

Offering Public Access while Maintaining Security

The events of September 11, 2001, caused a shift in thinking about public access at hydro facilities, but the need to provide recreation remains. A Federal Energy Regulatory Commission team works to help owners keep their projects secure while still providing essential public access.

By Heather E. Campbell
and Frank Calcagno, Jr.

Recreation and public access are important aspects of hydropower projects. Demand for recreation has changed as leisure time increases and sporting technology, such as whitewater boating, continues to evolve. The goal of the Federal Energy Regulatory Commission (FERC) is to provide comprehensive development of U.S. waterways, including the optimum development of recreational opportunities at hydro projects.

The events of September 11, 2001, led FERC staff, licensees, and resource agencies to take a closer look at public access as it relates to project security. Licensees are seeking ways to protect the public and their investments, while FERC is working with licensees to ensure a project is secure and still provides public access and recreational opportunities.

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FERC's recreation guidelines

For nearly 40 years, FERC has required licensees to provide recreational facilities at hydro projects. On December 27, 1965, FERC issued Order No. 313, which amended the General Policies and Interpretations Section of FERC Regulations (18 CFR Part 2). Part 2.7 states, in part, that FERC "will evaluate the recreational resources of all projects under Federal license or applications therefore and seek, within its authority, the ultimate development of these resources, consistent with the needs of the area to the extent that such development is not inconsistent with the primary purpose of the project." In addition, the 1986 Electric Consumers Protection Act amended section 4(e) of the Federal Power Act to require that FERC give "equal consideration" to nondevelopmental interests, including the "protection of recreational opportunities."¹

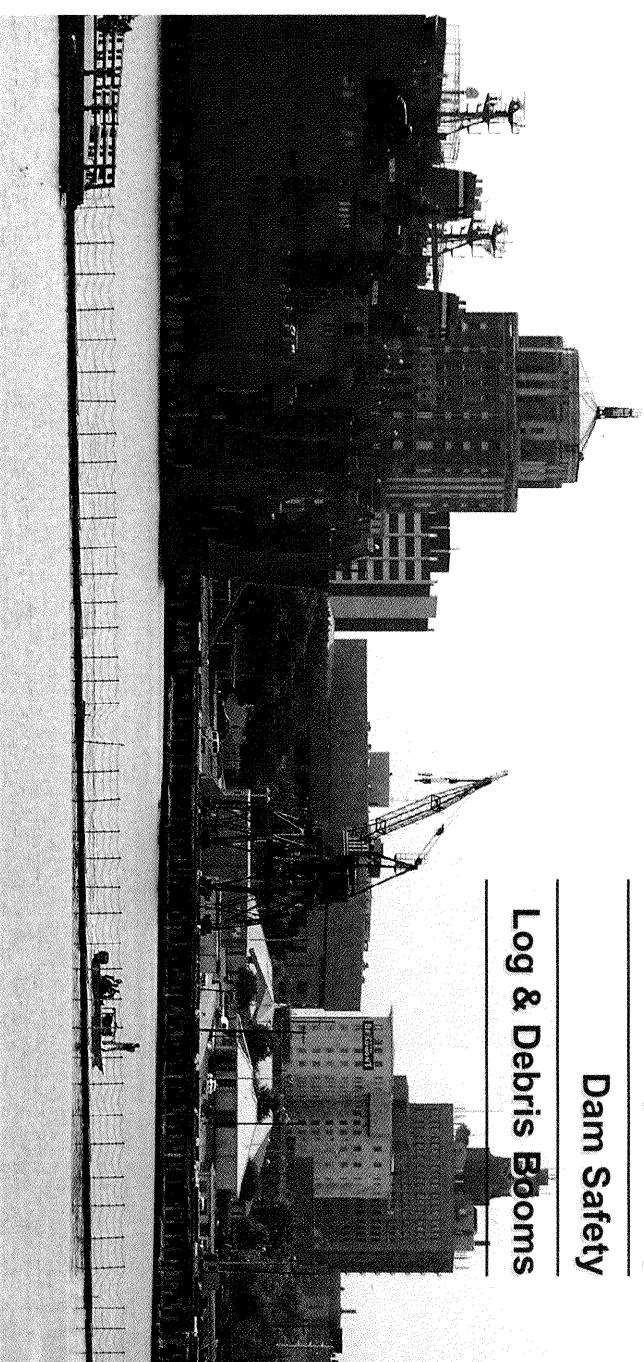
In addition, most licenses contain a standard free public access article that states, in part, that licensees "shall allow the public free access, to a reasonable extent, to project waters and adjacent project lands owned by the licensee for full public utilization of such lands and waters for navigation and for outdoor recreational purposes." The licensee "may reserve from public access such portions of the project waters, adjacent lands, and project facilities as may be necessary for the protection of life, health, and property."

Providing recreation and security

Recreation at hydro facilities can vary from minor access points that provide views of the reservoirs or for carry-in boats to more elaborate facilities that provide camping, picnicking, boating, and interpretive trails. When licensing a project, FERC staff strives to require development of access and recreation that meets public needs and fits with other development in the area. In formulating recreation plans, licensees must work with various agencies, such as the National Park Service, the U.S. Department of Agriculture's Forest Service, the U.S. Fish and Wildlife Service, and the state departments of natural resources. Licensees also work with local county or municipal agencies.

After September 11, 2001, licensees became increasingly concerned about the amount of public access and project features' vulnerability to sabotage and terrorism. In response, FERC's Division of Dam Safety and Inspections developed a security program that requires licensees to evaluate project areas that are vulnerable to threats. FERC prioritizes dams with respect to consequences arising from a hypothetical attack. Group 1 dams have the greatest priority, and Group 3 dams the lowest. By the deadline of September 30, 2003, licensees completed vulnerability and security assessments for 1,050 Group 1 and Group 2 dams and many Group 3 dams.² FERC and licensees use these studies to assess and upgrade security where necessary, and as a baseline for future needs, such as for re-evaluations or changing security or threat parameters.

Before completing these assessments and determining specific vulnerabilities, 25 licensees requested permission to close their recreational facilities. However, after performing these assessments, only three others began to consider closing or limiting public access. FERC staff believes performing these



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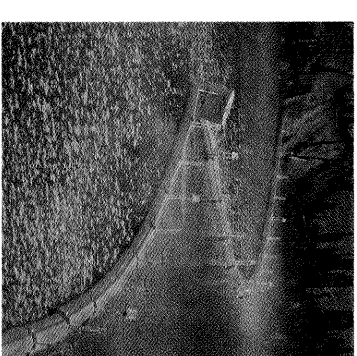
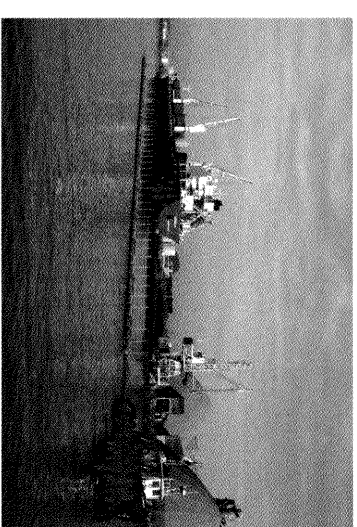
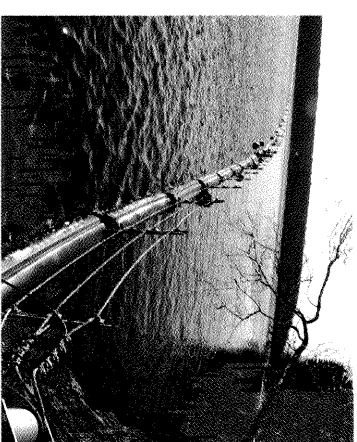
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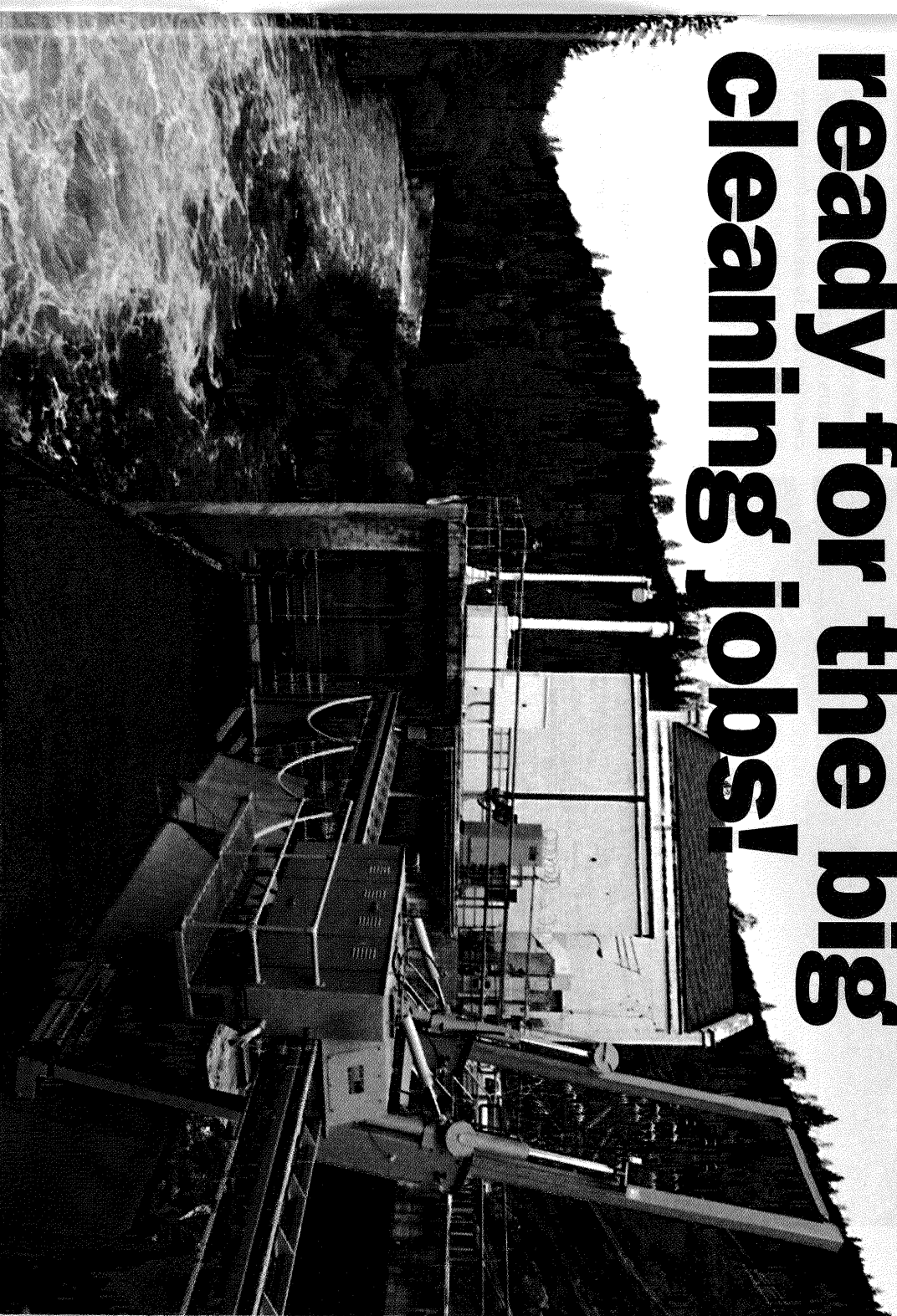
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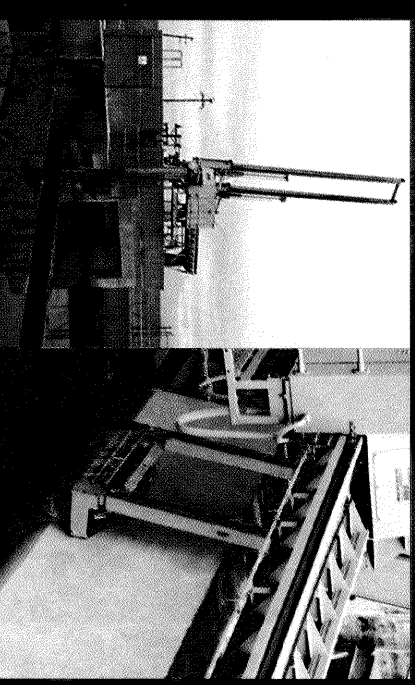


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FERC's security team

Because safety is the top priority for FERC, the Division of Hydropower Administration and Compliance and the Division of Dam Safety and Inspections formed a team just a couple of months after September 11 to determine ways to provide safe and secure public access. The five-member team includes the authors, as well as Constantine G. Tjournas and Daniel J. Mahoney with the Division of Dam Safety and Inspection and Joseph Morgan with the Division of Hydropower Administration.

Shortly after September 11, most requests were to move people away from the hydropower structures, such as the powerhouse, penstock, and tailrace. Licensees were concerned that people in vehicles or carrying backpacks could do physical damage to the facility. FERC's recommendations to these facilities evolved into the vulnerability and security assessments discussed above.

As may be expected, licensees are unsure just what type of perceived threat to expect. From a historical perspective, vandalism is a viable threat. However, identifying a realistic "upper limit" threat is not always easy. In any event, identifying vulnerabilities and upgrading security will provide protection and immediate benefits from the recognized vandalism problem, as well

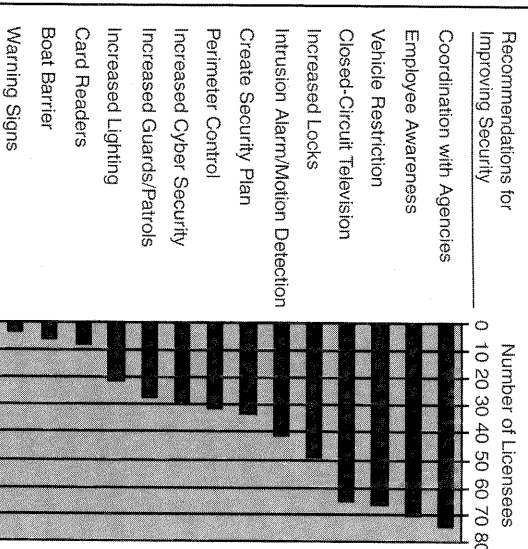
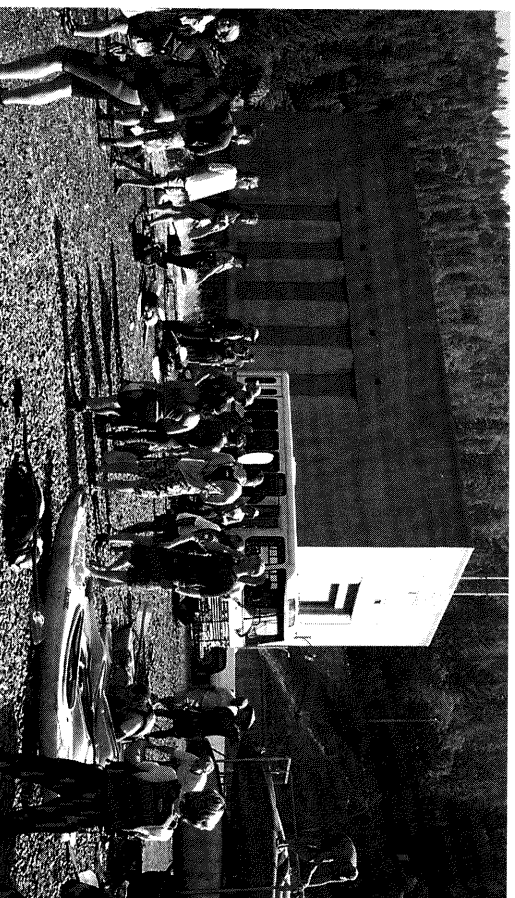


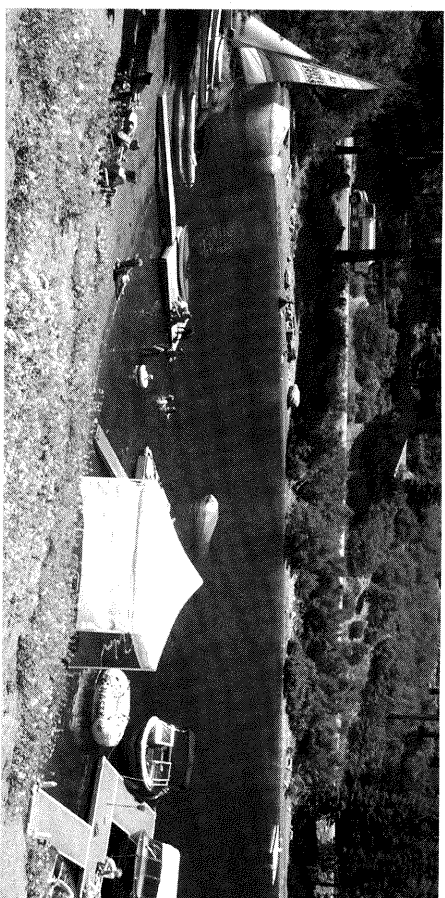
Figure 1: To improve security at hydro projects, owners made several recommendations as part of vulnerability and security assessments required by the Federal Energy Regulatory Commission.

assessments helped licensees realistically assess the degree of vulnerability of their facilities.

In these three cases, results of the vulnerability studies justified the closure request because the potential losses resulting from damage to the powerhouse would be significant. In other cases, after performing the assessment, licensees realized the perceived vulnerability was not as serious as originally thought. During the assessment, licensees considered two consequences: financial loss from the destruction of property or loss of generation and, more importantly, loss of life at or downstream of the dam.



Whitewater enthusiasts use the shore area at the 185-MW Rock Creek-Cresta project in California as a staging area as they prepare to run the rapids of the Feather River. Pacific Gas and Electric tracks the number of people using this area to maintain project security.



Hydroelectric projects can provide a wide range of recreational opportunities for the public, including swimming and boating on the reservoir. A challenge for project owners is to provide this public access while, at the same time, keeping their projects secure.

keep all facilities open when the code is yellow (elevated risk) or below. Once the code is orange (high risk) or above, the licensee may close the facility. To date, seven licensees filed formal applications to follow this guideline.

Licensees requesting permanent closure of a facility must review the possibility of opening access points during specific times, such as peak weekends, special events, and holidays.

ing the project from a perceived threat. Last, FERC asks licensees to review providing additional security measures, including personnel, lights, and cameras, and to work closer with local law enforcement agencies. Several licensees have hired private security guards to remind recreationists of the site rules and to gain assistance in reporting suspicious activities. In addition, one licensee began issuing permits to boaters using the reservoir in order to track who was on the water. Boaters are required to display this permit on their vessels so project personnel and other boaters can see it. This approach also led to a "self-policing" of the reservoir, with some boaters reporting non-permitted boaters, helping the licensee enforce its policy.

Keeping the public informed

FERC's team does not work alone and realizes the public needs to know what is happening at hydro projects. FERC asks licensees to review and revise, where appropriate, signage to reflect changes to public access. For example, if a project receives FERC permission to close the facility if the threat level is orange or above, the licensee must post signs in

recreation areas indicating this change.

FERC also encourages licensees to attend local community meetings and meetings with local recreation groups. Cooperation among parties with a vested interest in the resource has proven valuable in providing information on day-to-day activities at a project. People who are familiar with the area can be the "eyes and ears" for a licensee and can help a licensee identify suspicious activities.

For example, anglers who regularly frequent a favorite fishing hole may be able to tell a licensee if a normally locked gate is open or if signage has been damaged or removed. At one hydro plant in the western United States, the mere presence of an angler was sufficient to scare away a would-be vandal who was attempting to scale a perimeter fence demarcating a powerhouse.

In addition, licensees often attend meetings of whitewater or canoe groups to learn more about usage at a project. These interactions provide a network to share information among users and with FERC so that FERC staff can make the best decisions about recreational facilities at the project. FERC also asks licensees to put notices in the local newspapers to inform the public of changes.

Keeping everyone happy

In the past three years, FERC staff has processed 45 requests for closures or modifications of recreational access. This is less than 3 percent of the 1,600 projects FERC monitors. Many of these requests were for temporary closures or closures based on the color-code system mentioned earlier. Because most licensees have found ways to adapt recreational facilities around their security needs — including requesting permits for boaters, closing roads next to penstocks, and altering signage to reflect changes in access — requests for closures decreased during 2004.

In fact, the team did not receive any requests for closures or modifications in August or September, indicating that project owners have successfully dealt with perceived threats to their facilities. However, licensees are not required to notify FERC unless changes are significant or would lead to a license change. The team plans to monitor changes made when inspectors visit facilities.

The events of September 11, 2001, caused a shift in thinking about public access, but the need to provide recreation at hydro facilities remains. FERC's team continues to work with licensees,

resource agencies, and the public to provide recreational access while still recognizing the importance of public safety and security of hydropower facilities.

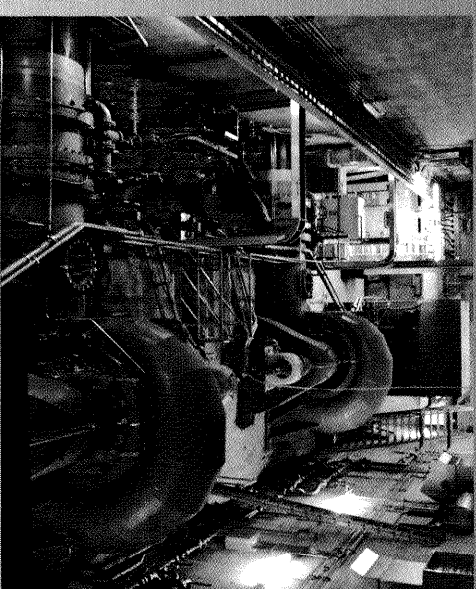
Notes

¹Recreational Development at Licensed Hydropower Projects, Federal Energy Regulatory Commission, Division of Project Compliance and Administration, 1996.

²Calcagno, Frank, "Security at Dams: A Perspective from FERC," *Hydro Review*, Volume 23, Number 3, May 2004, pages 10-12.

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