Announcements

Water Resources

Water Resources Mission

Fast Facts about the Corps Water Resources Mission

- **Dams, water supply & hydroelectric power:** The Corps' hydroelectric projects produce 86.4 billion kilowatt-hours of electric each year, enough to serve 10 million households. This represents 24 percent of the nation's hydropower capacity. The Corps management of water supplies and hydropower systems is intertwined with important environmental programs to restore the Everglades and mitigate impacts on fish and wildlife along major waterways such as the Columbia, Mississippi and Missouri River.

- **Flood damage reduction:** The Corps' flood and coastal damage reduction projects save the nation an average of $21 billion per year. The Corps is the nation's primary resource for engineering and reconstruction expertise needed to deal with flooding, hurricanes, earthquakes and other natural disasters.

- **Navigation:** Nearly 12,000 miles of rivers and waterways, improved and maintained by the Corps for navigation, form the nation's inland and intercoastal waterway system. The waterway system annually carriers more than $80 billion worth of raw materials, agricultural products and finished products.

- **Recreation:** The Corps is the nation's No. 1 federal provider of outdoor recreation opportunities, with 375 million visitors per year.

- **Wetlands:** Under the Corps' regulatory program, more than 40,000 acres of wetlands are restored, created, enhanced, or preserved each year.

Dams, Water Supply and Hydroelectric Power

Title: Dam Basics - PBS Building Big
Link: http://www.pbs.org/wgbh/buildingbig/dam/basics.html
Subject Area: Water Resources
Description: Big dams prevent flooding, irrigate farmland and generate tremendous amounts of electricity. Since the first large-scale dam was built in Egypt more than 5,000 years ago, engineers have devised various types of dams to withstand the forces of a raging river. The site describes four modern types of dams and the types of forces that act on them. The "Dam Challenge" describes a problem encountered at each type of dam and lets students tackle it as if they were the engineer!

Title: Center for Columbia River History
Link: http://www.ccrh.org/index.htm
Subject Area: Water Resources

Description: The Center for Columbia River History promotes the study of the Columbia River Basin history. CCRH is dedicated to examining the hidden histories of the basin and to helping people think about the historical record from different perspectives through creative public history products and direct engagement with Columbia River Basin communities.

Navigation

Title: Lake Washington Ship Canal - Welcome to the Locks!
Link: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=lwsc&pagename=Navigating
Subject Area: Water Resources
Description: Construction of the Lake Washington Ship Canal and Hiram M. Chittenden Locks was completed in 1917 by the U.S. Army Corps of Engineers. Connecting the waters of Lake Washington, Lake Union, and Salmon Bay to the tidal waters of Puget Sound, the canal and locks allow recreational and commercial vessels to travel to the docks and warehouses of Seattle's busy fresh water harbor. Check out the four on-line videos at the bottom of the Web site (2 to 3-1/2 minutes each) to see how a boat moves through the large and small locks!
Title: Navigation - U.S. Army Corps of Engineers Education Center
Link: http://education.usace.army.mil/navigation/navigate.html
Subject Area: Water Resources
Description: Transporting products by water has played a major role in history. Navigating ships within waterways is essential to commerce and quality of life. The U.S. Army Corps of Engineers maintains navigation waterways throughout the United States much like road crews maintain highways. These waterways include the nation's deep-draft harbors that serve the seaborne commerce and smaller harbors for a variety of recreational and commercial purposes. The Corps has also built an intracoastal and inland network of channels with locks and dams for navigation. These waterways must be kept at the appropriate depth and width so ships and other watercraft can move safely and easily. Waterway improvements may include building breakwaters and jetties to protect homes and businesses from crashing waves. Several methods of dredging can be used to remove the sediments from the waterways. The dredged sediments are frequently used for other beneficial uses such as creating islands and wetlands or improving habitats.
Title: Mississippi River at Lock and Dam 15 (WebCam-2 -- a.k.a. River Cam)
Link: http://www2.mvr.usace.army.mil/NIC2/RiverCam.cfm
Subject Area: Water Resources
Description: Visit this webcam to see large ships and barges move through a lock on the Mississippi River.
Title: Ranger Buck's Lock Tour
Link: http://bobber.info/games.html
Subject Area: Water Resources
Description: This animated tour leads children and parents through the process of how a boat

lock works, showing the steps to move either a small vessel or a large towboat through a dam on a river. Open valves, run pumps, control the traffic signals and open and close the lock gates! Multiple steps show how a real lock operates; may be more appropriate for older children.

Recreation

Title: Water Safety Education Safe Passage

Link: http://watersafety.usace.army.mil/SafePassage/

Subject Area: Water Resources

Description: This program contains lesson plans, reproducible activity sheets, and interactive exercises in water safety, hydropower and conservation. Kids can join Jason and Holly as they solve the riddle of the compass and earn their Safe Passage, while learning about swimming, dams and rivers, boating and fishing, and water rescue.

Title: Bobber, the Water Safety Dog

Link: http://bobber.info/

Subject Area: Water Resources

Description: Meet Bobber, the water safety dog! View his award winning safety cartoon and access some downloadable fun. An excellent program for young children!

Title: Water Safety Activities for Kids

Link: http://watersafety.usace.army.mil

Subject Area: Water Resources

Description: Information about water safety can be found on the Corps National Water Safety Web site. Here are some activities you can do with the kids to reinforce what they learn about water safety:

Wetlands

Title: World in Our Backyard

Link: http://www.epa.gov/region01/students/teacher/world.html

Subject Area: Water Resources

Description: EPA Region 1, New England, has developed a good program (PDFs) of instruction for middle school to high school students, discussing wetlands science, functions and threats, as well as how to do wetlands field studies and how to protect or adopt a wetland as a school learning activity.

Point of Contact: Patricia Graesser Phone: 206-764-3760 Email: Patricia.C.Graesser@usace.army.mil