



HEALTHY *Many Countries — One World* PLANET

World events have changed our view of the potential for disaster awaiting an unprepared nation. Bhopal, India - 1984: 43 tons of toxic gases escape from a factory killing two thousand people. Chernobyl - 1986: Uncontrolled nuclear reaction spreads radiation across Northern Europe. Kuwait - 1991: Oil fields set aflame by retreating Iraqi troops, blacken middle eastern skies. For weeks, even months, they brought us to an awareness of what a small, vulnerable place the world really is. But for all their special notoriety, they might also have diverted our attention from more common, everyday releases of pollutants into the global environment.

Two important lessons we have learned from these global tragedies: Lack of safeguards on human activities can

Regional EPA specialists advised Saudi Arabian leaders on an environmentally sound relocation of this treated water outfall pipe.



Sewage in the Red Sea

The City of Jeddah in the Kingdom of Saudi Arabia sought the expertise of EPA scientists and engineers in the design of a wastewater treatment plant on the shores of the Red Sea. The Saudi government's Meteorological and Environmental Protection Administration faced the task of determining the effects of releasing the treated waste water into the adjacent coral seas.

Recognizing the expertise of the United States Environmental Protection Agency in evaluating sewage treatment plants, the Saudi government requested a team of specialists to review the proposed outfall design. Three EPA employees were dispatched to Jeddah at the expense of the Kingdom of Saudi Arabia.

After studying maps, oceanographic reports, discharge estimates, and design plans, the three EPA team members used a computer simulation to estimate how the treated wastewater would dilute in the coastal sea, and where it would travel. The simulation results proved very useful to the Saudis in their decision making processes, supporting the extension of the outfall pipe and additional lengthy diffuser. In addition to providing a simulation of the anticipated effects, the EPA team also proposed effluent monitoring, an impact study of the coastal coral reef, and a training program which would further develop the technical expertise in Saudi Arabia.

result in environmental and human disaster; and large scale environmental contamination and its associated impacts do not stop at international borders.

The world is interconnected.

Whether it's put in environmental, economic, or social terms, how we manufacture, consume and dispose of goods eventually affects other people in other lands. It could be the transport of airborne pollutants, trade in endangered species, loss of habitat to deforestation, or ocean-dumping of toxic wastes. Actions affecting the environment in a remote corner of the world can have an adverse impact in the United States.

A Win Win Situation

The EPA's dedication to solving complex environmental challenges extends beyond U.S. borders. EPA is actively involved with partners in foreign countries that will yield a "win-win" for all countries.

For example, we know that the Pacific Northwest contributes so-called greenhouse gases (e.g. CO₂) that have led to global climate change. We also know that others outside this region contribute to this global environmental problem, affecting our weather and other

natural systems. Similarly, domestic and foreign activities contribute to stratospheric ozone depletion, which may lead to increased incidences of skin cancers, cataracts, and other health and welfare concerns. By engaging our international colleagues in discussions, we hope to find solutions to reducing greenhouse gas emissions and ozone depleting chemicals that will be of mutual benefit for all.

Closer to home, our record of cooperation with our Canadian neighbors in addressing trans-border environmental issues continues to grow. We regularly work

U.S. and Canada Marine Ecosystem Partners

EPA Administrator, Carol Browner and Environment Canada's Minister, David Anderson, signed a Joint Statement of Cooperation on the Georgia Basin and Puget Sound Ecosystem, in January, 2000. This Statement of Cooperation between the U.S. and Canada is the first bilateral agreement to address the two marine basins as one ecosystem.

The Puget Sound, Strait of Juan de Fuca and the Strait of Georgia, are three basins that together form a larger ecosystem. As the largest marine estuary in North America, the Georgia Basin-Puget Sound region is one of the most ecologically diverse, containing a wide range of internationally significant species and habitats.

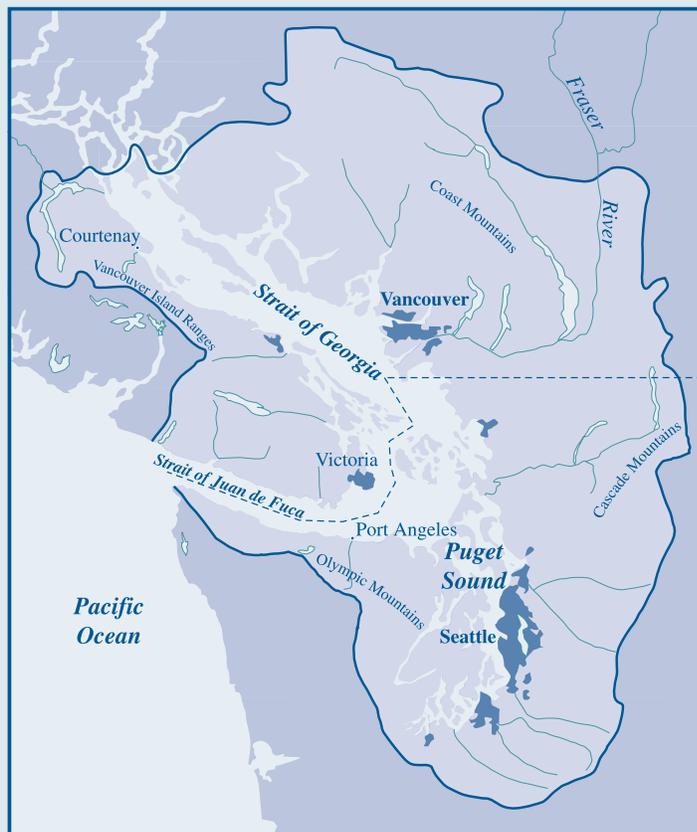
As the current regional population of six million moves toward an estimated nine to eleven million by 2020, planning for sustainable growth will be essential to maintaining a balance between development and environmental health. The Statement of Cooperation has been developed to provide for improved trans-border cooperation, priority-setting and information exchange throughout the ecosystem.

In 1996, The Province of British Columbia and the State of Washington committed to cooperative efforts on environmental matters on the Puget Sound/Georgia Basin ecosystem, resulting in the identification of priority issues through assigned international task forces. The EPA and Environment Canada will join in these protection strategies for managing a shared marine ecosystem.

Areas of major concern include:

- *Minimizing estuarine habitat loss;*
- *Establishing marine protected areas;*
- *Protecting marine plants and animals;*
- *Minimizing exotic species introduction;*
- *Joint monitoring and research;*
- *More effective controls on toxic wastes releases*

The Georgia Basin to the North and the Puget Sound to the South Are Now Cooperatively Managed by the United States and Canada



The cooperative agreement also allows both Federal governments to engage in projects to address air quality issues, growth and transportation issues, and climate change.



cooperatively on issues related to salmon, water quality, air quality and chemical management.

We also devote a small fraction of our resources to helping others around the world. Over the past three years, we have sent our experts to more than twenty countries providing assistance to deal with the often profound environmental problems they face. The expense to the U.S. is minimal. The host country pays for all travel and operation expenses, while the EPA contributes technical experts. As an alternative, we have met with officials from more than 35 countries during their visits to the United States, with whom we share our environmental management experiences.

Benefits for Region 10

For the many benefits that this modest investment yields, it is clearly worthwhile. Our efforts often lead to direct improvements in the health and welfare of people in host countries. Building capacity in foreign environmental programs leads to more efficient use of these countries' precious natural resources. Our involvement in technical pollution control issues often opens doors to the purchase of American environmental products and services, stimulating our economy. And as host countries begin to shoulder the real costs of responsible environmental stewardship, the increased price of their products results in a more level international marketplace.

Among all the benefits to the United States, perhaps the most subtle are the experiences our employees bring back. In working with people elsewhere under difficult, sometimes desperate circumstances, we get ideas for new, often low-tech solutions that can be applied to some of the problems we encounter here.