

Introduction to the Life Safety Risk Indicator (LSRI)

20 October 2022

Q&A Session

This webinar provided an overview of the Life Safety Risk Indicator (LSRI). In an effort to develop a consistent way to recommend projects that warrant funding based on risk to life safety, USACE has developed the LSRI tool, which provides a screening-level, relative representation of the life risk (average annual life loss) that would be reduced if a given structural or non-structural flood damage reduction project was constructed. The LSRI is intended to serve as a budget tool to prioritize studies and projects starting with the FY25 budget development process. (For more information on the USACE budget development process, see the latest [Budget Engineer Circular](#) and [Program Development Manuals](#)). The LSRI builds off of and replaces the Life Safety Hazard Index (LSHI) tool by incorporating not just consequence information, but also likelihood of the consequences. Presenter Jason Needham (Consequence Specialist, Risk Management Center) described the LSRI methodology and introduced the web-based LSRI tool and how to use it.



For more information:

- *LSRI Tool: <https://lsri.sec.usace.army.mil> (NB: The LSRI tool is currently being migrated and should be available at this URL for USACE staff within a few weeks.)*
- *USACE National Structure Inventory Website: <https://www.hec.usace.army.mil/confluence/nsi/> and point of contact: nsi@usace.army.mil*

This summary of the Question / Answer session of the webinar is not a transcription; questions and responses have been edited and reordered for clarity.

LSRI Tool Access & Use

How can planners access the LSRI tool?

The tool is currently being migrated to Amazon's Web Cloud services. Once this migration is complete, the tool will be accessible at <https://lsri.sec.usace.army.mil>. An email will be sent out, once the tool is available for official use. Those interested in testing the current version of the tool can contact Jason Needham.

When are study teams expected to provide LSRI data to business line managers/Programs staff for incorporation into the FY25 budget process?

Starting 1 December 2022 teams should use the LSRI tool (in lieu of the LSHI tool) to generate the requested information for feasibility studies and construction projects for the FY25 budget process. To assist teams, there will be an introductory training offered to show personnel how to enter and generate the required data. Teams will be required to enter ongoing feasibility, pre-construction engineering and design, and construction project information into the LSRI tool no later than 15 January 2023. Moving forward, this system will be open year-round to help avoid last minute pushes to collect data.

Will the LSRI tool rely on existing, readily available, information, or are you expecting study funds to be used to generate the required LSRI inputs for the FY25 budget development process and beyond?

The LSRI tool relies on existing, readily available information.

Will the LSRI tool be used for prioritizing the budgeting of Dam Safety Modification Studies? Can the tool be used on dam and long reaches?

The LSRI tool is not required to be used for Dam Safety Modification Studies for budgeting purposes; the Dam Safety Program already has a process in place for determining project funding prioritization based on Dam Safety Action Classification (DSAC) ratings. However, the LSRI can be used on dam and long reach projects if a team would like to use it.

Do projects need to be set up by an administrator in the LSRI before they can be accessed, or will any user be able to create their own projects?

Access to the LSRI tool must be initially granted by an administrator, but once access is granted anyone can create their own project in the LSRI tool.

Potential Future Uses of the LSRI Tool in the Planning Process

Could the LSRI tool be used early in the study process during charrettes or the first milestone meeting?

Yes, the LSRI can be used early on in the study process to help with the life safety discussion during charrettes and leading up to the first milestone meeting.

Can the LSRI tool be used to compare life risk in the “future without project” and “with project” conditions?

The LSRI tool was not initially developed for specific use in the plan formulation process – it is currently intended to be used as a budget prioritization and development tool after a project has already been selected (i.e., after the Tentatively Selected Plan milestone). However, the LSRI team has been working with the Flood Risk Management Center of Expertise (FRM-PCX) to identify potential ways the LSRI tool can be used in the initial phase of a study. While the LSRI tool is not currently designed to support the entire planning process, it could be used by study teams to quickly get an understanding of potential life safety issues at the beginning of a study (i.e., determining population at risk, inundation, and potential life loss) which is information that can be used to help scope the rest of the study.

Should study teams use the LSRI tool if the study has already budgeted for a [LifeSim analysis](#)?

While the LSRI tool cannot replicate a full LifeSim analysis, it may help study teams gain some efficiencies ahead of using LifeSim analysis. For example, the HEC-RAS (Hydrologic Engineering Center River Analysis System) data that runs in the background of the LSRI can be pulled to input as a starting point for the full HEC-RAS model needed for LifeSim. In addition, the National Structure Inventory data used in the LSRI tool can be downloaded and used to support a LifeSim assessment.