

NOTRE DAME OF MARYLAND UNIVERSITY

RISK MANAGEMENT PROGRAM OVERVIEW

ANNOUNCING THE 2022-2023 COHORT

2 June 2022



US Army
Corps
of Engineers®





06 May 2020, CW/MP JOINT DIRECTOR'S POLICY MEMORANDUM:

...Major Subordinate Commands (MSC)s, Districts, Centers, and functional communities of practice will support individual development opportunities for advanced training in risk analysis, such as the USACE-Notre Dame of Maryland University Cohort Risk Certificate and Master's degree programs, the Project Management Institute training and process for certification as a Risk Management Professional, or other higher-level education programs that promote effective enterprise and/or functional area risk management practices.





NOTRE DAME OF MARYLAND RISK MANAGEMENT PROGRAM



Who participates?

How is the program
conducted?

What is the program focus?



WHO? A FEW PREREQUISITES



–REQUIRED:

- Undergraduate degree (must provide transcripts).
- Competence in basic arithmetic and college algebra.
- Regular access to a computer with reliable internet access.
- Commitment to complete the entire six class program over the next year.

–RECOMMENDED

- College level course(s) in probability and/or statistics.
- Intermediate skills using Microsoft Word/Excel.



HOW IS THE PROGRAM CONDUCTED?



- Six (6) graduate courses conducted entirely online on the NDMU course management system.
- Taught by NDMU faculty.
- Course lectures, readings, videos, and background materials are presented in modules typically consisting of a mix of reading and discussion of textbook and professional literature materials; viewing of video lectures or demonstrations; participating in class forums; completing a weekly quiz; and completing individual or group homework assignments.
- Students are provided with university email and library accounts.



PROGRAM FOCUS:

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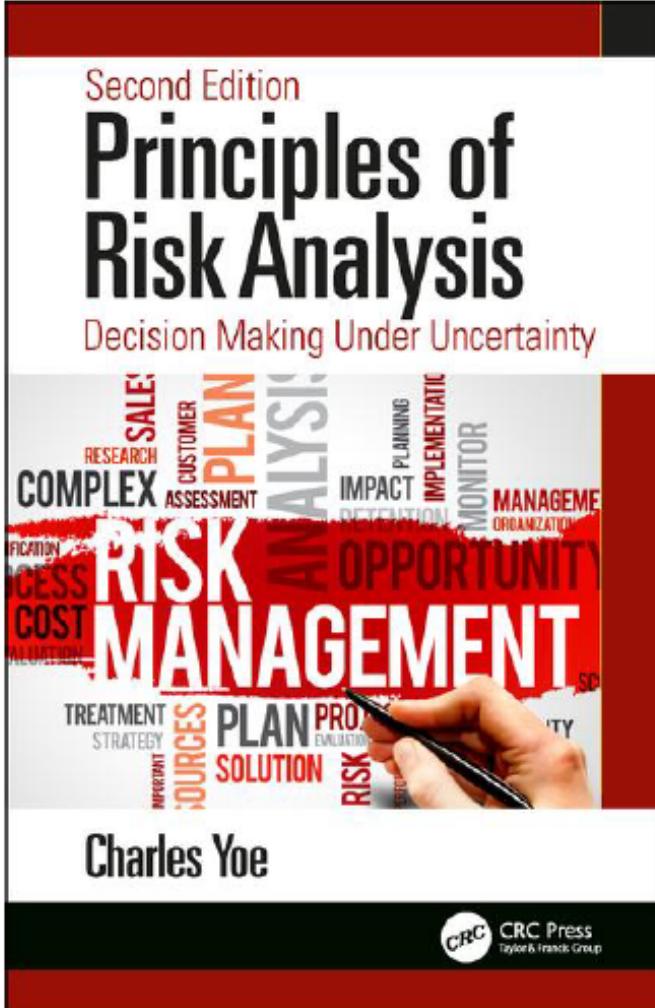


Learning objectives for this program are:

- Apply key risk science terminology and fundamental risk concepts to real-world situations.
- Develop a generic risk management model that is applicable to a wide variety of risk situations.
- Apply appropriate risk management methods to a specific risk situation.



COURSE LEADER – DR. CHARLES YOE, NDMU



CRC Press Publishes both Principles of Risk Analysis and the Primer on Risk Analysis: Decision Making Under Uncertainty by Charles Yoe, Ph.D.

Charles Yoe is a professor of economics at Notre Dame of Maryland University, Baltimore, and an independent risk analysis consultant and trainer. Working extensively for U.S. and other government agencies as a consultant and risk analyst, his wide range of risk experience includes international trade, food safety, natural disasters, public works, homeland security, ecosystem restoration, resource development, navigation, planning, and water resources. As a consultant to private industry, his work includes a discrete but wide variety of concerns. He has trained professionals from more than one hundred countries in risk analysis and conducted customized risk training programs for government agencies and private industry in over two dozen nations.



RISK MANAGEMENT COURSES

RIS 501-90 RISK MANAGEMENT

The language of risk is messy.

(Fall 2022 1st course)

RIS 601-90 UNCERTAINTY

There is no such thing as the number.

(Spring 2023 – 3rd course)

RIS 603-90 RISK COMMUNICATION

Be first, be right, be credible.

(Summer 2023 – 5th course)

RIS 502-90 RISK ASSESSMENT

What is your evidence for that?

(Fall 2022 – 2nd course)

RIS 602-90 QUANTITATIVE RISK MGT

Get the question right.

(Spring 2023 - 4th course)

RIS 630-90 ETHICS & RISK

Risk considerations involve values.

(Summer 2023 – 6th course)



HOW CAN RISK MANAGEMENT IMPROVE USACE PROJECT EXECUTION AND DELIVERY?





DECISION SUPPORT – FACILITATING RIDM

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IWR Institute for Water Resources

July 2017

Planning Manual Part II:
Risk-Informed Planning

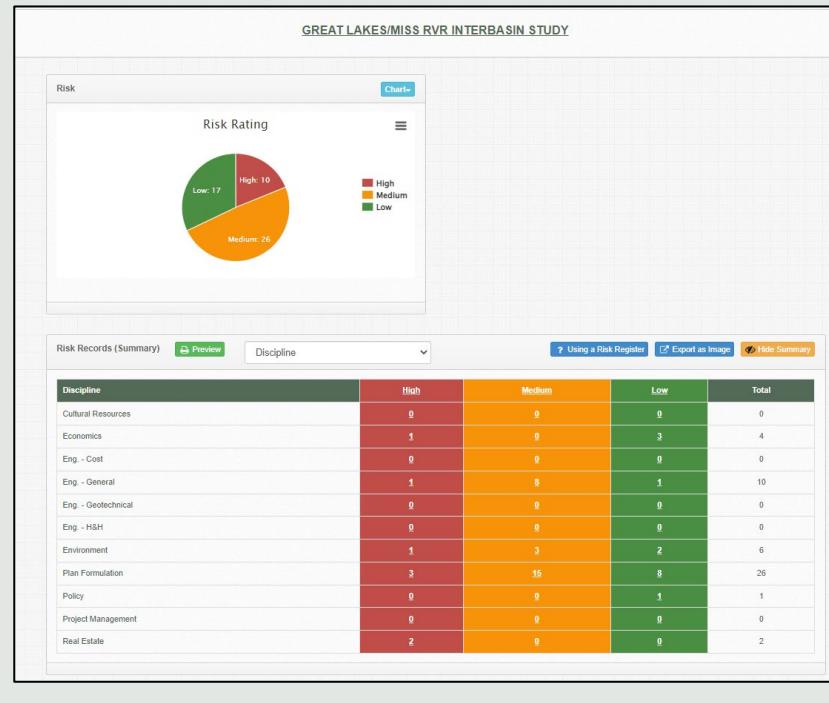
2017-R-03

Risk-Informed Planning Process

US Army Corps of Engineers®

www.iwr.usace.army.mil

Project Risk Registers – Manage risk and leverage opportunities!



Risk Profiles

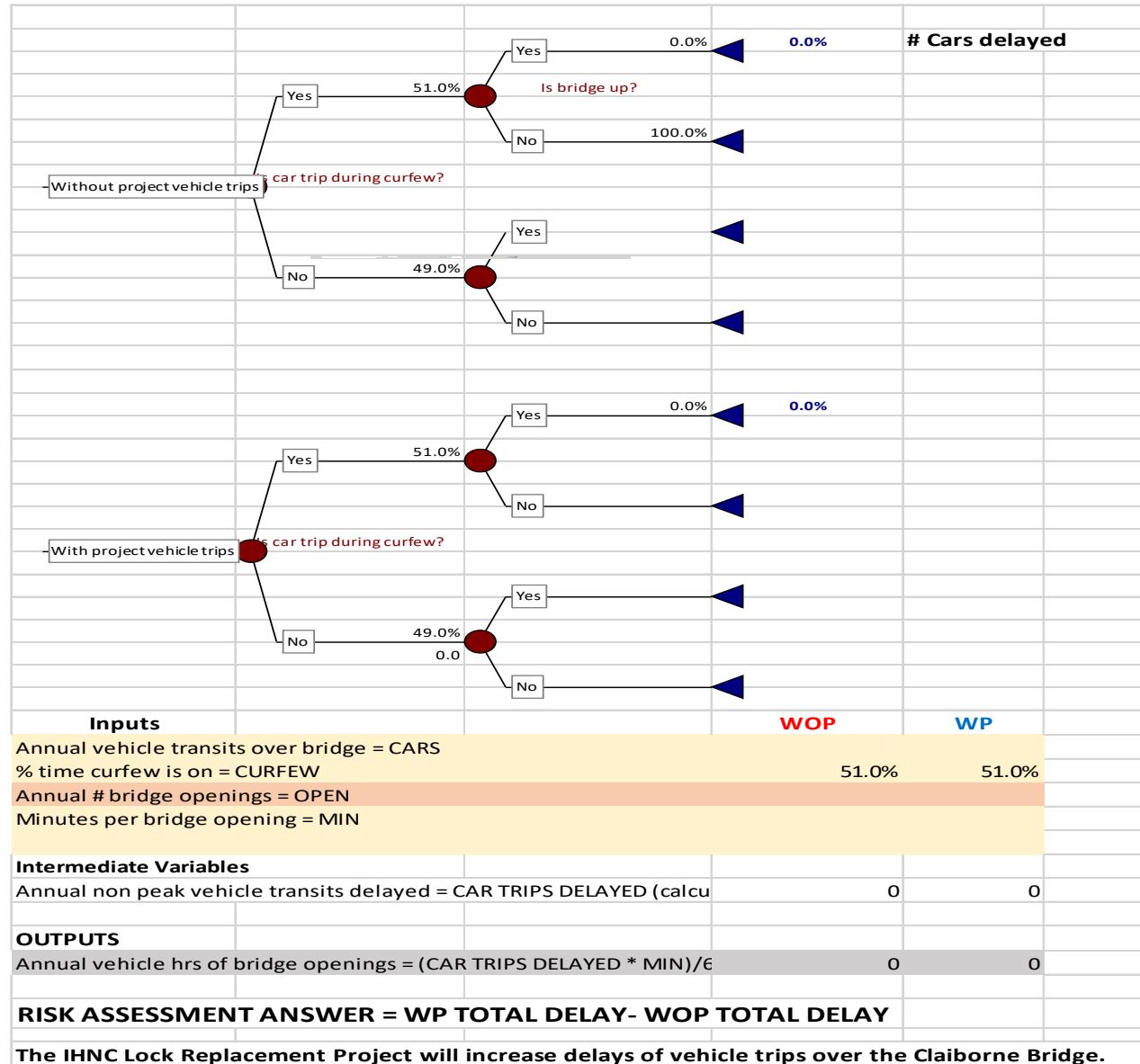
- Background
- Problem Statement / Decision
- Risks & Opportunities
- Uncertainty mapped
- Key points for decision maker

TABLE 72 – EFFECTS OF CLIMATE CHANGE PRECIPITATION AND STREAMFLOW INCREASES ON COMPONENTS

Component	Probability	Comments
Dam Roller Gates	Low	The gates are in poor condition. Changes in streamflow may impact how often the gates operate and how much debris impacts the gates, increasing their hazard rate. New gates largely mitigate the increased risk of gate damage due to debris and operation.
Dam Roller Gate Machinery	Unlikely	The roller gate machinery will see increased use due to frequency of increased streamflow. This may slightly impact machinery reliability.
Dam Electrical Service Distribution	Remote	The feeders are protected inside conduit under the dam bridge. The frequency of increased streamflow effects how often power runs through the cables but will not affect the reliability of the cables.
Tainter Gate Anchorages	Moderate	The frequency of increased streamflow will increase the necessity of Tainter gate operation which requires reliable anchorages. Since the Tainter gate operation controls outdraft flow conditions on the river during higher flows, any increase in streamflow will result in more frequent operations. The Tainter gate also helps reduce the additional silt and sedimentation accumulation as a result of more severe precipitation runoff.
Main Lock Miter Gate Anchorages	Very Unlikely	The main lock miter gate anchorages are largely unaffected by the frequency of increased streamflow.
Main Lock Emergency Gate Machinery	Very Unlikely	The main lock emergency gate machinery is largely unaffected by the frequency of increased streamflow.



EVENT TREE APPLIED TO A PLANNING STUDY





PREVIOUS AND CURRENT PARTICIPANTS



- The seven (7) cohorts since 2015 includes well over 100 USACE employees. Students to date have been supported by the Flood Risk Management Community, Dam and Levee Safety, Asset Management, and the Planning CoP.
- BENEFITS as relayed by participants:
 - *The depth, breadth and content of the certificate program far, far exceeds what is done with any other USACE offering. It's a big time investment, being graduate school, but the program is clearly purpose built for USACE and delivers.*
 - *The discussion on how to communicate and display risk was most beneficial to me. It has and will help me to inform the decision makers.*
 - *I found considerable value in seeing that the lack of information or even uncertainty about information at hand could still be revelatory in terms of decision support.*



INTERESTED?? NEXT STEPS!



- Be on the lookout for an email announcing the application window from sponsoring organizations (Planning/FRM/Asset Mgmt/Dam&Levee Safety).
- Submit your **Statement of Interest/Resume** (template provided) which includes your **Supervisor's endorsement NLT 8 Jul 2022**.
- DO NOT enroll through the university until AFTER you have been notified of your selection into the cohort.
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- *NOTE: It is very important to be aware that typically the time commitment for each course is about 15-25 hours a week, slightly more or slightly less depending on the week. In addition, if you are selected, it is expected that you are committed to completing the entire program which includes ALL six courses.*



APPLICATION DEADLINE: 8 JULY 2022



Send applications to karen.v.miller@usace.army.mil and cc: the sponsoring proponent.

Questions?

Type questions in the chat box.
We will answer as many
as time allows.



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