



## Civil Works

The U.S. Army Corps of Engineers' Civil Works mission is varied and wide-ranging. Its multi-purpose projects provide benefits for navigation, flood risk management, hydropower production, fish and wildlife, environmental stewardship, recreation, irrigation and municipal water supply. The Northwestern Division manages an annual civil works program of more than \$800 million, executed by its five district offices in all or parts of 12 states: Washington, Oregon, Idaho, Montana, Wyoming, Colorado, North Dakota, South Dakota, Nebraska, Kansas, Iowa and Missouri.



### Navigation

The Corps' primary navigation responsibilities are planning and constructing navigation channels and locks and dams, and dredging to maintain channel depths in U.S. harbors and inland waterways. The Corps operates and maintains 25,000 miles of navigable channels and 196 commercial lock and dam sites and is responsible for harbors and waterways in 41 states. In partnership with local port authorities, Corps personnel oversee dredging and construction projects at hundreds of ports and harbors.

Ten of the Corps' 237 locks are located in Northwestern Division — 8 on the Columbia/Snake rivers, 1 on the Willamette River, and 1 at Lake Washington in Seattle. The Division also maintains 22 deep draft harbors, 20 shallow draft harbors, and more than 1,700 miles of navigable waterways in the Columbia and Missouri basins.



### Flood Risk Management

Reducing risk and preventing flood-related damages can be accomplished by several means — through structural measures, such as reservoirs, levees, channels, and floodwalls that modify the characteristics of floods; or with non-structural measures, such as flood plain evacuation, floodproofing, and floodway acquisitions that alter the way people use these areas and reduce the susceptibility of human activities to flood risk.

Northwestern Division operates 82 flood risk management projects that can store up to 115 million acre-feet of water. Over the years, the projects have helped prevent cumulative damages of nearly \$84 billion within its two river basins.



### Hydropower

As the largest operator of hydroelectric power plants in the United States, and one of the largest in the world, the Corps' hydropower plants provide 100 billion kilowatt-hours annually, enough power to serve more than

10 million households. The Corps collaborates on its hydropower efforts with the Department of Energy and a variety of other federal, regional and state agencies and private companies. The 75 hydropower plants installed at Corps dams and reservoirs produce one-fourth of the nation's hydroelectric power and help the economy by creating additional revenue, jobs and tax dollars. Because of hydropower's significant advantages over other energy sources — clean, efficient, reliable, and renewable — it plays an increasingly important role in meeting the Nation's energy needs.

Northwestern Division's 29 hydropower projects on the Columbia, Snake and Missouri rivers generate about 75 percent of total Corps hydroelectric capacity, supplying electricity to three power marketing agencies whose annual sales exceed \$3 billion.

### **Environmental Enhancement/Fish and Wildlife**

Since the 1970s, the Corps' environmental efforts have grown and evolved from simply protecting fish, wildlife and plant species to a focus on recovering their numbers to become sustainable. The Corps partners with state and federal agencies to expand the scientific knowledge base of the natural environment and evaluate how activities within a watershed may affect protected species. Structural modifications to dams and powerhouses along with changes to river system operations are used to ensure the right things are done for the environment.

The Corps' Northwestern Division spent more than \$50 million in the Missouri River Basin and \$82 million in the Columbia River Basin in Fiscal Year 2008 for the benefit of fish and wildlife.

### **Recreation**

The Corps is one of the federal government's largest providers of outdoor recreational opportunities. It operates more than 4,300 recreational sites at its lakes and projects in 43 states, logging more than 370 million visits per year. State and local park authorities and private interests operate nearly another 2,000 recreation areas on Corps lands. Hundreds of educational and volunteer programs help visitors appreciate the need for conscientious environmental stewardship of the 12 million acres under our control.

In 2008, Northwestern Division recorded more than 47 million visits to its projects, which include 64 lakes, 55 visitor centers, and 9,500 campsites.

### **Regulatory Programs**

The mission of the Corps' regulatory program is to protect the Nation's waters for current and future generations, while allowing for reasonable economic development. Regulatory efforts protect a wide variety of aquatic resources, including wetlands, rivers, streams, tidal waters, coral reefs, shellfish beds, and the oceans. Our permit process is designed to minimize environmental impacts of construction and dredging activities in U.S. waters and to ensure that such efforts are thoughtful and coordinated.

In 2008, the Northwestern Division's regulatory program issued more than 300 individual permits and authorized more than 4,100 activities under general permits. The FY09 program is about \$21 million.

