



Homeland Security

Introduction to the Dams Sector-Specific Agency

The Dams Sector delivers critical water retention and control services that support multiple critical infrastructure sectors in the United States, including hydroelectric power generation, municipal and industrial water supplies, agricultural irrigation, sediment and flood control, river navigation for inland bulk shipping, industrial waste management, and recreation. The Federal Government's responsibility in the sector is indirect; activities include providing timely threat information and working with organizations to develop standards and guidance for facility construction, operations, and security. The U.S. Department of Homeland Security (DHS), which serves as the Dams Sector-Specific Agency (SSA), and sector partners collaboratively develop guidance, resources, and training that support the security and resilience of our Nation's critical dams, levees, navigation locks, and other water control facilities.

Dams Sector Collaboration, Resources, and Training

DHS offers many resources to help owners and operators manage risks, improve security, and aid the implementation and execution of protective and response measures across the Dams Sector. This fact sheet lists a sampling of sector collaboration mechanisms, resources, and training materials. Unless otherwise noted, additional information can be obtained from the DHS website at www.dhs.gov/dams-sector or by contacting the Dams SSA at dams@hq.dhs.gov.

Collaboration

Dams Government Coordinating Council, Sector Coordinating Council, Levee Subsector Councils, and Working Groups

convene regularly; share information; and develop tools, guidelines, and products.

Homeland Security Information Network–Critical Infrastructure (HSIN-CI) Dams Portal

allows Dams Sector partners to effectively collect and distribute security and resilience information for government and private sector partners.

Dams Sector Suspicious Activity Reporting Tool

provides Dams Sector partners with the ability to report and retrieve information on suspicious activities that could be a part of pre-incident surveillance.

Resources

Dams Sector Security Guidelines

consolidates effective industry security practices to reduce sector risk and improve the protection of personnel, public health, and public safety.

Roadmap to Secure Control Systems in the Dams Sector

addresses sector control systems challenges, mitigation requirements, and long-term research and development needs.

The DHS Hometown Security initiative

focuses on four steps—Connect, Plan, Train, Report—and provides tools and resources to help businesses improve proactive safety and security. Learn more at www.dhs.gov/hometown-security.

Training

IS-870a Dams Sector Crisis Management

describes the basic elements of emergency action plans, recovery plans, and continuity plans.

IS-871a Dams Sector Security Awareness

describes common vulnerabilities, threat indicators, surveillance detection, and reporting of incidents.

IS-872a Dams Sector Protective Measures

describes the basic elements of a risk management model.





Dams Sector Tabletop Exercise Toolbox (DSTET)

provides exercise planning resources to address sector-specific threats, issues, and concerns.

Sector Profile

Assets in the sector include dam projects, hydropower plants, navigation locks, levees, dikes, hurricane barriers, mine tailings, and other industrial waste impoundments. Dams Sector assets irrigate at least 10 percent of U.S. cropland, help protect more than 43 percent of the U.S. population from flooding, and generate about 60 percent of electricity in the Pacific Northwest. The National Inventory of Dams lists more than 87,000 dams throughout the United States. A large and diverse set of public and private entities own and operate these facilities under highly distributed regulatory oversight from Federal, State, and local entities.

- Approximately 65% of dams are privately owned; the remainder belong to Federal, State, local, tribal, and territorial entities.
- Levees have diverse Federal, State, local, and private ownership.
- Federal agencies own and operate the majority of navigation locks.
- Private companies own and operate onsite mine tailings.

Dams					
	100,000 dams estimated with >87,000 in the National Inventory of Dams	10% U.S. cropland is irrigated by dams	6–7% U.S. electricity generated by hydropower facilities	60% electricity in the Pacific Northwest generated by hydropower facilities	31% of dams have a high or significant hazard potential if they fail or misoperate
Levees			Mine Tailings		
	Estimated 100,000 miles of U.S. levees	43% of U.S. population live by levees that reduce the risk of flooding		150,000 mine tailings and industrial waste impoundments	Facilitate manufacturing while protecting the environment
Navigation Locks					
	236 lock chambers at 192 U.S. sites in 41 States	12,000 miles of inland marine highway network controlled by locks	624 million tons of U.S. cargo moved annually by inland marine network	\$70 billion cargo moved annually by inland marine	

Source: 2015 Dams Sector-Specific Plan

Trends and Emerging Issues

- **Natural Disasters and Extreme Weather:** Climate change may bring more extreme weather, reduced water tables, increasing droughts, and greater earthquake threats. Combined with an increased population using sector resources, safe operations may be stressed.
- **Aging Infrastructure and Workforce:** Many Dams Sector assets were built decades ago and require routine maintenance to operate safely. Some may require rehabilitation to meet improved safety criteria or address new risks from extreme weather and downstream population development. Many Dams Sector jobs are highly technical or specialized and have limited turnover. Facilities are losing institutional knowledge as experienced workers retire.
- **Deliberate Attacks and Terrorism:** Though the catastrophic failure of a dam would be difficult to achieve through a conventional terrorist attack, recent international events suggest terrorists still consider dams attractive targets because of the potential for significant economic, environmental, and public safety consequences.
- **Cyberattacks:** Key cyber risks include cyberattacks that target inadequate security controls, outdated patches, and unknown vulnerabilities; social engineering attempts designed to gain operator credentials; and intrusions from insider threats. All such attempts could allow attackers to access critical control systems and disrupt or control physical components and processes.

For More Information on the Dams Sector

- Contact the Dams Sector-Specific Agency at dams@hq.dhs.gov or learn more at www.dhs.gov/dams-sector
- Dams Sector-Specific Plan 2015: www.dhs.gov/publication/nipp-ssp-dams-2015
- National Infrastructure Protection Plan (NIPP) 2013: www.dhs.gov/national-infrastructure-protection-plan
- Presidential Policy Directive 21, Critical Infrastructure Security and Resilience: www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil