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UTAH DEPARTMENT OF GOVERNMENT OPERATIONS

Proactive Risk Management
Part 2: Risk Tolerance & Mitigation

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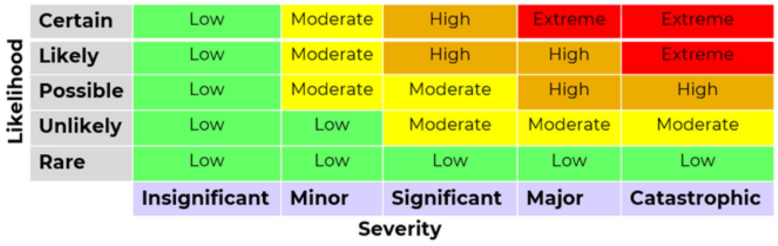
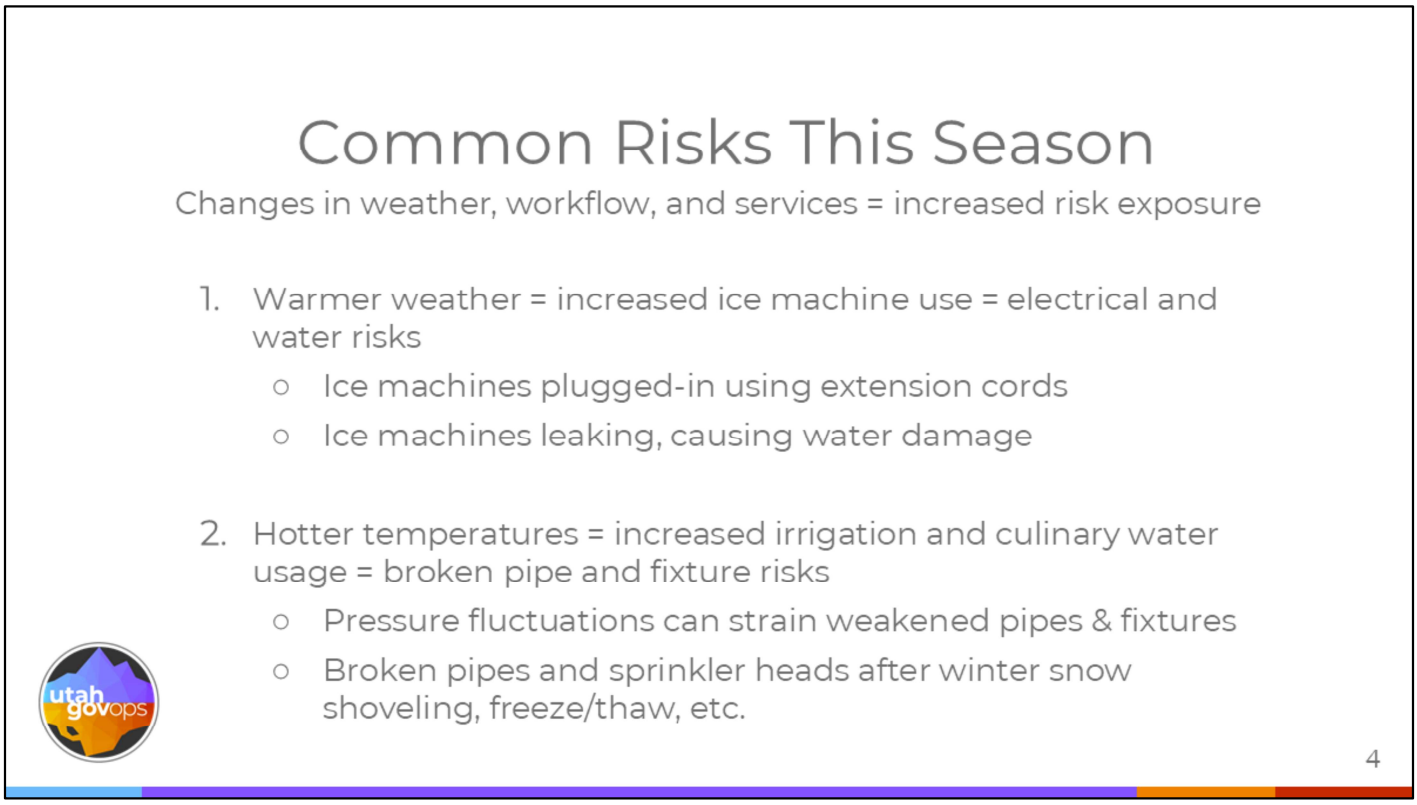
Proactive Risk Management

1. 3-part series about shifting from *reactive* to *proactive* risk management
2. Risk identification & analysis; risk tolerance & mitigation; root cause analysis

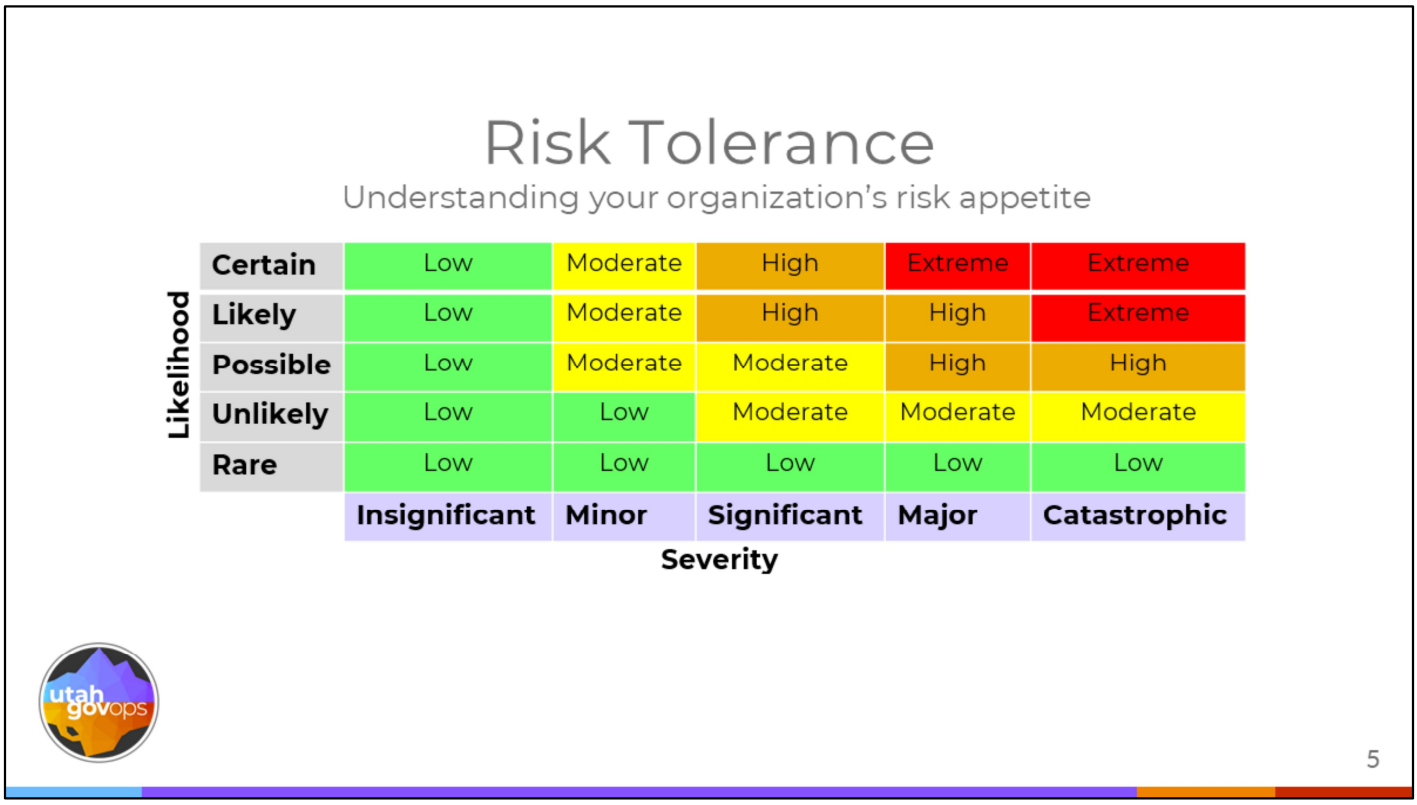


- Risk tolerance and mitigation is part 2 of our 3-part series on proactive risk management.
- Last month, we covered part 1, risk identification and analysis; and next month we'll cover part 3, root cause analysis.
- During part 1, we covered two simple tools to help you make the shift from *reactive* to *proactive* risk management.
- Displayed are those two tools:
    1. 4-square matrix to help you evaluate your workload and be strategic about where you invest your time and effort.
    2. Risk analysis matrix to help you measure risks, based on the likelihood of it happening, and the severity of the consequences if it happens.
- This presentation will introduce a 3rd tool to support your proactive risk management.

- It's important to understand the "why" behind risk management.
- At the end of the day, risk management is about protecting people and resources, continuing service delivery, and maintaining public trust.
- In the public sector, many of the services we deliver do not have an alternative that's accessible to most of the population. In other words, we don't have 'customers' who can just go to a competitor if we fail. We provide essential services like education, safety, infrastructure, and social services, just to name a few.
- So, when we manage risk, we aren't just 'avoiding hassles.' We are making sure that kids have a school go to, that our roads are clear and safe, and that employees receive their paychecks, for example. What you do has a significant impact.
- Though, I do realize that your work isn't always noticed. As risk managers, we are often in the background where few people see our work, but we also play a critical role in helping our teams fulfill their missions.

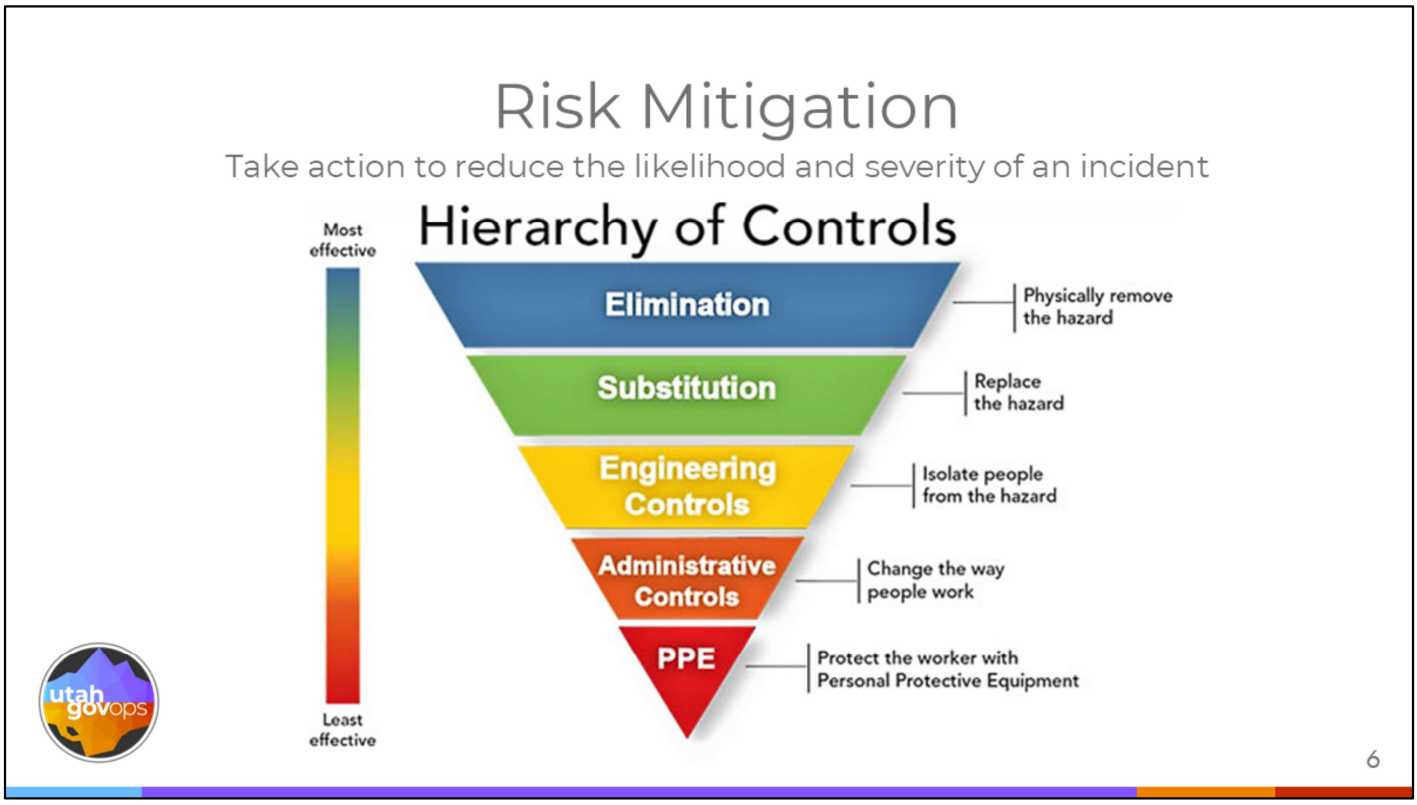


- This topic becomes more tangible when we discuss it in the context of common risks that we see at this time of year:
    - The change in seasons triggers changes in workflow, services, and equipment usage.
        1. For example, warmer weather could mean increased usage of ice machines. This can present some unique risks.
            a. In the past, we've seen ice machines plugged in using extension cords (electrical fire and trip hazards) and others that have leaked and caused both a slip hazard and property damage.
        2. Hotter temperatures mean higher water usage, including sprinkler systems that have sat unused for months.
            1. We've also seen broken pipes and sprinkler heads after winter snow shoveling, freeze/thaw, etc. that created flooding and water damage when the system was turned on.



- The reality is that you can't anticipate every risk or know every weakness about your properties. This is where understanding your organization's risk tolerance becomes critical. Like we covered in Part 1 about prioritizing your day-to-day workload, understanding risk tolerance will help you know which risks need more attention than others.
- One of the best ways to understand your organization's risk tolerance is to have an informed discussion with your leadership where they can tell you how much risk they tolerate.
- *Informed discussion* is the key. You need to prepare for this conversation with details and information so that both you and your leadership can have a common understanding of risks and their consequences and then make decisions accordingly. There is a tool that will help you do this.
- In Part 1 we discussed using this same tool to help you evaluate risks so that you can prioritize your risk management efforts.
- Use this same tool as you discuss various risks with your leadership.
- As you discuss risks with your leadership, plot each one based on two questions: 1. How likely is it to happen? and 2. How bad will it be if it happens?
    - **The Green Zone** are risks within our tolerance. We monitor them, but we keep working on other risks.
    - **The Red Zone** are risks outside our tolerance. So, if a risk lands here, we focus on mitigating that risk until it is back in the green zone. We'll also review a risk mitigation tool in this topic.

- It’s important to note that instead of reviewing individual risks with your leadership, you may have to instead focus on broad risk categories.
    - For example, for our educational institutions, “student safety” may be one of those broad risk categories that you discuss.
        - For risks falling into that category, what’s the general likelihood? What’s the severity? An injured student may have catastrophic consequences to the student, their family, the institution, and the community. Therefore, anything that is a risk to student safety may have consequences that put it in the red zone. That risk then becomes your top priority and focus until it is mitigated.
    - **Here’s a tip -** If you ever feel 'uneasy' about a risk, plot it on this grid. If it feels like its potential consequences are orange or red, then that is your signal to focus on it and bring it up with your leadership.
- The yellow zone is where debate about risks often occur. This is another reason why using this tool can help inform those discussions to help you stay within the risk tolerance of your organization.
- **Reminder –** it’s not your job to eliminate risks entirely—that’s impossible. Your job is to ensure that the risks taken are within the **"**Green Zone**"** and to mitigate risks in the other zones.



- Now that we know how to clarify our organization's tolerance, how do we stay within those bounds? We do that through risk mitigation.
- The 2nd tool for this topic will help you mitigate risks. It is called the Hierarchy of Controls.
- We use the hierarchy of controls to decide *how* to fix a risk.
- This tool can be applied in many different situations.
- The inverted triangle shows different risk mitigation strategies.
- To the left of the triangle is a scale showing effectiveness of those strategies. As you move from the flat top of the triangle towards the pointed bottom, the strategies reduce in effectiveness based on how much human effort is required. Here is a summary of each strategy:
    - **Elimination and Substitution** are most effective because they remove the risk entirely. For example, if the risk is injury from a playground merry-go-round, then if the merry-go-round is removed, that risk is eliminated.
    - **Engineering Controls** are 'set it and forget it' type solutions. Examples of these are digital firewalls to prevent cyber attacks or physical railings to keep people away from a cliff's edge. These solutions don't eliminate the risk, but they keep people away from it.
    - The bottom two—**Administrative Controls and PPE**—are the most common strategies. Examples of these are things like HR policies, gloves, and hard hats. However, these are also the weakest strategies because they rely on human behavior. If someone does not follow

policy or does not wear their PPE, then they are exposed to the risk.

Using The Hierarchy of Controls

Trip hazards in grassy areas – irrigation boxes

This is a real-world risk that we can use the hierarchy of controls to reduce the exposure to that risk.

Example #1: Sports field trip hazards – irrigation boxes.

- With summer approaching, people will be outdoors more and using grassy areas, like sports fields and parks. This also means sprinkler systems and lawnmowers will be running. If you have not already, now is a good time to have your teams inspect sprinkler boxes and sprinklers in any grassy areas that your agency is responsible for.
- Not only can damaged or uneven sprinklers and sprinkler boxes create dangerous tripping hazards, but broken irrigation lines and sprinkler heads near buildings can cause significant water damage.
- Over time, with foot traffic, lawnmowers, and other factors, sprinkler boxes can become above-grade and broken.

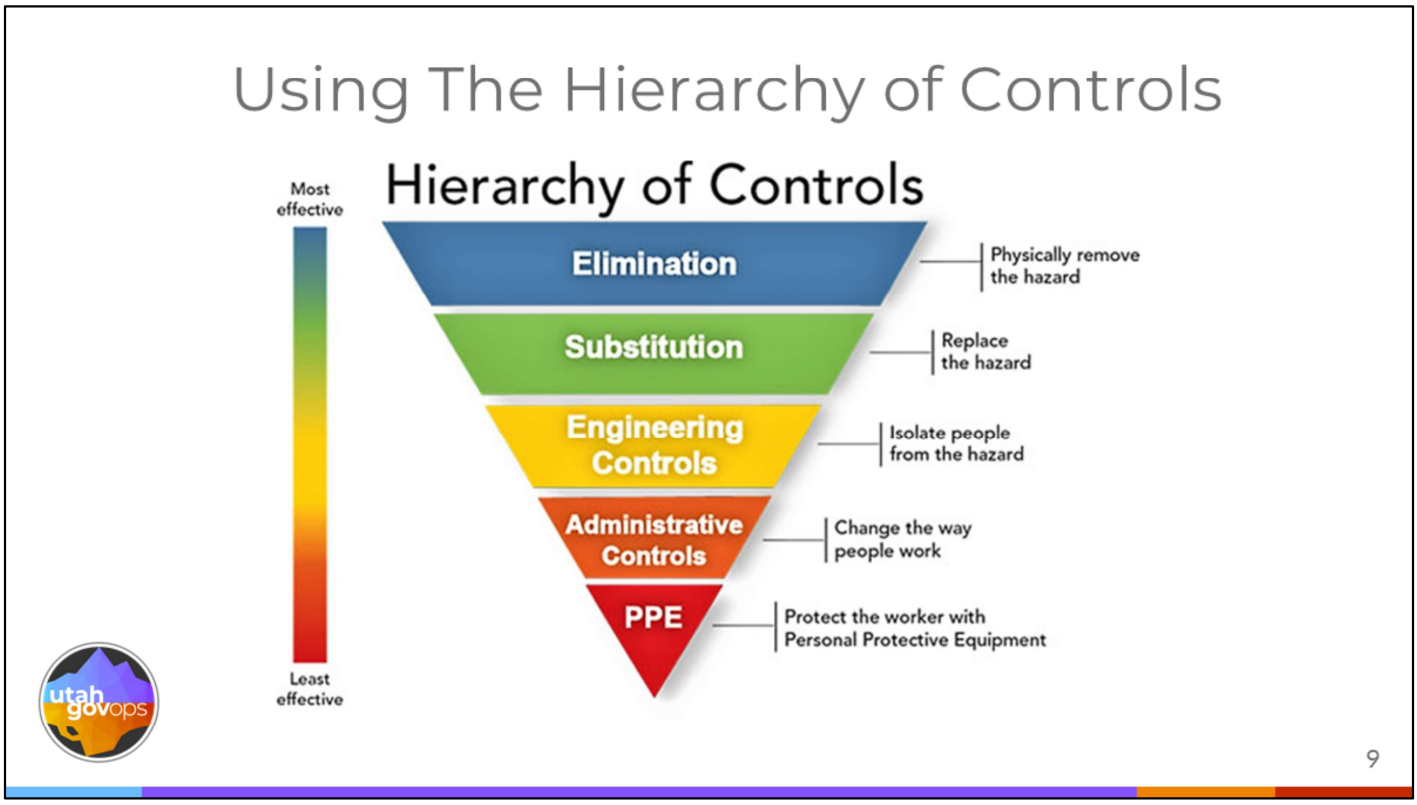
Using The Risk Matrix

Likelihood	Insignificant	Minor	Significant	Major	Catastrophic
Certain	Low	Moderate	High	Extreme	Extreme
Likely	Low	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	High
Unlikely	Low	Low	Moderate	Moderate	Moderate
Rare	Low	Low	Low	Low	Low

Severity

8

- So, first think about this risk in terms of the organization's risk tolerance. For this exercise, these broken sprinkler boxes are in a sports field at a high school or university. Also, imagine that you discussed risk tolerance with your leadership and learned that there is low tolerance for risks involving student safety and premises liability.
- Let's first use the risk matrix to evaluate the level of risk from broken sprinkler boxes in terms of student safety and premises liability.
- What we know: the sprinkler boxes are broken; they are located in a sports field; the sports field is used during the week and especially on weekends by students and the general public.
- So, with high foot traffic, it is likely that someone will trip or otherwise get injured on a broken sprinkler box. In this scenario, the likelihood is "likely," if not "certain."
- If/when that injury happens, what will be the severity? Medically, the injury could be "significant;" but legally, probably "major" because the injured party could have a claim for bodily injury *and* negligence.
- These additional factors would put this risk at least into the "major" category, resulting in an "extreme" risk rating.



- Now that we found that this risk is outside our organization's risk tolerance, it needs to be addressed. The Hierarchy of Controls will help do that. This is what each risk mitigation strategy could look like in this scenario:
  - **Elimination** – relocate the sprinkler valves and the boxes around them off the field.
  - **Substitution** – replace the plastic sprinkler boxes with concrete boxes with bolted-down lids and a concrete apron.
  - **Engineering control** – fence-off the area where the sprinkler boxes are located, preventing public access.
  - **Administrative control** – post a sign on the field that players can only use designated areas of the field.
  - **PPE** – provide all people who use the field sturdy footwear and a padded suit (impractical).

Risk Tolerance & Mitigation

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Likely	Low	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	High
Unlikely	Low	Low	Moderate	Moderate	Moderate
Rare	Low	Low	Low	Low	Low

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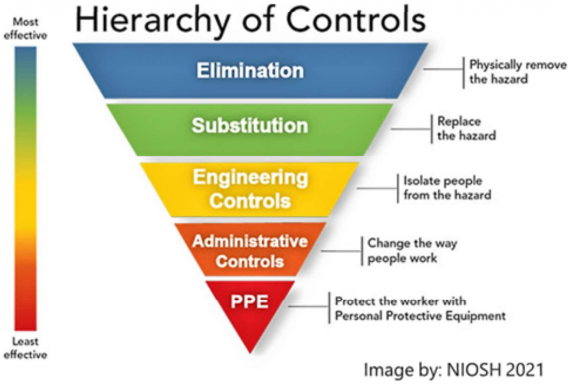

- This is a brief review of the tools in this webinar: risk matrix and hierarchy of controls
  - Risk matrix helps us have an informed discussion with our leadership to understand their risk tolerance for the organization. It also helps us measure individual risks as we encounter them.
  - The hierarchy of controls helps us identify the safest solution to a risk.
  - Few scenarios have a single *correct* solution. This is the “art” part of risk management – risk managers will have different solutions/approaches.
- At the end of the day, these things matter because they will help us protect people and resources, service delivery, and public trust.

We're Here To Support You!

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https://risk.utah.gov/tools-resources/

Utah Department of Government Operations
Division of Risk Management

- DRM loss control team is available for assistance in all these areas. Contact us.
- DRM website has a lot of informational resources and training.