

IWR provides a full range of services through interdisciplinary teams and alliances with the private sector, academia, other agencies, and field personnel.

IWR's expertise covers **the full spectrum of Civil Works business areas:**

| | | |
|--------------------------------------|-------------------------------------|---|
| Navigation | Flood/Storm Damage Reduction | Ecosystem Restoration and Management |
| Natural Resources Stewardship | Emergency Management | Regulatory Program |
| Water Supply | Hydropower | Recreation |

IWR administers the **U.S. Section of the International Navigation Association (PIANC)**, which conducts international research on inland and deep draft navigation.

IWR supports the activities of the **Inland Waterways Users Board** and conducts **financial analyses** of the Inland Waterways Trust Fund.

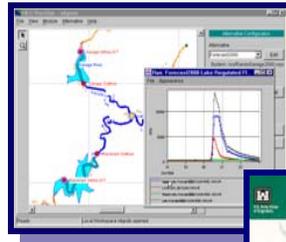
IWR includes two well-known **centers:**

IWR's Navigation Data Center (NDC), with its **Waterborne Commerce Statistics Center** in New Orleans, LA, is the nation's premier navigation data and statistics operation and the federal agent for data collection and statistics on the U.S. waterborne transportation system.

IWR's Hydrologic Engineering Center (HEC) in Davis, CA pioneered the practice of river-based engineering. HEC's hydrologic and hydraulic models have set industry standards. HEC expertise in surface water hydrology, river hydraulics, hydrologic statistics, and risk analysis is used to analyze flood damages, estimate hydropower generation needs, provide environmental restoration analyses, and facilitate water control management.

Services & Products

IWR provides a wide range of national statistics, reports, software models, databases, training courses, conferences, and technical assistance programs.



IWR's comprehensive **on-line library** includes HEC software and user guides; NDC publications and U.S. waterway data; the **National Drought Atlas**, and the **Planning Manual**.

Past studies include:

- **National Drought Study**
- **Federal Infrastructure Strategy**
- **National Dredged Material Policy**
- **National Wetland Mitigation Banking Study**
- **National Hydropower Study**
- **National Waterway Study**
- **Alternative Dispute Resolution Series**

The **Arthur Maass-Gilbert White Reference Room** houses original papers of two water resources pioneers for future water resources scholars and practitioners.

Check **IWR's website** at <http://www.iwr.usace.army.mil> or contact the Office of the Director at **(703) 428-8015**.

IWR is located at three sites:

**US Army Corps of Engineers
Institute for Water Resources
7701 Telegraph Road, Casey Building
Alexandria, VA 22315**

**Hydrologic Engineering Center
609 2nd Street
Davis, CA 95616
(530) 756-1104**

**Waterborne Commerce Statistics Center
7400 Leake Avenue
New Orleans, LA 70118
(504) 862-1400**



US Army Corps
of Engineers®

Institute for IWR Water Resources

IWR supports the U.S. Army Corps of Engineers Civil Works mission by developing and applying new water resources planning, policy, and hydrologic engineering methods and applications, and by managing national data and statistical systems.

IWR provides a unique synergy of water resources expertise that blends the engineering and social sciences, scholarship and practical concepts, innovative ideas and technical data. We apply these skills through planning and technical practices, policy and process improvements, and program information and communications . . . specifically:

- **Modeling hydrologic and hydraulic systems**
- **Policy development and planning assistance**
- **National and special studies**
- **National navigation data and statistics**
- **Navigation analyses and forecasts**
- **Planning tools and decision methodologies**
- **Program development and planning**
- **National outreach and liaison with academia and professional organizations**

Here are some examples of **IWR's** work:

- ❖ The **Corps' Water Management System (CWMS)**, a set of flow-forecasting and decision support models, helps Corps water managers operate projects and better prepare for emergencies, like flood fighting.
- ❖ GIS-based **Hydrologic Modeling System (HEC-HMS)** and **River Analysis System (HEC-RAS)** hydrologic/hydraulics models provide **comprehensive river basin system analysis** to understand water flows in watersheds and channels.
- ❖ **Risk management, economic analysis, and plan formulation evaluation frameworks** help Corps districts reduce project costs.

❖ **IWR-Plan decision support software** helps districts identify environmental planning options generating the most output per unit of cost.

❖ Government and industry groups depend on IWR navigation products like the **U.S. Waterway System--Transportation Facts; Waterborne Transportation Lines of the U.S.; Waterborne Commerce of the U.S.**; the 56-volume **Port Series**; and lock and dredging performance information.

❖ **IWR** offers a **one-stop source for vital data and information** used to analyze, operate, and study the navigation system . . . particularly regarding:

- **commercial vessels**
- **commodities**
- **infrastructure**
- **performance of the navigation system**

❖ **IWR** develops national, regional, and project-level trade, commodity, and fleet **forecasts**, conducts transportation **cost analyses**, and drafts guidance on vessel operating costs for deep and shallow draft navigation systems.

❖ **IWR's** innovative use of **Alternative Dispute Resolution Methodology** was recognized as a government innovation for saving the federal government \$375 million (65%) in litigation costs.

❖ **IWR's** public involvement specialists guided a series of **Listening Sessions** across the United States to identify critical water resources challenges facing America as part of **strategic planning for the Corps' Civil Works Program**.

❖ **IWR** transfers technology through **training and workshops** such as **Ecosystem Restoration Planning and Evaluation, Risk Analysis, Navigation System and Data Analysis, GIS in Hydrologic Engineering, Flood Frequency Analysis, and Public Involvement**.

Planning & Technical Practice

Program Information & Communication

Policy & Process Improvement



❖ **IWR's Shared Vision Planning** approach combines **plan formulation** with **stakeholder involvement**, resulting in a transparent project planning process.