



**Homeland  
Security**

## Dams Sector Consequence- based Top Screen

Considering the large number of assets within the Dams Sector, a clear and consistent strategy is needed to identify the subset of high-consequence facilities and to conduct a systematic sector-wide prioritization.

### Development

The Dams Sector Coordinating Council (SCC) and the Dams Sector Government Coordinating Council (GCC), under the auspices of the Critical Infrastructure Partnership Advisory Council (CIPAC), jointly developed the Consequence-based Top Screen (CTS) methodology. The Dams Sector established a GCC/SCC Top Screen Workgroup to oversee the CTS methodology's development and implementation.

### Purpose

The purpose of the CTS methodology is to identify critical facilities within the Dams Sector: high-consequence facilities, the failure or disruption of which could be associated with the highest possible impact among sector assets. By focusing on potential consequences and by decoupling the analysis from the threat and vulnerability components of the risk process, the CTS approach serves as an effective all-hazards preliminary prioritization scheme. In the case of human threats from an intelligent and adaptive adversary, it would be nearly impossible to conduct in-depth vulnerability evaluations of all assets in target-rich environments. For these, the CTS approach can effectively reduce the size of the problem by identifying those assets that could attract higher adversarial interest.

Prioritization information obtained from the CTS process can support decisions regarding the need for additional analyses and detailed studies. For example, in the case of an owner responsible for a large portfolio of dams, those facilities identified as high-consequence assets through the CTS process could be assigned a higher priority for conducting detailed risk assessments. The CTS process results could also inform decisionmakers about facilities within a specific area that should receive particular attention from the emergency management community because of their potential for significant effects at the local and regional levels.

### Implementation

The CTS is implemented as a collaborative effort within the CIPAC framework. It is supported by a user-friendly Web-based tool that allows users to consider different consequence categories.



Source: DHS

<b>CTS Consequence Categories</b>	
<b>Human Impact</b>	
<ul style="list-style-type: none"> <li>• Total population at risk within flood scenario inundation zone</li> <li>• Population at risk within 0 and 3 miles from the toe of the dam</li> <li>• Population at risk within 3 and 7 miles from the toe of the dam</li> <li>• Population at risk within 7 and 15 miles from the toe of the dam</li> <li>• Population at risk within 15 and 60 miles from the toe of the dam</li> </ul>	
<b>Economic Impact</b>	
<ul style="list-style-type: none"> <li>• Assessment Replacement Value</li> <li>• Remediation Cost</li> </ul>	<ul style="list-style-type: none"> <li>• Business Interruption</li> </ul>
<b>Impact on Critical Functions</b>	
<ul style="list-style-type: none"> <li>• Water Supply</li> <li>• Irrigation</li> <li>• Hydropower Generation</li> </ul>	<ul style="list-style-type: none"> <li>• Flood Damage Reduction</li> <li>• Navigation</li> <li>• Recreation</li> </ul>

This analysis is based on a reasonable worst-case scenario, which represents total or extremely severe damage to the facility; this scenario, however, is not simultaneously compounded or exacerbated by concurrent extreme events, acts of nature, or human error. It is important to note that the screening criteria do not consider the structural condition or vulnerability of the facility, nor do they address the likelihood of a natural hazard or manmade incident triggering the reasonable worst-case scenario. Therefore, these consequence estimates should constitute a reasonable upper boundary to the potential effects associated with severe damage or disruption to the facility, regardless of the actual triggering event.

Effective implementation of the CTS methodology allows the Dams Sector to establish a common baseline to consistently quantify different types of consequence elements, such as human health, economic, and mission disruption, leading to a sector-wide prioritization framework that facilitates a comparison of consequence information within the sector. It will also assist in identifying the appropriate contact information for critical facilities to support effective and direct communication in the event of natural hazards, threat stream data, or other urgent notifications.

This Dams Sector collaborative effort will play an essential role in supporting national and sector-wide initiatives aimed at improving the overall protection and resilience posture of the sector.

## Contact Information

For more information, please contact the Dams Sector-specific Agency at [dams@hq.dhs.gov](mailto:dams@hq.dhs.gov).