



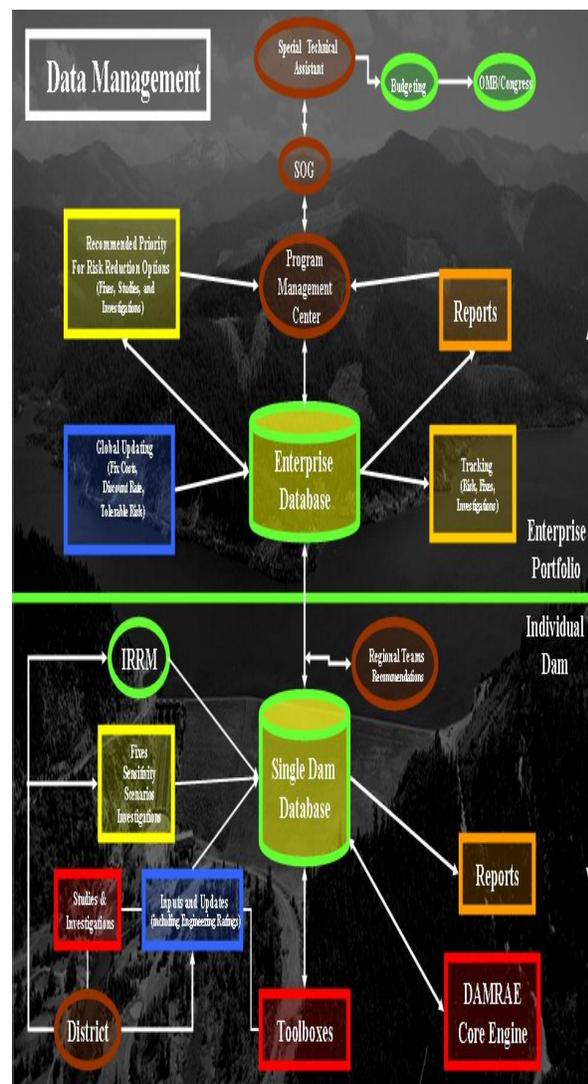
US Army Corps
of Engineers®

Flood&Coastal Storm Damage Reduction R&D Program

Prioritization and Procedures Software for Dams

Description

Risk Assessment for Dam Safety (RADS) II draws heavily on the successful use and lessons learned over the five years of the first generation of RADS use. The RADS II portal, with a much more robust engineering toolbox calculation set, serves as the control center for analysis and decision-making process. These toolboxes are executed autonomously, and their results feed to the single dam database. Much of the data can be preloaded into the single dam databases from such sources as National Inventory of Dams (NID) and Dam Safety Program Management Tools (DSPMT). Geospatial information will be maintained in separate Geographic Information System (GIS) single dam databases for use with hydraulic loading and consequence calculations. As an “instance” of a dams risk analysis is completed and approved, it is pushed to the U.S. Army Corps of Engineers-wide portfolio database. This set of risk analyses may contain the current state of the dam, various proposed interim risk reductions measures, and various proposed “fixes.” Rollups can be extracted to support the decision-making process for investments in fixes and studies aimed at reducing the USACE risk.



Benefits

The benefits include linkages provided between engineering analysis toolboxes and decision-making process. It also provides for a uniform risk analysis approach throughout the Corps while supporting a risk informed investment process for dam safety risk reduction. In FY05, the Corps began the risk informed approach to investment of dam safety funds through a preliminary screening procedure implemented with the RADS portal and screening tool. This is the follow-on methodology to provide a set of more rigorous engineering risk analysis toolboxes and risk engine. Also a more automated decision-making process is provided.

Status

Currently, draft versions of most engineering toolboxes and the risk engine are being beta tested by the USACE Dam Safety Methodology Team, the RADS II portal is being

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<https://swwrp.usace.army.mil/>

finalized for beta testing. The functionality of the RADS II portal is based on the RADS portal and uses a database design based on an extension of the risk engine database that is currently being tested. The RADS II portal will contain the USACE-wide data and provide the rollup and decision tools to be used by Headquarters, U.S Army Corps of Engineers (HQUSACE)

Distribution Source(s)	The RADS II portal and documentation will only be used by HQUSACE, the Dam Safety Methodology Team, and the National Teams performing the individual dam risk analyses. It will be located on a Corps server with access controlled by the Risk and Reliability Directorate of Expertise.
Available Documentation	At present, RADS II documentation is limited to a user's manual that is under development. A class will be developed to train the national teams before fielding of this process.
Available Training	RADS II training will occur through national roll-out workshops and training sessions.
Available Support	Application support can be obtained by contacting the point of contact below.
Application	Currently, only the Dam Safety Methodology Team will be able to use the beta versions of the portal and toolboxes.
Point of Contact	H. Wayne Jones, Information Technology Laboratory, U.S. Army Engineer Research and Development Center, 3909 Halls Ferry Road, Vicksburg, MS 39180 E-mail: Harvey.W.Jones@usace.army.mil
Partners	Institute for Water Resources, Risk and Reliability Directorate of Expertise, USACE Great Lakes and Ohio River Division