Making a Difference...

In Environmental Protection & Restoration

With more than 20 million acres at military installations and civil works projects, the Corps of Engineers is entrusted with the care of two-thirds of the Department of Defense lands. Environmental stewardship of these resources is the Corps' legacy into the 21st century.

Combating a Major Environmental Disaster

On January 21, 1991 – four days after Operation Desert Storm began – American reconnaissance revealed that the Iraqis had moved five tankers full of oil into the Persian Gulf. Within hours, the Iraqis began pumping oil into the water. An environmental disaster was in the making.

When an oil spill occurs, containment and cleanup operations must be initiated as rapidly as possible. In the Persian Gulf, this was not immediately feasible because of the lack of equipment and hostile environment. Planning actions to counter the oil required the ability to periodically determine its location and distribution and to project its trajectory or movement for the future. For a spill this size, remote sensing provided the only practical monitoring and mapping approach, although this too was complicated by the difficulty in conducting visual observations.

The information the Corps of Engineers gained from the Alaskan oil spill proved useful. The Corps was assigned to be part of a multi-agency effort to assist the government of Saudi Arabia during Operation Desert Storm. Together with the Coast Guard and the National Oceanic and Atmospheric Administration, Corps laboratories processed image data using the Landsat Thematic Mapper. Conventional multispectral processing used in conjunction with a portable Macintosh-based computer system provided rapid, interactive processing of data which could be integrated into a Geographic Information System. What typically took four weeks was reduced to two to three days, saving not only time, but also precious parts of the Persian Gulf's fragile environment.

Since 1969, beginning with the passage of the National Environmental Policy Act (NEPA), Congress has enacted legislation which has strengthened the bond between environmental engineering and the Corps of Engineers. The passage of this legislation has resulted in the Corps' involvement in many new environmental areas and has stimulated the development of the Corps into a multidisciplinary team.

This multidisciplinary work force, composed of some 40,000 military and civilian members, has the authority, capability, and obligation to act as environmental stewards. To aid in its progress, the Corps employs the services of more than 1,000 architecture, engineering, and construction firms. This diversity of skills and expertise uniquely positions the Corps to assume a leading role in environmental stewardship and global sustainability.

The Corps environmental strategy into the 21st century is fourfold:

- Give immediate priority to sustained compliance with all environmental laws
- Simultaneously continue to restore previously contaminated sites as quickly as funds permit
- Focus efforts on pollution prevention to reduce or eliminate pollution at the source
- Conserve and preserve natural and cultural resources so they will be available for present and future generations.

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