

# WSDOT Risk Management Risk Assessment Process



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**FMAC &  
WSDOT Risk Assessment Program**  
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# **WSDOT RISK ASSESSMENT PROGRAM**

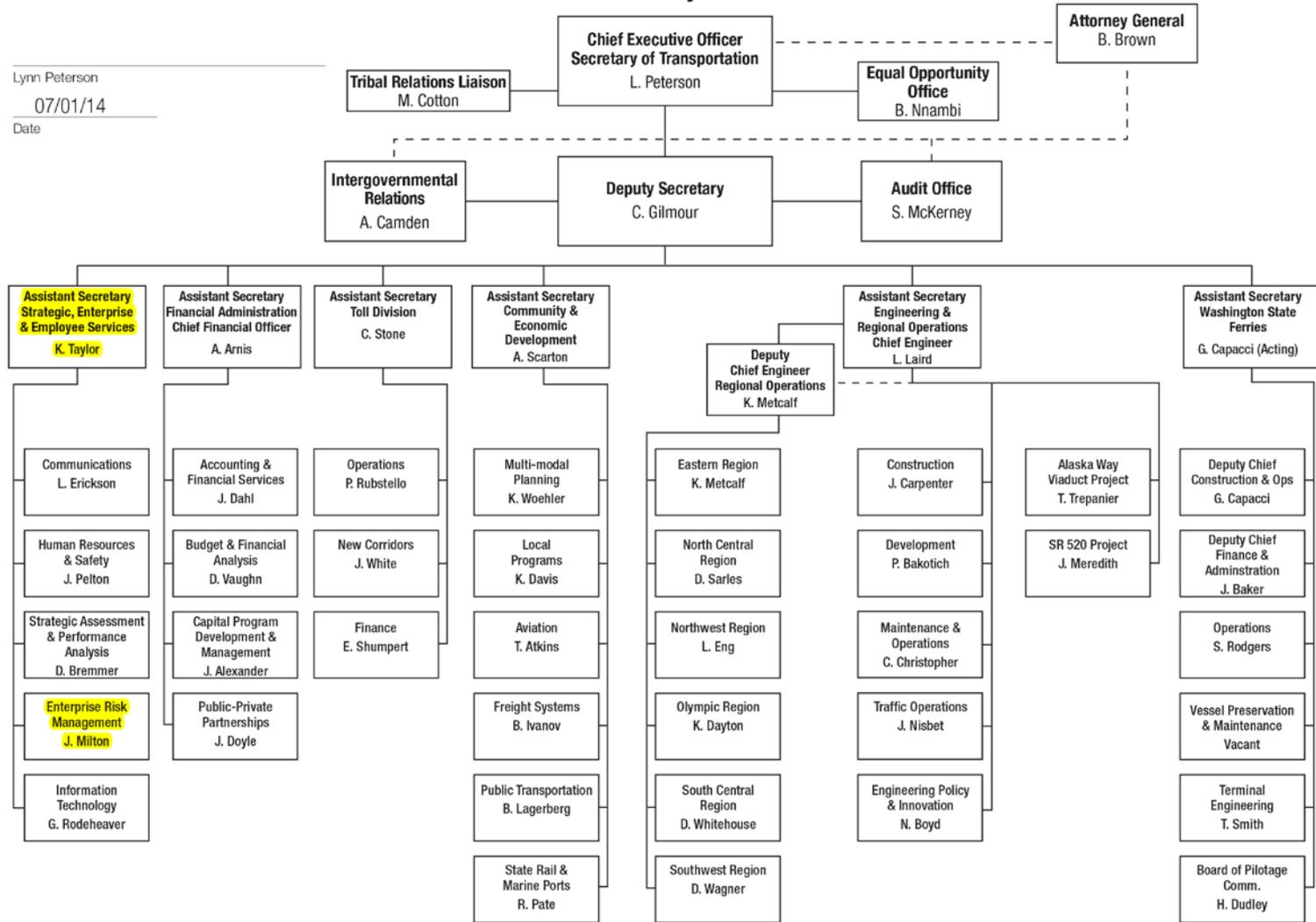
**Identification and Prioritization of Risk**

**Identification, Implementation, and  
Monitoring of Risk Mitigation Strategies**

**Review and Incorporation of Best Practices into Risk Mitigation Plans**

**Citizens of the State of Washington  
Governor Jay Inslee**

Lynn Peterson  
07/01/14  
Date



# PURPOSE

Identify and prepare a response for potential situations or events that can hinder delivery of the WSDOT Strategic Plan

# ENTERPRISE RISK MANAGEMENT

## RCW 43.19.781 RISK MANAGEMENT — SAFETY AND LOSS CONTROL PROGRAM:

*“(2) STATE AGENCIES SHALL PROVIDE TOP MANAGEMENT SUPPORT AND COMMITMENT TO SAFETY AND LOSS CONTROL, AND DEVELOP AWARENESS THROUGH EDUCATION, TRAINING, AND INFORMATION SHARING.”*

## EXECUTIVE ORDER 1038.00–ENTERPRISE RISK MANAGEMENT (ERM):

*“IT IS THE POLICY OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) TO PROACTIVELY ASSESS AND RESPOND TO ANY RISKS THAT MAY AFFECT THE ACHIEVEMENT OF WSDOT’S STRATEGIC AND PERFORMANCE BASED OBJECTIVES AND THEIR INTENDED OUTCOMES.”*

*“WSDOT EMPLOYEES ARE DIRECTED TO SUPPORT THE DEPARTMENT’S EFFORTS TO IDENTIFY, SHARE, AND MANAGE RISK ACROSS ALL ORGANIZATIONS AND FUNCTIONS. ORGANIZATIONS MUST WORK TOGETHER ACROSS BOUNDARIES TO SHARE INTERNAL CONTROL METHODS AND PROCEDURES THAT IMPLEMENT A COMPREHENSIVE AND COORDINATED SET OF PROCESSES AND APPROACHES TO ERM.*

*THE ERM DECISION-MAKING PROCESS FUNDAMENTALLY INVOLVES WEIGHING VALUE VERSUS RISK. IT IS THE INTENT OF THIS SECRETARY’S EXECUTIVE ORDER TO ENSURE THAT THE DEPARTMENT CAN MAKE INFORMED DECISIONS ABOUT RISK TOLERANCE. THE RISK TOLERANCE AND STRATEGIES OF EACH ORGANIZATION WILL BE USED AS THE BASIS FOR DEPARTMENT WIDE ERM.”*

# WHY IS ENTERPRISE RISK MANAGEMENT IMPORTANT? THE BENEFITS!

## MANAGING RISKS IMPROVE OVERALL DEPARTMENTAL PERFORMANCE BY:

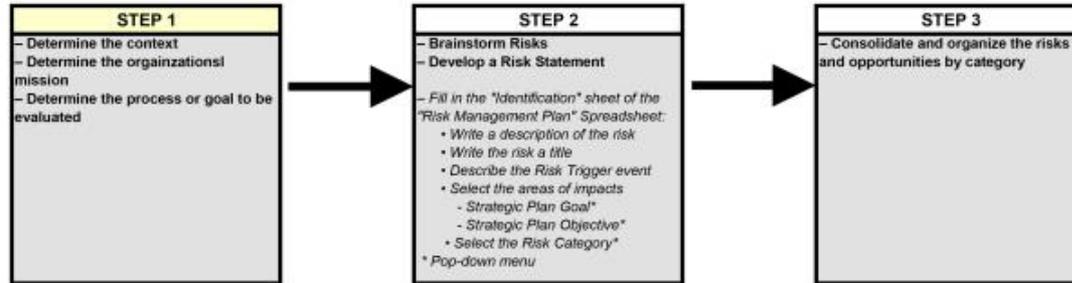
- Identifying the highest priority uncertainties to address
- Removing the potential for a negative event to occur where possible
- Leveraging a potential positive event
- Having prioritized plans in place to exploit potential benefits resulting from opportunities
- Minimizing the impact of the event by preparing for risks before they become issues
- Maximizing the use of department resources
- Improving organizational performance in all management categories

# FOUR-PHASE PROCESS

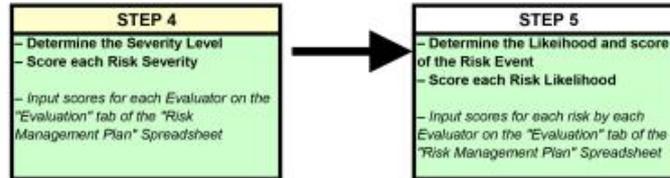
- Phase 1 - Risk Identification
- Phase 2 - Qualitative Evaluation of the Risk
- Phase 3 – Risk Analysis
- Phase 4 – Risk Response Plan

# WSDOT RISK MANAGEMENT ASSESSMENT GUIDE

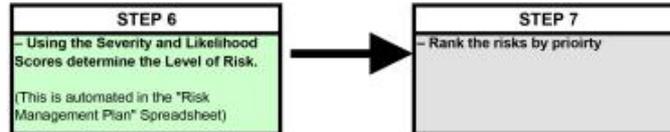
## Phase 1 – Risk Identification



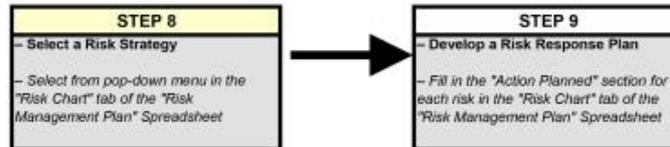
## Phase 2 – Qualitative Evaluation of the Risk Impact



## Phase 3 – Risk Analysis



## Phase 4 – Risk Response Plan



- = Risk Assessment (Use the "Risk Management Plan-Template" spreadsheet)
- = Hold Pre-session Training

# PRE-ASSESSMENT MEETING

Conducted By Director Enterprise Risk And Safety Management Division

Process Overview With Director & Senior Manager(s)

Basic Definitions

Commitment Of Resources

Division/Office Contacts For Schedule, Staff Coordination, & Processing

# ANSWERS FOUR QUESTIONS

Phase 1 - What are the risks?

Phase 2 - What is their impact and chance of occurring?

Phase 3 - Who should manage the risk?

Phase 4 - What is the plan of action?

# **WHAT ARE THE RISKS?**

## **Phase 1 Risk Identification**

# THREE STEPS IN PHASE 1

Step 1.1 – Establish the context for the assessment

Step 1.2 – Develop Individual risk statements

Step 1.3 – Consolidate all risk statement into a master list of risks

# 3 ELEMENTS OF RISK

1. The event that causes the consequence (Trigger Event)
  2. The chance the event will occur (Likelihood)
  3. The resulting impact/consequence (Severity)

# RISK CONTEXT

- Delivery of the Strategic Plan
- Delivered division & office processes, procedures, & resources (staff, funding, time)
- Department-level impacts in nine Risk Categories are:
  1. Department Performance
  2. Financial
  3. Health & Safety
  4. Transportation System Performance
  5. Environment
  6. Core Workforce
  7. Legal & Compliance
  8. Credibility
  9. Smart Technology

# STRATEGIC GOALS AND THE RISK CATEGORIES

Current Strategic Plan

Outcome Risk Categories  
*(Based on Goal Outcomes)*

Goal 1 Strategic Investments		Goal 2 Modal Integration		Goal 3 Environmental Stewardship	Goal 4 Organizational Strength		Goal 5 Community Engagement	Goal 6 Smart Technology
Dept Performance	Financial	Health & Safety	System Performance	Environment	Core Workforce	Legal Compliance	Credibility	Smart Technology

# THE ASSIGNMENT

- **IDENTIFY UP TO THREE SIGNIFICANT RISKS**  
*(those “what-ifs” that haunt you)*
- **PROVIDE THE FOLLOWING FOR EACH RISK:**
  - A Risk Statement and
  - The Risk Description for each applicable Risk Category:
    1. Department Performance
    2. Financial
    3. Health & Safety
    4. Transportation System Performance
    5. Environment
    6. Core Workforce
    7. Legal & Compliance
    8. Credibility
    9. Smart Technology

# **NEXT ACTION**

**Collect All Of The Individual Risks**

**Remove Redundancies, Fill In The Gaps, & Finalize A Master**

**Develop Risk Register**

# **WHAT ARE THE RISK IMPACTS & CHANCES OF OCCURRING?**

## **Phase 2 Qualitative Evaluation**

# TWO STEPS IN PHASE 2

Step 2.1 – Determine the probability of the risk event occurring and the magnitude of the impact if it were to occur

Step 2.2 – Quantify the Likelihood and Severity on a scale of 1 to 5

# RISK SCORING WORK SESSION

- A brief introduction and review of the process
- Each staff member will score the Likelihood and Severity on a predefined scale of 1 through 5 for each risk
- The Likelihood and Severity Scores will be tallied for each risk and the averaged calculated for the group
- The results are evaluated and risks showing statistical anomalies are rescored
- The Level of Risk will be determined for each risk from the average scores
- The scores are input into a worksheet

# DEFINITIONS

- **Likelihood** - The odds (% chance) that the Trigger Event will occur
- **Severity** - The magnitude of the impact to WSDOT caused by the Trigger Event if it occurs
- **Level of Risk** - Based on a combination of the Likelihood and the Severity Scores, defines the management level required to manage the risk & allows comparison to other risks for prioritizing
- **Governance** - The highest level manager responsible to manage the risk defined by the Level of Risk
- **Risk Register** - A record summarizing the information about identified risks

# LIKELIHOOD SCORING

## Likelihood

How likely is it that the risk event will happen?

## Scale

1 (low) to 5 (high)

## For all Risk Categories

1. Very Unlikely (Negligible chance)
2. Unlikely (Low chance)
3. Possible (30-60% chance)
4. Likely (60-90% chance)
5. Very Likely (90-100% chance)

# SEVERITY SCORING

HOW SEVERE WILL THE CONSEQUENCES BE TO THE Department?

SCALE OF 1 TO 5 WITH 1 LOWEST IMPACT

DIFFERENT MEASUREMENT FOR EACH RISK CATEGORIES (examples):

- **Financial**

1. Minimal (\$ effect less than \$10,000)
2. Minor (\$ effect is \$10,000 to \$100,000)
3. Moderate (\$ effect is \$100,000 to \$1 million)
4. Significant (\$ effect is \$1 million to \$10 million)
5. Major (\$ effect is more than \$10 million)

- **Legal and Compliance**

1. Minimal (Legal issues managed by routine procedures)
2. Minor (Complex legal issues to be addressed)
3. Moderate (Serious incident that requires investigation or a lawyer to decide liability)
4. Significant (Major litigation)
5. Major (Class action lawsuit; significant prosecution and fines)

# **WHO OWNS THE RISK?**

## **Phase 3 Risk Analysis**

# TWO STEPS IN PHASE 3

Step 3.1 – Determine the Level of Risk based on the average team scores for Likelihood & Severity

Step 3.2 – Assign Governance

# LEVEL OF RISK

**BASED ON THE AVERAGE TEAM SCORES FOR  
THE LIKELIHOOD AND SEVERITY**

**DEFINES THE MANAGEMENT LEVEL REQUIRED TO MANAGE THE RISK**

**GRAPHICALLY ILLUSTRATED USING A 5 X 5 HEAT MAP**

## **FOUR LEVELS:**

Low (Green)

Medium (Yellow)

High (Orange)

Very High (Red)

Severity Score	Level of Risk					Likelihood Score
	1	2	3	4	5	
5	Low	Medium	High	Very High	Very High	
4	Low	Medium	High	High	High	
3	Low	Low	Medium	High	High	
2	Low	Low	Medium	Medium	Medium	
1	Low	Low	Low	Medium	Medium	
	1	2	3	4	5	Likelihood Score

<b>Very High</b>	The consequence requires intervention from <b>executive management, the Secretary of Transportation, or the Governor</b> ; requires prompt action by the Secretary of Transportation to implement new <b>Departmental-level controls</b> to treat the risk.
<b>High</b>	The consequence affects the ability of WSDOT to carry out its mission and strategic plan - <b>existing controls</b> must be effective and requires additional action to be managed at the <b>executive management level</b> .
<b>Medium</b>	The consequence impacts completion of a critical WSDOT function - <b>existing controls</b> must be effective and possibly additional action implemented - action to be managed at <b>Division level</b> .
<b>Low</b>	The risk is managed within <b>current practices and procedures</b> - impacts are dealt with by <b>routine operations</b> at <b>Director/Office level</b> - monitor routine practices and procedures for effectiveness.

# RISK REGISTER



## Enterprise Risk Assessment Program

### Risk Evaluation Report

COMPLETED BY ENTERPRISE RISK MANAGEMENT AND SAFETY OFFICE

12/15/2014

Risk Level	Risk Statement	Risk Description	Department	Risk Category	Risk Type	Goal Outcome
35.0	Addressing ADA deficiencies is compromised due to lack of collaboration among jurisdictions	Does not provide an effective system for those who the ADA facilities serve.		Transportation System Performance	Threat	Capital Program Development & Management
26.0	Inadequate resources to maintain and repair ADA facilities	Risk of payment of a settlement should we ever be challenged in court; Risk of having the courts mandate an implementation schedule or budget allocation that goes towards ADA maintenance.		Financial	Threat	Enterprise Risk Management
21.0	Inadequate resources to maintain and repair ADA facilities	Cannot maintain our own infrastructure.		Department Performance	Threat	Planning & Prioritization
18.0	Lack of clear Project Programming instructions, adequate funding, ADA deficiency inventory	May put at risk those members of the public for those who depend on the ADA facilities as well as those drivers who may encounter these citizens on the roadway.		Health and Safety	Threat	Equitable Access and the Americans with Disabilities Act (ADA)
14.4	Inadequate resources to maintain and repair ADA facilities	May put at risk those members of the public for those who depend on the ADA facilities as well as those drivers who may encounter these citizens on the roadway.		Health and Safety	Threat	Facilities & Equipment Efficiency
10.8	Addressing ADA deficiencies is compromised due to lack of collaboration among jurisdictions	WSDOT suffers a loss of credibility in the eyes of the FHWA, Legislature, DOJ and Public.		Reputation and Credibility	Threat	Collaborative Processes
10.8	Inadequate resources to maintain and repair ADA facilities	WSDOT suffers a loss of credibility in the eyes of the FHWA, Legislature, DOJ and Public.		Reputation and Credibility	Threat	Capital Program Development & Management
8.4	Failure by local agencies to have a transition plan to address ADA issues	Consequences of not developing or following the plan could result in WSDOT losing a significant percentage of federal money received		Financial	Threat	Identify and Articulate System Needs



**WHAT IS THE PLAN OF ACTION?**

**Phase 4**  
**Risk Response Plan**

# **PHASE 4 PREPARATION MEETING**

**CONDUCTED BY**

**DIRECTOR of ENTERPRISE RISK AND SAFETY MANAGEMENT DIVISION**

**PHASE OVERVIEW WITH DIRECTOR & SENIOR MANAGER(S)**

**SET EXPECTATIONS FOR RISK MANAGEMENT PLANS**

**ASSIGNMENT OF GOVERNANCE**

# THREE STEPS IN PHASE 4

Step 4.1 – Determine the Risk Strategy to be applied

Step 4.2 – Develop and Implement a Response Plan

Step 4.3 – Monitor & Control the Plan

# RISK RESPONSE PLAN

## SELECT STRATEGY

**DOCUMENTED STEPS TO BE TAKEN TO CARRY OUT THE RISK STRATEGY**

Who?

When?

Where?

How?

With what?

**INCLUDE MONITOR AND CONTROL ACTIVITIES**

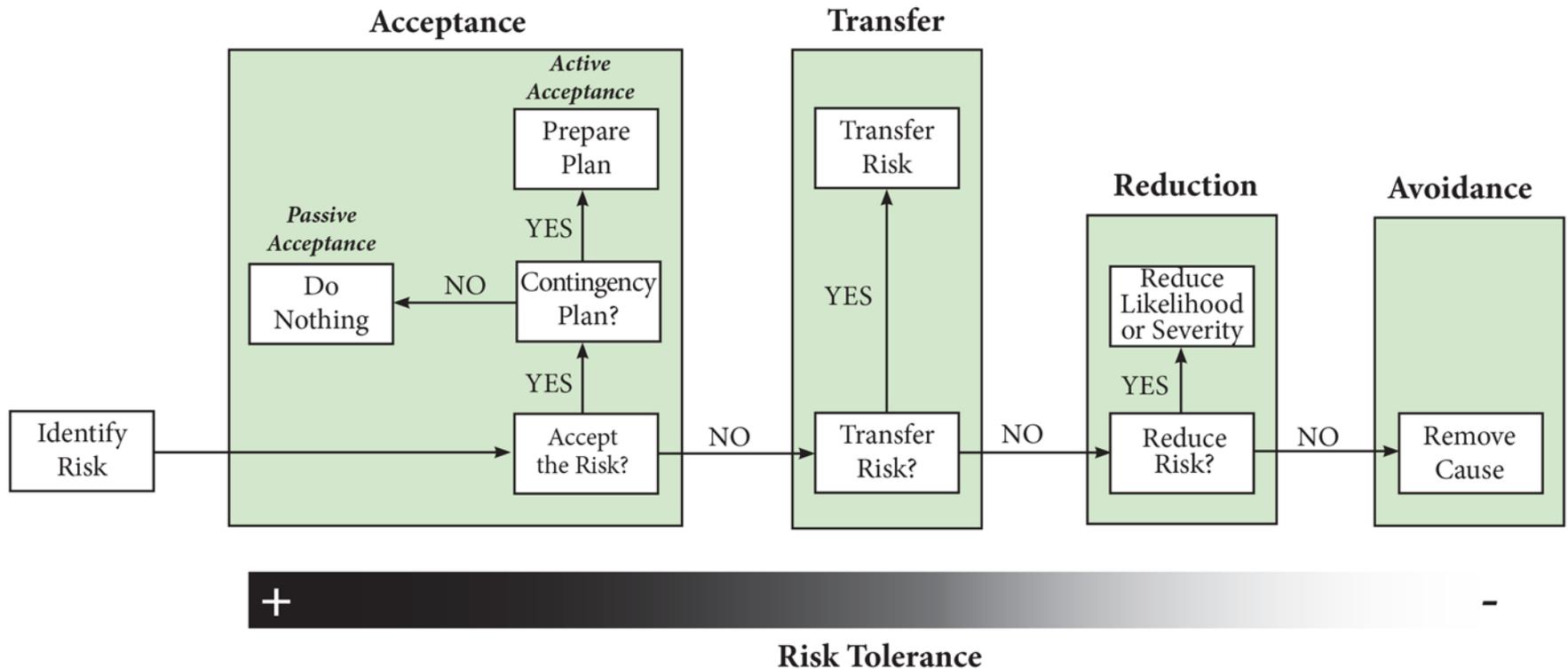
# RISK STRATEGIES

## FIVE TREATMENT APPROACHES TO MANAGE THE RISK:

1. **Passive Acceptance** - Do nothing and accept the consequences
2. **Active Acceptance** - Do nothing, but develop a contingency plan to execute should the risk event occur
3. **Transfer** - Shifting risk from one party to another (e.g., Insurance policy)
4. **Reduction** - Implement actions to reduce the probability that a risk will occur and/or reduce the impact should the event occur,
5. **Avoidance** - Eliminating a specific risk, usually by removing the potential cause.

# RISK STRATEGY & RISK TOLERANCE

## Example Risk Strategy Decision Process



# LESSONS LEARNED

## Being Prepared Up Front Reduces Subsequent Work Exponentially

- Have a department policy and purpose in place with executive support
- Have a concise document of your process with graphics
- Hold short training session prior to each Phase start
- Explain the difference between process improvement and risk assessment
- Provide clear context to participants
- Provide a clear definition of “Risk” & Risk Statement format
- Get Risk Descriptions with enough detail to ensure clear understanding for scoring

## Try To Reduce The Participant’s Workload

- Have the administrative team do the data loading and consolidating if possible
- Minimize the number and length of the training & work sessions
- Use an automated scoring system if available