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# Risk Management Process

February 19, 2025

Risk Analysis & Data  
Services

# Introduction

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The RRC Risk Management Process (RMP) was created to provide a structured approach to address known and emerging reliability and security risks within the Western Interconnection.

# Brief History

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- Idea started in 2022
- Initial RMP approved in February 2023, based on ISO 31000 (2018) Risk management guidelines
- Risk Register initiated in July 2023
- First 31 Risks registered in October 2023

# Purpose

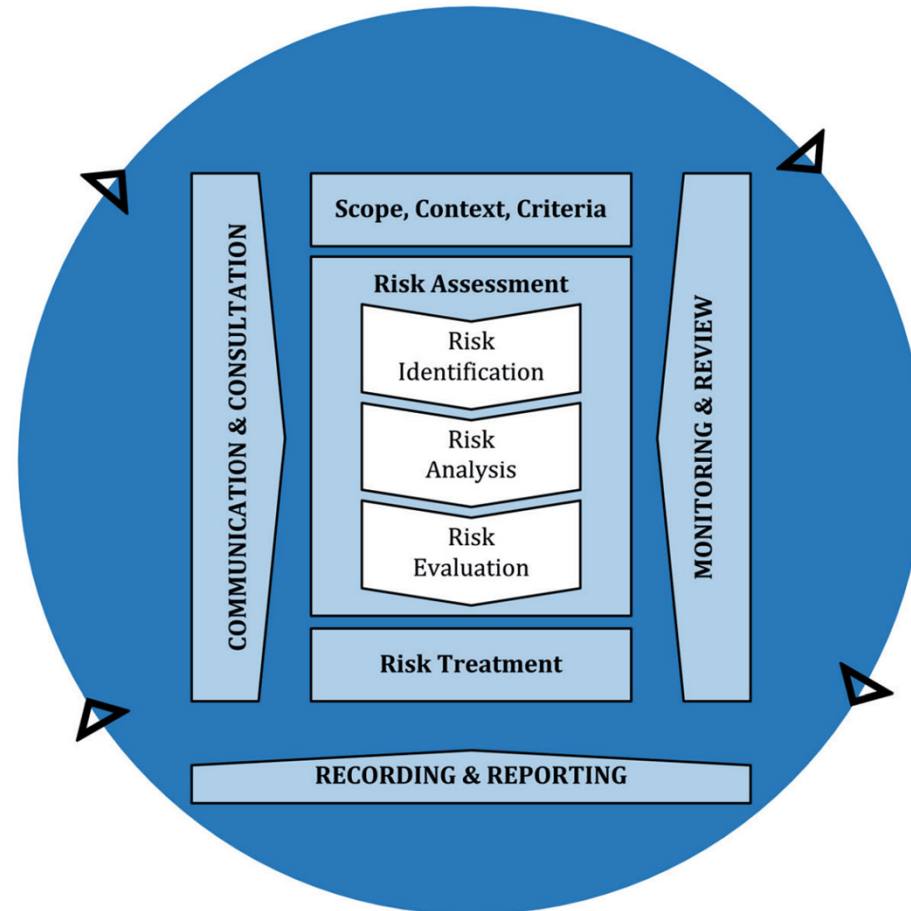
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The process is core to the purpose of the RRC, and it addresses the objectives stated in the RRC Charter:

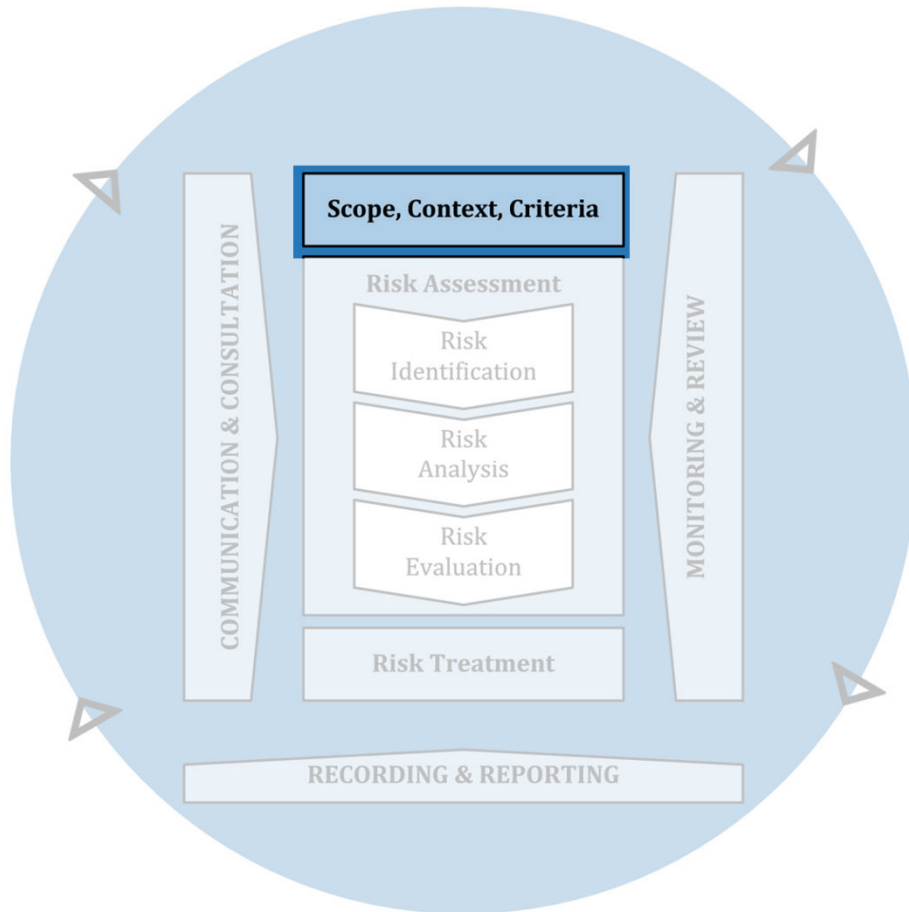
1. Evaluate the reliability and security risks associated with relevant commercial, operational, and other industry practices.
2. Work with WECC staff and the Reliability Assessment Committee (RAC) to develop and maintain an ongoing, prioritized list of known and emerging reliability and security risks facing the Western Interconnection.
3. Coordinate and collaborate with WECC staff and the RAC to address high-priority risks.
4. Start addressing high-priority risks through the proper expertise and means.

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# ISO 31000 Risk Management Process

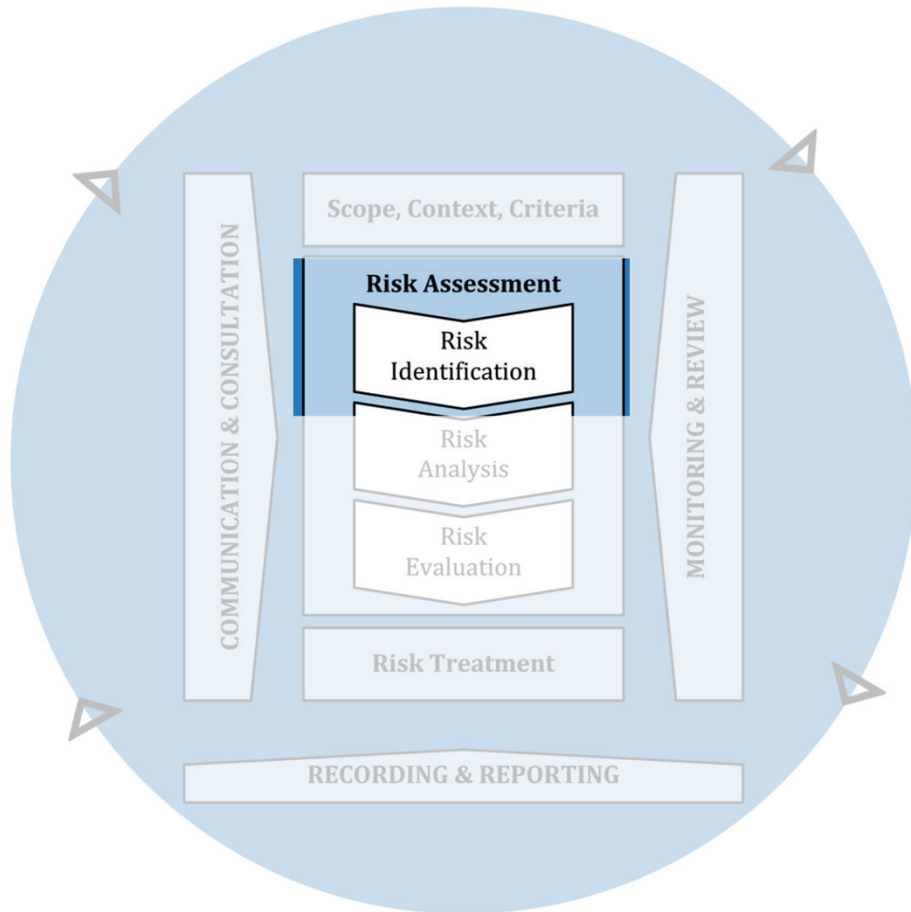


# Scope, Context, Criteria



- **Scope:** Ensure the reliability and security of the Bulk Electric System within the Western Interconnection
- **Context:** WECC, NERC, ERO, and Registered Entities
- **Criteria:** Definition of *reliable* and *secure*. (Or, what is *unreliable* or *insecure*?)

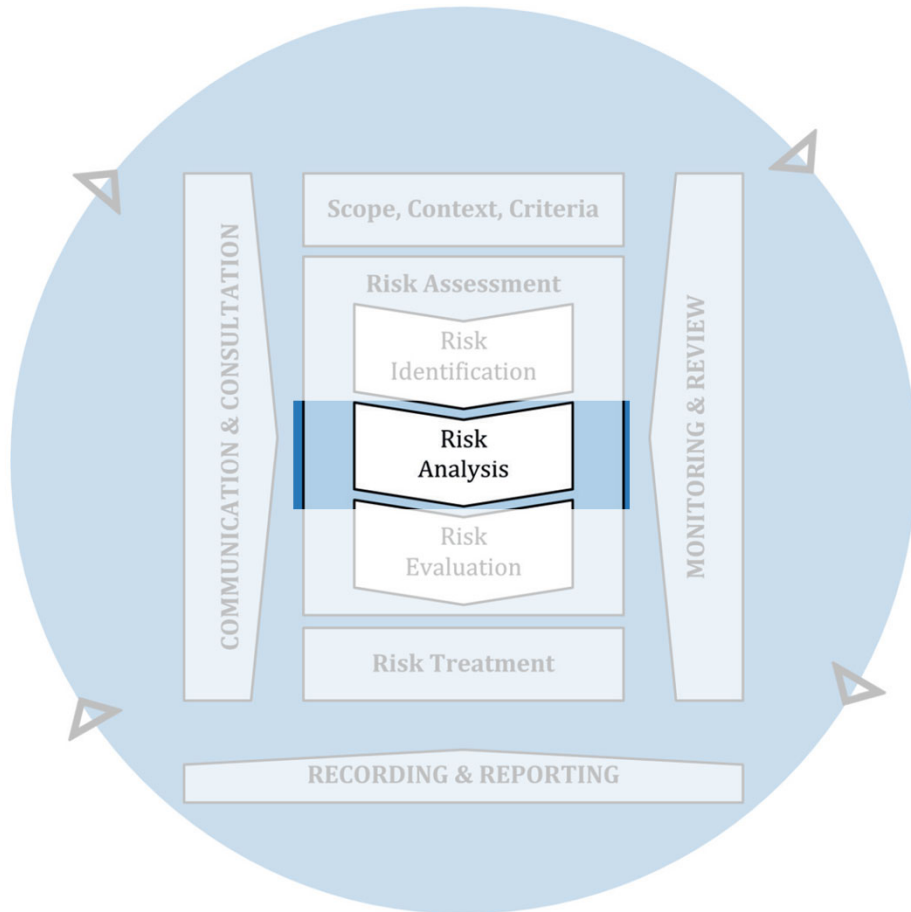
# Risk Identification



Define the *nature* of the risk and its *characteristics*.

- **Condition:** a future possible happening that could have an impact on the program objectives.
- **Consequence:** the impact the event or condition will have on a program, usually expressed in terms of cost, schedule, or performance.
- **Cause:** (*Optional*) helps clarify what is driving the risk and later will help the program develop a treatment plan.

# Risk Analysis



- Likelihood
  - Impact:
- Lesser factors**
- Complexity
  - Time
  - Existing controls
  - Sensitivity & Confidence



# Risk Analysis Overview

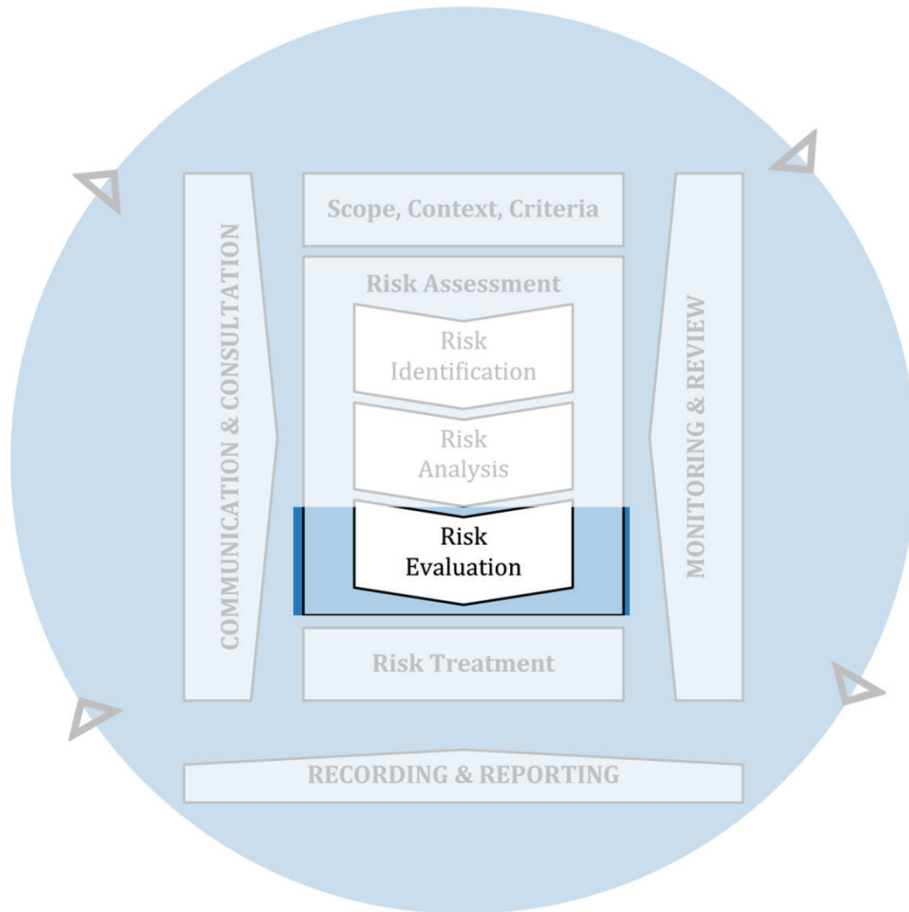
## Risk analysis:

- Risk Statement:
  - *Condition*
  - *Consequence*
  - *Cause*
- Impact and Likelihood estimate
- Timing of Risk
  - Timing (*1 year, 5 years, 10 years*)
  - Velocity (*time to manifest*)
  - Trending (*increasing/decreasing*)

Reliability Risk Matrix						
Consequence/Impact (C)		Likelihood (L)				
		L1	L2	L3	L4	L5
		Very Unlikely	Unlikely	Possible	Likely	Almost Certain
C5	Severe	Medium	High	High	Extreme	Extreme
C4	Major	Medium	Medium	High	High	Extreme
C3	Moderate	Low	Medium	High	High	High
C2	Minor	Low	Low	Medium	Medium	High
C1	Negligible	Low	Low	Low	Medium	Medium

Consequence/Impact—How could a typical event due to this risk effect BPS Reliability?	
Severe (C5)	Impacts may have widespread effects to the BPS across North America.
Major (C4)	Impacts may have widespread effects to the RC area.
Moderate (C3)	Impacts may have widespread effects to portions of the RC area.
Minor (C2)	Impacts may have effects on the local entity.
Negligible (C1)	Impacts may have small or non-existent effects to the BPS.

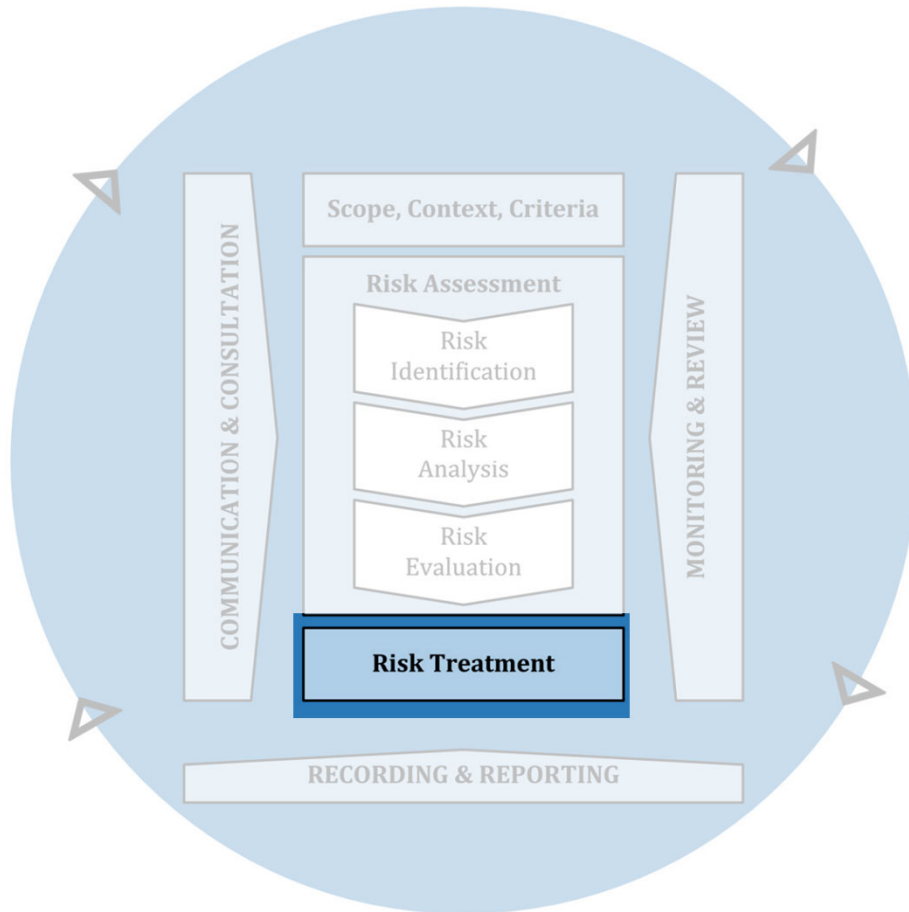
# Risk Evaluation



## Decision making

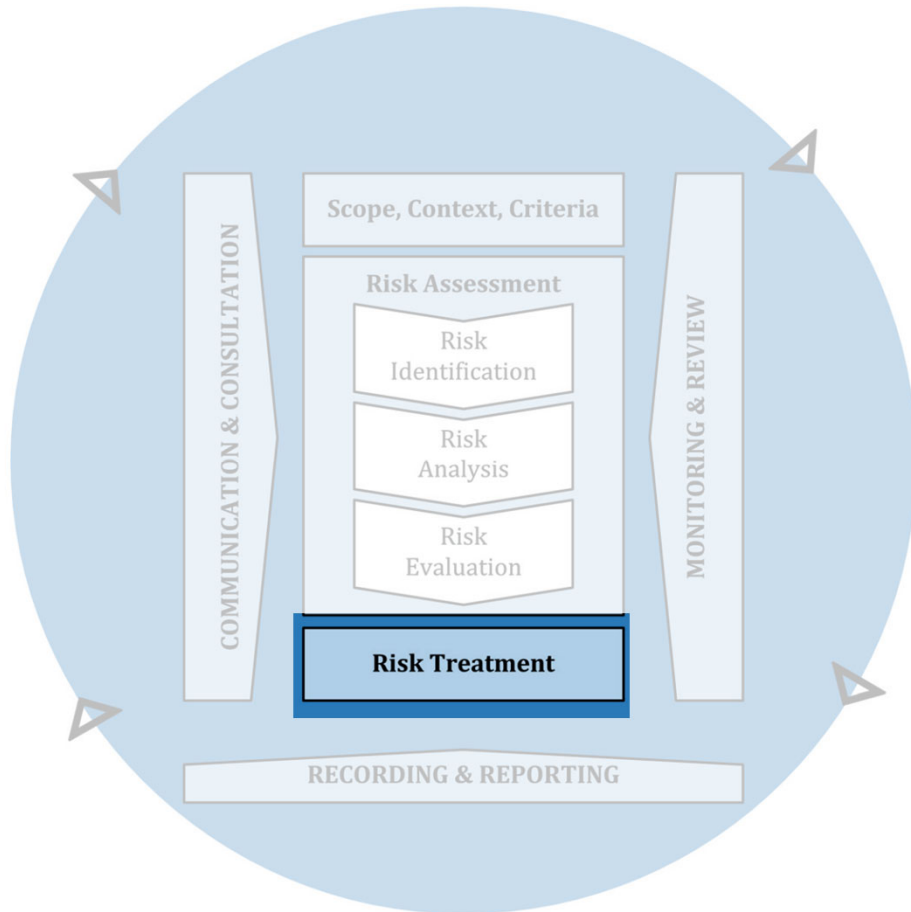
- do nothing further
- consider risk treatment options
- undertake further analysis to better understand the risk
- maintain existing controls
- reconsider objectives

# Risk Treatment



- formulating and selecting risk treatment options
- planning and implementing risk treatment
- assessing the effectiveness of that treatment
- deciding whether the remaining risk is acceptable
- if not acceptable, taking further treatment

# Risk Treatment Options



- avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk
- taking or increasing the risk to pursue an opportunity
- removing the risk source
- changing the likelihood
- changing the consequences
- sharing the risk (e.g., through contracts, buying insurance)
- retaining the risk by informed decision

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# Risk Register

Toolbox section of WECC.org,  
under Western Interconnect Risk  
Management Program, found  
[here](#)



# Subregional Evolution

- Western Interconnection-wide
- Western Interconnection Subregions



# Risk Register Evolution

- 46 risks identified (15 recent additions)
- New risk proposals welcome any time
  - [Initiation Form](#) (QR Code ->)
- Treatment planning
- Program Improvements



# Stakeholder Engagement

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- Encourage stakeholder engagement and accountability
- Share information to reduce uncertainty
- Meet the reporting and assurance needs of stakeholders
- Ensure that relevant expertise is used to inform each step of the process
- Inform other entity processes such as corporate planning and resource allocation



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