Life Safety Risk Indicator (LSRI) application in Planning 30 January 2025 Q&A Summary

This PCoP webinar, presented by Jason Needham (USACE Risk Management Center), provided an overview of the Life Safety Risk Indicator 2 (LSRI2) tool (<a href="https://lsri.sec.usace.army.mil">https://lsri.sec.usace.army.mil</a>). The LSRI is a webbased tool that allows users to efficiently estimate potential flood damage and life loss for a range of riverine and coastal scenarios when detailed studies are unavailable. Through LSRI, users can set up and run HEC-RAS and LifeSim for one or more inundation scenarios to quickly gain an understanding of



economic and life safety risk for a given condition (e.g. with or without project). This presentation covered recent updates to the tool and a demonstration of its capabilities.

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

#### New Applications and Information for LSRI 2

#### What are the major differences between LSRI Version 1 and LSRI Version 2, and if study teams used LSRI1 on a project, will it show up on LSRI2?

If a user has already completed an LSRI project using LSRI1, they will not need to redo it in LSRI2. However, LSRI2 offers additional features, such as allowing for alternatives analysis. In LSRI1, users could only conduct a single analysis for the proposed project, and it was not possible to do alternative comparisons. With LSRI2, users can now explore multiple alternative risk reduction measures.

## Can users pull information from LSRI2 (e.g., the flood extent for a specific hypothetical annual exceedance probability event) to use elsewhere in other GIS applications (e.g., ArcMap)?

Yes, users can download applicable data, including inundation results from HEC-RAS, from LSRI2 and use it in other GIS applications. Users will not need to download the entire HEC-RAS model to do so and can instead easily pull specific data through the user interface.

## Does the National Structure Inventory (NSI) technical documentation specify a particular time in 2021 for the price level, or is the information developed over time, making 2021 the most granular timeframe available?

The NSI pulls data from a variety of sources. The exact date on which those data are based is not always available. The NSI technical documentation states that "price levels were indexed to 2021." More information on the NSI can be found on the NSI Technical References website. A new version of the NSI will be released in early 2025.

#### **LSRI2 Tool Access & Use**

#### Can LSRI2 be used for prioritizing the budgeting of Dam Safety Modification Studies, such as dam and long reach projects?

LSRI2 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

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Dam Safety Action Classification (DSAC) ratings. However, LSRI2 can be used for dam and long reach projects.

## Do projects need to be set up by an administrator in the LSRI2 tool before they can be accessed, or will any user be able to create their own projects?

Access to the LSRI2 tool must be initially granted by an administrator, but once access is granted, anyone can create their own project in the tool.

#### **The LSRI Tool in the Planning Process**

## Could the LSRI2 tool be used early in the study process during charrettes or the first milestone meeting?

Yes, the LSRI2 tool can be used early in the study process to help with the life and economic risk discussion during charrettes and leading up to the Alternatives milestone meeting.

#### Can the LSRI2 tool be used to compare life risk in the "future without project" and "with project" conditions?

Yes, the LSRI2 tool can be used to compare different project conditions. However, it is meant to be used during the initial phases of a study to help gain an initial understanding of risk, potential risk reduction, and to scope additional studies. It is not currently designed to support the entire planning process.

# Should study teams use the LSRI2 tool if the study has already budgeted for a LifeSim analysis? While the LSRI2 tool cannot replicate a full LifeSim analysis, it can help study teams gain some efficiencies ahead of using LifeSim analysis. Any analysis completed within the LSRI, including HEC-RAS model runs and LifeSim model runs can be downloaded and refined using the full version of those tools on the user's computer. The LSRI tool is an efficient way to gather the required data (terrain, land cover, NSI, etc.) to support a more detailed assessment.