indicators used to assess progress in the project will focus on completion of the basin-wide management plan and on the attainment of recreational/aquatic life uses in the basin as follows:

- o Level of recreational use (fishing/boating/swimming) at key public access sites in the basin.
- o Abundance and composition of fish and benthic macroinvertebrates at indicator sites.
- o Total metal loading to the South Fork Coeur d'Alene River and Lake Coeur d'Alene.
- o Metals concentrations in water, sediments and fish and wildlife tissues.

Objectives

This multiprogram effort has the support of the public and private entities within the Basin. A management structure has been established with local, state, federal, tribal, public and industrial representation. This structure includes management, technical and citizens advisory committees. Such a management structure is being utilized to develop priorities for immediate remediation activities, long term goals and a

management framework from which to implement the basin management program. Currently, the development of the TMDL, the control of eutrophication of the Lake and Superfund removal/remediation activities are at the local point of these efforts within the Basin.

**A. Basinwide Management Plan**

Development of a basinwide management plan designed to retard eutrophication, contain metals and address other environmental problems of the Basin. This plan is designed to incorporate and coordinate all aspects (multimedia/multiprogram) of pollution control activities within the Coeur d'Alene Basin. This includes activities of local, state, federal, tribal and private entities.

- 1992 o Draft strategy and receive input on management issues needing to be addressed in the basinwide management plan.
- 1992 o Secure initial resource commitments from other government agencies.
- 1992 o Develop a Basin Management Plan Framework which will outline the goals, process, steps, and tasks to be undertaken in completing the Basin Plan.
- 1993 o Develop working agreements with federal, state, local and tribal authorities.
- 1996 o Coordinate the necessary activities (data gathering, draft TMDL, public meetings, development of management options, etc.) to enable a draft plan to be completed.
- 1996 o Development of a draft Basin Management Plan. The plan would include the identification of polluted areas with a determined priority for the phased abatement or remediation described in the Basin Management Plan, and an active program for community outreach, education and involvement.
- 1996 o Develop final Basin Management Plan.

**B. Metals Source Reduction (TMDL)**

Source reduction would be centered around the total maximum daily load (TMDL) process required by water quality limited segment listing of the South Fork Coeur d'Alene River. A TMDL is a water quality plan composed of a wasteload allocation of point discharges and a load allocation of the nonpoint sources of the pollutant of concern, such that Water Quality Standards are achieved. A TMDL addressing nonpoint sources also includes monitoring and a feedback loop mechanism to assure that implemented load reduction projects are sufficient and effective. The TMDL development and subsequent implementation would proceed with eight objectives:

1. **Review and summarize existing information.**
  - 1992 o Literature Review Report.
  - 1992 o Data bases of water quality values in a form capable of downloading to and driving water quality models and display in a Geographic Information System.
  - 1992 o Updated Problem Assessment Report for TMDL.
2. **Develop preliminary estimates of the metals loads of the Coeur d'Alene River segments and key tributaries based on existing water quality data.**
  - 1992 o Interim load estimates and load reduction targets.
  - 1992 o Priority list of segments to receive demonstration load reduction reclamation projects.
3. **Implement stabilization/control efforts on priority segments. A limited number of "control" efforts could be undertaken in the near-term, based upon information currently available and developed from the tasks outlined above.**
  - 1992 o Demonstration project work plan identifying location of demo site, BMPs to be tested and methods for evaluating BMP effectiveness.
  - 1993 o Implemented demonstration projects.
4. **Assess the effectiveness of the demonstration reclamation and removal action projects.**
  - 1994 o Summary report on effectiveness of reclamation actions.
5. **Develop needed additional water quality data and identify other metals sources (including non-point sources).**
  - 1995 o Updated Problem Assessment Report - It will identify additional areas for water quality-based controls, assess the attainability of beneficial uses and prioritize areas to be treated for mitigating beneficial use impacts.
  - 1995 o Improved data bases to drive water quality modeling efforts in support of load allocation efforts.
6. **Model waste load associated with the point discharges.**
  - 1995 o Model of heavy metals dynamics in the South Fork and lower Coeur d'Alene Rivers.
  - 1996 o Waste load allocation for application to point discharge permits.
7. **Develop the load allocation required based on reclamation projects designed to lower the load from nonpoint sources. The load allocation, wasteload allocation, monitoring plan, public review/comment and feedback provisions to guide TMDL implementation will comprise the completed TMDL.**
  - 1996 o The finalized problem assessment supporting the TMDL.
  - 1996 o The final TMDL.

8. **Implementation of the TMDL provisions through the NPDES permitting and nonpoint source programs.**
  - 1997 o Implement remaining provisions of the final TMDL to recover the beneficial uses of the South Fork and lower Coeur d'Alene Rivers based on the feedback provided by monitored results.
  - o Implementation of projects identified by the TMDL but not yet completed would occur between 1997 and 2000.

### **C. Metals Containment Via Nutrient Management**

Metals containment and remediation would be achieved initially through the development of a Coeur d'Alene Lake nutrient management plan. Nutrient management is the most reasonable and feasible means of preventing the development of anoxic conditions in the lake waters which interface with the metals contaminated sediments. Development and implementation of a lake management plan would proceed in four steps:

1. **Initiate lake water quality monitoring and watershed assessment.**
  - 1992 o Progress and final reports (1994) on the lake water quality, metals limitation to productivity and nutrient budget.
  - 1994 o An inventory of watershed sources of nutrient loads to the lake.
2. **Development of a lake water quality management plan designed to retard eutrophication, contain metals.**
  - 1995 o Lake water quality management plan providing guidance to the agencies and nutrient control projects.
  - 1995 o Interagency agreements to guide the lake management by the involved agencies.
3. **Secure a Clean Lakes Phase 2, and other implementation grants, to fund priority nutrient and metals abatement projects outlined by the management plan. A TMDL for Coeur d'Alene Lake will be required to secure Clean Lakes funding.**
  - 1995 o Obtain the funding necessary to implement the provisions of the basin management plan.
4. **Implement the nutrient control and metals control projects detailed by the basin management plan.**
  - 1996 o Implement the nutrient control and metals source control projects required to improve water quality in the Coeur d'Alene basin.

### **D. Superfund Program Removal and Remediation**

The Bunker Hill Superfund site sits astride a seven mile stretch of the South Fork Coeur d'Alene River, and is one of the major contributors to the river's problems. One hundred years of mining, milling and processing of metallic ores throughout the Silver



Valley has contributed to the degradation of downstream areas. Contamination at the Bunker Hill Site is being addressed through the Superfund Remedial Action process. The type of remedial actions implemented and resulting monitoring data will provide information that can help evaluate cleanup strategies and support the TMDL.

**1. Identify other sources and begin to develop strategies to address them:**

The following deliverables will be developed:

- o Federal Facilities Docket Site (BLM). Completion of PA/SI evaluation package. Site Assessment team evaluation of data/information submitted by BLM on Lower Coeur d'Alene Docket Site to characterize site contamination. Team will request necessary additional data in order to complete NPL evaluation by July 1993 (to meet Court-mandated deadline).  
Completion scheduled for:
  - o Evaluation of PA package, July 1992
  - o NPL Evaluation, July 1993
- o Non-Federal Facility Site Assessment Activities. Site Assessment team would do 2-3 preliminary assessments/site inspections (PA/SI) at identified discrete locations to provide additional data to characterize high priority potential sites.  
Completion scheduled for:
  - Initiation efforts at identified sites
  - Report completion, March 1993
- o Removal Site Assessments.
- o Source attribution study from Bunker Hill cleanup process can also provide useful information on "upstream" influences to the site.
- o Resource Needs:
  - o Staff time to coordinate assessment activities.
  - o Use of Superfund Contract mechanism and contractors to conduct the non-federal assessment activities (amount will need to be negotiated).
  - o Federal facilities portion. Staff and any necessary EPA contractor review resources. Actual assessment conducted by BLM.
  - o Efforts should be coordinated with the Basin Coordinator and the Regional Steering Committee.
- o Issue:
  - Listing decision on the Federal Facilities Docket Site.

**2. Implement stabilization/control efforts for known major sources.**

A limited number of "control" efforts could be undertaken in the near-term, based upon information currently available and developed from the tasks outlined above.

- o The following deliverables will be developed:
  - o Limited number of removal site assessments (SA's) by the Technical Assistance Team (TAT) following identification of suspected locations of hazardous materials. Removal program staff will evaluate/determine if removal actions are appropriate (i.e., discrete in nature and pose substantial threat to human health or the environment) -- if so, they will be prioritized for removal action.
  - o Completion schedules cannot be specified at this point due to the "response" nature of the program. If a threat exists, then the program can mobilize rapidly; if threats exist, but are not imminent, the site could be considered for future action.
  - o Removal Assessment activities (sampling, review, analysis, and recommendations) require about three months.

**Resource Needs:**

- o Removal Assessments. TAT contract resources and necessary staff review time will be made available as warranted.
- o Removal Actions. No firm estimates are possible because of the variability of site numbers, site conditions, and the character of contaminants. FTE requirements for a site would depend upon whether a responsible party exists, or, for a fund lead site, the length of time required to perform the cleanup.

**RESOURCES FOR FY94**

- o 3 FTEs, one each for IOO, Water Division and Superfund:
  - IOO, overall project coordination
  - Water, technical assistance/data management
  - Superfund, community involvement coordination
- o \$300,000 for Basin Project Manager, Sr. Scientist, clerical support, plus contractor/grant work

## SOUTHEAST ALASKA INITIATIVE

### Description of the Problem

Past, present and proposed natural resource development and tourism activities in Southeast Alaska are imposing decisional pressures on federal, state and local governments and the public. Incorrect decisions will result in increased environmental degradation requiring future corrective action. With an accurate data base and properly informed decision makers and public, resource development and tourism may proceed with little to no unacceptable impacts.

### Background:

Southeast Alaska is a region roughly 600 miles long consisting of mountainous, glaciated mainland deeply cut with fiords and hundreds of densely forested islands (several over 1,000 square miles in size). It encompasses an area (land and enclosed waterways) of approximately 48,000 square miles or about the size of New York State. As Alaska's Panhandle bordering Canada, it has a land area larger than the state of Indiana, approximately 25% of which are wetlands and encompasses 63% of the state's 34,000 miles of coastline. It has a population of approximately 75,000 residents in 33 coastal communities, only three of which have road access to the continental U.S. through Canada. The rest of the communities are linked only by air and the state ferry system, with Bellingham, WA as its southern terminus. Eleven of these communities are predominantly Native (Tlingit and Haida), and one having Reservation status (Tsimshian Indians - Metlakatla).

Southeast Alaska's climate is temperate, maritime and moist with many communities receiving in excess of 70 inches of annual precipitation. It lies within the same latitudes as the British Isles. Juneau, the state's capital, is on the same parallel as Stockholm, is approximately 1,000 air miles from Seattle, WA and is the largest community with a population of about 30,000.

Half of the land area of Southeast Alaska is forested with dense mixed stands of Sitka spruce, western hemlock and cedar much of which is old growth. Approximately 70% of Southeast Alaska lies within the nation's largest national forest. The Tongass National Forest is a lush rainforest larger than the state of West Virginia, encompassing 19 designated Wilderness Areas and two National Monuments (such status does not necessarily preclude resource development). Ninety per cent of Alaska's timber harvest comes from Southeast with nearly half of that coming from the Tongass. Eighty-seven percent of the Tongass's forested land is old growth. There are currently 15 Tongass Timber Sale Environmental Impact Statements in various stages of development.

Of the 148 identified mineral deposits in the Tongass, 13 are considered economically viable for development at this time with a present net market value of 25.6 billion dollars. Throughout Southeast Alaska and its adjacent Canadian neighbors there are currently 66 hardrock mining projects in some stage of planning, exploration or

development. Some of these projects consist of re-opening old gold mines which were among the largest in the world.

Fish and wildlife resources are abundant and extremely important to Southeast Alaska's economy and lifestyle. Commercial fishing, historically and today, is a viable industry.

Tourism in Southeast Alaska has been on a steady increase. Approximately 500,000 tourist visited Southeast Alaska last year. Over 300,000 arriving in Juneau via cruise ship.

In summary, Southeast Alaska, while endowed with natural beauty and resources, finds itself on the threshold of a significant increase in demand for those resources, bringing with it the challenges of sustainable development. The next four to five years will be critical in determining how those challenges will be met.

#### Issues:

Not unlike what has historically occurred elsewhere in the U.S., the abundance of natural resources has attracted people and industry to Southeast Alaska. For some of these resources the demand has been gradual; for others sporadic and intense. These demands have not been, and will not be, without associated pressures and impacts.

**Mining** - Southeast Alaska is in the midst of a second Gold Rush. Unfortunately, it is still attempting to cope with the aftermath of the first. Several old mining sites are listed on CERCLIST, and several others while identified, are awaiting EPA to decide how to deal with mine tailing disposal sites. More economical mining techniques, the price of gold and other minerals and accessibility to additional markets has increased the demand for these minerals and the re-opening of old mines as well as developing new mines. Many communities have grown around several of the old mining sites since their closure earlier this century, thereby creating the potential for direct human impacts and conflicts. There are currently 66 hardrock mining projects in some stage of development in Southeast and adjacent Canada. As with those in Southeast, those proposed in Canada will have direct and indirect environmental, social and economic impacts on Southeast Alaska.

**Timber** - Southeast Alaska has been struggling with the inherent impacts of timber harvesting. While only 7% of the harvested timber from the Alaska, Pacific Northwest and California areas came from Alaska in FY 90, the spotted owl endangered species designation in the continental Pacific Northwest and California has resulted in a decrease in that area's timber harvest by 60% thereby increasing the pressure for increased harvesting in Alaska. The impact of logging and mining on the area's fishery resource is controversial. While limited studies have shown that impacts could be severe, little data are available on actual field conditions. This situation is exacerbated by the lack of coordinated monitoring and data sharing among the various responsible resource and environmental management agencies (e.g. US forest Service, Alaska Departments of Fish and Game, Environmental Conservation, Natural Resources, etc.).

**Contaminated Sites** - In addition to the old mining sites already identified, the State of Alaska has identified at least 30 contaminated sites in Southeast. In addition, at least 80 canneries were operating at some time during the early part of the century. Many of these, while now abandoned, contain asbestos and other hazardous material which will have to be dealt with at some time. Old landfills and dumps, abandoned fuel storage areas all add to the legacy of past activities. However, no concerted effort has been initiated to identify and inventory all potential contaminated sites in Southeast.

**Infrastructure** - Increased mining, timber harvesting, tourism and fishing activities have and will continue to put additional strain on Southeast Alaska's limited infrastructure and resources. Last year Alaska had the second largest population growth in the nation, much of it in Southeast Alaska. The next four to five years will be critical regarding a number of large scale operations. Solid and hazardous waste collection and disposal, fuel storage and distribution, road and port construction, wetlands encroachment, public water supply and wastewater handling systems, PM10 attainment, fugitive and cruise ship emissions, maintenance of surface and groundwater quality, and spill prevention and response capability are a few of the major issues with which federal, state and local governments will need to contend.

**Data** - Compared to other geographic areas in the "lower 48", little baseline information exists or has been centralized regarding environmental criteria in Southeast. Most information that does exist was generated as a result of specific problems or proposals. Consequently, with the advent of each new proposal a new initiative of data gathering is begun with little to compare it to.

### Proposal

EPA has only been a minimal player in Southeast Alaska activities. Region 10 proposes, during FY 94 - 97, to take a pro-active role in working with industry, state and local governments and the public to deal with the environmental challenges facing Southeast Alaska. This will be done from a holistic multimedia/multiprogram approach emphasizing pollution prevention and environmental education as a means to achieve sustainable development. The four year strategy encompasses a three-pronged interconnected approach directing activities to: Individual Industries, Communities, and Regional Ecosystems.

**Individual Industries** - Region 10 will, through proactive means, identify and work with existing and developing industries to incorporate pollution prevention and sound environmental planning concepts into industries' decision making process. TRI, 33/50 concepts will be fully utilized as well as providing technical assistance to improve cross-program integration and market based incentives. Several activities will deal with projects just over the border in Canada and will therefore require international cooperation. In addition to addressing the direct impacts of industry operations, emphases will be put on the indirect impacts such as increased worker impacts on communities, its resources and its infrastructure.

**Communities** - EPA in cooperation with the Alaska Department of Environmental Conservation will meet and develop a dialogue with the 33 Southeast Alaska communities and Native groups to actively promote holistic environmental audits of the communities to address local wetland management planning, solid and hazardous waste management emphasizing reduction/reuse/recycling, transportation related issues, air quality (woodstove, fugitive dust and cruise ship emissions) and waste water and drinking water supplies (there are 155 community water systems in Southeast; 84 of which are subject to the new surface water requirements). EPA will serve as a catalyst for promoting pollution prevention, environmental education and technical assistance activities at the local level, both formal and informal, improving cross-program integration, multimedia enforcement and environmental risk assessment. We will assist and encourage local volunteer organizations with environmental education activities and the dissemination of information. One overall objective will be to provide the tools to the local community for them to make well informed decisions regarding their future direction.

**Regional Ecosystems** - Incorporating individual industry and community strategies (discussed above), Region 10 will identify regional activities and issues which lend themselves to regional approaches and solutions. Critical resources (fisheries, timber, drinking water, etc.) and watersheds will be identified and institutional organizations (task forces) established to improve/protect those resources. EPA will increase its role in the various NEPA related activities by actively participating throughout the process. There are currently at least twenty EIS's in some stage of development in Southeast involving mining, road and port construction and timber harvesting with more on the horizon. This will entail active participation in numerous federal, state and local meetings and having representatives readily available to work with the public throughout the process. In addition to serving its regulatory role, EPA will enhance its responsibility as the government's environmental conscious. In addition to the NEPA activities, EPA will increase its presence regarding forest practices in Southeast Alaska relating to environmental monitoring/sampling and its consistency/use, water quality standards/BMP's, forest management planning with emphasis on pollution prevention and environmental education. Again, due to the close proximity to Canada, these initiatives will involve close international cooperation.

**Incorporation of Program-Specific Initiatives** - The Southeast Alaska Geographic Initiative will utilize the approaches of the following strategic initiatives, as outlined in the Regional "media," or program, plans:

<b>WATER:</b>	<ul style="list-style-type: none"><li>Critical Resources/Watersheds</li><li>Wetlands - Local Management Plans</li><li>Drinking Water - Education &amp; Tech. Assist.</li><li>Water Programs Data Mgmt.</li><li>Enforcement - Tech. Support</li><li>Circuit Riders - Wastewater &amp; Drinking Water</li><li>R &amp; D for Alaska Water &amp; Waste Systems</li><li>Comprehensive Environmental Plan for Small Comm.</li><li>Corporate Volunteer Program</li></ul>
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TOXICS: TRI  
33/50  
Asbestos

HAZARDOUS  
WASTE: RCRA Education/outreach - generators

AIR: Market Incentives

CROSS-MEDIA: Geographic Information System  
Outreach on risk and pollution prevention  
Sustainable Development

**EPA**  
**REGION 10**  
**FY94-97 STRATEGIC PLAN**

**JANUARY 1992**



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**(AVAILABLE UPON REQUEST)**

## INTRODUCTION AND OVERVIEW

This FY94-97 Plan is Region 10's third strategic plan. Like the first two plans, this year's plan is driven by the desire to reduce human health and ecological risks as effectively as possible, and is guided by the findings of the Region's Comparative Risk Project. It continues many of the strategic directions outlined in prior plans, which, upon reflection, we believe are good directions. In addition, it incorporates some significant enhancements, including a more comprehensive and multi-media approach, a description of proposed Regional investments above its base budget, and an emphasis on the Agencywide Strategic Plan's ten themes. In particular, geographic targeting to accomplish pollution prevention is now a central thrust of the Region's strategy.

## STAYING THE COURSE

The priorities and initiatives outlined in prior strategic plans are by and large carried forward in this strategic plan. Indeed, the Region is now in the process of implementing many of the initiatives outlined in its first, FY92-95 Strategic Plan. Key elements of earlier plans continued in this plan include:

- o Risk Reduction Focus. This plan represents a continuing effort to understand risks and direct resources toward areas of greatest ecological and health risk. The Region's Comparative Risk Project continues to be a central analytic foundation, and efforts continue to refine and extend that analysis.
- o Broad Participation. The Region continues to emphasize the involvement of a broad spectrum of the organization - staff, mid-level managers and senior managers - in developing its strategic plan.
- o Media Program Directions. Risk-reducing program initiatives from earlier plans, such as the indoor air program, urban pesticides initiative, small community assistance, critical resource projects, and a "worst sites first" approach to hazardous waste clean-up, continue to be emphasized in this strategic plan. Most initiatives outlined in the FY92-95 plan are now being implemented, although some have been modified due to changes in circumstances and an unexpectedly tight budget. (See Appendix: Media/Program Plans for a complete description of strategic directions by program.)
- o Cross-media Initiatives. Past plans outlined multimedia education and enforcement initiatives. These initiatives are being implemented. This plan significantly increases the emphasis on a cross-media approach by outlining a process for integrating media/program initiatives through multimedia geographic projects (see below).
- o Working with State and Local Agencies. Several years ago, the EPA co-sponsored a Washington State comparative risk/environmental planning project, Washington Environment 2010, which was highly visible and quite successful. The Region is following up with Washington State by attempting to provide

flexibility to target risks through grants and the Washington/EPA Agreement. The EPA also provides financial and technical assistance to a local risk-based priority-setting effort, the Seattle Environmental Priorities Project. Future directions for the Region include working more closely with the other Northwest states to promote risk-based priority-setting, and involving the states more extensively in the Regional planning process.

## NEW DIRECTIONS

In addition to continuing and implementing the strategic directions outlined above, Region 10 has, this year, added some new wrinkles to the planning process, outlined some new initiatives and made some organizational changes in support of its strategic direction. These include:

- o Ten Agencywide Themes. In reviewing past directions and considering new initiatives and redirections, the Region paid special attention to the themes outlined in the Agencywide Strategic Plan. The Region found all ten themes to be relevant and consistent with the emerging direction of the Regional strategy. For example, nearly every program outlines education as a critical program activity to reduce the bulk of remaining risks from dispersed, small, often unregulated sources. Building state and local capacity is another essential activity in nearly every program area, as evidenced by the near-universal emphasis on increased help to small communities and tribes. Improved science is embodied in the Region's groundwater mapping and risk-based enforcement targeting efforts, and strategic implementation of statutory mandates is accomplished by promoting risk-based resource allocation in the Region and states, and through geographic targeting and other forms of multimedia integration.
- o Strategic Initiatives Above "the Base." This year's planning process was designed to identify possible initiatives and enhancements above the current program base, as well as identify desired "zero-sum" shifts within current resources. This was done, at both the program and Regionwide/senior management levels, to prepare the Region better to participate in the budget process, and to provide a clearer picture of desired strategic direction than the more constrained approach.
- o A More Comprehensive Plan. For the first time this year, the planning process was broadened to include support offices - the Management Division, and the Offices of Enforcement and External Affairs. The inclusion of these offices has resulted in a more balanced and complete plan, and in a number of initiatives in new areas, such as reducing paper and increasing efficiency through automation, reducing hierarchy through project-oriented organization, and achieving "enforcement through compliance" via more effective outreach.
- o Organizational Changes. The Region has emphasized the importance of key activities, consistent with the Agencywide Plan's themes, by creating new Offices of Enforcement, International Affairs and Sustainable Development.

Implementation of Total Quality Management is also supporting strategic planning and management. One Quality Action Team is examining the customers and uses of the Region's Environmental Indicators program, while another has reviewed the Region's Consolidated Grants to states and recommended important changes in the Region's process for working with states to develop grants and State/EPA Agreements. Finally, the Region has just completed its first Pollution Prevention Action Plan. The across-the-board emphasis on prevention is reflected throughout this plan.

## **POLLUTION PREVENTION THROUGH GEOGRAPHIC TARGETING**

The "umbrella" concepts that unify the initiatives and directions in this plan are pollution prevention and multimedia, geographic projects. The Region's long-run strategic goal is to move from programs dominated by control/regulation of current problems and cleanup of past mistakes, to one emphasizing prevention of pollution before it becomes a problem. In the short run, management and cleanup are both high priorities. In the long run, however, prevention is the most effective way to protect the environment and human health, and we must gradually shift our program emphasis to prevention.

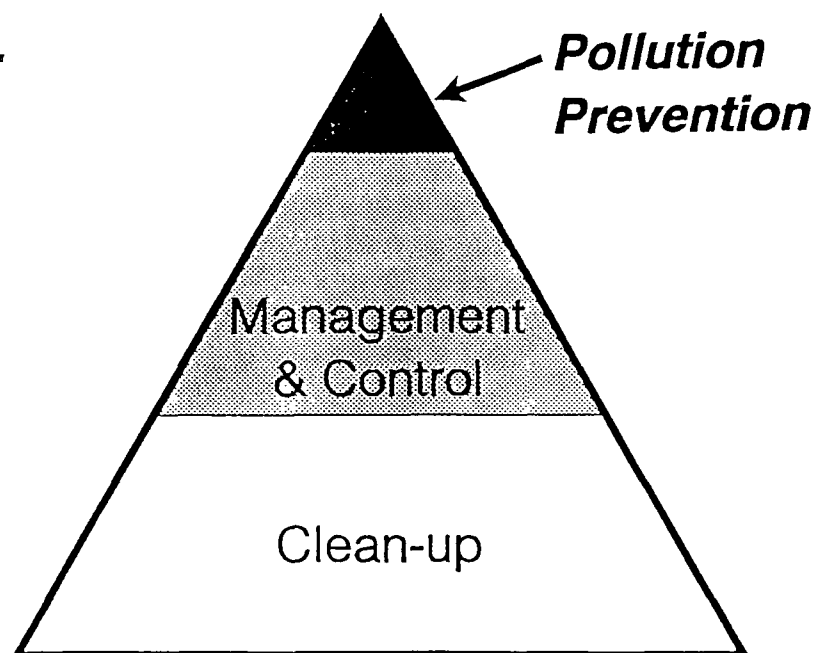
The Region believes that cross-media projects in targeted geographic areas provide the most promising way to integrate activities across media programs, and gain experience with a holistic approach to environmental protection that includes prevention, management and restoration. The Region has chosen four geographic areas to emphasize in the FY94-97 period:

- o Puget Sound/I-5 Corridor,
- o Coeur d'Alene Basin,
- o Portland/Willamette Valley, and
- o Southeast Alaska.

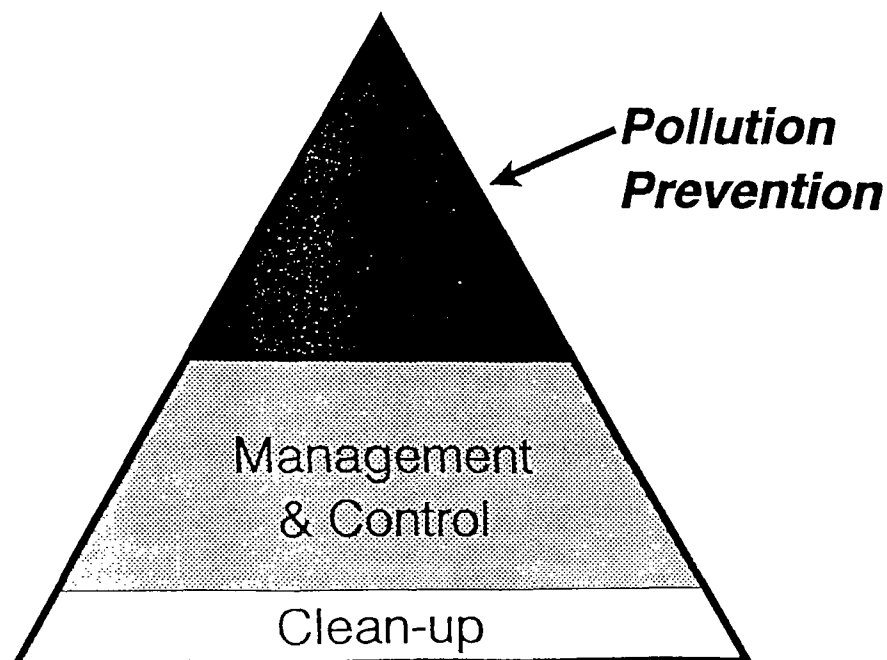
These areas represent a range of conditions, from urban and populated to mostly rural, and from quite polluted to fairly pristine. State and local political conditions also differ in the different areas, as do the capacities of local and state governments to deliver services. The Region believes that this diverse set of projects will help it gain experience about multimedia, geographic projects in differing circumstances.

## Region 10's Strategic Vision

***From This...***



***To This...***



The Region's proposed approach in each geographic area is summarized in the sections following this overview. Because of the differing situations, each area calls for a somewhat different approach. For example, Southeast Alaska is an area rich in natural resources and with a currently small population. The strategy for this area emphasizes prevention to protect the existing resources. The Coeur d'Alene Basin, on the other hand, is heavily polluted from many years of mining and will, at least at first, emphasize cleanup and containment.

Despite differing circumstances and some differences in approach, all the strategies also have a good deal in common. Some proposed activities - such as pollution prevention, public education, assistance to small communities, wetlands restoration, better groundwater protection - are emphasized throughout. These same activities are also described as future directions in the media/program strategies (see Appendix).

## NEXT STEPS

Strategic planning and management is a dynamic, ongoing process - which is another way of saying you're never quite done. Next steps for the Region include:

- o Successful implementation of FY92 and FY93 initiatives.
- o Further development and refinement of the geographic initiatives in this plan, including full consultation with the states, leading to Regional budget proposals for the FY94 budget.
- o Better integration of strategic planning with Regional resource allocation, state grant, evaluation and accountability systems, in a predictable, logical process that takes appropriate account of environmental information and customer needs.
- o More emphasis on Regionwide direction and guidance by Regional senior managers as a team.
- o More timely and effective inclusion of the states in the Region's planning process, and continued promotion and support of risk-based planning in the states' own management processes.



## **GEOGRAPHIC INITIATIVES**





## PUGET SOUND/I-5 CORRIDOR INITIATIVE

### Description of the Problem

The Puget Sound Basin is one of the ecological treasures of North America. Approximately 70% of Washington State's population currently lives in this unique piece of geography, the locus of economic growth in the Region. It supports many values and uses, including transportation, commerce (e.g., fisheries), recreation/tourism, and key ecosystems and habitat. It also has cultural and historic value for a variety of groups, including 14 tribes.

Because of its heavy use, and the increasing pressures of population and economic growth (especially along the Interstate-5 Corridor), the Puget Sound Basin is a threatened resource. Parts of it are already degraded, and pollution and development around the Sound pose both human health and ecological risk. Many shellfish beds are closed to commercial harvesting because of biological and toxic contamination. Some of the Region's most significant Superfund sites, including Commencement Bay and Harbor Island, are in the Puget Sound Basin. Hazardous and solid waste disposal is increasingly a problem. Over 80% of the extremely valuable and productive wetlands around the Sound have been filled in. Sediments in urban bays are contaminated with toxics. This pollution, along with overharvesting and habitat losses, has threatened anadromous salmon species. Many of the region's significant sources of air pollution are found in the Puget Sound Basin. Seven cities in the Puget Sound/I-5 Corridor currently violate the national health based standards for particulates. Most of King, Pierce, and Snohomish counties as well as the Vancouver area violate the ozone and carbon monoxide standards. Damage from ozone has been documented in the forested areas of the Puget Sound Basin.

The Puget Sound/I-5 Corridor is thus an excellent target for a geographic initiative. It is an area of extremely high resource values and significant existing and threatened problems. Additionally, and very importantly, the citizens of the area place a high value on the area's natural resources. They have historically supported strong efforts to protect the environment as evidenced by the Puget Sound Water Quality Authority and the active regional air pollution control agencies. Washington State growth management legislation, which mandates growth management planning by the counties of the Puget Sound basin, was also recently passed.

### Four-year goals and objectives

The overall goal of this initiative is to ensure that future development in the basin occurs in a manner consistent with the long-term protection of the environment, i.e. to achieve "sustainable development." Specific projects are proposed (1) to improve the effectiveness of existing programs targeted at the protection of the Puget Sound/I-5 Corridor environment, and (2) to initiate activities to cover gaps in management under existing programs. Through geographic targeting, emphasis will be given to coordinating

the activities of multiple agencies and layers of government to assess cumulative effects and protect ecosystems area-wide through risk-based targeting of activities. Innovative approaches used in individual components of this initiative include pollution prevention, market incentives, cross-program integration, multimedia enforcement, building state and local program capacity, education, and outreach. By FY97, this initiative will result in improved water and air quality due to reduced releases of pollutants and clean-up of existing problem areas.

### Proposed FY94-97 Activities

Because of the concentration of people and valuable environmental resources in Puget Sound, every EPA program focuses significant attention on the area. The water program has historically taken the most integrated, basin-wide approach, through the Puget Sound Estuary Program. EPA, in cooperation with state, local and tribal authorities, helped develop a model estuary program, the first approved National Estuary Comprehensive Conservation and Management Plan. EPA also directs significant energies to Puget Sound problems in virtually every other program: Superfund cleanup, hazardous waste management, air pollution control, wetlands protection, pesticides and toxic substance control, and so on.

This solid base of program activities and working relationships, coupled with the Region's commitment to finding ways to manage its rapid growth responsibly, put EPA in a unique position to lead development of a multimedia environmental management system for the Puget Sound Basin that would link efforts of federal, tribal, state and local entities to make regional development decisions that take account of environmental consequences.

The multimedia geographic approach to environmental problems in the Puget Sound/I-5 Corridor will build upon the experience of the Puget Sound Estuary Program and the more recently formulated "Watershed Approach" promoted by the EPA's Office of Water. Efforts under this initiative will occur on three levels: (1) coordination and focusing (on this geographic area) of existing base program activities of EPA and other federal, state, and local entities; (2) special projects to improve management and infrastructure for EPA and state and local programs; and (3) longer range projects to achieve sustainable economic activity and lifestyles in the area through pollution prevention, improving the scientific basis of our actions, and educating businesses and the public.

## **WATER**

**Critical Resources / Watershed Approach** This component will be the integrating umbrella for the Puget Sound/I-5 Corridor Initiative. The Office of Watersheds, Oceans, and Wetlands provides a summary of this approach in their October 1991 document, "The Watershed Protection Approach: An Overview" (EPA/503/9-92/001). The Office of Coastal Waters will take the lead in coordinating

and focusing the ongoing base program activities of the various EPA programs with other applicable federal, state (e.g. Ecology & Puget Sound Water Quality Authority), and local (e.g. the air pollution control agencies) programs. The "FY93 Special Regional Initiative -- Puget Sound" and the "1991 Puget Sound Water Quality Management Plan" describe significant proposed activities which this initiative would help implement or build upon, as appropriate. Three FTE's to work in-house, with other federal, and with state and local entities & \$300K.

**Wetlands -- Local Management Plans** The requirements of the Growth Management Act will be causing county governments to be reevaluating current and future land uses in their jurisdictions. This initiative is aimed at increasing efforts to build state and local government capacity to provide appropriate management of wetlands. The goal would be to integrate federal, state and local regulation to promote regulatory consistency and predictability. This can be achieved through development of local wetland management plans that provide for preservation of high value wetlands and allow development of low value wetlands subject to compensatory mitigation via a local wetland mitigation bank. The State of Washington can play a vital role in this effort by providing statewide guidelines for local wetland planning efforts that are consistent with the requirements of the Clean Water Act as well as state laws and regulations. State Wetland Conservation Plans would be a key to making this a successful effort. Federal funding could be passed through the state to local governments in targeted "hot spots". Local governments that completed plans consistent with state and federal guidelines could then be granted regional 404 permits to implement their plans. This initiative would require 1 FTE to work with local governments in the Puget Sound area to develop or improve their local wetland management plans.

**Drinking Water** By FY94 state drinking water and groundwater protection programs will have established reasonably accurate inventories of how many persons are served by what type of drinking water system. They will also have new data on the occurrence of contaminants that have not been regulated before. This strategic planning initiative would build upon the state inventory data and identify the ownership characteristics of the systems that must monitor for and report contaminant levels under the ten major federal/state regulations (identify and report the risks in their drinking water supplies) and focus technical assistance, training and enforcement on "customer needs". (For example, target resources on outreach, training, construction funding and education campaign for all of the public water systems owned and operated by mobile home park operators; target resources on systems operated by rural subdivision homeowner's associations or municipalities and districts serving fewer than 250 people--prioritize resource allocations based on reducing risks to the largest number of drinking water consumers or sensitive populations first.) Since drinking water is obtained from either surface water or groundwater, close coordination with programs managing those resources will be necessary.

Resources in FY94 would be allocated to identify the specific needs that public water systems and domestic well users throughout Puget Sound / I-5 have in order to reduce and prevent drinking water risks. FY95 through FY97 resources would be

allocated by targeting resources needed to reduce, eliminate and prevent risks in systems and wells with contaminated drinking water. (Estimate 0.5 FTE and \$100,000 for survey of PWS and domestic well user "needs" to comply with regulations and reduce risks.)

**Groundwater** Ground water is one of Washington's most important yet vulnerable natural resources. It is the source of drinking water for nearly two-thirds of the state's population. The protection of ground-water in the Puget Sound region is becoming even more important given the increased demand on water supplies due to the area's rapid population growth and the subsequent increase in sources of ground-water pollution. Sources recognized as needing increased attention and control efforts include on-site septic systems, underground storage tanks, animal waste from dairy operations, urban pesticide use, stormwater disposal via dry wells, and the intrusion of seawater into coastal aquifers.

The hydrogeologic setting of the Puget Sound basin increases the potential for contamination of the region's aquifers. Thick sand and gravel sediments deposited by ice-age glaciers and streams provide permeable conduits for pollutants to seep into aquifers. Contaminated ground water can also discharge to surface water and adversely affect sensitive ecological habitats such as streams, wetlands, and the Sound's shellfish growing areas.

Pollution Prevention efforts can be prioritized within Wellhead Protection Areas established for public water supplies and by mapping the relative vulnerability of the region's aquifers. These activities require the coordinated collection and management of both hydrogeologic and multimedia contaminant data. Such efforts are consistent with EPA's National Ground-Water Strategy which proposes a new partnership with states in developing comprehensive ground-water protection programs.

## AIR

**Market Based Incentives** State and Local Air Program Directors have expressed great interest in market based incentive programs. Such programs increase flexibility and stimulate the use of less costly attainment strategies, as well as provide incentives for continuing development and implementation of innovative emission reduction technology and strategies. Federal leadership, technical assistance, and seed money is needed for pilot programs.

Difficult to control area sources (especially woodstoves and mobile sources) are a major component of air quality problems in the Puget Sound/I-5 Corridor and provide especially good opportunities for market based programs. For woodstoves, a marketable permits program might be pilot tested. For mobile sources such items as sales tax rebates based on vehicle fuel efficiency, employer-based trip reduction programs and alternative fuels programs could be implemented. One FTE and \$100,000 are proposed to promote and test such programs.

## RCRA

**RCRA Education/Outreach** Educating the regulated community is an important aspect of the RCRA program. The Washington Dept. of Ecology currently has a "welcome wagon" staff whose purpose is to target waste generators and provide information on RCRA rules, regulations, and expectations. The goal in targeting generators is to reach current notifiers who have yet to be inspected and to link education and compliance/enforcement priorities. R10's proposal is to provide further support to Ecology's program and supplement R10 staffing to more effectively educate the states and regulated community about new federal requirements. This will require 0.5 FTE & \$20,000.

**Indian Tribes** Few Indian Tribes in the region have the resources to manage municipal solid waste. Tribes recognize solid waste management as an environmental concern; however, if we cannot assist them in their efforts to responsibly manage solid waste, it is unlikely to be done in an appropriate manner. R10 has one of the largest Tribal workloads and the release of Subtitle D Criteria rule will seriously strain the Region's resources. This proposed initiative would provide resources to work with Indian Tribes in the Puget Sound area to continue capability development activities, provide technical information and assistance, and fulfill the commitments to Indian Tribes as expressed in EPA's Indian Policy.

## TOXICS

**TRI & 33/50 Programs** By FY93, the Toxics Program plans to have new and reallocated resources to facilitate expanded use of the Toxics Release Inventory (TRI) data through outreach to States and local communities and through training of Regional staff (e.g. for multimedia compliance/enforcement activities). With approximately 40% of the Region's TRI reporters, the Puget Sound Basin is an area of major focus for these activities. Such outreach efforts will remain a priority for several years but will involve declining demands after FY94 assuming early efforts are effective. The related and recently initiated 33/50 program has the worthwhile goal of reducing by 50% releases of 17 target chemicals to the environment and will require additional resources. One FTE and \$20K are needed in FY94 through FY97 to carry out this important pollution prevention program in the Puget Sound/I-5 Corridor without cannibalizing the core Toxics Program.

## PESTICIDES

**Urban Pesticides Initiative** Pollution from pesticides was ranked in the highest risk category in the Region 10 ecological risk assessment. Approximately a million pounds of pesticide active ingredients are used annually in urban areas of the Puget Sound Basin. This represents approximately half of all pesticides used in the basin. These pesticides are used by people largely ignorant of proper uses and risks associated with these pesticides. To prevent pollution by pesticides (and nutrients) in the urban

sector, a pilot effort has begun in Washington state. Six agencies have signed an agreement to participate in an Urban Pesticide Initiative. The purpose of this initiative is "to reduce the risk of pesticides to human health and the environment in urban settings by preventing inappropriate, unnecessary and illegal releases of pesticides and by ensuring safe application of pesticides when they are necessary".

Six educational projects which leverage the resources of several agencies to provide information to the public have been funded with \$80,000.00. An Urban Integrated Pest Management Summit for Washington was held on December 17 and 18, 1991. This Summit brought together, for the first time, all the IPM players: industry and landscape professionals, agency representatives, and environmental groups in all disciplines involved in urban pest management. 1.0 FTE & \$50K are needed to support educational activities in FY94 to follow up on the promising start to this initiative.

## MULTI-MEDIA

**Enforcement** Currently all major media programs meet to select compliance priorities for the new fiscal year. By FY93 the region will be using the national compliance data integration system (IDEA), regional data bases, and a risk based approach to target multimedia inspections. Using the Puget Sound basin as a geographic priority area, large scale multi-media inspections will be planned for facilities that discharge in the basin.

The multi-media inspections that will be scheduled for Puget Sound will undoubtedly generate various types of enforcement action. These may be simple administrative actions or more complex civil judicial referrals involving RCRA, CWA, TSCA, and CAA participation. The complex actions are resource consumptive and at least \$100K will likely be needed in FY94 for hiring expert witnesses, ambient or point source monitoring, laboratory costs, and other litigation expenses to fully pursue enforcement actions in the basin.

## PORTLAND/WILLAMETTE RIVER BASIN INITIATIVE

### Description of the Problem

The geographic area that is the focus of this strategy is a complex mix of urban areas, agricultural lands, and forests. The basin is 150 miles long by an average of 75 miles wide and covers 11,450 square miles (12% of the state). There are over 5,000 miles of rivers and tributaries in the basin, many of which are prime habitat for anadromous fish and other species. The basin also contains large areas of forest ecosystem, much of it heavily managed for forest products production. There are also significant areas of wetlands habitat within the basin. As of the 1990 Census, the population within the basin was 2,842,000. Approximately 65% of the state population is located within the basin and 25% within the greater Portland urban area. There are also significant concentrations in several other cities in the central core of the Willamette Valley (Eugene/Springfield, Salem, Corvallis, etc.)

The environmental problems to be addressed by this plan are both current and emerging. Further on in this section an overview of current priority concerns is presented. Beyond these more immediate and traditional environmental concerns outlined below, there is a more fundamental environmental protection issue which is emerging. As an area, the Willamette Basin is perhaps the most threatened area in Oregon in terms of long-term risks of environmental degradation. A priority concern for the long-run is the impact of continuing growth and changes in natural resource management practices on the long-term sustainability of environmental quality and ecosystem integrity within the basin. The Willamette Basin is the focal point for much of the urban growth and industrial/commercial development occurring and projected within Oregon. At the same time, there is a fundamental rethinking underway regarding how natural resources within the basin are managed. Changes in both of these areas will have profound implications for both future economic activity and environmental quality within the basin. Examples of the kind of questions raised by this dynamic situation are:

Will the continuing growth in population prevent achieving and maintaining healthy air quality over the long term?

Can the integrity of aquatic ecosystems in or near growth areas be maintained in the face of continuing population growth?

How will emerging patterns of natural resource management and use impact future environmental quality?

How can the pressures and issues be addressed in terms of basin-wide benefits and impacts rather than in isolation on a case-by-case basis?



What kinds of programs, policies, education and assistance will best enable the decision-makers at the state, county, and local level, business, and the public to address this dynamic situation in an environmentally sound way?

How should long-term development in the basin proceed so as to insure both economic and environmental sustainability?

What are the implications for the agricultural and forest products industries of potential local regulation of pesticides within some areas of the basin?

Addressing these and many other similar issues on a reactive, case by case basis is not adequate to insure protection of environmental quality and ecosystem integrity over the long-term. A comprehensive and coordinated approach is needed. Without such an approach, many of the current problems described below cannot be effectively controlled. Traditional regulatory programs must be complemented by broader interagency and public/private partnership approaches if both economic and environmental sustainability based on wise use of resources is to be achieved.

There are also many more immediate issues. The basin currently has a cross-section of environmental concerns typical of both urban and rural areas in the Northwest. The current priority problems are highlighted below for each media.

**Air Quality** - The Portland urban area currently exceeds the national air quality standards for carbon monoxide and ozone and may have violation problems for particulate matter. The Eugene/Springfield area is also in violation of the particulate standard. Difficult to control area sources such as woodstoves and mobile sources are major components of the air quality problem. There are also significant contributions from agricultural field burning and slash burning on forest lands within the basin.

**Water Quality** - The Willamette River and its tributary streams are under increasingly heavy and often conflicting demands. In the urban areas, growth related runoff and waste discharges are lowering water quality in the face of growing demands for higher water quality. In rural areas, constraints on logging practices in certain areas are generating increased pressures on other timberlands, increasing the threats to in-stream and riparian habitat and associated species.

**Wetlands/Riparian Zone** - The Willamette Basin contains an extensive amount of both wetland and riparian ecosystems, both large and small scale. Continuing development pressures in urban and rural areas, coupled with current and new agricultural/silvicultural activities and changing management criteria, contribute significantly to the loss and/or degradation of wetland and riparian areas. The result is a loss of functional values of significant economic and environmental importance. These include fishery and wildlife habitat, floodwater retention, and water quality benefits such as sediment entrapment and nutrient uptake. These pressure will only increase in the future.

**Drinking Water** - Within the basin, there are large populations that are obtaining drinking water from small supply systems that are difficult to monitor and regulate or from domestic wells. The number of people who use unprotected groundwater from domestic wells exceeds those using the small supply systems. Health risks are potentially very significant but in some cases very little information is available for an adequate assessment. Programs to address these current and potential concerns are both small and underfunded.

**Groundwater** - There is growing concern within the basin about maintaining groundwater quality. There is a high level of dependence on groundwater (see above). Threats to the groundwater resource are increasing due to growth in industrial activity and population as well as residual from past practices. Examples of the latter include the continuing discovery of hazardous waste sites, leaking underground storage tanks, and the impacts of agricultural chemical use.

**Hazardous Waste** - In the urban areas of the basin, there are many businesses and industries which generate hazardous wastes. Poor waste management practices in the past have resulted in a number of sites needing remediation under Federal RCRA/Superfund authorities or state analogs. Changing federal and state regulations are bringing more waste streams under management programs (small businesses, service sector enterprises, etc.). Strong technical assistance and guidance programs are needed. There is also a strong need within the basin for development of household hazardous waste collections programs to avoid improper disposal. Similar programs for small business, the agricultural sector, etc. are also needed. A new problem which is emerging is inadequate closure and clean-up of wood products plants closed due to changing timber management practices within the basin. These past practices and current management problems present significant potential and actual risks to groundwater and other media in portions of the basin.

**Solid Waste** - As population in the basin increases while management standards are tightened, many more closures of existing landfills are expected. These closures, and the alternative disposal procedures/locations used, must be environmentally sound to avoid long-term problems within the area.

**Physical Modifications to Stream Systems** - There is growing concern regarding the cumulative effects of activities which physically modify the stream systems in the basin. In-stream gravel mining coupled with reduction in new gravel recruitment due to storage reservoirs and bank modification are threatening long-term viability of in-stream habitat. Stream channelization and bank protection, often driven by poor riparian land-use practices, are also degrading both instream and riparian values.

**Degradation of Terrestrial Habitat** - Population growth and related development continue to increase both the degradation and fragmentation of terrestrial habitats within the basin. The long-term viability of wildlife populations which

rely directly on this habitat, and the adjacent wetland and riverine systems which rely on healthy and diverse terrestrial systems to maintain quality, is in question.

In addition to the current suite of known problems, there are several other priority areas which represent health or environmental risk that have received little attention to date. These include:

- o Health risks due to indoor air contaminants, and
- o Ecological and health risks due to urban use of pesticides

### The Strategic Plan

The strategic plan for the Willamette Basin/Portland Urban Area geographic initiative covers the FY94-97 time period. It has as its foundation the base program work to be done in this area during the FY92 and FY93 period plus the initiatives incorporated in the strategic plans for those years. In addition to the above, it is also assumed that between now and FY94, EPA Region 10 and the Oregon State Department of Environmental Quality, with input from others, will develop a risk-based set of priorities for the basin. This set of priorities will address not only actions needed to remedy the most pressing current problems but will also integrate priorities for work needed to address and prevent some of the emerging, longer-term concerns.

The goals and related actions outlined below contain many elements that are clearly media-specific. There are also components that are more general and that focus on the development of skills, programs and information which will enable the longer-term environmental protection concerns to be effectively addressed. These are not media specific but are an integral part of the whole. Reviewers of this plan should not write-off these elements because they do not relate explicitly to their media program but rather should look to see how they support and complement achievement of media specific environmental goals.

### Goals for FY97

Base Program - During FY94-97 There will be an increased use of base program resources to focus on priorities within the initiative area. The jointly developed set of risk based priorities described above will guide this effort. The program activities will be selected and managed from a perspective of maximum allowable flexibility for state programs to address priority problems in the area. Operational coordination with the appropriate state agencies will be enhanced. EPA and the state agencies will reach a yearly accord through the SEA process on a division of labor in the area to minimize duplication. Examples of efforts in this area include coordinated compliance and enforcement efforts, joint technical assistance programs, coordinated outreach programs, etc.

### Specific Initiatives

1.     **Problem Area:       Watershed Protection**

**Goal:**           To establish a watershed protection program which reduces threats to critical watersheds and provides a framework for long-term watershed protection and enhancement throughout the basin.

**Objectives:**   To have in place a comprehensive, citizen-based "Watershed Walk" program for all the priority sub-basins within the initiative area.

- o       Development, through a multi-agency coordination and management process, of watershed protection programs for the three most critically threatened sub-basin watersheds within the initiative area.

2.     **Problem Area:       Wetlands Protection**

**Goal:**           Minimize or prevent continuing loss of wetlands to insure no net loss of function and values.

**Objectives:**   Adopted local wetlands management plans for the priority wetlands within the basin and a coordinated local/state/federal system to support their implementation.

3.     **Problem Area:       Groundwater Protection**

**Goal:**           Reduce or eliminate threats to priority aquifers within the basin through effective implementation of state/local protection and management programs.

**Objectives:**   Completion of detailed groundwater vulnerability assessments for the entire basin.

- o       Establishment of an integrated data base which incorporates location and activity information for all major activities potentially impacting groundwater in the area.

4. Problem Area: **Drinking Water Quality**

Goal: Reduce or eliminate current population exposures to contaminated drinking water and prevent further contamination problems.

Objectives: A strong state-run program for public water supply supervision.

- o Establishment of an effective public education/public health protection program for the population served by domestic wells.

5. Problem Area: **Air Quality**

Goal: Attainment of National Ambient Air Quality Standards in all areas of the basin and adoption of plans and a management framework which insures long-term protection of the airshed.

Objectives: Attainment of standards through full implementation of State Implementation Plans.

- o Implementation of an aggressive education/outreach program providing pollution prevention information and technical assistance to small businesses.
- o Development of an ongoing interagency effort to address air quality issues associated with population growth and related transportation requirements.

6. Problem Area: **Indoor Air Quality**

Goal: Effective local programs in major urban areas within the basin for public education and, as appropriate, regulation of, indoor air quality and related factors.

Objectives: Availability of a comprehensive set of educational materials and delivery systems addressing indoor air quality in both residences and commercial/public buildings.

- o Functioning interagency coordination and program development groups established in Portland urban area and selected other cities within the basin.

7. Problem Area: **Impacts of pesticide use in urban areas**

Goal: Establishment of a comprehensive multi-agency program to identify and minimize ecological and health risks due to pesticide use in major urban areas in the basin.

Objectives: Completion of assessments for the three largest urban areas which identify pesticide use patterns(quantity, type, frequency) and determine highest priority health and ecological risks.

- o Establishment of on-going interagency committees to coordinate and guide assessment and risk-reduction work in priority urban areas.
- o Development of on-going information/education delivery systems using schools, extension agents, the indoor air program, etc.

8. Problem Area: **Environmental impacts of toxic materials/hazardous waste**

Goal: Minimize risks to public health and the environment within the basin due to unnecessary or avoidable exposures to toxic/hazardous materials.

Objectives: TRI data reliably show significant reductions in releases of priority toxic chemicals.

- o The data from the TRI system are extensively used by the public, private sector, and government at all levels within the basin for measuring progress and establishing priorities.
- o Completion of a comprehensive education/outreach program covering all hazardous waste generators within the basin.
- o Completion of an aggressive pollution prevention program targeted on medium to small waste generators not effectively covered by pretreatment programs.

- o Development of effective collection programs for household hazardous waste for 75% of the urban population of the basin.

### Environmental Sustainability Infrastructure Initiatives

#### 9. Problem Area: **Environmental Literacy**

Goal: Adoption and implementation of an on-going, comprehensive (schools, community, business) environmental education program to raise general environmental awareness and provide specific knowledge about Willamette Basin ecosystems and related threats.

Objectives: Availability of a comprehensive set of environmental education and training materials for use within both the school system and business/industry.

- o Measurable increases in environmental literacy when compared to FY94 baseline.
- o Building on the existing environmental education planning framework, establishment as needed of an appropriate set of planning and steering committees with both public, business sector, and government participation to guide and enhance environmental education efforts on a sustained basis.

#### 10. Problem Area: **Environmental Information and Analysis**

Goal: Establishment of appropriate environmental information acquisition and analysis systems to support effective environmental decision-making at all levels within the basin.

Objectives: Development of a long-term ecological monitoring system to assess status of atmospheric, terrestrial, and aquatic systems and identify positive or negative trends.

- o Adoption of a set of indicators to be used on a sustained basis for informing the public and guiding public and private sector decision-makers.

- o Establishment of a comprehensive system for accessing and integrating data bases on environmental quality and related factors to enhance planning and analysis at all levels.
- o Adoption of agreed-upon forecasting methods to use in projecting long-term impacts of development patterns, demographic shifts, management policies, etc.
- o Establish appropriate training and support systems for local, citizen-based monitoring programs.

**11. Problem Area: Use of Market Incentives**

**Goal:** Utilization of selected market incentives to enhance achievement and maintenance of long-term environmental objectives.

**Objective:** Completion of an analysis of potential market incentives which might be utilized to address priority long-term problems within the basin (for example, use of tradeable air permits, discharge fees, etc.).

- o Adoption of a priority set of market incentives at the appropriate level (city, county, state) with appropriate measures and baselines to assess progress.

**12. Problem Area: Environmental Management Capabilities  
At The Community Level**

**Goal:** Enhanced capabilities for environmental management and planning in small to medium sized communities.

**Objectives:** Develop and implement an assistance program for 2-3 communities within the basin representing a mix of size, problems, and capabilities.

- o Develop and implement an on-going technical assistance program to facilitate sharing approaches and successes with other communities in the basin.



**13. Problem Area: Wise Use of Resources**

**Goal:** Establishment of long-term programs to foster conservation and wise use of resources within the basin (energy, water, soil, raw materials, etc.).

**Objectives:** Based on existing and potential conservation programs establish a long-term set of conservation goals

- o Develop and implement a public/private coordinating mechanism to guide and promote conservation efforts.

**14. Problem Area: Program Coordination and Development**

**Goals:** Effective coordination and management of programs and initiatives within the basin on an on-going basis.

**Objective:** Establishment of an appropriate set of institutional/coordinating mechanisms with broad representation to guide efforts on a sustained basis.

**FY94 Activities**

Specific objectives and activities for the FY94 time period will be dependant on number of factors. These include the proposed agreement on risk-based priorities, progress on program implementation during FY92/93, state and federal funding for FY94, potential legislative changes, etc. At a general level, FY94 will be the start-up year for work on many of the objectives outlined above. Two key elements will be the refocussing of the base programs to increase the emphasis on the initiative area and the establishment of program coordination mechanisms. These will set the stage for what can be accomplished on the specific initiatives.

## COEUR D'ALENE BASIN RESTORATION INITIATIVE

### Description of the Problem

The Coeur d'Alene Basin (3,700 square miles) includes Coeur d'Alene Lake, the Coeur d'Alene River and its North and South Forks, the St. Joe River, the St. Maries River, the Spokane River and the Rathdrum Prairie Aquifer which underlies Eastern Washington and Northern Idaho. This geographic hydrologic basin supports key regional uses and values including:

- o A sole source regional drinking water aquifer
- o Commercial and industrial uses
- o World class recreation and tourism
- o Ecosystem and habitat preservation
- o Traditional (including tribal) cultural values

The Coeur d'Alene River and Lake system has been adversely affected by heavy metals contamination from over 100 years of metals production. The South Fork Coeur d'Alene River is designated as water quality limited as a result of this metals loading from point and non-point sources and has become the most contaminated stretch of river in Region 10. It includes the Bunker Hill Superfund Site as well as a federal facility Superfund Docket site.

The real potential exists for major impacts as a result of the ongoing metals loading on this linked hydrologic system. For instance, heavy metals interact with Coeur d'Alene Lake sediments in a way which may create anoxic conditions in the lake. A major part of a regional sole source aquifer is recharged by Coeur d'Alene Lake and the Spokane River, which originates from the Lake. These anoxic conditions can be accelerated by the nutrient enrichment of Coeur d'Alene Lake.

The effort to address the Coeur d'Alene Basin environmental issues poses a major challenge to public and private restoration and management efforts. Sensible solutions demand coordinated use of the resources available to environmental agencies and parties contributing to past and ongoing contamination. Current activities in the Water and Superfund programs have had some affect; however, they have been fragmented and therefore not as effective as they might be. No one program or agency has historically been able to approach the pollution control and remediation efforts in a "basinwide fashion" necessary to protect and restore the aquatic ecosystem to its desired condition.

Success will require development of a coordinated long term strategy and commitments by EPA, Idaho DEQ, Coeur d'Alene Tribe and other governments and private parties. Region 10, in conjunction with Idaho DEQ, has already begun to move in this direction. We have already redirected resources from the Idaho Operations Office, Water, Environmental Services and Hazardous Wastes Divisions in Region 10--

and have initiated a coordinated approach to the Coeur d'Alene Basin. This coordinated approach is proving to be the catalyst to the development of a framework for the restoration of the Coeur d'Alene Basin. However, long-term resource support is necessary if our efforts are to have a chance to succeed. EPA has a unique leadership opportunity to "catalyze" and lead, but it requires the resource support outlined in this proposal.

This document outlines the draft framework developed to address heavy metals contamination, as well as, the control of nutrient and sediment producing activities in the basin. This basinwide multimedia effort is enabling EPA and other authorities to move ahead in the Coeur d'Alene Basin in a coordinated fashion, especially in the more severely contaminated portions.

### Goals

The goals for the Coeur d'Alene Basin Restoration project have been developed into a conceptual framework for which all components are not funded. The goals of this project are the following:

- o Control point and nonpoint sources of pollution to surface and ground waters from heavy metals and nutrients utilizing Clean Water Act and Superfund mechanisms.
- o Manage other environmental and human health problems impacting the streams, lakes, rivers and groundwater of the Coeur d'Alene Basin.
- o Demonstrate that EPA, state and local governments can use tools and authorities to address a major environmental challenge with a cross-media, geographic focus.

### Agencywide Strategic Plan Themes

The Coeur d'Alene Basin Restoration Initiative is multi-programmatic and involves numerous themes from the Agency-Wide Strategic Plan in its development and implementation. These are as follows:

#### **o Geographic Targeting on an Ecosystem Basis**

The Coeur d'Alene Basin extends over an estimated 3700 square miles, from the Idaho-Montana border to the Spokane, Washington. The basin includes the Coeur d'Alene Lake and River, its North and South Forks, the St. Joe River, the St. Maries River, the Spokane River and the Spokane-Rathdrum Prairie Aquifer, which underlies a large portion of Northern Idaho and Eastern Washington.

#### **o Pollution Prevention: The Solution of Choice**

The control of eutrophication of Coeur d'Alene Lake is key to the prevention of release of heavy metals into the water column and subsequent poisoning of aquatic life in the Lake and contamination of a sole source drinking water aquifer. This would be accomplished through control of point (NPDES) and nonpoint sources (State and Local Control) of nutrients to surface and ground waters.

Containment of the heavy metal pollution in and outside the Bunker Hill Superfund site is a critical step in the prevention of long term human health problems. A combination of controls measures would be utilized through Superfund (Removal and remediation) and the Clean Water Act (NPDES and State/Local Section 319 NPS programs).

#### **o Strategic Implementation of Statutory Mandates**

The develop of a TMDL for the South Fork Coeur d'Alene River is a requirement under Section 303(e), Clean Water Act (CWA) for all Water Quality Limited Segments. This requires that waste load and load allocations for all point and nonpoint sources, respectively, of surface water pollution be developed and implemented.

A federal facility docket site owned by the Bureau of Land Management (BLM) is located on the Lower Coeur d'Alene River, downstream from Bunker Hill. EPA has a statutory (CERCLA) and court ordered deadline of 1993 for deciding whether to list this site on the NPL. The court-ordered Preliminary Assessment deadline is July 1992. Additionally, discrete locations will be evaluated through the PA/SI program to determine if they should be included on the NPL.

#### **o Environmental Education and Outreach**

The control of nonpoint source pollution from agriculture, logging, onsite sewage, urban runoff and construction will all require an extensive education and outreach effort. A Citizens Advisory Committee is being formed as part of the management structure for the Project. A Public Involvement Coordinator position is being established with FY92 Superfund resources to facilitate all aspects of this part of the project.

Where heavy metal pollution has already occurred there is a need to educate the public on how to best minimize contact with soil, food and dust. The Superfund Program has an active public outreach program ongoing associated with the Bunker Hill site.

#### **o Improving Cross-Program Integration and Multimedia Enforcement**

This project reflects unprecedented coordination and redirection of resources from the EPA-Region 10 Hazardous Waste (Superfund), Water and Environmental Services Divisions, the Idaho Operations Office, EPA-Region 8 Mining Reclamation Program and the Idaho Division of Environmental Quality over the past nine months.

#### **o Targeting Health and Ecological Risks**

The metals containment (prevention of release from lake bottom sediments due to anoxic conditions) through nutrient management to control the eutrophication of Coeur d'Alene Lake has significant implications to risk management decisions. The release of heavy metals into the water column will have a direct impact on the aquatic life of the Lake and those who recreate in/on the Lake. Also, it has been estimated that one-third of the Rathdrum Prairie Aquifer is recharged by the Lake and the Spokane River, which originates from the Lake. This aquifer is designated as a regional sole source drinking water aquifer.

The containment of the mine/milling spoils, as sediments in the Coeur d'Alene River and soil/fugitive dust on the river banks are also major considerations. Instream contamination is impacting the viability of terrestrial and aquatic life. Recently, the posting of fish and wildlife consumption advisories have occurred due to heavy metal contamination.

#### **o Science/Data: Improving EPA's Knowledge Base**

The Coeur d'Alene Basin has been an area studied extensively for the past twenty years, yet there has been little coordination of what was studied and where the data has been deposited. Therefore, as part of this effort, an integrated data base, available to all local, state, federal and tribal authorities is being developed.

### Environmental Indicators

Environmental indicators used to assess progress in the project will focus on completion of the basin-wide management plan and on the attainment of recreational/aquatic life uses in the basin as follows:

- o Level of recreational use (fishing/boating/swimming) at key public access sites in the basin.
- o Abundance and composition of fish and benthic macroinvertebrates at indicator sites.
- o Total metal loading to the South Fork Coeur d'Alene River and Lake Coeur d'Alene.
- o Metals concentrations in water, sediments and fish and wildlife tissues.

### Objectives

This multiprogram effort has the support of the public and private entities within the Basin. A management structure has been established with local, state, federal, tribal, public and industrial representation. This structure includes management, technical and citizens advisory committees. Such a management structure is being utilized to develop priorities for immediate remediation activities, long term goals and a

management framework from which to implement the basin management program. Currently, the development of the TMDL, the control of eutrophication of the Lake and Superfund removal/remediation activities are at the local point of these efforts within the Basin.

#### **A. Basinwide Management Plan**

Development of a basinwide management plan designed to retard eutrophication, contain metals and address other environmental problems of the Basin. This plan is designed to incorporate and coordinate all aspects (multimedia/multiprogram) of pollution control activities within the Coeur d'Alene Basin. This includes activities of local, state, federal, tribal and private entities.

- 1992 o Draft strategy and receive input on management issues needing to be addressed in the basinwide management plan.
- 1992 o Secure initial resource commitments from other government agencies.
- 1992 o Develop a Basin Management Plan Framework which will outline the goals, process, steps, and tasks to be undertaken in completing the Basin Plan.
- 1993 o Develop working agreements with federal, state, local and tribal authorities.
- 1996 o Coordinate the necessary activities (data gathering, draft TMDL, public meetings, development of management options, etc.) to enable a draft plan to be completed.
- 1996 o Development of a draft Basin Management Plan. The plan would include the identification of polluted areas with a determined priority for the phased abatement or remediation described in the Basin Management Plan, and an active program for community outreach, education and involvement.
- 1996 o Develop final Basin Management Plan.

#### **B. Metals Source Reduction (TMDL)**

Source reduction would be centered around the total maximum daily load (TMDL) process required by water quality limited segment listing of the South Fork Coeur d'Alene River. A TMDL is a water quality plan composed of a wasteload allocation of point discharges and a load allocation of the nonpoint sources of the pollutant of concern, such that Water Quality Standards are achieved. A TMDL addressing nonpoint sources also includes monitoring and a feedback loop mechanism to assure that implemented load reduction projects are sufficient and effective. The TMDL development and subsequent implementation would proceed with eight objectives:

- 1. Review and summarize existing information.**
  - 1992 o Literature Review Report.
  - 1992 o Data bases of water quality values in a form capable of downloading to and driving water quality models and display in a Geographic Information System.
  - 1992 o Updated Problem Assessment Report for TMDL.
- 2. Develop preliminary estimates of the metals loads of the Coeur d'Alene River segments and key tributaries based on existing water quality data.**
  - 1992 o Interim load estimates and load reduction targets.
  - 1992 o Priority list of segments to receive demonstration load reduction reclamation projects.
- 3. Implement stabilization/control efforts on priority segments. A limited number of "control" efforts could be undertaken in the near-term, based upon information currently available and developed from the tasks outlined above.**
  - 1992 o Demonstration project work plan identifying location of demo site, BMPs to be tested and methods for evaluating BMP effectiveness.
  - 1993 o Implemented demonstration projects.
- 4. Assess the effectiveness of the demonstration reclamation and removal action projects.**
  - 1994 o Summary report on effectiveness of reclamation actions.
- 5. Develop needed additional water quality data and identify other metals sources (including non-point sources).**
  - 1995 o Updated Problem Assessment Report - It will identify additional areas for water quality-based controls, assess the attainability of beneficial uses and prioritize areas to be treated for mitigating beneficial use impacts.
  - 1995 o Improved data bases to drive water quality modeling efforts in support of load allocation efforts.
- 6. Model waste load associated with the point discharges.**
  - 1995 o Model of heavy metals dynamics in the South Fork and lower Coeur d'Alene Rivers.
  - 1996 o Waste load allocation for application to point discharge permits.
- 7. Develop the load allocation required based on reclamation projects designed to lower the load from nonpoint sources. The load allocation, wasteload allocation, monitoring plan, public review/comment and feedback provisions to guide TMDL implementation will comprise the completed TMDL.**
  - 1996 o The finalized problem assessment supporting the TMDL.
  - 1996 o The final TMDL.

8. **Implementation of the TMDL provisions through the NPDES permitting and nonpoint source programs.**
- 1997 o Implement remaining provisions of the final TMDL to recover the beneficial uses of the South Fork and lower Coeur d'Alene Rivers based on the feedback provided by monitored results.
  - o Implementation of projects identified by the TMDL but not yet completed would occur between 1997 and 2000.

**C. Metals Containment Via Nutrient Management**

Metals containment and remediation would be achieved initially through the development of a Coeur d'Alene Lake nutrient management plan. Nutrient management is the most reasonable and feasible means of preventing the development of anoxic conditions in the lake waters which interface with the metals contaminated sediments. Development and implementation of a lake management plan would proceed in four steps:

1. **Initiate lake water quality monitoring and watershed assessment.**
  - 1992 o Progress and final reports (1994) on the lake water quality, metals limitation to productivity and nutrient budget.
  - 1994 o An inventory of watershed sources of nutrient loads to the lake.
2. **Development of a lake water quality management plan designed to retard eutrophication, contain metals.**
  - 1995 o Lake water quality management plan providing guidance to the agencies and nutrient control projects.
  - 1995 o Interagency agreements to guide the lake management by the involved agencies.
3. **Secure a Clean Lakes Phase 2, and other implementation grants, to fund priority nutrient and metals abatement projects outlined by the management plan. A TMDL for Coeur d'Alene Lake will be required to secure Clean Lakes funding.**
  - 1995 o Obtain the funding necessary to implement the provisions of the basin management plan.
4. **Implement the nutrient control and metals control projects detailed by the basin management plan.**
  - 1996 o Implement the nutrient control and metals source control projects required to improve water quality in the Coeur d'Alene basin.

**D. Superfund Program Removal and Remediation**

The Bunker Hill Superfund site sits astride a seven mile stretch of the South Fork Coeur d'Alene River, and is one of the major contributors to the river's problems. One hundred years of mining, milling and processing of metallic ores throughout the Silver



Valley has contributed to the degradation of downstream areas. Contamination at the Bunker Hill Site is being addressed through the Superfund Remedial Action process. The type of remedial actions implemented and resulting monitoring data will provide information that can help evaluate cleanup strategies and support the TMDL.

**1. Identify other sources and begin to develop strategies to address them:**

The following deliverables will be developed:

- o Federal Facilities Docket Site (BLM). Completion of PA/SI evaluation package. Site Assessment team evaluation of data/information submitted by BLM on Lower Coeur d'Alene Docket Site to characterize site contamination. Team will request necessary additional data in order to complete NPL evaluation by July 1993 (to meet Court-mandated deadline).  
**Completion scheduled for:**
  - o Evaluation of PA package, July 1992
  - o NPL Evaluation, July 1993
- o Non-Federal Facility Site Assessment Activities. Site Assessment team would do 2-3 preliminary assessments/site inspections (PA/SI) at identified discrete locations to provide additional data to characterize high priority potential sites.  
**Completion scheduled for:**
  - Initiation efforts at identified sites
  - Report completion, March 1993
- o Removal Site Assessments.
- o Source attribution study from Bunker Hill cleanup process can also provide useful information on "upstream" influences to the site.
- o **Resource Needs:**
  - o Staff time to coordinate assessment activities.
  - o Use of Superfund Contract mechanism and contractors to conduct the non-federal assessment activities (amount will need to be negotiated).
  - o Federal facilities portion. Staff and any necessary EPA contractor review resources. Actual assessment conducted by BLM.
  - o Efforts should be coordinated with the Basin Coordinator and the Regional Steering Committee.
- o **Issue:**  
Listing decision on the Federal Facilities Docket Site.

**2. Implement stabilization/control efforts for known major sources.**

A limited number of "control" efforts could be undertaken in the near-term, based upon information currently available and developed from the tasks outlined above.

- o The following deliverables will be developed:
  - o Limited number of removal site assessments (SA's) by the Technical Assistance Team (TAT) following identification of suspected locations of hazardous materials. Removal program staff will evaluate/determine if removal actions are appropriate (i.e., discrete in nature and pose substantial threat to human health or the environment) -- if so, they will be prioritized for removal action.
  - o Completion schedules cannot be specified at this point due to the "response" nature of the program. If a threat exists, then the program can mobilize rapidly; if threats exist, but are not imminent, the site could be considered for future action.
  - o Removal Assessment activities (sampling, review, analysis, and recommendations) require about three months.

**Resource Needs:**

- o Removal Assessments. TAT contract resources and necessary staff review time will be made available as warranted.
- o Removal Actions. No firm estimates are possible because of the variability of site numbers, site conditions, and the character of contaminants. FTE requirements for a site would depend upon whether a responsible party exists, or, for a fund lead site, the length of time required to perform the cleanup.

**RESOURCES FOR FY94**

- o 3 FTEs, one each for IOO, Water Division and Superfund:
  - IOO, overall project coordination
  - Water, technical assistance/data management
  - Superfund, community involvement coordination
- o \$300,000 for Basin Project Manager, Sr. Scientist, clerical support, plus contractor/grant work

## SOUTHEAST ALASKA INITIATIVE

### Description of the Problem

Past, present and proposed natural resource development and tourism activities in Southeast Alaska are imposing decisional pressures on federal, state and local governments and the public. Incorrect decisions will result in increased environmental degradation requiring future corrective action. With an accurate data base and properly informed decision makers and public, resource development and tourism may proceed with little to no unacceptable impacts.

### Background:

Southeast Alaska is a region roughly 600 miles long consisting of mountainous, glaciated mainland deeply cut with fiords and hundreds of densely forested islands (several over 1,000 square miles in size). It encompasses an area (land and enclosed waterways) of approximately 48,000 square miles or about the size of New York State. As Alaska's Panhandle bordering Canada, it has a land area larger than the state of Indiana, approximately 25% of which are wetlands and encompasses 63% of the state's 34,000 miles of coastline. It has a population of approximately 75,000 residents in 33 coastal communities, only three of which have road access to the continental U.S. through Canada. The rest of the communities are linked only by air and the state ferry system, with Bellingham, WA as its southern terminus. Eleven of these communities are predominantly Native (Tlingit and Haida), and one having Reservation status (Tsimshian Indians - Metlakatla).

Southeast Alaska's climate is temperate, maritime and moist with many communities receiving in excess of 70 inches of annual precipitation. It lies within the same latitudes as the British Isles. Juneau, the state's capital, is on the same parallel as Stockholm, is approximately 1,000 air miles from Seattle, WA and is the largest community with a population of about 30,000.

Half of the land area of Southeast Alaska is forested with dense mixed stands of Sitka spruce, western hemlock and cedar much of which is old growth. Approximately 70% of Southeast Alaska lies within the nation's largest national forest. The Tongass National Forest is a lush rainforest larger than the state of West Virginia, encompassing 19 designated Wilderness Areas and two National Monuments (such status does not necessarily preclude resource development). Ninety per cent of Alaska's timber harvest comes from Southeast with nearly half of that coming from the Tongass. Eighty-seven percent of the Tongass's forested land is old growth. There are currently 15 Tongass Timber Sale Environmental Impact Statements in various stages of development.

Of the 148 identified mineral deposits in the Tongass, 13 are considered economically viable for development at this time with a present net market value of 25.6 billion dollars. Throughout Southeast Alaska and its adjacent Canadian neighbors there are currently 66 hardrock mining projects in some stage of planning, exploration or

development. Some of these projects consist of re-opening old gold mines which were among the largest in the world.

Fish and wildlife resources are abundant and extremely important to Southeast Alaska's economy and lifestyle. Commercial fishing, historically and today, is a viable industry.

Tourism in Southeast Alaska has been on a steady increase. Approximately 500,000 tourist visited Southeast Alaska last year. Over 300,000 arriving in Juneau via cruise ship.

In summary, Southeast Alaska, while endowed with natural beauty and resources, finds itself on the threshold of a significant increase in demand for those resources, bringing with it the challenges of sustainable development. The next four to five years will be critical in determining how those challenges will be met.

#### Issues:

Not unlike what has historically occurred elsewhere in the U.S., the abundance of natural resources has attracted people and industry to Southeast Alaska. For some of these resources the demand has been gradual; for others sporadic and intense. These demands have not been, and will not be, without associated pressures and impacts.

**Mining** - Southeast Alaska is in the midst of a second Gold Rush. Unfortunately, it is still attempting to cope with the aftermath of the first. Several old mining sites are listed on CERCLIST, and several others while identified, are awaiting EPA to decide how to deal with mine tailing disposal sites. More economical mining techniques, the price of gold and other minerals and accessibility to additional markets has increased the demand for these minerals and the re-opening of old mines as well as developing new mines. Many communities have grown around several of the old mining sites since their closure earlier this century, thereby creating the potential for direct human impacts and conflicts. There are currently 66 hardrock mining projects in some stage of development in Southeast and adjacent Canada. As with those in Southeast, those proposed in Canada will have direct and indirect environmental, social and economic impacts on Southeast Alaska.

**Timber** - Southeast Alaska has been struggling with the inherent impacts of timber harvesting. While only 7% of the harvested timber from the Alaska, Pacific Northwest and California areas came from Alaska in FY 90, the spotted owl endangered species designation in the continental Pacific Northwest and California has resulted in a decrease in that area's timber harvest by 60% thereby increasing the pressure for increased harvesting in Alaska. The impact of logging and mining on the area's fishery resource is controversial. While limited studies have shown that impacts could be severe, little data are available on actual field conditions. This situation is exacerbated by the lack of coordinated monitoring and data sharing among the various responsible resource and environmental management agencies (e.g. US forest Service, Alaska Departments of Fish and Game, Environmental Conservation, Natural Resources, etc.).

**Contaminated Sites** - In addition to the old mining sites already identified, the State of Alaska has identified at least 30 contaminated sites in Southeast. In addition, at least 80 canneries were operating at some time during the early part of the century. Many of these, while now abandoned, contain asbestos and other hazardous material which will have to be dealt with at some time. Old landfills and dumps, abandoned fuel storage areas all add to the legacy of past activities. However, no concerted effort has been initiated to identify and inventory all potential contaminated sites in Southeast.

**Infrastructure** - Increased mining, timber harvesting, tourism and fishing activities have and will continue to put additional strain on Southeast Alaska's limited infrastructure and resources. Last year Alaska had the second largest population growth in the nation, much of it in Southeast Alaska. The next four to five years will be critical regarding a number of large scale operations. Solid and hazardous waste collection and disposal, fuel storage and distribution, road and port construction, wetlands encroachment, public water supply and wastewater handling systems, PM10 attainment, fugitive and cruise ship emissions, maintenance of surface and groundwater quality, and spill prevention and response capability are a few of the major issues with which federal, state and local governments will need to contend.

**Data** - Compared to other geographic areas in the "lower 48", little baseline information exists or has been centralized regarding environmental criteria in Southeast. Most information that does exist was generated as a result of specific problems or proposals. Consequently, with the advent of each new proposal a new initiative of data gathering is begun with little to compare it to.

### Proposal

EPA has only been a minimal player in Southeast Alaska activities. Region 10 proposes, during FY 94 - 97, to take a pro-active role in working with industry, state and local governments and the public to deal with the environmental challenges facing Southeast Alaska. This will be done from a holistic multimedia/multiprogram approach emphasizing pollution prevention and environmental education as a means to achieve sustainable development. The four year strategy encompasses a three-pronged interconnected approach directing activities to: Individual Industries, Communities, and Regional Ecosystems.

**Individual Industries** - Region 10 will, through proactive means, identify and work with existing and developing industries to incorporate pollution prevention and sound environmental planning concepts into industries' decision making process. TRI, 33/50 concepts will be fully utilized as well as providing technical assistance to improve cross-program integration and market based incentives. Several activities will deal with projects just over the border in Canada and will therefore require international cooperation. In addition to addressing the direct impacts of industry operations, emphases will be put on the indirect impacts such as increased worker impacts on communities, its resources and its infrastructure.

**Communities** - EPA in cooperation with the Alaska Department of Environmental Conservation will meet and develop a dialogue with the 33 Southeast Alaska communities and Native groups to actively promote holistic environmental audits of the communities to address local wetland management planning, solid and hazardous waste management emphasizing reduction/reuse/recycling, transportation related issues, air quality (woodstove, fugitive dust and cruise ship emissions) and waste water and drinking water supplies (there are 155 community water systems in Southeast; 84 of which are subject to the new surface water requirements). EPA will serve as a catalyst for promoting pollution prevention, environmental education and technical assistance activities at the local level, both formal and informal, improving cross-program integration, multimedia enforcement and environmental risk assessment. We will assist and encourage local volunteer organizations with environmental education activities and the dissemination of information. One overall objective will be to provide the tools to the local community for them to make well informed decisions regarding their future direction.

**Regional Ecosystems** - Incorporating individual industry and community strategies (discussed above), Region 10 will identify regional activities and issues which lend themselves to regional approaches and solutions. Critical resources (fisheries, timber, drinking water, etc.) and watersheds will be identified and institutional organizations (task forces) established to improve/protect those resources. EPA will increase its role in the various NEPA related activities by actively participating throughout the process. There are currently at least twenty EIS's in some stage of development in Southeast involving mining, road and port construction and timber harvesting with more on the horizon. This will entail active participation in numerous federal, state and local meetings and having representatives readily available to work with the public throughout the process. In addition to serving its regulatory role, EPA will enhance its responsibility as the government's environmental conscious. In addition to the NEPA activities, EPA will increase its presence regarding forest practices in Southeast Alaska relating to environmental monitoring/sampling and its consistency/use, water quality standards/BMP's, forest management planning with emphasis on pollution prevention and environmental education. Again, due to the close proximity to Canada, these initiatives will involve close international cooperation.

**Incorporation of Program-Specific Initiatives** - The Southeast Alaska Geographic Initiative will utilize the approaches of the following strategic initiatives, as outlined in the Regional "media," or program, plans:

**WATER:**

- Critical Resources/Watersheds
- Wetlands - Local Management Plans
- Drinking Water - Education & Tech. Assist.
- Water Programs Data Mgmt.
- Enforcement - Tech. Support
- Circuit Riders - Wastewater & Drinking Water
- R & D for Alaska Water & Waste Systems
- Comprehensive Environmental Plan for Small Comm.
- Corporate Volunteer Program

TOXICS: TRI  
33/50  
Asbestos

HAZARDOUS  
WASTE: RCRA Education/outreach - generators

AIR: Market Incentives

CROSS-MEDIA: Geographic Information System  
Outreach on risk and pollution prevention  
Sustainable Development

**EPA**  
**REGION 10**  
**FY94-97 STRATEGIC PLAN**

**JANUARY 1992**

**APPENDIX:**  
**MEDIA/PROGRAM PLANS**



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## **AIR & RADIATION PROGRAM FY94-97 STRATEGIC PLAN**

### **I. MISSION STATEMENT**

The Region 10 Air Program's mission is threefold:

- o To achieve and maintain healthy air quality in all geographic areas of the Region;
- o To minimize air impacts on ecological and welfare values; and
- o To minimize degradation of areas with existing high air quality.

These goals can be achieved through effective program planning and implementation at the federal, state and local levels, as well as through a strong commitment to enforcement of the applicable rules and regulations. Region 10 believes that continuing its leadership role with the state and local agencies in the four Region 10 states is fundamental to accomplishing this mission.

#### **Vision Statement**

There will be widespread awareness of indoor air pollution sources and remediation techniques among both public- and private-building owners. General public shall have a greater base knowledge of indoor air quality risks, and of the resources available to them for detection and mitigation of those risks.

Throughout the Region, there will be a significant decrease in the number of people exposed to unhealthy air quality, particularly for those exposed to the criteria pollutants (carbon monoxide, ozone, and particulate matter). Air quality monitoring data for the 1994-97 time period shows fewer nonattainment areas, and reflects significant reductions in pollutant concentrations within those remaining nonattainment areas.

There will be a substantial increase in the staffing and technical capability of state and local agencies to respond to new air pollution challenges in the Region.

Through a combination of voluntary reductions and strong federal, state, and local implementation and enforcement of the Clean Air Act, reductions in the number of persons exposed to toxic air emissions from major stationary and mobile sources will be evident. The general public and local governments have good understanding of the risks and sources of toxic air pollution.

Within Region 10, there will be no major increases in emissions or ambient levels of the acid deposition precursors, sulfur dioxide and oxides of nitrogen.

Compliance with provisions of the Clean Air Act Amendments of 1990 within Region 10 is achieved to the fullest extent possible. By enforcing the new regulations, policies and permit requirements of the 1990 Clean Air Act over the next 5-10 years, strides will be taken to ensure clean air for all citizens of the Pacific Northwest.

The Region will ensure enforcement of radionuclide emission regulations for all applicable sources, as well as possess adequate response capabilities in case of radiological emergency.

Through EPA cooperation with state and local governments, an assessment of toxic air deposition impacts on the Puget Sound area will be completed.

Through coordination with other federal agencies, the Region will identify sources of visibility impairment near mandatory Class 1 areas (National Parks and Wilderness Areas). Impacts of field and slash burning throughout the Region will be adequately characterized and controlled.

There shall be a region-wide reduction of chemicals contributing to stratospheric ozone depletion and global warming.

## II. PROGRAMS, RISKS AND STRATEGIC CHOICES

The Air and Radiation Branch (ARB) is responsible for managing some of the most serious human health and ecological risks in the Region, including radon, indoor air, and criteria and toxic air pollutants. ARB's main emphasis will be placed on the attainment and maintenance of air quality meeting criteria air pollutant standards (specifically particulate matter, carbon monoxide and ozone), through sound air quality management and enforcement of applicable federal and state regulations.

The program's goals for addressing these pollutants include significantly reducing criteria pollutant concentrations, accelerating the development of State Implementation Plans, implementing pollution prevention actions at a significant number of sources, and assisting the states in enhancing the monitoring and air quality problem assessments in priority non-attainment areas. In the spirit of Total Quality Management, and recognizing that air pollution prevention and control are the primary responsibilities of state and local agencies, the air program will emphasize assisting and enabling the state and local agencies to develop approvable plans and programs to meet the complex requirements of the 1990 Clean Air Act Amendments. We will also begin to focus part of our assistance effort on implementation of completed plans. To allow for this increased assistance effort, we will de-emphasize some of the extensive auditing and oversight activity conducted in past years. Where choices must be made, we have elected to de-emphasize activities that are procedural in nature in favor of those where direct benefit to the environment are likely.

Approximately 4 million people in the Region are exposed to ozone levels above the national standard. Five million are living in CO nonattainment areas and 1.7 million are in or near PM<sub>10</sub> nonattainment areas. Because these PM<sub>10</sub> areas have relatively worse air quality than the CO/ozone areas, and the pollution sources are area-type and consequently more difficult to control, the Region will devote more resources to PM<sub>10</sub> than CO and ozone. However, because CO and ozone also pose significant health threats, we are increasing resources to control those pollutants as well. This will include increased emphasis on control of pollution from mobile sources. However, we will do minimal work with the transportation community on transportation planning and conformity reviews. We will do little work on acid rain since we have no Phase One utilities in the Region. We will de-emphasize lead and SO<sub>2</sub> pollution since our lead and copper smelters have shut down and we have no non-attainment areas for those pollutants. Compliance work will still focus on pulp mills as a preventive measure to ensure new SO<sub>2</sub> air quality problems do not arise. A limited air monitoring program oriented to SO<sub>2</sub> sources including pulp mills, aluminum smelters, and petrochemical facilities will be maintained as an ongoing check on compliance with the NAAQS. Vigilance on our SO<sub>2</sub> sources is also important because our mountain lakes, while not presently acidified, have thin soil and buffering capacity and are vulnerable to increased acid rain.

We intend to do very little work on visibility problems and field and slash burning, even though these are important issues in Region 10. Those resources are needed to carry out Clean Air Act developmental activities for PM<sub>10</sub>, CO, and ozone. Similarly, we will do minimal work on global warming and stratospheric ozone.

A major programmatic emphasis will be to assist states in developing approvable operating permit legislation and regulations. We believe this program can generate a large environmental payoff by providing fee revenue to states, greatly increasing their capability to carry out quality pollution control programs. Resources for this effort will come at the expense of continuing revision of state NSR and PSD permitting programs to meet requirements of new regulations and law suits.

The enforcement program will continue its emphasis on ensuring timely compliance actions by states. This will require continued tracking of state actions, oversight inspections, and prosecution of cases when states fail to take action or where regulations are not delegated. We will implement the administrative penalty provisions of the 1990 Act and begin issuing penalties under those provisions. The Region will conduct multi-media inspections and enforcement follow-up and will pursue the Benzene initiative. As a pollution prevention measure, the Region will promote the Continuous Emission Monitoring initiative. We will shift away from asbestos work somewhat and target a slightly smaller number of referrals in order to carry out the above initiatives and resolve the backlog resulting from the increase in referrals from previous years.

The Regional toxics program will focus on obtaining enforceable commitments for early toxic reductions from one or two large industrial sources and will coordinate that work with the 33/50 program. Resources for this initiative will be done at the expense of work with state agencies to upgrade regulations for existing toxic sources and

solving high risk point source problems. The states already have some momentum in these latter areas. The Region will continue to encourage state delegation of all section 112 hazardous pollutant programs.

The radon and indoor air program will continue to be emphasized because of the cancer and non-cancer risks associated with these pollutants and the large number of people exposed. The radon and indoor air programs will continue the emphasis on public outreach, workshops, administration of assistance grants to states, and working to promote the incorporation of radon/indoor provisions in state/local building codes.

The region will ensure enforcement of the radionuclide emission regulations for all applicable sources, as well as possess adequate response capabilities in case of radiological emergency.

The following environmental risks have impact on both human health and ecosystems within the Pacific Northwest. This list is substantiated in part by the Region 10 Comparative Risk Analysis, and is not listed in any order of significance.

## PROGRAMS

## RISK

### HUMAN HEALTH RISKS:

Indoor Air / Radon	Cancer/noncancer
Criteria Pollutants	Cancer/noncancer
Air Toxics	Cancer/noncancer
Radiation	Cancer
Ozone Depletion	Cancer/noncancer

### ECOLOGICAL/WELFARE RISKS:

Air Toxics	Biota/foodchain degradation
Visibility	Visibility/quality of life
Acid Deposition	Streams/lakes/forest degradation
Ozone Depletion	Plankton/foodchain degradation
Global Warming	Ecological shifts/Habitat loss

## A. Indoor Air/Radon

The indoor air/radon programs address both cancer and noncancer health risks. Because of the large portion of the population exposed to indoor pollution, these programs ranked in the top category of importance in the Region 10 Comparative Risk Project (1988).

The indoor air/radon programs continue to concentrate on public education and outreach. Outreach efforts to community groups and home-oriented organizations have been successful, and will continue. The regional infrastructure of state and local resources available to the public will be enhanced by a concerted effort to increase training opportunities for public and private sector groups responsible for building maintenance. Training and educational forums will also be offered to industries directly affected by indoor air quality issues (i.e., real estate developers and licensees, remodelling contractors, home builders, building code officials, public health officials, etc.) Printed materials and presentations on all varieties and sources of indoor air pollution will continue to be made available to the public. EPA will continue to actively support and promote the development of building codes to prevent indoor air pollution. The challenge facing both EPA and the state agencies will be to utilize and sponsor such courses in the region, and present them to the appropriate audiences.

These goals can only be fully achieved by significant resource increases to both the indoor air and radon programs. The possibility of federal indoor air legislation, including adequate resources, would increase the likelihood of state-level legislation and funding within the region. Federal legislation will also increase the possibility of state-level legislation within the Region. Without a federal requirement for testing/mitigation of indoor air quality problems, the programs will continue to be voluntary and informational in design.

## B. Radiation

The radiation program addresses cancer risks from environmental exposure to defense-related activities (weapon production, propulsion, weapon inventory, atmospheric testing), nuclear energy (uranium mining/milling, fuel fabrication, reactors), other occupational exposure, consumer products and industrial production (e.g., phosphates), as directed by the National Emission Standards for Hazardous Air Pollutants (NESHAPs) under Section 112 of the Clean Air Act. Potential risk also exists around the possibility of a nuclear accident in the Region.

The radiation program will focus its efforts on: compliance with the radionuclide NESHAPS at the two major Department of Energy facilities within the region--Hanford and the Idaho Nuclear Engineering Laboratory; delegation of the radionuclide NESHAP to Washington; maintaining regional emergency response capability; and assisting Washington in the evaluation of the low level waste disposal site at Hanford. No additional work is needed to locate additional LLW disposal capacity since the Hanford site has sufficient capacity to serve all the Region 10 states in the Compact. The Region will continue to assist Superfund in evaluation of radiologically

contaminated sites, but at current funding levels will be unable to assist in identifying new sites. There will be no significant effort to ensure the adequacy of the ERAMS.

### C. Criteria Pollutants (PM<sub>10</sub>, CO, O<sub>3</sub>, SO<sub>2</sub>)

The criteria pollutant program was originally established to deal with only noncancer health risks. However, analyses have shown that constituents of PM<sub>10</sub> and precursors to ozone contain substantial cancer causing substances. Therefore, reductions in these pollutants will also significantly reduce cancer risk in the Region.

The 1990 Clean Air Act Amendments provided for federal, state and local coordination in the attainment/maintenance of the NAAQS. For each geographic area that is not in attainment of the NAAQS, different levels of stringency and different schedules are established by the Act for each pollutant and each problem category. Nonattainment areas for ozone, carbon monoxide and particulates must achieve specific increments of progress from the present until such time the health standard is achieved.

Over the next few years, one challenge facing both EPA and the state planning agencies will be population growth in the Northwest. Air pollution control plans will have to account for the influx of people to the region, in order that this growth does not outstrip the progress made toward attainment of the national air quality standards. Progress made towards the goal of reducing public exposure to ambient air pollution will have to be measured against the projected growth estimates over the 1992-1996 timeframe.

Providing technical assistance to states for their State Implementation Plans will be of prime importance in meeting the deadlines established in the Act, which will then translate into increased health protection for the public. The Region will try to provide the maximum support possible in the form of guidance and actual monetary support for state air pollution programs. However, funding constraints at both the federal and state level will undoubtedly limit the extent to which the objectives can be met.

The bulk of available future Air Program resources will be moved to this program. Current resource information indicates that funding and FTE allocated to Region 10 will be approximately half that originally anticipated at the start of the Strategic Planning process. In light of this, initial emphasis will be placed on the implementation of adequate State Implementation Plans (SIPs), regulations and permit programs. Later, as the national requirements are established, resources will be shifted to enforcement of those requirements. Enforcement activities will be targeted to nonattainment areas. As mentioned earlier, a high priority will be placed on supporting the development of stronger state programs, to the extent possible.

Outreach and pollution prevention efforts will also be expanded. Through both State Implementation Plans (SIPs) and voluntary means, the public and industries will be educated as to reductions of criteria pollutants. Administratively, pollution prevention

will be implemented as well. For example: inclusion of transportation control measures (mass transportation, carpool promotion) in SIPs to reduce the number of cars on the road, \$25 per ton of pollutant permit fees on industries affected by CAAA of 1990, public woodstove curtailments, Stage II vapor recovery at gas pumps to prevent ozone precursors, basic education of the public as to waste reduction methods to cut down the need for waste incineration, etc, will all contribute to reducing pollution in the near-term.

#### D. Air Toxics

The air toxics program addresses both cancer and noncancer risks. Significant cancer risk is incurred from toxic organics and metals, such as chromium, formaldehyde, benzene, and arsenic. Noncancer risks, such as birth defects, could also result from exposure to a variety of toxic pollutants.

At a national level, the Clean Air Act Amendments mandates EPA to 1) develop a list of major source categories for air toxic pollution and 2) promulgate of and delegation of the Maximum Achievable Control Technology (MACT) standards that will control emissions of 191 chemicals as defined by the Act. All standards are to be promulgated within 10 years, with standards for 41 source categories required within 2 years. These activities will take place primarily outside Region 10, with staff input as the process moves along.

The state of Washington and the Puget Sound Air Pollution Control Agency already have or have proposed standards that are more stringent than the potential MACT standards. Since it is likely to be several years before the federal standards begin to have an impact, the Region will be encouraging states to go ahead with their own standards.

Voluntary emission reductions of air toxics are being encouraged of major national sources before the MACT standards are promulgated. Dry cleaners, metal degreasers, and solvent processes are all industrial sources of toxic air pollution; through increased awareness of non-toxic alternatives, it is probable that substantial emission reductions can be achieved within the Region. EPA will promote and support such Pollution Prevention outreach to affected industries. Educational efforts are/will be directed towards specific industries as a means of source reduction, promoting non-toxic alternatives.

Resources for the regional program were anticipated to implement the new air toxics permitting and enforcement provisions of the Clean Air Act Amendments. However, the FTE allocation and budget constraints are not expected to be sufficient to carry out all the goals of this program. Therefore, the air toxics program will actively encourage the early voluntary reduction of the listed 191 toxic air pollutants from stationary sources. Permitting goals will also be emphasized, at the expense of continued work with the state and local agencies to develop toxics regulations for both



new and existing sources. It is hoped that momentum established in previous years will allow state/local agencies to continue to develop such regulations on their own.

#### E. Acid Rain, Ozone Depletion, Climate Change/Global Warming

Risk impact on biota and food chains in lakes and streams. The risk of ecological damage from acid rain is not a major concern in the Northwest, as there are very few sources of SO<sub>2</sub> or nitrogen dioxide in the Region.

Title IV of the Clean Air Act reduces sulfur dioxide emissions nationally by 10 million tons per year through a two phase reduction program. Phase I will address large, high emitting utility plants beginning in 1995. During Phase II, smaller, lower emitting utility plants will begin controlling emissions in the year 2000. Annual nitrogen dioxide emissions will be cut by two million tons in 1995.

Title IV will not have the big impact in Region 10 that it will have in the Midwest. However, there are two coal-fired power plants in the Northwest (PP&L Power Plant in Centralia, Washington and PGE Power Plant in Boardman, Oregon) that will be affected by the Phase II provisions of this Title. Region 10 does not have any major nitrogen oxide sources.

Depletion of the stratospheric ozone layer would increase the amount of ultra-violet radiation reaching the earth from the sun, and is expected to increase human skin cancers, cataracts, and incidents of depressed immune systems. Analogous pathological abnormalities would also be expected on other biological organisms.

Title VI of the Clean Air Act Amendments phases out most uses of chlorofluorocarbons (CFCs) and other stratospheric ozone depleting chemicals by the year 2001. Potential regional impact of Title VI over the next five years includes implementation of national requirements for use of certified recycling equipment used in servicing motor vehicle air conditioners (1992), and implementation of regulations prohibiting the release of CFCs during servicing, repair and disposal of appliances and refrigeration systems (1992). Headquarters expects to develop regulations on recycling, labeling, and safe substitutes, as referenced in the Strategic Plan for Air and Radiation Programs, February, 1991.

Regions will be expected to inspect sources and enforce requirements of the Clean Air Act for handling and manufacture of ozone-depleting chemicals. There may be resources coming to the regions to carry out this program (expected to begin in FY94). Region 10 proposes to carry out the implementation responsibilities commensurate with the level of resources obtained.

Climate change is likely to accompany increasing concentrations of greenhouse gases. This may bring higher average global temperatures; changes in atmospheric and oceanic circulation patterns; and the melting of glacial ice. These may effect changes in storm patterns, increases in the extremes of temperature and storm intensity, rising sea levels, changes in precipitation patterns, and changes in habitat and crop ranges.

Region 10 efforts will focus on securing voluntary commitments of business and institutions to implement energy saving equipment, procedures, and home insulation to minimize the burning of fossil fuels, the greatest single contributor to the rise of greenhouse gases. Programs designed to reduce automobile usage as a means of attaining air quality standards for criteria pollutants will also have the beneficial impact of reducing greenhouse gases. Encouraging the use of alternative energy sources which do not emit greenhouse gases will be the emphasis of education/outreach efforts. This can also be done during the permit process and during enforcement settlements.

The HQ-sponsored Green Lights program, which focuses on business commitments to switch from the use of incandescent lights to compact fluorescents, should be one of our first steps in this area. Formation of a regional cross-media work group on global warming should be planned so that impacts in the various programs can be incorporated (e.g. in environmental review).

Without additional funding, these programs will not receive full-time, focussed attention.

#### F. Pollution Prevention

Attention to ecological risks is an integral part of air pollution control. Particularly in Region 10, topic areas such as global warming, ozone depletion and visibility are of increasing concern. A good share of the goals outlined for preventing ecological degradation will be achieved through techniques that reduce the concentrations of other ambient pollutants as well. For example, controls and enforcement of sulfur dioxide emissions on industrial stacks have the added benefit of controlling fine particulate matter emissions. Therefore, although the emphasis for the ecological risks of air pollution is termed "medium" and is not targeted for any direct additional funding, this is not indicative of a short-sighted ideal for ecological protection, rather a realistic expectation based on current resource information.

It is Region 10's intent to sustain a base level program in the visibility, ozone depletion, and acid deposition, while defining (with the assistance of Headquarters) the need, scope, and components of appropriate programs in the global warming and air toxics areas. Any significant increases of effort in these areas over the period covered by this plan will require either a) reduced requirements for resources in high priority areas due to success of state programs; b) increased resources from Headquarters; or c) a combination of a) and b).

## G. Visibility (Slash and Field Burning)

Risks are primarily a welfare/quality of life impact, although there are some short-term health impacts for people located in the immediate vicinity of the field or slash burns.

Visibility impairment is a great concern among the Region 10 states. The agricultural and timber industries in the Pacific Northwest traditionally use burning as a means to clear debris over large areas. Problems associated with field/slash burning cannot be monitored by the 24-hour average standard used to characterize particulate matter emissions in populated areas, so it does not fall under program areas covered by the criteria air pollutant program. Because there are no direct controls on slash/field burning, state agencies and EPA have in the past run into public perception problems, as this type of pollution has tremendous impact on predominantly rural areas that "don't usually have polluted air."

Title VIII of the new Clean Air Act establishes, among other things, that EPA and other federal agencies conduct studies to identify and evaluate sources of visibility impairment in our National Parks. The Act dictates that "commissions," consisting of representatives of agencies responsible for management of Class I areas evaluate problems in areas where interstate transport of pollution affects visibility in National Parks and Wilderness Areas.

## H. Other Program Areas

### Grants, Permits, and Enforcement

These programs covered by the Region 10 Air Programs Branch establish the infrastructure, and provide the "teeth," of the Clean Air Act Amendments implementation. With cooperation between the various agencies, the identification and solution of air quality degradation can be achieved. EPA's role in the past has been to provide financial and technical support for state environmental agencies. However, the Clean Air Act Amendments will call upon all agencies to develop stronger, more comprehensive enforcement and management capabilities to address the regional air pollution sources. Hence there will be a changing role occurring between EPA and the States due to the less dependency on the grant program.

Realistically, the vision of substantially increasing financial support to state agencies is optimistic, at best. But as a goal to for which to strive, it merits inclusion in this plan. Resources to build effective permit programs will be added to the state air programs; however, that does not necessarily mandate an overall increase in state capability. To the maximum extent possible, EPA intends to support the state air programs.

### III. GOALS AND OBJECTIVES

#### 1. Radon and Indoor Air

- Goal 1. Widespread public- and private-building owner and tenant awareness of indoor air pollution problems and prevention/remediation techniques.
- Goal 2. Active, operating state level programs for indoor air and radon in all Region 10 states.
- Goal 3. Substantial progress in achieving compliance with the radionuclide monitoring, reporting and emission requirements of the new Clean Air Act and NESHAP regulations.
- Goal 4. Continue support of Region 10 participation in radiological emergency preparedness exercises.

##### Objectives:

- o Initiate an active program of training and public information for homeowners, public/private building owners, tenants and industry in each state.
- o Provide maximum possible support for new state programs, and establish focal points for regional indoor air and radon initiatives.

#### 2. Criteria Pollutants

- Goal 1. Substantial reductions in criteria pollutants and precursors in identified nonattainment areas.

##### Objectives:

- o Region and states are completing and implementing State Implementation Plans for criteria pollutants on schedules established by the Clean Air Act and Headquarters.
- o An infrastructure is in place at the federal/state/local level that identifies and responds to new potential PM<sub>10</sub>, ozone and carbon monoxide problems.

### 3. Air Toxics

Goal 1. Significant number of major regional industries are implementing voluntary reductions (pollution prevention) in production processes.

Goal 2. Enforce Headquarters initiatives for air toxics program.

Goal 3. Completed assessment of air deposition impacts on Puget Sound.

Objectives:

- o Continue cooperation and support for project to complete assessment.
- o Initiate discussion forums among various involved agencies to develop consensus on necessary remedial plans.
- o Increase EPA/State outreach activities aimed at promoting early, voluntary reductions of air toxics.
- o Implement the air toxics provisions of the new Clean Air Act by developing and enforcing the necessary EPA/State/local permit programs for air toxics.

### 4. Acid Deposition, Ozone Depletion, Global Warming

Goal 1. Ensure regional-wide reduction of stratospheric ozone depleting chemicals.

Goal 2. No significant increases in SO<sub>2</sub> emissions or ambient SO<sub>2</sub> levels.

Goal 3. Reduce emissions of global warming precursors wherever practical in Region 10.

Objective:

- o Pursue actions with greatest benefit in reduction of emissions of greenhouse gases in coordination with the Climate Change Division (HQ).
- o Be implementing requirements of CAA and HQ guidance for SO<sub>2</sub>.
- o Carry out the Regional responsibilities for stratospheric ozone protection, as outlined in the Clean Air Act, and by Headquarters.

## 5. Visibility

Goal 1. Implement visibility provisions of the Clean Air Act, i.e., form commissions, provide recommendations for action.

Objectives:

- o Establish formal contact with the U.S. Forest Service, National Park Service, and others responsible for the management of affected Class I areas.
- o Through these "commissions," explore possible establishment of measurement networks to assess current problems.

## 6. Grants

Goal 1. Substantial support of the staffing and technical capability of State and local air programs.

Goal 2. Effective and operational state permit programs are in place and are being enforced.

Objectives:

- o Provide monies to state agencies to ensure additional staff and technical training, as possible.
- o Ensure strong state permitting programs that identify specific enforceable emission requirements for all industrial air pollution sources. Permit programs generate adequate fees to carry out CAA permit requirements.
- o Through federal, state, and local cooperation, assure the enforcement of applicable federal and state regulations.

## IV. PROPOSED REGIONAL INITIATIVES/REDIRECTION

### Market Based Incentive Initiative

EPA Region 10 recently met with the State and Local Air Program Directors. Great interest was expressed in market based incentive programs. For initiating these programs states expressed the need for federal leadership, technical assistance, and seed money for pilot programs. Seed money is needed to encourage the development of market-based programs which increase flexibility and stimulate the use of less costly attainment strategies, as well as provide incentives for continuing development and

implementation of innovative emission reduction technology and strategies beyond those specifically mandated through State and Federal standards and regulations.

Area sources (especially woodstoves, mobile sources) provide especially good opportunities for market based programs. Area sources are a large part of the pollution/nonattainment problem in Region 10. Area sources are beyond the scope of the operating permit program, a great concern to air program professionals in our Region who sense a public/policy maker perception that permit programs will provide funding for all air pollution needs. For woodstoves, a marketable permits program might be pilot tested. For mobile sources such items as sales tax rebates based on vehicle fuel efficiency, employer-based trip reduction programs and alternative fuels programs.

Budgetary needs would include one technical person in Region 10 to concentrate on market based programs and \$500,000 as seed money annually over the 1994 to 1997 period for pilot programs to address these problems. One advantage of market based programs is that once implemented, they often can be self supporting or garner public support for local funding.

## V. BUDGET

In planning for FY92 the Region anticipated receiving 6.3 new FTE from Headquarters to apply to the increased workload created by the new Clean Air Act. Unfortunately, due to competing needs in other program areas, only 3.7 FTE were assigned to Air and Radiation Program activities. To respond to this reduction, the Air and Radiation Branch cut back base program activities in carbon monoxide/ozone, particulate matter, and radon program development. Subsequently, the agency-wide budget reduction occurred and forced further cuts in air program activities by requiring unfilled positions to be lapsed for most of FY92. The lapsed positions represent an additional cut of approximately 4 positions, essentially eliminating all of the remaining increase received from Headquarters. These positions are urgently needed to carry out essential work required by the 1990 Clean Air Act Amendments. Our strategic plan for FY94-97 is therefore dependent on receiving these resources back into the regional Air and Radiation Program. Once these resources are received, the next increment of positions would be devoted to our proposed regional initiatives.

## VI. HQ/NATIONAL POLICY RECOMMENDATIONS

## VI. ENVIRONMENTAL INDICATORS/MEASURES OF SUCCESS

## **PESTICIDES/TOXICS PROGRAM FY94-97 STRATEGIC PLAN**

### **PESTICIDES**

#### **Vision Statement:**

There will be a high level of awareness among the general public and pesticide user community of the relationship between pesticide use, human health, and ecological integrity. Pollution prevention by reducing pesticide applications to only those that are essential will be a fundamental part of the environmental ethic accepted as a basic social value.

There will be a strong interagency infrastructure for enforcement and education. EPA's resource expenditures for State oversight will be small in comparison to its expenditures in cooperative development of State and Tribal pesticide programs. There will be consistent enforcement of pesticide use requirements across the Region by the States and Tribes with complimentary product enforcement by Region 10.

More visible than the enforcement program will be a cooperative interagency outreach/education program. Using the combined resources of the States and Tribes, County Conservation Districts, the USDA and EPA, all facets of society that use pesticides will receive continuing education into environmentally sound pest management techniques.

Region 10 and State program emphasis will be driven by quantitative estimates of actual ecological and health risks and effects. There will be an active feedback loop in place, monitoring the effects of pesticide use and using that information to drive expenditure of resources. There will be an effective program of data collection and analysis to support development and evaluation of programs. This information will be used to develop longer range strategies, cooperatively developed and routinely updated to address existing and emerging pesticide issues.

The results of the increased societal awareness of pesticide risks, and the shifts in program emphasis will be measurable progress in preventing human and environmental pesticide problems. There will be a great decrease in exposure to pesticides caused by inappropriate, unnecessary, and illegal uses of pesticides by the public. There will be a more thorough knowledge of the significant risks of pesticides resulting in better programs to mitigate those risks. This will result in greater protection for workers, ground water, endangered species and human health and the environment in general.



**Mission Statement:**

Reduce risk of pesticides to human health and the environment by preventing inappropriate, unnecessary, and illegal releases of pesticides and ensuring safe application of legal pesticides when they are necessary.

**Operational Goals:**

1. Close the information loop. Evaluate the effects of pesticides and use that information to modify decisions and prioritize program activities.
2. Promote pest management techniques that reduce adverse effects to human health and the environment.
3. Promote safer use of pesticides through education and enforcement.
4. Promote environmentally sound transport, storage and disposal of pesticide products, and pesticide waste and containers.

**Region 10's strategic choices:**

**Our evaluation of the current program strategy (discussed in detail in the FY92-FY96 Strategic plan and repeated in Appendix A) [note: All appendices referred to in this document are available upon request] indicates that it is not sufficient to achieve the four goals. It is essential that we give more emphasis to the following strategic options:**

- o Evaluate the actual effects of pesticides through monitoring programs. Use this information to amend decisions as appropriate, and prioritize program activities on the basis of risk and risk reduction potential. Registrations could be modified, and labels improved, and high risk activities, or geographical areas, or ecosystems could be given attention on a priority basis.
- o Invest more resources in the training and education of all pesticide users. Enforcement is a valuable tool but up front training and education can solve problems before they become enforcement cases and can reach user groups such as home owners that are nearly impossible to regulate through enforcement programs.
- o Increase the program emphasis on ecological effects of pesticide use. Ecological effects usually take a long time to correct and in some cases are impossible to correct. A species lost is a species lost forever. The emphasis has to be on prevention of effects and this can only be accomplished through an understanding of pesticide behavior in natural systems.

- o Increase the program emphasis on environmentally sound pest management techniques. Invest resources into research and education on Integrated Pest Management.
- o Emphasize cooperative program development in our relationship with state and tribal agencies. We need to spend less time and resources on program oversight and more on participating with them on the firing line.
- o Emphasize development of tribal programs. To ensure all areas and people are receiving adequate attention we need to evaluate the needs of Indian reservations for pesticide regulatory programs and develop new programs as appropriate.

### **Program Goals and Objectives:**

The following program goals have been established to implement the new strategic alternatives. In conjunction with our traditional programs they will enable us to achieve our operational goals discussed above and therefore to enable us to achieve our mission statement. The discussion of our traditional ongoing programs is included in appendix B.

### **New Strategic Choices**

- a) o Develop education/outreach programs for user groups that are not required to receive formal training (Urban Initiative).
- o Urban Initiative: This is a major Region 10 initiative developed to implement a number of our strategic choices:
  - o Invest more resources in the training and education of all pesticide users.
  - o Increase the program emphasis on environmentally sound pest management techniques. Invest resources into research and education on Integrated Pest Management.
  - o Emphasize cooperative program development in our relationship with state and tribal agencies.

This initiative is described in detail in Appendix C.

- b) o Promote development of tribal pesticides programs.

A Regional initiative to support this strategic choice is discussed in Appendix C.

- c) o Develop an annual risk based targeting program.
  - o The Region would like to target its resources toward areas of high risks. We have done this to some extent already utilizing information from various comparative risk analyses. This has resulted in our placing additional resources into such activities as worker protection, the Urban Initiative, and Ecological Monitoring. However, we would like to strengthen this aspect of our program, making decisions based on a strong quantified database. Such a data base will come from the Ecological Monitoring Initiative, the worker protection, groundwater, and endangered species programs.
- d) o Promote IPM research and education in the Region.
  - o Under this initiative the Region will invest a person full time to work with USDA, Universities, Headquarters and others to promote IPM in the Region. We have not yet targeted resources specifically for this activity, though it is partially implemented by the Urban Initiative.
- e) o Develop strong state programs for implementation of the new Transport, Storage and Disposal Regulations.
  - o The new Transport, Storage and Disposal Regulations will be an important pollution prevention step when they are promulgated. Region 10 plans to conduct a major education/ outreach program to inform the public about the regulations, and a major compliance enforcement program to ensure that the regulations are followed. Our exact strategy will be developed as the new regulations are promulgated.
- f) o Strengthen enforcement of section 6 requirements for Registrant incident reporting.
  - o FIFRA requires registrants to report adverse effects of use of their products. This requirement could yield valuable information to close the loop, but has been loosely interpreted by the agency and essentially has not been enforced. The Region will work to have this provision of FIFRA implemented. However, no resources will be earmarked specifically for this activity in the near future.

- g)
  - o Develop quantified environmental goals, and create an information feedback loop via a quantified monitoring system for ecological effects of pesticides.
  - o Ecological Monitoring Initiative: New initiative designed to help us close the information loop. Activity started in FY91. Staffed by shifting resources from state program oversight.

This is a major Regional initiative discussed in Appendix C.

- h)
  - o Strengthen Label Evaluation and Feed Back.
  - o Headquarters has initiated a valuable effort to improve labels, the State Label Issues Committee (SLIC). The Region has participated in this effort and will continue to do so. However, this effort deals only with generic issues. The Region needs to work with Headquarters to develop a mechanism to deal with problem labels on specific products. No resources will be earmarked specifically for this activity in the near future.

#### **HQ/National Policy Recommendations:**

- o Fund education programs for the general public.
- o Fund and promote IPM.
- o Strengthen Section 6 (g) Incident reporting requirements.
- o Conduct an environmental indicators program for pesticidal effects, such as our Ecological monitoring strategy.
- o Promote and fund Indian Tribe pesticide program development.

#### **Environmental Indicators:**

Our Ecological monitoring initiative (see Appendix C) is our effort to install a meaningful environmental indicators program. We believe that a meaningful environmental indicator program is essential to conduct a risk based program, and adequately planning for the future. We are investing a great deal of resources into environmental indicators.

**Relationship of Region 10 Strategic Plan to the ten themes from the Agencywide Strategic Plan.**

The Region 10 Pesticides plan directly supports the following themes of the Agencywide Strategic Plan.

- o Improving the science and knowledge base.
- o Pollution prevention.
- o Geographic targeting on an ecosystem basis.
- o Building state and local program capacity.
- o Education and outreach.
- o Better management and infrastructure.

## **TOXICS SUBSTANCES**

### **I. MISSION/VISION STATEMENT**

#### **OVERALL**

Minimize risks to human health and the environment from exposure to toxic materials by:

- fostering improved EPA and regulated community cooperation
- ensuring a high level of compliance with toxic chemical regulations
- actively encouraging the development of State programs
- aggressively educating the public

#### **PROGRAM-SPECIFIC**

- o Each state in the region has implemented an effective toxic chemical management program.
- o Pollution Prevention is a highly visible component of EPA and industry programs for reduction of toxic releases.
- o There is active and effective use by the public of the Toxic Release Inventory (TRI) data base.
- o Industry compliance with TRI reporting requirements is high and pollution prevention initiatives by the private sector are common.
- o TRI data reliably show significant reductions in reported emissions for higher toxicity/risk chemicals, particularly those targeted in the 33/50 Program.
- o TRI and other data are regularly used for risk assessment, inspection targeting, and to focus EPA efforts/programs on higher exposure geographic areas.
- o There has been increased compliance by the regulated community with the PCB Notification and Manifesting requirements.
- o Increasing numbers of regulated facilities have implemented a program to become "PCB-free."
- o The level of compliance with the PCB regulations and the level of cooperation with EPA by other Federal facilities has increased.
- o Each state in the region has undertaken a fee-supported asbestos accreditation program.
- o An effective program (or programs) for management of asbestos in public/commercial buildings is in operation in the region.

## TOXICS RELEASE INVENTORY (TRI) PROGRAM

### II. PROGRAM, RISKS, AND STRATEGIC CHOICES

#### Risks Managed By The TRI Program

- o Potential human health risks and degradation of the environment from the release of toxic chemicals may be identified through analysis of the data provided by TRI reporting

#### How The TRI Program Currently Addresses Risk

- o Enhancement of the quality of TRI data to improve the reliability of risk assessment
  - Providing technical assistance and industry workshops to help regulated facilities in providing accurate information
  - Reviewing submitted information and auditing facilities to assess accuracy and reliability of submitted data
- o Integration of TRI data into the regional media programs to help identify targets of concern
  - Assisting program offices in comparing TRI data to other information submitted by facilities
  - Providing assistance in the use of TRI information for review and analysis of facilities
- o Enforcement/Compliance to insure accurate reporting so that risk information is comprehensive
  - Inspecting facilities to assure covered facilities submit required TRI reports for incorporation into the TRI data
  - Inspecting facilities to audit data quality and reasonableness of release estimates
- o Increasing public knowledge of risk through technical assistance and outreach
  - Providing technical assistance in the review of TRI information to the public and state/local government agencies
  - Providing general information about EPCRA and analyses of TRI data

#### Major Strategic Choices Considered

- o Emphasis of enforcement and industry technical assistance programs at expense of public outreach due to resource constraints

### III. GOALS AND OBJECTIVES

#### Goals

- o Effect substantial reductions in industry releases of toxics, better integrate Federal/State/local programs related to TRI, and achieve risk reduction through targeted initiatives.

#### Objectives

- o Enhance state and local program roles in toxic chemical management and public education with respect to toxic chemical releases
  - Initiate/Increase state/local financial assistance through grants
  - Integrate Emergency Planning and Community Right-to-Know Act (EPCRA) program within EPA to provide comprehensive state/local technical assistance
- o Enhance quality of TRI data
  - Ensure accurate reporting through increased data quality audits, initiate enforcement actions for late reporting and reporting errors, and continue aggressive identification of non-reporting facilities

- Participate actively in Agency efforts to increase usefulness of TRI data through changes in reporting rules including: peak release reporting; mandatory pollution prevention data; SIC code and chemical list revisions; reporting by federal facilities
- o Reduce toxic releases through enforcement, regulatory control measures, and focussed initiatives
  - Emphasize environmentally beneficial projects in settlement of TRI enforcement cases
  - Use TRI data to target facilities which may be candidates for scrutiny under other regulatory authorities: NPDES, RCRA, CAA, Pollution Prevention, etc.
  - Identify high priority, multi-media areas of toxic chemical exposure and initiate/coordinate programs to reduce risk
  - Expand training and education of industry and the public to encourage voluntary actions to effect pollution prevention

#### IV. PROPOSED REGIONAL INITIATIVES/REDIRECTION; RESOURCES

- o Maintain, but not expand, level of inspections/enforcement
- o Focus inspections on quality of data reporting, not just on report submission
- o Redirect/expand program emphasis towards public outreach/information
- o Initiate (limited) program of public workshops and TRI information distribution
- o Initiate training of all EPA and state inspectors in TRI to allow for inspection/auditing of more facilities
- o Expand use of TRI in screening inspection candidates by media program inspectors
- o Establish an industry outreach capability which focusses on providing pollution prevention "consulting" to the regulated community and promotion of voluntary reductions in releases
- o Establish a regional expert position to address toxics, pollution prevention and multi-media issues on a comprehensive basis
- o The extent of achieving such redirection depends on the following:
  - First, that the implementation of the Region 10 TRI Strategic Planning Initiative proceeds as scheduled (initiation in FY92 and continuing resources support in future fiscal years). This will initially provide two FTEs (one new AARP position and the transfer of one existing AARP position from the Asbestos Program).
  - Second, that additional staff resources are provided by EPA HQ or the Region through the regular budget and resource allocation process which can be used to: 1) supplement resources which will be reprogrammed under the FY 92 Strategic Initiative mentioned above, and 2) address the 33/50 Program.
- o [See, also, the RESOURCES DISCUSSION section at the end of this Strategic Plan.]

#### V. HQ/NATIONAL POLICY RECOMMENDATIONS

- o HQ must provide resources for the 33/50 Program; none have been made available to date, and this is putting a large drain on TRI resources.

#### VI. ENVIRONMENTAL INDICATORS

- o Environmental indicators based on the TRI data base and the goals of the 33/50 Program will be developed for tracking in the RAS system beginning in FY92. These will be quantitative measures which provide information on reductions of toxic releases on a chemical-specific basis.



## PCB PROGRAM

### II. PROGRAM, RISKS, AND STRATEGIC CHOICES

#### Risks Managed by PCB Program

- o Human health risk presented by exposure to PCBs currently in use, and by historic and unremediated releases of PCBs (also a CERCLA concern)
- o Environmental risk presented by release of PCBs currently in use, and by historic and unremediated release of PCBs (also CERCLA and Water Programs concern)

#### How Well the PCB Program Currently Addresses Risks

- o Enforcement actions have resulted in:
  - increased awareness by regulated community of PCB Regulations and concomitant
  - increased and improved level of PCB management in regulated community
  - increased commitment by regulated community to become PCB-free (both voluntarily and as a result of Consent Agreements with EPA)
- o Resources are appropriately devoted to highest risks as a result of inspection targeting identified in PCB Compliance Monitoring Strategy, which allows for incorporation of regional priorities.
- o Notification and approval requirements have greatly increased EPA's knowledge of who are the PCB generators/transporters/commercial storers.
- o Manifest requirements are allowing EPA to more efficiently track PCB waste.
- o Manifest review by EPA has identified non-notifying transporters and allowed EPA to bring them into the regulatory fold.
- o Manifest review has identified facilities storing PCBs for excessive period.
- o PCB Commercial Approval requirements are allowing EPA to insure that "unauthorized" facilities no longer operate as commercial storers.
- o Outreach to fire departments has identified PCB Transformers with greatest human health risk vis-a-vis involvement of PCBs in fires.

#### Major Strategic Choices Considered

- o Increased emphasis on newer regulatory requirements such as: Notification and Manifesting (and related storage facility permitting), PCB Transformer Fires Rules, etc.
- o Use of information provided by PCB broker records for purposes of inspection targeting, compliance, enforcement.
- o Shift toward greater state involvement in the PCB program.
- o Handling of Core TSCA programs by the PCB Team (Hexavalent Chromium, TSCA 5/8 and 13 will be carried out by diverting PCB resources).

### III. GOALS AND OBJECTIVES

#### Goals

- o Effectively manage existing PCB contamination and prevent future contamination through risk-based priority setting.

#### Objectives

- o Eliminate Unreasonable Risk
  - Effectively manage existing PCB contamination (that contamination already released to the environment)

- Encourage development of more and alternate disposal technology (recycling, destruction, biological, chemical decontamination, etc.)
- o Prevent future PCB contamination (risk-based priorities)
  - Establish priority areas of management (emphasis on use vs. emphasis on disposal and remediation)
  - Encourage development of disposal technology
  - Assist HQ to develop additional (risk-based) phase-out rules, if necessary, for more efficient use of program resources:
    - determine the practicability of more complete (or total) phase-out of PCBs at some concentration-specific level
    - determine potential for phase-out of PCB Program or integration of a reduced program with other EPA program
- o Develop State Roles
  - Identify appropriate level of support of state activities, and work to develop state programs and/or involvement in the following areas:
    - Management of PCB use
    - Management of PCB disposal
    - Remediation of existing PCB contamination

#### IV. PROPOSED REGIONAL INITIATIVES/REDIRECTION; RESOURCES

- o Improved Inspection Targeting
  - All commercial storers with interim or final approval and facilities with PCB disposal approvals will be inspected at least once a year
  - All notifying generators with on-site storage facilities not previously inspected will be inspected within the next two years
- o States are being urged to apply for grant monies to develop state regulations addressing PCBs
- o Demands of the Core TSCA Programs (Hexavalent Chromium, TSCA 5/8 and 13, etc.) will have a serious impact on PCB enforcement accomplishments unless some resources relief is provide by HQ.
- o [See, also, the RESOURCES DISCUSSION section at the end of this Strategic Plan.]

#### V. HQ/NATIONAL POLICY CONSIDERATIONS

- o Resolve issues surrounding authority to delegate TSCA-PCB Program to States, thus allowing more effective development of State programs.
- o Provide adequate resources for Core TSCA Programs.

#### VI. ENVIRONMENTAL INDICATORS

Environmental indicators for the PCB Program have been difficult to establish because PCBs are almost entirely resistant to biodegradation. In addition, because of the huge quantities released to the environment before the PCB Regulations went into effect, it is difficult to measure the impacts of the PCB Program since it focuses primarily on the prevention of further contamination, not historical cleanup. Data gathered by other agencies on PCB levels in biota have been interesting to review, but have not been conclusive indicators. We propose, for future years, to concentrate on "surrogate" indicators which reflect quantities of PCBs taken out service and disposed of as part of negotiated settlements, and will also examine data available as a result of the recently implemented Notification and Manifesting portion of the regulations to determine if information can be readily assembled which would accurately reflect quantities of PCBs disposed of on a broader basis.

## ASBESTOS PROGRAM

### II. PROGRAM, RISKS, AND STRATEGIC CHOICES

#### Risks Managed by the Program

- o Environmental exposure of school building occupants to asbestos fibers
- o Environmental exposure of public building occupants to asbestos fibers
- o Environmental exposure of the general population to asbestos fibers from manufactured products containing asbestos

#### How the Asbestos Program Currently Addresses Risks

- o Inspections and enforcement actions have resulted in:
  - Increased awareness by the regulated community of AHERA regulations
  - Increased commitment of the regulated community to develop management programs for asbestos-containing materials (ACM)
- o Technical assistance and outreach programs have resulted in increased commitment of public building owners/managers to develop proactive management plans for ACM in these structures

#### Major Strategic Choices Considered

- o Expanded emphasis on states taking on increased asbestos program responsibilities
- o Need to address asbestos in public/commercial buildings
- o "Loan" of resources in support of the Toxics Release Inventory Strategic Initiative, and corresponding decrease in inspection and case development workload to accommodate this shift

### III. GOALS AND OBJECTIVES

#### Goals

Achieve more efficient delivery of new and existing programs through selective delegation to states and integration with NESHAP program.

#### Objectives

- 1) Control emission of asbestos into the environment
  - o Continue to implement schools program:
    - Asbestos Hazard Emergency Response Act (AHERA) -- focus inspections on schools' implementation and revision of management plans
    - Asbestos in Schools Hazard Abatement Act (ASHAA) -- inspect proposed grant/loan projects and oversee and closeout those receiving awards
  - o Implement compliance and enforcement program for the Asbestos Ban and Phaseout (ABPO) regulations (or whatever portion of ABPO remains after resolution of legal challenges)
  - o Implement appropriate elements of Public Buildings Program if/when EPA undertakes such an effort
  - o Increase the numbers of workers trained in the five disciplines of EPA's model accreditation plan
- 2) Use Resources Efficiently and Effectively
  - Facilitate interest and involvement of states in adoption of the complete AHERA model accreditation plan
  - Coordinate ABPO program activities with NESHAP group internally and with state agencies externally

#### IV. PROPOSED REGIONAL INITIATIVES/REDIRECTION; RESOURCES

- o Continue emphasis on inspections of school districts to insure compliance with AHERA
- o Implement EPA's Asbestos Communication Strategy through public presentations and in daily technical assistance activities
- o Help state and local agencies to apply for grant monies to:
  - support development of public/legislative consensus on need for asbestos control
  - implement programs which support ongoing EPA initiatives
- o Work with the Region 10 NESHAP and state agencies to develop an inspection program for the regulated community subject to ABPO
- o Seek improvements, where possible, for coordination/integration of the TSCA/NESHAP asbestos programs
- o As necessary, assist in implementing EPA's Worker Protection Rule
- o Resources for FY 94 and beyond will have to be augmented by HQ if a Public Buildings Program and/or an Asbestos Ban and Phaseout Program are to be successfully implemented.
- o [See, also, the RESOURCES DISCUSSION section at the end of this Strategic Plan.]

#### V. HQ/NATIONAL POLICY RECOMMENDATIONS

- o None at this time.

#### VI. ENVIRONMENTAL INDICATORS

The TSCA Asbestos Program focuses primarily on management of asbestos in place (AHERA) and, in the future, on the ban and phaseout of asbestos manufacture (ABPO). Neither of these readily lend themselves to "direct" environmental indicators (e.g., meaningful analytical measurements which can be equated with direct reduction of risk). However, surrogate measures can be utilized which provide reasonable substitutes for direct environmental indicators.

For the AHERA program, we can continue to assess the level of continuing compliance with the requirement for each school to have a current asbestos management plan implemented. Higher levels of compliance can reasonably be expected to correlate with reduced risk. For the ABPO program, the Regional role has yet to be clearly defined by EPA HQ, and recent court challenges have called into question significant portions of the program, thus delaying implementation. Therefore, we do not propose to study or recommend any ABPO environmental indicators before FY94.

## TOXICS PROGRAMS RESOURCES DISCUSSION

There are several major uncertainties involving new programs where decisions and developments controlled by EPA HQ (OTS) will so substantially affect the Toxic Substances Section resources picture that the following analysis should be viewed as extremely tentative. These areas of uncertainty include: the long term impact of the 33/50 Program; the level of work expected/required for our new PCB permits responsibilities; whether there will be an Asbestos in Public Buildings initiative; and, whether the ABPO rule is only delayed or will be substantially impaired. The effects of these and other program-specific issues are discussed below.

TRI and 33/50 Programs: The intent of the TRI Strategic Initiative which will begin to be implemented in FY92 is to utilize AARP resources -- one new position and one transferred from the Asbestos Program -- to accomplish the neglected "other half" of the TRI program: expanded use of the TRI data, outreach to States and local communities, significant support to other parts of the Regional Office, etc. The need for these resources is estimated to be fairly constant through FY94 and then to decline somewhat by FY96 as many of the initial implementation tasks are accomplished or become less demanding. It is also important to note that this initiative was developed long before there was a 33/50 Program, and we will need additional resources committed for 33/50 -- apart from the TRI Strategic Initiative -- if we want to do both TRI and the 33/50 as planned. The 33/50 Program will be a long term and resource intensive effort which, as the Administrator's initiative, will continue to have a high profile. To effectively carry it out will take at least 1.5 more FTEs. HQ has not addressed the resources issues even though the program activities have begun. There are indications that HQ may expect the two FTEs previously furnished to the Region for Pollution Prevention to suffice for this effort; only 0.5 FTE of this reside in the Toxics Section. If the remainder of these resources cannot be reprogrammed to 33/50, or if HQ does not provide other resources for this purpose, we would have to significantly reduce our plans for the FY92 TRI Strategic Initiative, apply the resources to 33/50 implementation, and be satisfied with continuing to implement a partial TRI Program.

PCB (and Core TSCA) Programs: There has been a new workload involving PCB permits, due to: 1) the recent Manifesting and Permitting rule, the long term impacts of which are still not clear, and 2) the disposal permits workload which Region 10 RCRA transferred to us in FY91. In addition, the responsibility for the TSCA Section 5/8 Program has been recently transferred from the TRI Team to the PCB Team. This, along with the Hexavalent Chromium Program and other Core TSCA activities also done by the PCB Team, threaten collectively to further erode PCB Program capabilities. We can probably deal with this set of circumstances through FY92 with existing resources if we are satisfied with achieving only 75% of prior year PCB enforcement levels. However, for FY 93 and beyond, we will be seriously compromising our overall PCB Program and may have to reduce enforcement even further unless we secure an additional FTE.

Asbestos Program: For FY 92 we will reprogram one Asbestos Program AARP FTE and transfer it to the TRI Program as part of the TRI Strategic Initiative. We have enough of an AARP "cushion" that we should be able to maintain status quo on AHERA/ASHAA. In addition, complications with legal challenges to the Asbestos Ban and Phaseout Rule will delay this effort for some time. The biggest unknown is whether the agency will have a significant Public Buildings Program....a decision which OTS and/or Congress will likely make in the next year. If such a program is mandated, it would take EPA at least another year to

promulgate regulations. Full-blown implementation of such a program could begin as early as FY94. The resource implications at that time could be substantial, maybe 2 full-time positions; however, we presume for this analysis that HQ will make the necessary resources available, and that they will be AARP positions rather than FTEs.

**FY94-97 Resource Needs:** The following table shows net FTE resource needs for Toxic Substances Section Programs based on the scenarios described above; "F" indicates Federal FTE, "A" indicates AARP FTE. FY93 is shown for comparison purposes. An overall summary of FTE and AARP resource needs is given by year under the net change line.

**Toxic Substances Section Resources Needs (FTE and AARP)**  
(compared to HQ-provided base levels in each year)

<u>Program</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
TRI <sup>1</sup>	+2.0A	+2.0A	+1.5A	+1.0A	+1.0A
33/50 <sup>2</sup>	+1.5F	+1.5F	+1.5F	+1.5F	+1.5F
PCB (+ Core TSCA) <sup>3</sup>	+1.0F	+1.0F	+1.0F	+1.0F	+1.0F
Asbestos <sup>4</sup>	-1.0A	+1.0A	+1.0A	+1.0A	+1.0A
	-----	-----	-----	-----	-----
net change	+3.5	+5.5	+5.0	+4.5	+4.5
	[+2.5F]	[+2.5F]	[+2.5F]	[+2.5F]	[+2.5F]
	[+1.0A]	[+3.0A]	[+2.5A]	[+2.0A]	[+2.0A]

<sup>1</sup> This need is currently (FY92) being met through transfer of 1.0 FTE AARP from the Asbestos Program and filling of one new AARP position supported by Region 10 special funding; this special funding would need to continue at the 1.0 FTE level for FY94, but then could decrease to 0.5 FTE in FY96, and disappear for FY96 and beyond as the TRI Strategic Initiative concluded.

<sup>2</sup> This need could possibly be met through a reprogramming of Region 10 Pollution Prevention resources, or by HQ. If not made available, the bulk of the FTEs would be reprogrammed from the TRI Strategic Initiative to 33/50, resulting in the following staffing for the Initiative: +0.5 FTE AARP for FY93-94; no resources for FY95; and a deficit of 0.5 FTE for FY96 and beyond.

<sup>3</sup> Represents the need for an additional 1.0 Federal FTE to: maintain the PCB Program at a reasonable level and to accommodate demands of the Core TSCA Program, including Hexavalent Chromium, TSCA Sections 5/8 and 13.

<sup>4</sup> Presumes a need for 2.0 FTE AARP starting in FY94 to deal with the projected start of a Public Buildings Program and some form of an Asbestos Ban and Phaseout Program.

## WATER PROGRAM FY94-97 STRATEGIC PLAN

### RESOURCE SUMMARY WATER DIVISION STRATEGIC PLAN

#### IMPROVING THE SCIENCE BASE, AND IMPROVING EPA MANAGEMENT AND INFRASTRUCTURE

Water Data Integration	2.5FTE	\$250,000
Technical Support for Enforcement		\$100,000

#### EDUCATION AND OUTREACH TO ENABLE THE PUBLIC, INDUSTRIES, AND LOCAL GOVERNMENTS, AND IMPROVE OUR KNOWLEDGE BASE

##### Working with Local Governments and the Public

* Model Environmental Plan for a Small Community	1 FTE	
Local Management Plans for Wetlands	1 FTE	
Wetlands Restoration		\$50,000
Watershed Walk	1 FTE	

##### Working with Small Utilities

Circuit Riders for Wastewater Systems		\$1.3 million
Drinking Water Education & Technical Assistance	2.5FTE	\$750,000

##### Working with Industry and the Public

* Corporate Volunteer Program	1 FTE	
* Pollution Prevention for Industrial Dischargers	2 FTE	\$20,000

##### Working with Tribes and Native Villages

R&D for Alaska Water and Waste Systems		\$150,000
Assisting Tribes Develop Water Quality Standards	5 FTE	
* Multimedia Grants for Tribes		\$7 million

#### GEOGRAPHIC TARGETING ON AN ECOSYSTEM BASIS

* Critical Resources/Watersheds	2.5FTE	\$100,000
* Coeur d'Alene Restoration		
* Puget Sound		\$2 million

TOTAL RESOURCES REQUESTED	16 FTE	\$10.4 million
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\* Multimedia Project

## WATER PROGRAM STRATEGIC PLAN

### MISSION STATEMENT

To restore, maintain and enhance the overall health of our water resources, including marine waters, estuaries, rivers, streams, lakes, ground water, wetlands, and riparian zones:

- o to protect the health and diversity of resident species; and
- o to ensure the safety of human uses such as drinking water, swimming, and fishing.

### VISION STATEMENT

In Region 10:

- o To DRINK SAFELY from any water system;
- o to SWIM/FISH in any water body;
- o to see a net increase in GROUND WATER quality;
- o and to realize a net increase in WETLAND VALUES.

### WATER PROGRAM GOALS

We have established a set of goals to move us toward our vision. Overall, our goals consist of the following: ensuring that all programs are using a set of guiding principles (e.g., risk reduction, pollution prevention) to make program decisions; our programs are fully integrated across media; program areas currently identified as high risk are emphasized (i.e., small systems and critical natural resources); the tools that we are using focus on enforcement and public education; building the capability of our federal, state, local, and tribal partners; and we have in place a comprehensive, data management system to support program decision-making. It is also our goal to fully implement the priorities contained in the *Water Strategic Plan (Water Planet II)*; to measure progress by using environmental results; and to have in place an enhanced program for developing the potential of our staff. Our specific goals are laid out below:

#### Better Integrating Our Programs

- o Direct resources to the highest risk environmental and health priorities (applying strategic planning, risk management principles, geographic focus with cross-program analysis and action).
- o Integrate our environmental management cross-media, using comparative risk and pollution prevention as guiding principles.
- o Ensure strong, predictable, and consistent enforcement.
- o Promote promulgation of implementable regulations which are coordinated among all environmental programs.



- o Monitor and manage our performance using principles of total quality management using performance indicators and environmental indicators (rather than sole reliance on bottom-line "beans"). By streamlining operations, existing resources will be used more efficiently and, in some instances, fewer resources will be needed which can then be used for our strategic planning initiatives.
- o Develop the water programs work force and skills mix, and provide opportunities for employees to achieve their potential in order to enable us to carry out the above tasks (high quality human resources management).
- o These two human resource goals will be accomplished without developing specific initiatives.

### **Focusing on the Remaining High Risks**

- o Bring the more significant currently unregulated sources into compliance (for example, irrigators and small systems).
- o Use non-regulatory programs to guide risk reduction efforts within the unregulated community.

### **Emphasizing Critical Resource Protection**

- o Instill pollution prevention (including source controls, recycling, enhanced treatment and beneficial uses of waste products) as a basic principle in water resources management.
- o Maintain gains on control of contaminants from large sources, but direct resources to ensure that the remaining challenge of the small sources (small treatment systems, smaller wetland tracts, tribal sources, individual and household wastes, etc.) are appropriately addressed.
- o Identify, protect, and increase critical aquatic resources (non-degradation and enhancement).

### **Using Public Education as a Tool to Accomplish Results in High-Risk Areas Where Regulatory Authority is Absent or not Effective**

- o Actively increase public understanding of environmental values, comparative risk, and EPA's role in environmental protection in order to build an environmental ethic which inspires individuals and communities to work in concert with government agencies to reach environmental goals.

### **Building Greater Cooperation and Partnership with State, Tribal, Local, and Other Federal Agencies**

- o Provide technical assistance and technology transfer to states, local governments, Indian tribes, other federal agencies and the public to address environmental problems.

- o Build state, tribal, local and other federal agencies' capability and capacity to address environmental problems through technical and financial support. Identify and utilize existing tools/programs outside EPA, and coordinate with other agencies to minimize overlap and maximize efficiency.
- o Obtain data management capabilities to support technical staff and program managers in site specific environmental decisions (risk assessment and management), tracking trends in water quality or programmatic activities (environmental indicators), prioritizing workload, and identification of actions underway in geographic focus areas.

## PROGRAMS, RISKS, AND STRATEGIC CHOICES

The Water Division manages a diverse set of water resources, including coastal and marine waters, rivers and streams, lakes, wetlands, ground water, and drinking water. A vast number of sources affect these water resources, including municipal and industrial facilities, agricultural and urban runoff, pesticides, non-chemical degradation, underground storage tanks, air deposition, and accidental releases. Specific statutory mandates are provided by the Clean Water Act, the Safe Drinking Water Act, and the Marine Protection Act.

*Many of the higher-risk problems identified through the Region 10 Comparative Risk Project are water problems.* In 1989, Region 10 conducted a comparative analysis of the health and environmental risks in the region, ranking them in five categories, based on their relative magnitude. The two highest ecological risk categories were dominated by water problems: aquatic habitat destruction and nonpoint sources were ranked as two of the three highest ecological risks, while wastewater treatment plants and industrial point sources were ranked within the second highest category of ecological risk. The highest health risks managed by the Water Division are contaminated drinking water and ground water, which were both ranked in the second highest health risk category. Pesticides, a source of water pollution as well as air and land impacts, were ranked in both the highest ecological and health risk categories.

**Drinking water** may pose a cancer risk as a result of radon, arsenic, volatile organic chemicals, radium, and ethylene di-bromine contaminants in groundwater sources. Arsenic, lead, nitrates, and microbiological contaminants pose a non-cancer health risk in drinking water as well. The highest health risk is from non-public water systems, which are not federally regulated.

**Ground water** sources actually account for most of the drinking water health risk, discussed above. Both cancer and non-cancer health risks result from natural sources of arsenic and radon, nitrates from agricultural fertilizers, and microbiological contamination from septic tanks and other sources.

**Degradation of aquatic habitats**, including wetlands were ranked as the number one ecological risk based on their high biological productivity and habitat value, as well as their ability to buffer flood waters. The Region is losing about one-half of one percent of its wetlands annually, as a result of urbanization, agriculture, and silviculture. Impacts may be irreversible. In addition, there are substantial areas of estuaries, rivers, streams, and lakes that are threatened. According to the states' 1990 305(b) reports, 23% of Washington's

estuaries and 27% of Oregon's estuaries are assessed as impaired. Almost 50% of rivers and streams were classed as impaired, as a result of both point and non-point sources, and physical alteration, including development, agriculture, and roads.

**Non-point sources** account for a much higher share of the water quality problems in Region 10 than point sources, and appear to be increasing. Problems resulting from agriculture, grazing, forestry, urban runoff, and failing septic tanks are widespread throughout the region. Resulting impairments range from slight to complete elimination of fish spawning areas.

**Industrial point source discharges to surface waters** are less numerous in the region than non-point sources, but their scale is usually greater. Major problems in Region 10 include placer mining, oil and gas development, log transfer, seafood processing, and pulp and paper processing. Whole effluent toxicity testing requirements now included in NPDES permits will help identify industrial contributions to stressed waterbodies.

Impacts from **publicly owned wastewater treatment works** are less significant than industrial point sources in Region 10, but still a concern, particularly now that the federal grant program for treatment plant construction has ended. The trend has been toward a gradual improvement.

*In updating our water program strategy this year, we reviewed and fine-tuned the strategic choices we had proposed in our previous years' plans with the purpose of identifying innovative, new program approaches (or directions) for addressing high risk environmental problems. We had several objectives in updating our strategies for FY94-97.*

- o We looked more closely at the five high risk areas and our proposed projects to identify the actual source of the risk and how much of the risk in each area our proposed projects will address.
- o We looked for pollution prevention opportunities as well as opportunities to integrate our work with the work of the other divisions, across media.
- o We reviewed the status of the work scheduled to begin in FY92 to identify any implementation problems which might signal a change in direction for FY94-97.
- o We looked more closely at each plan to ensure that there are measurable objectives and sound environmental indicators to chart our progress.

As a result, we have made some changes and additions to the new program directions proposed in our earlier strategies, and we are looking more critically at the disinvestments that we had proposed. We have balanced our desire to use education and public outreach to better involve and inform the public with the need to maintain our investment in traditional programs.

The public, the Congress and the Administrator have underlined the need for strong and consistent permitting and enforcement programs. In Region 10, there is still a large backlog of high risk facilities that must be addressed to ensure that protective NPDES permits and comprehensive compliance monitoring are in place. Our drinking water

program is directing all of its efforts towards implementing and enforcing new standards for 83 contaminants until states are able to establish their own programs.

Yet, it is quite clear that we will have to use new approaches if we are to effectively manage our increasing workload. We need better data if we are to focus our efforts on solving the highest risks, and we need to coordinate our efforts with states, local governments, and the public. This is the basis for the new program directions we are proposing in education, public outreach, and technical assistance. With our geographic initiatives, we hope to bring all of these resources to bear on our highest priority areas.

We are considering new or expanded program directions for FY94. These program directions were developed to address risks not covered by our existing programs. They build on nine of the ten themes specified in the Agency's overall strategic plan. The following discussion of our new program directions is organized into three areas:

- o Geographic targeting on an ecosystem basis.
- o Improving our science base and EPA management and infrastructure,
- o Education and outreach to enable the public, industries, and local governments and improve our knowledge base, and

The proposed new program directions in each of these areas are discussed in more detail in the remainder of this document. Note that the availability of resources to initiate these new program directions has not been completely addressed. All or portions of some of the new directions could be funded under the four geographic initiatives proposed by the Region. In addition, portions of the new program directions may be funded through shifts in the use of resources within programs or within the Water Division. However, some of the new program directions may not receive funding.

## **PROPOSED NEW PROGRAM DIRECTIONS, OBJECTIVES, AND ENVIRONMENTAL INDICATORS**

This section discusses each of the new program directions that we hope to undertake in the FY94-97 time period.

### **GEOGRAPHIC TARGETING ON AN ECOSYSTEM BASIS**

#### **CRITICAL RESOURCES/WATERSHEDS**

The aquatic resources of the Pacific Northwest are being lost at an alarming rate. Columbia River salmon have recently been listed as endangered; regional steelhead populations are plummeting; shellfish beds are being closed at an ever-increasing rate; sole source aquifers are being contaminated by explosive growth, etc., etc.

The loss of these resources is, in many cases, directly attributable to our failure to recognize and protect aquatic ecosystems of high diversity, productivity, or uniqueness. These include coastal estuaries, tidal and freshwater wetlands, and freshwater spawning and

rearing areas. Region 10's Comparative Risk Project identified non-chemical degradation of such habitats as having the highest level of ecological risk. Washington state's "Project 2010" also gave a strong mandate for the protection of that state's aquatic resources.

Actual protection of these resources will not be easy. Responsibilities and resources are fragmented across many federal, state, and local governments. In addition, local land use and economic development prerogatives are frequently at issue. Put simply, no one is in charge.

To overcome these difficulties, we propose a watershed-based, problem solving approach built on three main principles. First, target watersheds where the critical resources are most at risk. Second, involve all parties in both the analyses of problems and the creation of holistic, locally tailored solutions. Third, integrate all available multi-agency resources for a coordinated implementation of those solutions. This approach includes the appointment of a "champion" for each watershed and the use of creative new techniques to encourage local citizens to assume greater responsibilities for protecting their community's critical resources.

Several models of this watershed approach are underway for FY 92-94, e.g., Willapa and Coos Bay estuaries, Spokane sloe-source aquifer, Lake Roosevelt, S.F. Coeur d'Alene River, etc. These are providing valuable experience, especially for state environmental agencies, on the benefits to be gained from such a multi-agency, problem-solving approach. Approximately two years will be needed to establish sufficiently self-sustaining programs in each such area. New areas will be added as resources allow. By 1997, the Region would like to have this problem-solving approach institutionalized as the routine manner of doing business.

Key milestones for each area include a multi-agency agreement on: 1.) the critical resources to be protected and the threats to those resources; 2.) the workplan for controlling those threats and the specific environmental indicators of progress; and 3.) the actual on-schedule implementation of those workplans. EPA-related work is expected to include setting of maximum pollutant loadings (TMDLs); targeted NPDES permits and enforcement actions; facilitation and public stewardship program development; and extensive technical assistance.

Environmental Indicators: The proposed actions would reduce the risk to these high value resources as measured by the following environmental indicators.

- o Fewer segments listed as impaired in 305(b) reports
- o Fewer shellfish bed closures (or number of reopened shellfish beds)
- o Reduced sedimentation
- o No net loss of wetlands
- o Improvements in physical habitat, e.g. stream riparian zones
- o Reduced nutrient loading
- o Reduced toxics loading
- o Increased fisheries production
- o Reduction in drinking water violations
- o No increase in groundwater contamination

## COEUR D'ALENE RESTORATION

As a result of over 100 years of natural resource extraction, the Coeur d'Alene River Basin is arguably the most degraded river basin in the Pacific Northwest. Recent evaluations of the basin have shown that contaminated water, soils, and sediments pose substantial human health and environmental risks. The basin contains one of the largest Superfund sites in the nation, with the potential for a number of other sites in the basin being listed on the National Priority List.

Addressing environmental issues in the basin will be a long term proposition. EPA Region 10, Idaho DEQ, the Coeur d'Alene Tribe, and a variety of other federal, state, and local agencies have initiated a coordinated approach to restoring the Coeur d'Alene Basin. This coordinated approach, although being funded in a piece meal manner is proving to be the catalyst to the development of a framework for the restoration of the Coeur d'Alene Basin.

The time frame involved and the complexity of the problems requiring solution requires development of a long term strategy and commitments by EPA, DEQ, Coeur d'Alene Tribe and other governments and private parties. While long term EPA resource support for this effort is the major issue of this proposal, steps are currently being taken in the short term that will build the foundation of this effort. The effort appears to have a high level of Congressional support in both Idaho and Washington.

This geographic hydrologic basin supports key regional uses and values including:

- o A sole source regional drinking water aquifer
- o Commercial and industrial uses
- o World class recreation and tourism
- o Ecosystem and habitat preservation
- o Traditional (including tribal) cultural values

The Coeur d'Alene Basin Restoration Project is multi-programmatic and involves numerous themes from the Agency-Wide Strategic Plan in its development and implementation. These are as follows:

- o Geographic Targeting on an Ecosystem Basis
- o Pollution Prevention: The Solution of Choice
- o Strategic Implementation of Statutory Mandates
- o Environmental Education and Outreach
- o Improving Cross-Program Integration and Multimedia Enforcement
- o Targeting Health and Ecological Risks
- o Science/Data: Improving EPA's Knowledge Base

Environmental indicators used to assess progress in the project will focus on completion of the basin-wide management plan and on the attainment of recreational / aquatic life uses in the basin as follows:

- o Level of recreational use (fishing / boating) at key public access sites in the basin
- o Abundance and composition of fish and macrobenthic invertebrates at indicator sites
- o Total metal loadings to Lake Coeur d'Alene
- o Metals concentrations in water, sediments, and fish and waterfowl tissues

## PUGET SOUND

Puget Sound is a unique ecological resource, supporting ecological/habitat, economic, recreational, cultural and historic values. Because the Sound is used for so many purposes, and because its drainage basin is experiencing explosive growth, Puget Sound is increasingly threatened with degradation.

EPA, in cooperation with state, local and tribal authorities, has helped develop a model estuary program. The first-ever National Estuary Program Comprehensive Conservation and Management Plan (CCMP) was completed for Puget Sound and approved by EPA in May 1991. EPA also directs significant energies to Puget Sound problems in virtually every other program: Superfund cleanup, hazardous waste management, air pollution control, wetlands protection, pesticides and toxic substance control, and enforcement.

The Puget Sound Water Quality Management Plan was developed with the involvement of a host of Federal and state agencies, tribes, and citizen groups, who are committed to its implementation. Full Plan implementation would cost about \$50 million per year for the five-year period beginning in 1993. Washington state is funding an impressive 40% of this total. Federal funds under this initiative would leverage state and other Federal agency funds, fill critical gaps, and allow EPA to continue to play a leadership role in the Puget Sound. This approach would link efforts of Federal, tribal, state and local entities to achieve the vision: *A Puget Sound environment that protects the diversity and abundance of living resources and provides for safe human uses.*

The Puget Sound project combines implementation support for the "ready to go" Puget Sound Water Quality Management Plan with targeting hazardous wastes cleanup and control. Major components include: 1) continuing the Federal leadership role in Puget Sound water quality protection through assisting with implementation of critical parts of the Puget Sound CCMP, 2) enhancing hazardous waste cleanup, hazardous waste management, and waste minimization efforts in the Puget Sound Basin (including UST's), and 3) enhancing enforcement actions in Puget Sound.

### Water:

- o Nonpoint source control - Implement Best Management Practices in one or more of the 12 priority watersheds for which nonpoint source control plans have been developed.

- o Wetlands restoration, protection and acquisition - Initiate, and possibly complete, wetlands restoration projects in diked areas that are no longer used for agricultural purposes or in other areas appropriate for restoration.
- o Contaminated sediments - Complete sediment remediation at one or more of the most contaminated sites in Puget Sound.
- o Stormwater control - Fund demonstration stormwater or combined sewer overflow control projects in selected watersheds.

#### Toxics Management:

- o Enhance corrective action efforts in Puget Sound - Emphasize clean-up under RCRA, waste management, and waste minimization projects integrating efforts with Washington Department of Ecology under the EPA/State Corrective Action initiative.
- o Enhance Underground Storage Tank (UST) Program - Conduct surveys to more clearly identify number and locations of UST's needing regulation and focus on bringing federal facility UST's into compliance.
- o Increase Federal facilities actions - In particular, work cooperatively with Department of Defense/Navy to clean up existing sites of concern, develop sound waste management and underground storage tank programs.
- o Speed up solid waste efforts - Work with state and tribes to develop sound solid waste management programs; work with local governments to bring facilities into compliance with land disposal criteria.

#### Enforcement:

- o Target/enhance enforcement efforts in Puget Sound, under CWA (404 and 402), Oil Pollution Act, LUST/UST, RCRA and CERCLA authorities. Work cooperatively with state of Washington and tribes to target enforcement actions, emphasizing currently underfunded areas such as hazardous waste generators and facility emergency plans under SARA Title III/Community Right-to-Know.

#### Policy/Resource Allocation Recommendations:

Accomplishing the Puget Sound vision in concert with the state depends on Headquarter's willingness to provide federal funding to enhance implementation of the Puget Sound CCMP developed under the National Estuary Program.

#### Environmental Indicators:

Environmental indicators of successful implementation include:

- acceptably abundant and diverse populations of living resources;
- acres of wetlands protected or restored;
- lower levels of tissue contaminants reflecting reduced external and internal (sediment) sources of pollutant loadings of toxic materials;



- number of shellfish beds reopened, miles of stream water quality and physical habitat improvement (for nonpoint source programs).

## IMPROVING OUR SCIENCE BASE AND EPA MANAGEMENT AND INFRASTRUCTURE

### WATER PROGRAMS DATA MANAGEMENT

The ground water, drinking water, wetlands, and surface water programs have grown, and the necessity for cross-program integration has increased significantly, magnifying the volume and complexity of the data these programs must collect and manage. For example, the Agency's Groundwater Task Force Report emphasizes enhancement of data management capabilities within EPA and with our state and federal agency partners. Successful implementation of the Water Division's strategic plan relies on accessibility to adequate, credible data. Over the last several years, improvements have been made, but much remains to be done, particularly to improve cross-program integration.

This proposal will accomplish three goals: 1) establish and manage an integrated Region 10 water programs information system that promotes effective program decision making; 2) support the development and implementation of state and local government information capabilities to effectively manage their environmental programs; and 3) encourage cooperation with other federal agencies to ensure effective transfer and use of available information from federal agency data bases.

The programmatic and resource implications of full implementation of these goals are far reaching, require the development of a phased multi-year action plan, and must include representation of EPA programs and our partners in other agencies. Our objectives for FY93 and FY94 are outlined here.

- o Establish minimum data needs from each data system for program management and environmental indicators.
- o Identify all water programs with an interest in contributing or utilizing data in system
- o Establish links between groundwater, drinking water, wetlands and other Division data systems.
- o Determine data quality and other input requirements, and access.
- o Establish reporting need and methods.

### ENFORCEMENT

This area of emphasis consists of two related approaches. The first focuses on identifying categories of pollutants that have historically been under-represented (e.g., if previously unknown or undervalued in terms of potential environmental impact), evaluating the extent to which they pose ecological or human health risks, and, if appropriate, devising multiple program enforcement strategies to address them. An example of a project we will

undertake is the collaboration of the Wetlands Protection, Point Source, and Nonpoint Source programs on a pre-identified category of sources such as feedlots or a geographic area experiencing environmental trauma such as Willapa Bay.

The second approach involves selecting priority industries and/or geographic areas and then using both voluntary and mandatory tools from multiple programs to prevent pollution generated by the priority industries/areas. For example, the enforcement program will as appropriate include pollution prevention requirements in a facility's settlement decree and the Municipal Facilities Branch could provide technical assistance to facilities within the same priority area.

Both of these approaches involve developing a common set of industry and/or geographic priorities across the Division, and then coordinating relevant programs and tools (e.g., technical assistance, pollution prevention, enforcement) to address those priorities. The first approach focuses on bringing under-represented industries into the programs' universe; the second focuses on encouraging the priority industries to minimize their environmental contamination.

## EDUCATION AND OUTREACH TO ENABLE THE PUBLIC, INDUSTRIES, AND LOCAL GOVERNMENTS, AND IMPROVE OUR KNOWLEDGE BASE

### **Working with Local Governments and the Public:**

#### **COMPREHENSIVE ENVIRONMENTAL PLAN FOR SMALL COMMUNITIES**

EPA is often criticized for indifference to the burden its many regulations place on small communities. We demand that communities meet all of our requirements: often, the result is that small communities meet none of our requirements. Recognizing this burden, EPA needs to do a better job in coordinating the implementation of our programs and assisting communities to establish priorities for their actions.

This is intended as a demonstration project, assisting a small community to develop a comprehensive environmental plan and budget strategy. Such a plan would be intended to protect, or enhance, the community's environmental resources and enable it to meet the variety of requirements imposed by EPA. The plan could potentially address drinking water quality, ground-water protection, wellhead protection, wastewater treatment, sludge disposal, underground storage tank cleanup and improvements, and solid waste issues and would establish a timetable and priorities among sometimes competing program requirements.

In FY93, we will select a small community in one of the critical resource areas discussed above. In FY94, we would begin work with a second community either in a critical resource area, or in a newly incorporated area. Opportunities for environmental compliance cost savings through coordinated implementation of multiple program requirements would be explored. For example, EPA could coordinate compliance assessments and facility upgrade requirements for UST, UIC, and air quality attainment at petroleum storage facilities so that necessary modifications can be carried out simultaneously to reduce construction costs. In addition, EPA would assist communities in exploring water conservation measures as a mechanism to reduce treatment and disposal costs.

Ultimately, the plan could be used as a model for other small communities. At the same time, EPA's involvement in this kind of multi-media effort should educate us about small communities' needs and enable us to find ways to more effectively meet those needs. We would expect direct work with the two communities to be complete by FY95. In FY96, we would look to applying "lessons learned" to EPA, modifying EPA policies and procedures, and proposing regulatory or statutory changes, if appropriate.

**WETLANDS INITIATIVES:** Loss of wetland resources is a top ranking ecological threat. Although important progress has been made in reaching the goal of no net loss of wetland functions or values, serious loss and degradation of significant wetlands is still occurring. Although the permitting program is working well, it is uncertain how effective required mitigation measures actually are, and actual losses may be higher than expected. A larger amount of wetlands is probably lost in areas covered by general permits or exempt from permits, such as agricultural or silvicultural uses; these wetlands are managed by counties and local governments. The most promising strategy for stabilizing or increasing the wetland resource base is to restore degraded or low value wetlands. Currently, about 70% of program staff time is devoted to permit reviews and enforcement. Over the next five

years, our goal is to disinvest in these activities to increase the time we spend working with local governments and assisting in restoration efforts.

Two new or expanded program directions are proposed for FY94-97:

### 1) LOCAL WETLAND MANAGEMENT PLANS

The major area of investment for new resources would be to increase existing efforts to build state and local government capacity to provide appropriate management of wetlands. The goal would be to integrate federal, state and local regulation to promote regulatory consistency and predictability. This can be achieved through development of local wetland management plans that provide for preservation of high value wetlands and allow development of low value wetlands subject to compensatory mitigation via a local wetland mitigation bank. States can play a vital role in this effort by providing statewide guidelines for local wetland planning efforts that are consistent with the requirements of the Clean Water Act as well as state laws and regulations. State Wetland Conservation Plans would be a key to making this a successful effort. Federal funding could be passed through the states to local governments in targeted "hot spots". Local governments that completed plans consistent with state and federal guidelines could then be granted regional 404 permits to implement their plans.

### 2) WETLAND RESTORATION

Background work on restoration has already been completed by the wetlands program, and tremendous interest has been expressed by public and private groups and indian tribes in restoration projects. This initiative will capitalize on this progress by: developing generic model(s) for implementing restoration projects via partnerships between public, private, and indian groups; conducting an assessment of the costs associated with various types of wetlands restoration; planning, designing, and implementing restoration demonstration projects involving multiple habitat types; completing and field testing protocols for freshwater and estuarine wetlands restoration; providing technical assistance to groups interested in restoration projects; and encouraging incorporation of wetlands restoration into local land use plans.

## WATERSHED WALK

Region 10 has successfully implemented a *Streamwalk* program in the four states. State agencies take the lead in Idaho, Oregon and Alaska, but are still closely tied to the EPA office. Streamwalk's goals for FY92 (data base/GIS program, manual upgrading, training, and designation of a lead agency in Washington) will be developed and implemented this year.

The objective of this effort is to expand the Streamwalk program to include a *Wetlands Walk*, *Lake Walk*, *Shore Walk* and *River Walk*. Together these programs will be called *Watershed Walk*.

Through this program, both schools and citizen groups throughout the Region will be given training on how to assess the status of, and threats to, their community's water bodies.

They will be given standardized checklists and databases for reporting such information. In addition, schools will be provided guidance on how to use their community's environmental issues as "living laboratories" for teaching academic theories. All groups will be encouraged to "adopt" their community resources, and to work with their local officials to ensure their protection.

### **Working with Small Utilities:**

Two of our new program directions focus on small utilities: the first, discussed below, establishes a system for providing technical assistance to drinking water and wastewater systems in small communities of 500-10,000 persons, that are having compliance problems. The second focuses on much smaller drinking water systems, including privately owned wells.

### **CIRCUIT RIDERS FOR WASTEWATER (AND WATER) SYSTEMS**

Publicly-owned treatment works are a high ecological risk, and drinking water is a high health risk; in both cases, small systems pose a particularly high risk and are less effectively regulated. This approach outlines a program of cooperative technical assistance, along with targeted grants and loans, to assist small community sewage and drinking water systems in achieving acceptable performance levels.

Largely due to a lack of financial, technical, and management skills, small communities find it exceptionally difficult to achieve and maintain compliance with regulatory requirements. Of the 629 POTWs in the Region, 501 serve small communities. Of these 501 POTWs, 24 percent are having compliance problems. Of the Region's 4,688 public drinking water systems, 81 percent serve populations of less than 500. Sixty percent of systems serving less than 500 users are experiencing compliance problems.

On-site assistance has proven to be an extremely effective and resource-efficient mechanism for raising levels of compliance. This program would be administered by the states with oversight provided by EPA. On-site assistance would be provided to targeted communities by trainers capable of addressing drinking water, wastewater, financial management, and public education needs. Estimated cost per community is \$11,800.

### **SAFE DRINKING WATER INITIATIVE**

The objectives of this initiative are: 1) To have every public water system in compliance with the state and federal drinking water regulations (the underlying premise is that compliance with the regulations equates to reduction of health risk and public health protection), 2) To support state program capacity to carry out effective drinking water protection programs, and 3) To provide public education to domestic well users on the risks of drinking water contamination.

Region 10 comparative risk studies have documented that drinking water contamination is the second highest health risk among the problems that EPA regulates. EPA is currently implementing regulations to control 83 contaminants in public water systems. These regulations will be adopted by Region 10 states by 1996-1998. Significant numbers of

people in the Northwest drink water from domestic wells and not from sources currently regulated. The majority of the systems that EPA is regulating serve fewer than 500 persons. They do not have the management capability and/or financial resources to comply with regulations. They must turn to other federal, state and local agencies to obtain the assistance they need. The majority of state and federal drinking water enforcement resources are focused on reducing the exposure to potentially harmful contaminants for only a small portion of the population at risk. A more targeted approach to getting systems into compliance and having them prevent future pollution from getting into their water supplies is needed.

Using a Total Quality Management approach, the drinking water public in each Region 10 state will be divided into specific "sub-markets" for public education, technical assistance and enforcement. EPA will conduct a thorough needs assessment to determine the specific technical, financial or management assistance needs for each of the various types/ownership categories of drinking water systems. Once these needs have been determined, we will identify who is in a position to help these systems and develop strategies to target getting them help. The strategies would identify the nature of the drinking water quality problems they are facing, the types of technical and financial assistance they need and link them with other state, federal and local assistance that is available. In developing these strategies, we will explore ways in which "general permits" or the Region's *Streamwalk* approach to water quality planning could be applied to public water system compliance. We would also provide public health and educational information to individual well owners/operators.

The following "cut" on PWS data in Oregon serves as an example of how to categorize the populations served by public water systems and target educational and technical assistance resources on each category according to the ownership of the systems. The state's total drinking water population is: 2.7 million. Of this population, only 80% (2.1-million) are served by community water systems subject to EPA/state regulation.

Over 500,000 people in Oregon drink from domestic wells which have recently been shown to have a high incidence microbiological and/or nitrate contamination. Similarly there are significant numbers of people who rely on domestic wells for their drinking water throughout the region.

Target public education resources on improving public understanding of the health risks associated with contaminated drinking water. Provide drinking water information hotlines (if needed), and provide local well drillers and county health officials with bulletins on domestic well drinking water quality problems. Support the development of state programs to require well testing for contaminants which produce acute effects. State agency data collection and program administration could be paid out of real-estate transfer fees.

Of Oregon's 2.1 million population served by community water systems, 93% (2 million) drink water from 191 systems that each serve more than 1,000 people. Systems that serve more than 1,000 typically have the resources to maintain safe supplies once staff are trained and experienced in new monitoring, operations and maintenance procedures. As part of the base program, EPA will need to provide sufficient levels of state grants during the 1994-1997 timeframe to support state efforts to maintain primacy and develop programs that protect the quality of the drinking water served to the majority of the states' populations. Only 7% of the state's population (151,000) is served by more than 790 small systems! People drinking water from domestic wells outnumber small system customers 3:1.

Small systems require "tailored" or targeted assistance. Nearly 300 of the 790 small Oregon systems mentioned above are mobile home parks. "Mobilize" the mobile home park owners to protect their drinking water supplies by providing financial, management and technical guidance. Nearly 200 more systems are rural residential homeowner's associations or developments. The remaining 290 are owned and operated by municipalities that may also operate a wastewater treatment plant. This category of systems could benefit from a combined water/wastewater outreach effort, such as the one being proposed as the CAPP initiative.

Of the 354 non-transient, non-community systems in Oregon, 144 are owned by industries, 202 are located on school grounds, and a handful have other ownership. Of Oregon's 1500 transient, non-community water systems, 500 are owned by restaurants, 100 by motels, 100 by summer camps, and 575 are at state, federal and private campgrounds. Providing targeted information on how to test for and treat contaminants found to occur in these systems and ways to manage these systems efficiently will contribute to their ability to reduce health risks attributable to drinking water contamination.

### **Working with Industry and the Public:**

#### **POLLUTION PREVENTION FOR INDUSTRIAL DISCHARGERS**

Environmental programs of the past 20 years have emphasized treatment, rather than reduction, of pollutants. Pollution prevention programs and initiatives attempt to eliminate pollutants before they reach the waste stream, thus reducing the level of treatment required. EPA's Pretreatment Programs regulate the release of pollutants by industries into wastewater. Unfortunately, many of the nation's pretreatment programs are understaffed, leaving only the largest industries accountable for pollutants released.

This approach would target medium to small industrial and commercial waste generators not being effectively regulated by the pretreatment program, the objective being to encourage the development of voluntary pollution prevention programs by these waste generators. Pollution prevention measures would decrease the level of toxics entering wastewater treatment plants, reducing the level of treatment required, ensuring that biological processes for treatment of human wastes are not interfered with, and reducing the level of toxics in wastewater sludge. The success of this approach would be measured through monitoring wastewater effluent, an activity already required of the Region's treatment plants.

Staff from Water Division, Hazardous Waste Division, Air and Toxics Division would work together to identify a number of industries in Region 10 that have implemented successful pollution prevention programs and are willing to present their programs to other industries. (A successful program is one that has committed staff time and resources to identify 1) process modifications that would reduce pollutant concentrations, 2) options for reuse of toxic substances in processes, and 3) the best method for disposing of, or treating, those substances unavoidable in the process.) EPA would pay for industry representatives to travel to other interested facilities to present information and guidance on how they developed their programs. EPA staff would follow up on these presentations by providing technical assistance to industries while they are implementing their programs. If successful, the program would be expanded in subsequent years.

## **CORPORATE VOLUNTEER PROGRAM**

The objective of this program is to encourage, enhance and support the involvement of corporate volunteer programs in environmental efforts. An innovative "hands on" environmental education program is the key to accomplishing the wetlands restoration, critical habitat, drinking water and nonpoint source elements of our strategic plan. To succeed, these activities must have strong community support. They will also need help in tracking changes in the status of those resources. Two initiatives are targeted at educating and leveraging the resource we have in the interested public.

Many corporations sponsor, as part of their community relations efforts, direct volunteer and philanthropic programs. There is an expressed lack of understanding and knowledge on the part of these program leaders as to what can be done, in a non-controversial method, to support pro-environmental activities. EPA is in the position to provide the background, information and direction that has been requested.

In FY92, EPA is exploring the corporate community's interest and needs relating to environmental stewardship. Based on this information, a long term strategy will be developed. This strategy most likely will include: training for corporate program leaders, training for environmental programs and organizations on effective partnerships with corporations, participation in corporate volunteer and grant making committees and model program development and implementation. The strategy may also include establishment of communication links, conference sponsorships, and the creation of a corporate volunteer clearing house.

### **Working with Tribes and Native Villages:**

## **RESEARCH AND DEVELOPMENT OF INNOVATIVE TECHNOLOGIES FOR ALASKA**

Rural Alaska represents one of the largest health risks in the Region. The Yukon-Kuskokwim Delta, in particular, has one of the highest rates of hepatitis and other waterborne disease in the country. Constructing, operating, and maintaining piped systems in much of Alaska is not feasible, practical or cost effective and traditional alternatives to piped systems typically do not provide an adequate level of service.

To address this problem, active investigation and promotion of innovative and alternative technology for the delivery of rural sanitation services. Research and development activities should represent a community, State, federal, University and private sector cooperative effort both in funding and input. A multi-tiered approach to investigating and developing new sanitation technologies is also suggested.

As the first step in this cooperative effort, annual technology seminars would be held in cooperation with the University of Alaska and the Alaska Sanitation Interagency Taskforce. This would allow promoters of innovative and alternative sanitation technologies can present their concepts to the engineering community. This would encourage new ideas from manufacturers and designers and would introduce sanitation engineers to nontraditional technologies.



As funding allows, those technologies showing the most promise would undergo field testing which would consist of three phases. The first phase would include targeting a receptive village to host the demonstration project, a project inception briefing during a council meeting of the hosting community, and (if necessary) fabrication of prototype units. During phase two, prototypes would be installed in the homes of four to ten volunteer families. Phase 3 would consist of project evaluation. If the project is a success and well received by the village, expansion of the technology into the rest of the community would be recommended through the capital budget process.

This phased approach would allow communities to participate in and assess each step of demonstration projects before continuing on to the next phase. Further, it would allow communities to observe and evaluate technologies prior to deciding whether to adopt the new technology on a community-wide basis.

All studies, evaluations, and reports regarding the successes or failures of new sanitation technologies in village Alaska would be made available to interested parties. Environmental indicators would include reduced rates of disease, and improvements in drinking water quality.

## TECHNICAL ASSISTANCE AND MULTIMEDIA GRANTS FOR INDIAN TRIBES

Indian tribes are exposed to the full range of environmental pollutants that other residents of region 10 are, but their level of exposure is often quite different. Both urban and rural Indian people, for example, will have a different risk than non-Indians because of their tendency to consume larger quantities of fish products. We are only now studying this risk with Columbia River Fish Consumption Survey. Indian peoples have not had access to the environmental programs typically managed by the states and have few resources available for developing or implementing environmental programs.

### Goals and Objectives:

EPA will publish rules in FY92 authorizing Tribes to develop their own water quality standards. We expect applications from all four Idaho Tribes and over ten Washington Tribes. In FY92 and FY93, we expect to be providing seed money to Tribes from 106 grants already budgeted by Headquarters. We would expect to receive actual applications in FY93 and FY94.

Consistent with EPA's Indian policy we want to work with Tribes on a government to government basis to develop tribal environmental programs. To do this, we need to educate tribes about EPA programs and requirements for tribes. Technical assistance would include how to access and utilize EPA information systems, developing monitoring plans and quality assurance plans, and developing compatible GIS systems. Funding assistance would be provided to the tribes in the form of multimedia grants to establish environmental programs.

### Environmental Indicators/Measures of Success:

We are currently using \$106 grants to develop a base water quality program on Indian reservations. As base programs are established, tribes should begin collecting basic water quality data for both surface and groundwater.

## INTERNATIONAL PROPOSAL

This proposal calls for the development of protocols to help resolve environmental disputes between countries. The lack of such protocols is impeding the Region in its efforts to satisfactorily address the contamination of Lake Roosevelt as well as Puget Sound issues. Lake Roosevelt is a large lake in northern Washington created by the damming of the Columbia River. Canadian industries are discharging unacceptable levels of pollutants into the Columbia, where they are accumulating downstream in the lake.

The development of a set of established protocols outlining the steps the Region should take to raise the issue with the offending country, and what internal procedures should be followed within the Region would potentially be extremely useful to all programs.

Region 10 is currently the back-up lead region for External Affairs, Policy and International Activities, and then in FY93-94 the region should become the lead region for this program. An initiative to develop international protocols in FY93-94 might be an excellent way to carry out our role as the lead international region. The Region 10 proposal will include the following: 1) a role for Headquarters and the U.S. State Department, 2) using the existing state committee, and 3) restarting routine meetings with Environment Canada and the British Columbia agencies.

Region 10 also proposes to develop cooperative programs with certain Pacific Rim countries. Following up on FY92 Headquarters initiatives in this area, we will implement a two way exchange program focused on priority environmental problems identified by those countries. These proposals will be coordinated with the Office of International Activities and the Headquarters program offices.

## HQ/NATIONAL POLICY RECOMMENDATIONS

Region 10 is concerned about the burgeoning workload in the Drinking Water Program that is resulting from the requirement to implement federal drinking water regulations in primacy states 18 months after EPA's promulgation, even if a state has requested and received an extension beyond this deadline for adoption of equivalent state rules. This new workload requires that FTEs for state oversight be channeled into implementation activities in primacy states.

Three of Region 10's states are operating under agreements that allow a one-time extension of the deadline for rule adoption due to a lack of state program resources needed to develop, adopt and then implement new state rules. Implementation of the federal rule must proceed in the absence of a state rule. While the states are assisting in the implementation of the new federal rules, a substantial workload has unavoidably fallen to Region 10. This situation creates confusion for water systems, unexpected and increased workloads for EPA, and disruption of state programs which must begin assisting in and implementing a federal rule before they have completed adoption and planning for implementation of an equivalent state rule.

A common-sense approach would allow the state to delay implementation if the state was making a good-faith effort to adopt and implement the rule by the end of the extension period and if public health was generally protected (i.e., extensions for implementation

would not generally be allowed for contaminants posing a significant acute health risk.) Region 10, therefore, proposes that statutory and regulatory flexibility be developed so that EPA could grant a one-time extension to primacy states for both rule adoption and rule implementation.

We also recommend that Headquarters start a dialogue with Congress on the total number of contaminants to be regulated in drinking water. The monitoring and regulation development burden is becoming a major budget problem for all. Investing in first-round monitoring programs will identify which contaminants staff needs to regulate. Surrogates could be used; presence/absence tests. Further, the dialogue could include raising the threshold level from 25 to 100 persons served by a public drinking water system in order to make the program more manageable. This would eliminate approximately half the systems from the federal universe but makes no change in state universe. It would reduce the number of problem systems on EPA SNC lists, etc.

In the wastewater discharge permit arena, we recommend Headquarters initiate a legislative request to allow a ten year permit period (from the existing five), along with a provision which strengthens our ability to reopen permit to impose more stringent limits. We would also encourage the Agency to revisit the Memorandum of Understanding with the Department of Justice with an eye towards Total Quality Management, to ensure that we are most effectively using the resources of both agencies.

Currently 50% of multimedia funds for Indian tribes are being withheld by HQ/NPR and distributed on an as needed basis. All multi-media funds should be distributed to the Regions.

Finally, we recommend Headquarters raise the threshold level for construction grant audit/dispute regulations. This action too would support our disinvestment plans and allow resources to be directed to higher priority activities.

## ENVIRONMENTAL INDICATORS

We have selected some environmental indicators from our FY89 Environmental Indicators report that are applicable for these new program directions.

- o Wetland/near shore habitat quantity and quality
- o Acres of wetland gains as a result of mitigation and comparison of wetland type lost to type gained
- o Acres of wetland impacted and mitigated for by project type (i.e. docks and piers, filling for bank stabilization, etc.)
- o Acres of wetland preserved or replaced as a result of enforcement action
- o Successes or benefits from construction grants operation and maintenance programs

Listed below are other indicators that we are working on:

- o Basin River Projects
- o Dioxins/Furans in Columbia River - trends on dioxin and furan concentrations in fish tissue, sediments, and effluent discharges will be tracked. Risk assessment will be used as a measure if possible.
- o Cumulative wetland losses and impacts in certain target study locations
- o Wetland mitigation projects' successes/failures since 1987
- o Habitat Indices - results obtained from the use of Region 10's streamwalk checklist and EPA's Rapid Bioassessment Protocols will be evaluated for their usefulness as environmental indicators.
- o Citizen Monitoring - information collected in the Adopt-A-Stream and environmental education programs will be evaluated to determine its usefulness as environmental indicators.
- o Number of Point Source Permits Updated (Reissued) to include more restrictive/comprehensive discharge limitations, as an indicator of pollutant loading reductions to surface waters.

## **HAZARDOUS WASTE PROGRAM FY94-97 STRATEGIC PLAN**

### **RCRA PROGRAM**

#### **I. MISSION/VISION STATEMENT**

##### **RCRA MISSION STATEMENT (Our Purpose - Function)**

To reduce risks to human health and the environment by:

- o Requiring or promoting waste reduction/prevention;
- o Ensuring careful waste management practices to prevent releases to the environment;
- o Requiring or promoting clean-up of contamination, and
- o Working in constructive relationships with other participating levels of government (states, local, Indian tribes).

##### **RCRA VISION STATEMENT (Long-term, what we want the future to be)**

- o Complete, effective waste reduction/prevention program coupled with an effective monitoring/oversight program ensuring sound management of waste.
- o Little need for clean-ups caused by poor practices.
- o Contaminated sites have been addressed.
- o No new contaminated sites are being created.
- o RCRA program is an exemplary program.
  - makes sense;
  - trusted by constituents and affected parties;
  - leader in multi-media controls, and
  - operates smoothly, effectively, efficiently, and productively (internally and with states).

#### **II. PROGRAMS, RISKS, AND STRATEGIC CHOICES**

##### **RISK REDUCTION HIERARCHY (the tier write-up is for HWD, not just RCRA)**

Most current activities can be distributed among three tiers or levels.

**Tier 1, Clean-ups** Tier 1 is comprised of every site within Region 10 that requires clean-up. All Region 10 activities that address Superfund remediation, Federal facility clean-up and RCRA corrective action take place within this tier. The focus is responding to past bad practices.

**Tier 2, Management and Control** Tier 2 addresses present day waste management and control. These activities assure that the past bad practices which resulted in Tier 1 cannot be repeated. Tier 2 includes permitting, enforcement, data collection on waste generation and management, and state authorization.

**Tier 3, Pollution Prevention** Tier 3 addresses prevention based activities designed to first prevent the generation of pollutants, and second to enhance reuse and recycling of wastes

which are generated. The focus of this tier is to reduce risk and environmental impact, to the greatest extent possible, by preventing pollutants from entering the environment. Figure 1 presents a picture of the hierarchy as it exists today.

In this present day picture, the greatest level of effort and resources are directed to Tier 1. This is in order to reduce risks and environmental impacts posed by past bad practices. The second greatest level of effort and resource allotment rests within Tier 2. These resources are directed at insuring sound and protective present day waste management. Tier 2 is expected to shut off present day additions to the Tier 1 universe. Tier 3 receives the least level of effort and resources. What resources are available for pollution prevention are directed at expanding our overall understanding of prevention opportunities, potential risk reduction and the initiation of prevention projects to reduce waste generation and promote recycling.

### Current RCRA Activities Supporting A Risk Reduction Based Program

The major strategic choices facing RCRA in coming years deal with how RCRA can best shift resources to the pollution prevention or waste minimization part of the program. R10's strategic choices are in line with national RCRA priorities. For instance, in Tier 1, the emphasis is to target clean-ups at worst sites first. In Tier 2, the emphasis is to target enforcement activities to get the maximum effect with other handlers, increase the number of generators under surveillance, and target permitting activities that are most environmentally significant.

There is an on-going effort to integrate Tier 3, waste minimization, into the RCRA program. RCRA has already initiated several projects in support of Hazardous Waste Division's vision; some of these projects are described in last years plan, e.g. the Northwest RCRA Corrective Action Strategy. Other projects include a waste minimization training program designed to inform RCRA staff of the limited waste minimization provisions within the RCRA statute and how they can be applied in day to day RCRA activities. Other program activities supporting risk reduction and pollution prevention include voluntary owner/operator-initiated corrective action, the ranking or re-evaluation of all R10 sites, and the overall planning effort to utilize the national strategic framework which targets RCRA permitting efforts and specific compliance settlements that are most environmentally significant. The Subtitle D program continues to implement solid waste initiatives promoting waste reduction. Some examples include promoting market development for recyclable materials, procuring recycled products, and fostering innovative pilot projects within the Region, e.g. the model recycling and waste reduction program at the University of Washington.

### **III. RCRA GOALS AND OBJECTIVES IN SUPPORT OF VISION**

While the above proposal is designed to create greater risk reduction opportunities, the RCRA program has also focused on additional goals and objectives which will help Hazardous Waste Division move up the risk reduction hierarchy and allow for greater expansion of pollution prevention.

1. All sites needing clean-up (excluding newly regulated handlers that come in under new regulatory requirements) have been identified; fewer new past bad practice sites are being discovered.
2. Clean-ups focus on destruction technologies rather than removal. Cross-media transfer of pollutants is minimized or eliminated through use of omnibus authority in permits.
3. Improved compliance with regulatory standards by focusing on educating the public, encouraging pollution prevention within the regulated community, and promoting good management.
4. EPA and States work as a team; each is competent, credible and has meaningful work to do.
5. Speed up remedial actions.
6. Region/states have a significant role in defining program priorities/directions (region/state "self-determination" concept).

Objectives or Short Term Accomplishments That Support RCRA Goals:

- o EPA/States substantially increase the current number of generators under some level of surveillance; focus is on waste management/control, prevention and clean-up;
- o All existing sites are evaluated (complete RCRA Facility Assessments);
- o Discover all existing sites needing clean-up;
- o Ensure work focuses on worst sites first;
- o Develop common ranking criteria for Superfund/RCRA sites and rank all HW sites based on the criteria;
- o Strategically target enforcement to get maximum effect with other handlers and also provide pollution prevention incentive; and
- o Continue to issue permits which control and limit cross-media contamination and which impose Part 264 waste minimization requirements.

#### **IV. BUILDING TOWARDS A RISK REDUCTION PROGRAM: RCRA BRANCH STRATEGIC PLAN ACTIVITIES, FY94-97**

The RCRA component of Hazardous Waste Division's strategic plan for FY94-97 builds upon the FY93-96 strategic plan by continuing to develop a greater level of risk reduction capability into the program. Assuming that the FY94 base budget remains the same as the base budget for FY93, the RCRA program will be working on the Washington Initiative and the Puget Sound Initiative in FY94. If no additional new money is received, we will not take on any new initiatives; rather, we will use the flexibility already provided for in the Regional Implementation Plan (RIP) to plan regional/state priorities. If additional money is received, we will look at other possible initiatives to coordinate with the Puget Sound initiative.

##### **Washington/RCRA Corrective Action Strategic Initiative**

This initiative, which was first proposed in the FY92-95 Strategic Plan, is an example of how the variables of program efficiency and regional office/state capabilities can impact in all three tiers. The initiative focuses on the following activities:

1. The Washington Department of Ecology (Ecology) will delay seeking delegation for RCRA corrective action until 1995 and will focus its RCRA resources on base program activities, including waste minimization;
2. R10 keeps the grant funds earmarked for corrective action in Washington and will use those funds to support accelerated, EPA-administered corrective action work; and
3. R10 will reduce oversight of the State's base program.

In the FY92 budget, we requested a shift of state grant money to EPA FTE for direct implementation of corrective action activities. Although Headquarters approved the initiative, the conversion of grant money to EPA FTE did not occur. R10 is currently utilizing another option which is to use grant money to hire IPAs to work on EPA-administered corrective action activities. For FY92, one IPA position has been established and two more are under development.

##### **Puget Sound Initiative**

The proposed Puget Sound initiative supports environmental management among all Region 10 programs. The RCRA program's role in the proposed Region 10 initiative (refer to R10 Water Division strategic plan) is in the early planning stages. RCRA's share of resources for FY93 include 1 FTE and approximately \$200,000 in extramural money. RCRA will analyze ways to invest these resources in the Puget Sound Basin so that the Basin gets the most environmental benefit for the RCRA resources invested.

There are four strategic possibilities for RCRA to evaluate as part of the Puget Sound Initiative. The options are linked to the three levels or tiers of the RCRA program (clean-ups, management and control, and pollution prevention). The first option targets all of the RCRA resources at Tier 3, pollution prevention. Activities would include waste minimization or technical assistance to RCRA staff and/or facilities. Also, generators could



be targeted that are on or near Puget Sound and where surface water contamination has been identified.

A second option would target activities in all three tiers. The activities would support multi-media, e.g. Federal Facilities and other appropriate industry types. There are several viable candidates in the Basin for clean-ups, management/control, and pollution prevention activities.

A third option would be to target Tier 1 activities by focusing clean-ups on worst sites first. Resources could be used to address clean-ups at the highest risk sites that have potential impact on water quality in the Sound.

A fourth option would be to invest all resources in government infrastructure. Resources could be targeted towards Indian Tribes or other levels of government in the area.

Further action will depend on the outcome of the analyzes and the option chosen by the RCRA program.

#### Compliance/Enforcement Pilot Project

In the FY93-96 strategic plan, the RCRA program had proposed to develop, in consultation with its states, a compliance/enforcement priority setting pilot project to "test" the concept of region/state "self-determination". R10 proposed to set aside the RIP in one of its states for a three year period. R10 and this state would then define priorities and activities, in addition to allocation of resources, that would result in greater opportunities for risk reduction. An example of this "self-determination" approach to risk reduction would be to disinvest regulatory presence at TSDFs in favor of increasing regulatory presence at waste generators. The intent was to do the necessary analysis of possible tradeoffs during FY93 in order to request flexibility in the priority/activity planning process for FY 94.

As part of the FY92 RIP process, R10 prepared a Beginning of Year Plan (BOY) which is a planning effort to help define RCRA goals, plans, and priorities for the coming fiscal year. The BOY plan includes national program priorities, R10 program priorities, and reflects state activities in the Strategic Targeted Activities for Results Systems (STARS) measures. Since the BOY plans, which will be prepared every year, are one mechanism for defining R10 priorities and trade-offs, we have chosen not to continue with the compliance/enforcement pilot at this time.

#### **V. HQ/National Policy Recommendations**

As strategic plans are developed, R10 will continue to keep in mind funding relationships between the Region and state resources. Since much of the RCRA program is implemented by or with the states, strategic resource investments need to consider both EPA and state grant resources. This would allow both the Region and the states to continue to implement their respective programs.

Also, the question needs to be addressed regarding the continuation of funding on strategic initiatives. The assumption is that the resources given to a particular strategic

initiative would carry over for several years so that the planning and implementation of that initiative would not be interrupted.

## **VI. Environmental Indicators/Measures**

The Office of Solid Waste is developing environmental indicators for each of the three major RCRA goals in the Subtitle C program: waste minimization, safe management, and corrective action. Waste minimization goals are aimed at reducing the quantity, toxicity, and hazardous properties of wastes; conserving natural resources by reducing the use of raw materials; and reducing the use of toxic materials in production. Safe management goals are aimed at preventing risks to human health and the environment from the management of wastes after they are generated. Corrective action relates to the cleanup of past and future contamination from past practices at RCRA facilities.

OSW will begin reporting on short-term indicators in FY92 and will begin reporting on long-term indicators (those for which data is currently not collected or readily accessible) in FY94. The indicators will be assessed by OSW for their applicability to the Subtitle D program as well. Region 10 will be an active participant in the development and reporting on environmental indicators for the RCRA program.

## **SUPERFUND PROGRAM**

### **SUPERFUND VISION STATEMENT (Long-Term, What We Want for the Future)**

- o An accelerated, smoothly running program with the average time for a cleanup significantly reduced.
- o Sites currently in the pipeline have been addressed.
- o A systematic site discovery program focuses on worst sites.

### **SUPERFUND MISSION STATEMENT (Purpose - Function)**

Like RCRA, Superfund also takes on a risk reduction focus. Superfund reduces risks to human health and the environment and conserves natural resources by:

- o Requiring or promoting waste reduction/pollution prevention;
- o Ensuring careful waste management practices to prevent releases to the environment;
- o Requiring or conducting clean-up of contamination;
- o Identifying and responding to releases or substantial threats of releases of hazardous substances into the environment; and
- o Working in constructive relationships with other levels of government.

## **RISK REDUCTION HIERARCHY**

The FY93-96 Strategic Plan discussed in detail the three-tier risk reduction hierarchy. Most Superfund activities occur in Tier 1, Clean-ups, which focuses on responding to past bad practices.

### **SUPERFUND GOALS AND OBJECTIVES IN SUPPORT OF HAZARDOUS WASTE DIVISION VISION**

1. Identify contaminated waste sites posing immediate threats. Respond to emergencies as appropriate. Conduct removal assessments at all NPL sites. Negotiate PRP removals wherever prudent and possible. If necessary, order removals.
2. Seek more effective/efficient ways to address all sites. Prioritize new starts on "worst sites first" basis. Keep current sites moving through the pipeline to RD/RA.
3. Continue a proactive site discovery program to identify and assess new sites. Pilot completed in Oregon; continue pilot in Idaho; evaluate test results and make appropriate modifications. Offer program to other regions/states. Develop comparative assessment scheme. Assess all existing sites.

4. Emphasize enforcement to encourage private parties to perform cleanups and/or avoid the necessity for cleanup. Publicize enforcement activities. Continue strong removal enforcement effort.
5. Carefully monitor and maintain sites over the long term.
6. Encourage/build state hazardous waste response capability. Support the elimination of regulatory and statutory inconsistencies and gaps. Support the provision of TSCA and FIFRA with the capability to handle their own clean-up problems. Encourage consistency within EPA programs as it relates to handling risk.

#### **BUILDING TOWARDS A RISK REDUCTION PROGRAM BASED ON POLLUTION PREVENTION: SUPERFUND BRANCH STRATEGIC PLAN ACTIVITIES, FY 94-97**

##### **1. Pilot Systematic Site Discovery Project:**

EPA Region 10 staff and contractors have developed a systematic process to focus site discovery efforts and allow Superfund to efficiently seek likely NPL sites. The process was tested in Oregon's Willamette River Valley, with about ten potential sites identified (as against 3 current NPL sites in the state).

**STATUS:** Currently expanding the project to other parts of Oregon and to Idaho. Once this is done, the Superfund program expects to have a more comprehensive inventory of likely NPL sites in these states which may need investigation and cleanup, and a systematic site discovery program to offer other regions.

##### **2. Coeur d'Alene Basin Restoration Initiative**

In FY 91, Region 10 initiated a formal project to address the Coeur d'Alene Basin in Northern Idaho. The Basin impacts the Spokane River and the Rathdrum Prairie Aquifer, a sole source aquifer in Eastern Washington. The project is a joint effort of the Idaho Operations Office, and the Water, Hazardous Waste and Environmental Services Division and is described in detail in a separate section of the Region's Strategic Plan. Superfund primary involvement is in the areas of site assessment and possible removal actions.

**STATUS:** Superfund is represented on the steering committee of the project and has contributed resources to fund a project director. The potential for additional preliminary assessments/site investigations and removal activities is being factored into budget projections. Details are included in the section on the Coeur d'Alene Basin Restoration Initiative.

##### **3. PUGET SOUND INITIATIVE**

The Superfund Program continues to be involved in the Puget Sound Initiative by virtue of the fact that a significant number of National Priorities Sites affect this unique resource. (Refer to the Region 10 Water Division strategic plan).

**STATUS:** The Superfund Program will continue to move sites through the pipeline. As many of the sites are Federal Facilities, EPA will monitor the work conducted by the various Federal agencies.

## **ENVIRONMENTAL INDICATORS/MEASURES**

Region 10 will use a combination of PAs, HRSII scores, removal assessments, and risk assessments (where available) for environmental indicators. Examples of these indicators are:

1. Human health and ecological goals achieved at sites.
2. Immediate threat to human health controlled.
3. Amount of waste treated/removed/contained.

In addition, Region 10 will also count and compare the number of sites identified, and attempt to evaluate the comparative and relative risks posed by new sites.

## **MANAGEMENT PROGRAM FY94-97 STRATEGIC PLAN**

### **I. Introduction**

Management Division is committed to a service ethic, of providing our fellow employees throughout the Region with what they need to do their jobs. We have chosen a vision statement that expresses our commitment:

#### **Working Together to provide Leadership in Service**

This vision statement embodies three ideas:

##### **Service:**

it is what we do, an indispensable part of the overall enterprise. The service we provide is necessary to our organization's mission and is valued when it is done well.

##### **Leadership:**

we can provide leadership in this Region by the way in which we relate to the rest of the organization. By adopting the right behavior in our alternating roles as customer and supplier, we can set an example for the entire Region.

##### **Working Together:**

this term reminds us - and tells others -that we are a team; to behave any other way is to put unnecessary limits on how far we can go as an organization. This idea applies to this Division, and to the entire Region as well.

Our vision statement is the inspiration for our Strategic Plan. We have used the vision to analyze the future course of each organizational subunit of the Management Division. Most importantly, the vision statement has guided the development of the strategic initiatives which approach the future with less emphasis on each Branch/Office and more concern for the entire Division's contribution to the Region. The Branch/Office strategic needs are discussed next, followed by the strategic needs and initiatives of the Division as a whole.

### **II. Management Division Components**

The Division is composed of five branches and three offices. Each of these areas of responsibility has its own strategic needs, which will be summarized below. The main emphasis of this plan, however, is on those initiatives that cross branch and office boundaries and require us to work together to accomplish those purposes articulated in our vision statement.

### Information Management Branch

The primary function of Information Management Branch is the support of automated processes and the electronic storage and presentation of information. A major challenge for IMB over the next five years, as it responds to growing customer expectations, will be to select hardware and soft-ware of lasting value in the face of constant industry upgrades that rapidly make investments obsolete. We also need to be sensitive to opportunities for the public to retrieve information through electronic access and transmission.

### Administrative Management Branch

The Administrative Management Branch (AMB) provides the logistical underpinnings of the Regional Office: office space planning and acquisition, lease management, production photocopying, mail distribution, procurement, contracting, personal property and motor pool management, and numerous other supplies and services. Several factors will contribute to an increased workload. The work force will increase, if only modestly. Automation and other efficiencies will allow employees to accomplish more during their work day, thereby raising expectations regarding the services that AMB can provide. The challenge faced by AMB is to increase efficiency to handle the workload.

### Comptroller Branch

Limited resources and the increasing use of electronic data systems and automation mean that the information and services we now provide will change greatly, emphasizing assistance rather than processing. EPA's possible elevation to a Cabinet department, if accompanied by an expanded program role, will add to this trend. Our outdated green eye shade image will be transformed into an analytical, technical assistance function. A centralization of tasks will reduce the paper shuffling and increase the dependence on electronic communication of data.

### Human Resources Management Branch

The Human Resources Management Branch (HRMB) recognizes that new challenges lie ahead in the care of our most vital resource: our people. We anticipate that, by FY 97, our work force will be larger. It will have greater proportions of women and minorities, a higher level of technical and scientific attainment, and a wider range of needs, personal and professional, than it has now. HRMB will adapt to the new work force through more numerous and varied training and career development opportunities, more efforts to determine employees' needs and desires, and better communications methods to ensure that all staff are informed of what services are available through streamlined personnel management procedures.

### Equal Employment Opportunity Office

The EEO Office foresees an increasingly diverse work force prepared to meet the environmental challenges of the future. To reach this goal, the EEO Office will continue to focus on recruitment, education, training, and a heightened sensitivity to managing a diverse work force.

### Policy, Planning and Evaluation Branch

In the past, the Policy, Planning and Evaluation Branch (PP&E) has managed and coordinated a number of management activities (e.g. State/EPA agreements, STARS, Senior Managers' Retreats). A second important function includes serving as an analytic resource to other programs and senior managers. The Branch emphasizes a cross-media perspective and starts up many new programs such as pollution prevention.

PP&E will place increased emphasis on integrating old and new initiatives to prevent pollution and manage for environmental results. The Branch will play a major role in helping the Region adapt to a changing role in which EPA acts as a partner and supporter of increasingly mature state programs. In some cases, this will mean promoting increased use of risk-based and cross-media approaches, prevention, environmental indicators, voluntary market tools and quality management.

### Health and Safety Program

The Health and Safety Program will enable EPA staff to optimally perform their work by assuring a safe and healthy work place. The Program seeks to:

- o Prevent situations that compromise health or personal sense of well-being.
- o Mitigate those adverse health impacts that do occur.
- o Attend to diverse and emerging needs and care for those who have already been injured.

### Total Quality Management Process

Region 10 has made a major commitment to Total Quality Management (TQM) as a philosophical foundation for the Region. TQM is a management principle that relies less on organizational hierarchy than on the employee(s) closest to the problem to identify and meet customer needs. Each employee, individually or as a member of a Quality Action Team, is given the tools and the support to emphasize customer satisfaction in her or his work. TQM will produce greater efficiency, higher quality work product, and better enable employees to contribute their ideas and expertise to help resolve problems.



### **III. Strategic Needs**

Predicting the future can be risky, but we are confident that the next five years will be a period of great change. We will see it in our work force, where women and minorities, including workers for whom English is their second language, will increase in proportion. We will see it as the electronic work place replaces what were once secretarial tasks. As programs mature, our relationships with the states will be altered. As we complement traditional command and control with pollution prevention, technical assistance, and outreach, we will experience a need for different skills in our work force.

Based on Agency history, we can predict at least a modest amount of growth. This will have implications for work space planning, intra-office communications, and the ethos of what was once a family-like atmosphere. Already we cannot bring the entire work force together in a single room.

Polling data and other sociopolitical antennae describe the most important aspect of our future -- that the public's expectations of our performance will outstrip available resources. Our challenge is to work smarter and work better in order to give the public, and the environment, our best.

The strategic plans of each branch or functional area in Management Division suggest some areas where we can be more efficient and work smarter. The trend toward increased automation will continue; some aspects of a "paperless office" are already on the horizon. This will require updated equipment, more specialized recruiting, and training to meet our employees' needs.

Total Quality Management (TQM) principles are vital to our success. We know that we work better when we work together. The formation of teams that cross branch lines can help us to ensure that an entire range of needs is met when we take an initiative. The individual's role in TQM must be further enhanced to improve our efficiency; many issues can be resolved without forming a Quality Action Team.

Our demonstration of this kind of leadership is necessary for the success of the entire Region. As more responsibilities are heaped on the program offices, they will need our presence and expertise to transcend the narrow bounds of individual tasks and focus on cross-media, Region-wide concerns.

#### **IV. Strategic Directions**

Management Division finds that four words embody the essential themes of the Division's activities, the "what" of our role, for the next five years:

- o Information**
- o Resources**
- o Service**
- o Leadership**

These words crystallize the issues that will cut across branch boundaries over the next several years. The initiatives listed under each word describe the activities that will require a cooperative effort by more than one branch from this Division. Many of the initiatives do not fit neatly within only one of the key words. This further demonstrates how interrelated many of our functions are, and reaffirms our need to work cooperatively in the future.

#### **V. Initiatives**

##### **Information**

Our information responsibilities include selecting, collecting, storing, analyzing, and applying information. Although in the electronic age this often involves computers, we are mindful of the need to maintain our library as a repository of information. The Region's training and education responsibilities are additional aspects of the overall information function.

##### **Our Information initiatives are:**

- o Support development of geo-based information systems.**
- o Provide staff with the best tools available.**
- o Make the transition to paperless financial documents and electronic signatures.**
- o Keep technical staff abreast of state-of-the-art technology.**
- o Facilitate access to Agency information by integrating technology such as micrographics and optical imaging.**

##### **Resources**

The importance we place on resources stems from the need to assure a well-trained and competent work force to meet changing organizational needs. To make better use of resources we are looking to simplify processes and make more efficient use of money. We also want to maintain a safe and healthy work place and provide adequate tools and equipment for our staff.

Our Resources initiatives are:

- o Work with managers to better identify work force needs and target recruitment.
- o Implement a regional training/development program to meet the needs of a diverse and highly technical work force.
- o Develop/enhance leadership skills for potential and incumbent supervisors/managers and administrative support personnel through career development programs, mentor/sponsor relationships, and the upward mobility program.
- o Improve recruiting/staffing process to fill jobs faster and with highly qualified candidates.
- o Provide services such as eldercare, pre-tax set asides to pay for daycare/eldercare, telecommuting, alternative work schedules.
- o Increase outreach to educate potential employees about Environmental careers, such as partnerships with schools, involvement in community activities, interaction with professional groups.

**Service**

Service is the fundamental product of Management Division. We intend to achieve continuous improvement in identifying and answering customer needs.

Our Service initiatives are:

- o Develop more automated processes to reduce the administrative workload (application forms which can be transmitted electronically, "electronic signatures", touch-screen computers, storing employee records).
- o Develop a "standardized platform" so that all staff can communicate with the same capabilities.
- o Expand the employee assistance/wellness program and make it available to all employees (i.e. operations offices).
- o Develop health and safety program to address needs of all staff (beyond vaccinations, first aid supplies and training, and attention to facility hazards)
- o Routinely analyze cross-media problems and recommend solutions to managers.
- o Provide trained TQM facilitators to assist the Region in solving problems.
- o Expand available contracting/purchasing services.
- o Refine our ability to make space acquisition or redesign by translating all floor plans onto computer-aided drafting and design system.

- o Provide technical assistance to states conducting comparative risk projects and actively promote flexibility for high risk projects.
- o Increase and improve the capabilities of the Service Center.

## **Leadership**

We will to lead the Region in those areas within our expertise. We want to be facilitators of change, being attentive to emerging needs and priorities, and providing a unifying influence on the Region. We intend to identify and maximize opportunities to promote improvements.

### **Our Leadership initiatives are:**

- o Develop and implement a planning and management system that aligns key organizational processes (e.g., strategic planning, budgeting, staffing/job design, accountability and information management systems, performance management and reward and recognition systems at the Regional and State levels.
- o Assure that health and safety issues are addressed during facility planning
- o Provide leadership and resources to improve work place quality.
- o Promote risk as the tool to set priorities, both within the Region and with the states.
- o Promote pollution prevention as the "solution of first choice."
- o Improve integration of quality concepts and principles into the way we do business in Region 10.
- o Eliminate the current classification process and move to pay banding.
- o Develop a more fluid, less hierarchical organization where units are established and disbanded based on specific projects or assignments.
- o Facilitate change to promote management for environmental results.
- o Provide more outreach to the public and private sector to stimulate dialogue about risks and pollution prevention as the solution of first choice.
- o Make environmental equity a key criterion in all Regional programs and policies and use outreach to inform all cultures and socioeconomic groups of environmental risks.
- o Promote and support initiatives focused on policy futures as the model for environmental protection evolves.

**VI. Measures of Success**

- o Information which is easier to access (measured by the number and quality of data layers available).
- o Number of improved processes.
- o Increase in customer satisfaction and improvement in customer performance measured against FY 92 baseline.
- o Improved employee capabilities as a result of improved recruitment, training, and development.
- o Reduced number of EEO complaints resulting from more education and a continued proactive stance in preventing discrimination.
- o A planning and management system which allows managers to predict with certainty the occurrence of annual events and which seeks to maximize state participation.
- o Most discretionary dollars are spent on pollution prevention projects targeted to high risk areas.
- o Managers report in client surveys or customer polls that they use Environmental Indicators to plan and evaluate their programs.
- o The Division receives at least two requests per year to provide a facilitator for a quality action team; and to have one person participate on a cross-media quality action team.
- o The Division receives at least four requests per year to perform special analytic projects.
- o Low or falling injury and illness rates.
- o High employee morale.
- o Different cultures and socioeconomic groups have a better understanding of risks and more actively participate in Agency decisions.

## **ENVIRONMENTAL EDUCATION PROGRAM FY94-97 STRATEGIC PLAN**

### **I. Introduction**

The U.S. Environmental Protection Agency's mission is to protect the public from environmental hazards, enhance the quality of our natural environment, and expand our knowledge of the environment. While regulatory programs have been successful in moving toward these goals, Agency leaders believe that further progress can be achieved by motivating voluntary changes in personal behaviors which affect the environment at all levels of American society.

The Agency is committed to fostering an enhanced environmental ethic in society - that is, a heightened public awareness and sensitivity to the environmental consequences of individual and collective actions. Environmental education in its broadest sense is fundamental to achieving this goal.

The purpose of this Strategic Plan is to present Region 10's approach to building this Program, the program's goals and objectives, and the major planned tasks identified to date.

### **II. Problem Statement**

Solving environmental problems ultimately will require behavioral changes from all segments of American society; everyone will need to have a much greater understanding of the factors contributing to these problems and the likely consequences of their daily decisions. Though the regulatory approach to environmental problems has produced great progress, sustained environmental improvement requires more direct involvement on the part of the public and business. We must build an understanding of the consequences of choice and of behavior toward the environment.

The growing seriousness and complexity of major environmental problems combined with the changing demographics of the work force over the next ten years, will contribute to an increasing shortage of environmental management professionals at a time when their availability is critical. Motivating young people to choose an environmental management career path, whether out of a sense of economic self interest or commitment to the nation's environmental goals, could also yield substantial public benefits.

Education is the best way to address these needs because it can:

- o Instill an environmental ethic and sense of personal responsibility in our youth, while equipping them with the knowledge, critical thinking skills, and analytic tools necessary to deal with the environmental issues they will confront as adults;
- o Help remedy the fact that only a small percentage of American students in Kindergarten through twelfth grade have received or now receive more than a rudimentary education in environmental science, and related social sciences;

- o Address the fact that the general public, and future business and government leaders graduating from college to day, are still largely unaware of the environmental consequences of their personal and professional behaviors;
- o Train the trainers who teach in formal educational systems and informal settings; and
- o Prevent pollution and reduce risk through empowering people to make appropriate personal and business decisions.

### III. Goal

The long term goal of regions 10's environmental education program is to achieve an environmentally literate, sensitive and responsible public who will act to protect, manage and enhance the Region's environmental resources.

#### 1997 Objectives

To have made measurable in efforts to:

- o Stimulate, facilitate and enhance environmental education for all segments of society working through existing academic instruction and outreach to the public (schools, community colleges, media, universities, museums, nature centers, libraries, parks and recreation areas, local organizations, professional societies, etc.).
- o To build, leverage, or catalyze new and expanded partnerships to accelerate development, infusion and delivery of environmental education.
- o To reinforce positive behavior for and toward the environment by public and private individuals, and institutions.
- o To facilitate the sharing of good environmental education information, techniques, instructions of materials and community involvement activities.
- o To increase the availability of future environmental professionals.
- o To foster development of master plans for environmental education.
- o To communicate the benefits of pollution prevention and empower citizens generally with information enabling them to make decisions with an understanding of consequent personal, societal or environmental risks.
- o To fill critical environmental education needs identified in spring 1991 (clearinghouse, exhibits and mobile displays, central K-12 curriculum framework and teacher training to implement it, and hand-on community learning opportunities).

Only by building on Regional media program activities, pollution prevention and Headquarters Office of Education work, and expanding all partnerships can these objectives be achieved.

#### IV. Proposed FY 1994 Activities

- o Continuation, coordination and expansion of the current community and professional outreach efforts in the media programs.
- o Improvement of the Speakers Bureau's capabilities by working to match projected group leaders, school/teacher needs with staff capabilities and support materials to increase Environmental Educations's relevance to students and community group members.
- o Working with media programs, identifying important outreach possibilities for the year and coordinate development and distribution of materials directed to the public on targeted constituent groups through use of the PIC's 1-800 number, PSAs, constituents' publications and Speakers Bureau activity.
- o Fully utilize the NEEA grants funding to support the objectives.
- o Facilitate information sharing among grantees, education organizations, states and community groups using all their communications outlets, conferences, teachers in-service and training opportunities as well as EPA publications.
- o Utilize the Region 10 Federal Agencies Environmental Education Task Force (a parallel group to the National Federal Agencies Task Force, formed in 1992) to define, plan, jointly fund and facilitate specific education efforts to be delivered in 1994. Candidate activities would be teacher training to use various agencies curricula or infusion units, volunteers training to lead youth groups, sponsoring conferences with states to bring together funding sources and grantees of various funds in the public and private sectors, sponsoring state-led development of state master plans for environmental education through a series of public events, printing material.
- o Publicize community and formal environmental education achievements (PEYA, P2 awards, administrator's awards, NEEA grant completions and teacher awards, media programs).
- o Expand Regional participation in environmental education organizations conferences and exhibitions through Speakers Bureau volunteers.
- o Utilize/leverage national MOUs with Federal agencies and youth organizations to increase Region's and states' activities with Scouts and outreach/education units in Department of Agriculture agencies.
- o Broker public/private partnerships with and for communities, federal agencies and industry to undertake community environmental education projects/programs.



- o Recognize pollution prevention achievements of industry, community, academic, individual and local, state or federal agencies through concerted efforts to inform media and sector publications and through a Region 10 Administrator's Award program.
- o Assist organizations to feed information into and utilize the EPA environmental education clearinghouse.

## V. Analysis

Costs: Costs to the Region would be those associated with one FTE at the GS-12 level and travel support for both that individual and others (through the Speakers Bureau) who represent the agency beyond the local travel range, approximately \$20,000.

Feasibility: The strategy as outlined is highly feasible. It builds on the agency's mandates under the National Environmental Education Act, utilizes expertise in the Regions, enhances existing EPA and region organizations' programs and capabilities, utilizes and enhances the Office of Environmental Education's national initiatives to implement the Act and leverages funds, people and ideas.

Risk Reduction Potential: There is no better way to reduce risk than to educate and empower people to act to decrease harm to themselves, their social and economic well-being and their children's and neighbor's environment.

Proposed Disincentive: Continuation of the Region wide tap on all organizations to maintain the one FTE environmental education position in the Office of External Affairs.

## VI. Environmental Indicators

Without a pre and post survey to measure increased knowledge, or a means to record people's making choices to change polluting behaviors or take specific community improvement actions, it will be difficult to measure the effects of outreach and formal environmental education. Numbers such as callers served, mailings sent, teachers trained, speeches given and people reached through speeches or conferences could be surrogates for unmeasurable still-to-be-realized environmental improvements or degradation prevented.

## National Strategy Compatibilities

This strategy supports the EPA Administrator's Environmental Outreach and Education theme, the Environmental Education component in the Agency's overall Strategic Plan, is compatible with the Office of Communication Education and Public Affairs' Environmental Education Plan, and the Science Advisory Board recommendations to use education for risk education. It further enhances Region 10's capabilities to carry out environmental education to reduce risk.

## OFFICE OF ENFORCEMENT PROGRAM FY94-97 STRATEGIC PLAN

In light of the rate of population growth here in Region 10 we face challenges unparalleled in the past. The pressure on ecosystems which heretofore have not been extremely distressed has built quickly since the mid-1980s and will continue to build in the foreseeable future. To plan through FY97 we must take this fact into account. This is a special challenge for Region 10.

The Region 10 Office of Enforcement Strategic Plan for FY94-97 focuses on achieving "enforcement for compliance" as outlined in the RA and DRA's October 9 guidance. Enforcement for compliance will be accomplished by:

- 1) careful targeting,
- 2) utilizing efficiencies learned from past experience to make multi-media enforcement more productive and less costly, and
- 3) more extensive outreach to the regulated community on regional enforcement directions.

### Targeting for Enforcement for Compliance

The region is relying heavily on the Enforcement Four-Year Strategic Plan and its emphasis on improved targeting. The Region will expand upon and build greater capacity in this area by emphasizing better data systems, better coordination with our states and greater emphasis on environmental risk.

The first step in targeting has been identified as the development of an integrated data system. Such a system would link compliance information from many programs and generate summaries for all sources within Region 10. The region will link the compliance information with other regional data addressing health and environmental risk, including release (Toxic Release Inventory) and receptor data (population density, groundwater vulnerability, etc.). These sources would in turn be linked to the region's Geographic Information System (GIS). This data would then be used for risk screening, information on pollutant toxicity, pollutant quantity and sensitive human populations, and could be combined to identify the highest-risk releases and sources. The system would be used to set priorities for multi-media compliance inspections and enforcement actions for specific industries, facilities, geographic areas and pollutants of concern. It can be a powerful tool to pinpoint the areas of most environmental stress in Region 10.

At present the region maintains two databases which can be used for targeting for compliance. One is the Enforcement Tracking System (ETS) maintained by the Office of Enforcement, which contains information about all enforcement activity which has taken place by site in Region 10. The other is the DOCKET system which is maintained by the Office of Regional Counsel. It contains a more detailed history of each formal enforcement action in the region. It is not anticipated that either of these systems will be phased out prior to the end of FY97 as it will be some time before the IDEA system described above is at full capacity, and both existing systems can function as backups to the IDEA system.

The multi-media targeting done in early FY92 built upon the process used in FY91. The states were involved during the earliest planning stages, and National Enforcement Investigations Center (NEIC) and the Four-Year Enforcement Strategic Plan criteria for targeting facilities were used. The result was better consensus between the states and EPA as to the facilities targeted. The FY92 process will be used as a baseline to measure environmental gains resulting from the inspections. Gains will be continuously monitored and the process adjusted as needed over FY93 and FY94.

### **Multi-Media Efficiencies**

A second area of emphasis will be to enhance our multi-media enforcement capabilities. We are doing this, first, by creating an Office of Enforcement and, second, using Total Quality Management (TQM) to do better case screening.

In order to carry out more multi-media inspections we will need to train additional inspectors to do the job. Training inspectors will be handled and funded through the compliance programs. By FY93 the Office of Enforcement should have one FTE whose position description includes multi-media inspections and outreach (see below). If Office of Enforcement has personnel able to conduct multi-media inspections it will free programs' inspectors to spend more of their limited resources on pollution prevention and Region 10 initiatives.

The technical expertise of the additional FTE will also be directed toward environmental indicators. Emissions reduced through settlements of enforcement actions will be targeted, quantified and documented. The same technical expertise can be used to design innovative settlements which promote pollution prevention.

Region 10 Office of Enforcement has begun to use TQM principles to create a screening process which meets the needs of the programs, the states, and the enforcement office. TQM will be used extensively in the next four years, since the office is new and many procedures will be designed anew and/or improved upon.

### **The Outreach Program**

The third strategy Region 10 is utilizing to accomplish "enforcement for compliance" is the development of a more extensive outreach program.

The Region 10 Office of Enforcement has been doing outreach since its inception. The goal of the program is to encourage cooperation between industry, the states and EPA to create economic and other incentives to achieve pollution prevention, risk management and other EPA initiatives. The amount of time spent on outreach will increase as additional funds are available.

Currently industry, the Bar and environmental groups are targeted for outreach. School groups will be added in late FY92, as will the press, congressional staff and other EPA constituents. In FY94 the level of effort and program results will be evaluated as to their effectiveness.