Risk Assessment – Basic Training

TCV Health and Safety Team

Risk Assessment - Basic Training

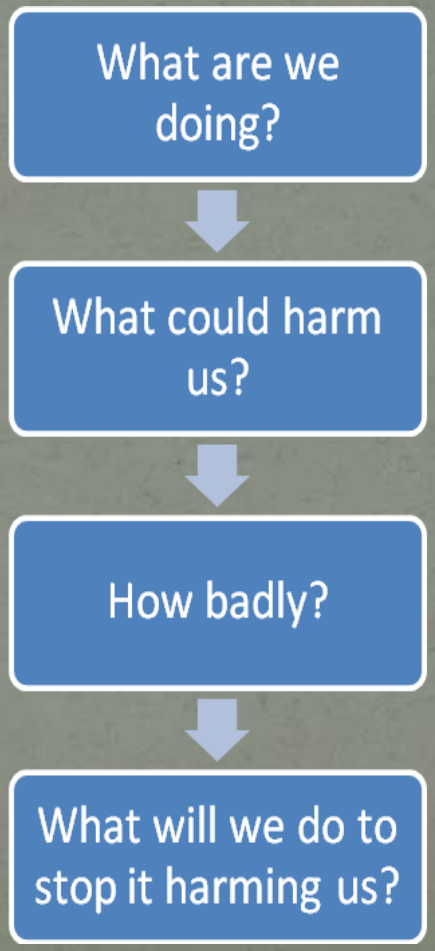
I. What is risk assessment?

II. Why Risk Assess?

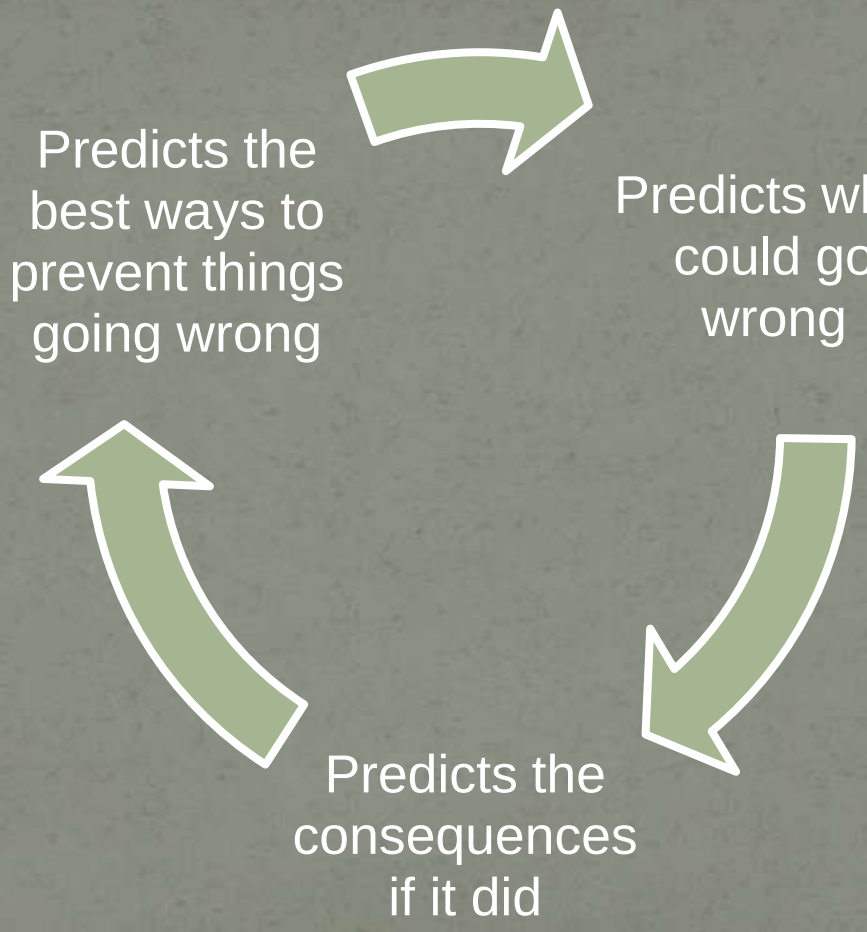
III. How to risk assess:

1. Task Analysis & work place assessment
2. Identifying Hazards
3. Assessing Risk
4. Now what do we do? (Safety Actions)
5. The 3 ‘R’s

What is Risk Assessment?



What is Risk Assessment?



… it is a proactive and continuous process and is as old as the hills …

What is Risk Assessment?

Why Risk Assessment?

How to Risk Assess

1. Task Analysis & work place assessment
2. Identifying Hazards
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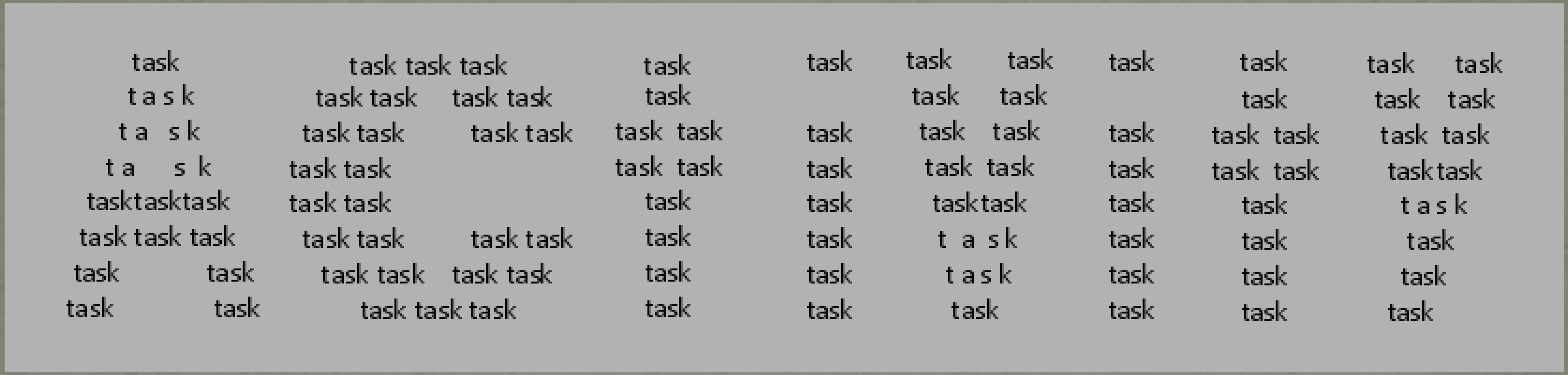
How to Risk Assess

1. Task Analysis

How to Risk Assess



Task = a series of actions to achieve an end result (activity) (and that produce hazards)

Activity: Post and Wire Fencing

TASKS			
Mark out and clear fence line			
Install straining posts			
Install intermediate posts			
Install strut posts			
Strain wire and staple to posts			

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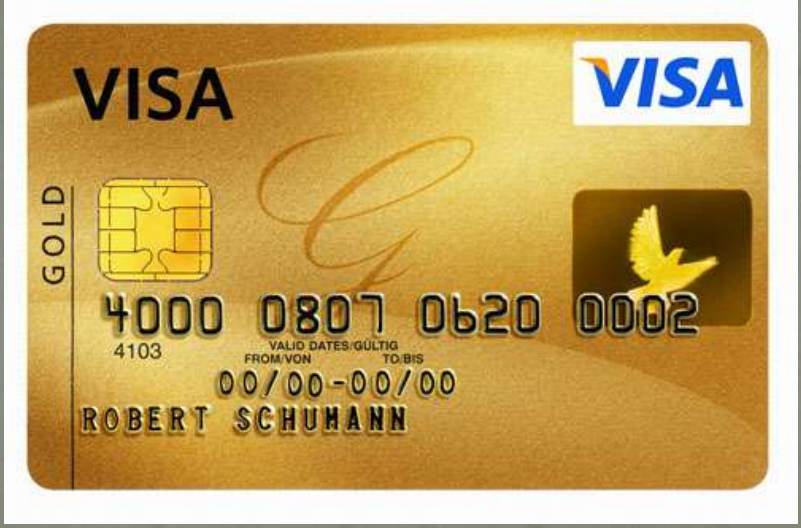
Site hazards: Underground services dog faeces			

Hazard

Anything which has the potential to cause harm…



Hazards

Objects *(things we use)*

People *(language barriers, learning difficulties, behaviour)*

Substances *(that can effect our health)*

Processes *(actions which create hazards e.g. lone working, manual handling)*

Site *(uncontrollable events that we can prepare for)*

Events

Activity: Post and Wire Fencing

TASKS	HAZARDS		
Mark out and clear fence line	Hand tools (slasher, loppers and bowsaw)		
Install straining posts	Hand tools (spade, rabbit spade, shovholer, bar, saw hammer) Lifting and moving; stone, posts, heavy tools and earth. Treated timber Volunteer with existing back injury		
Install intermediate posts	Post driver Carrying materials long distances Hand tools including bar Volunteer with epilepsy		
Install strut posts	Use of drill Wood dust Hand tools		
Strain wire and staple to posts	Barbed wire (weight, sharp) Straining wire Straining tools Hammer and staple		
Site hazards: Underground services Dog faeces			
Hazardous Events: Severe weather – hot and sunny Dog attack			

Each task think about the following 3 types of hazards:

- Object
- Substance
- Processes
- People

Record any site hazards

As a whole activity think about potential hazardous events due to the activity, site and people you're working with

Risk

*Hazard = The **thing** which has the potential to cause harm…*

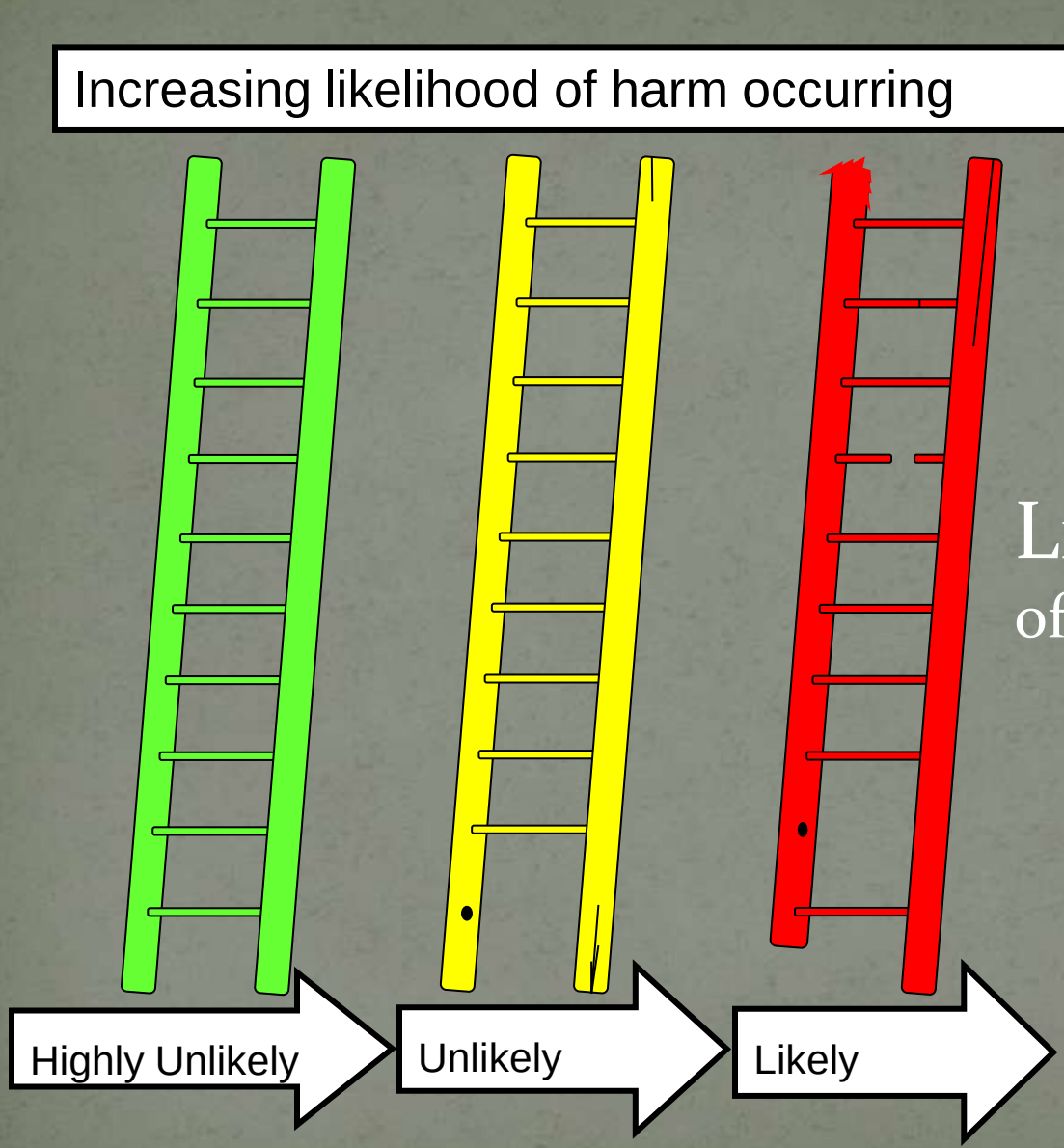
Risk = The **harm** or **outcomes** if the potential is realised

Risk Level

How severe?

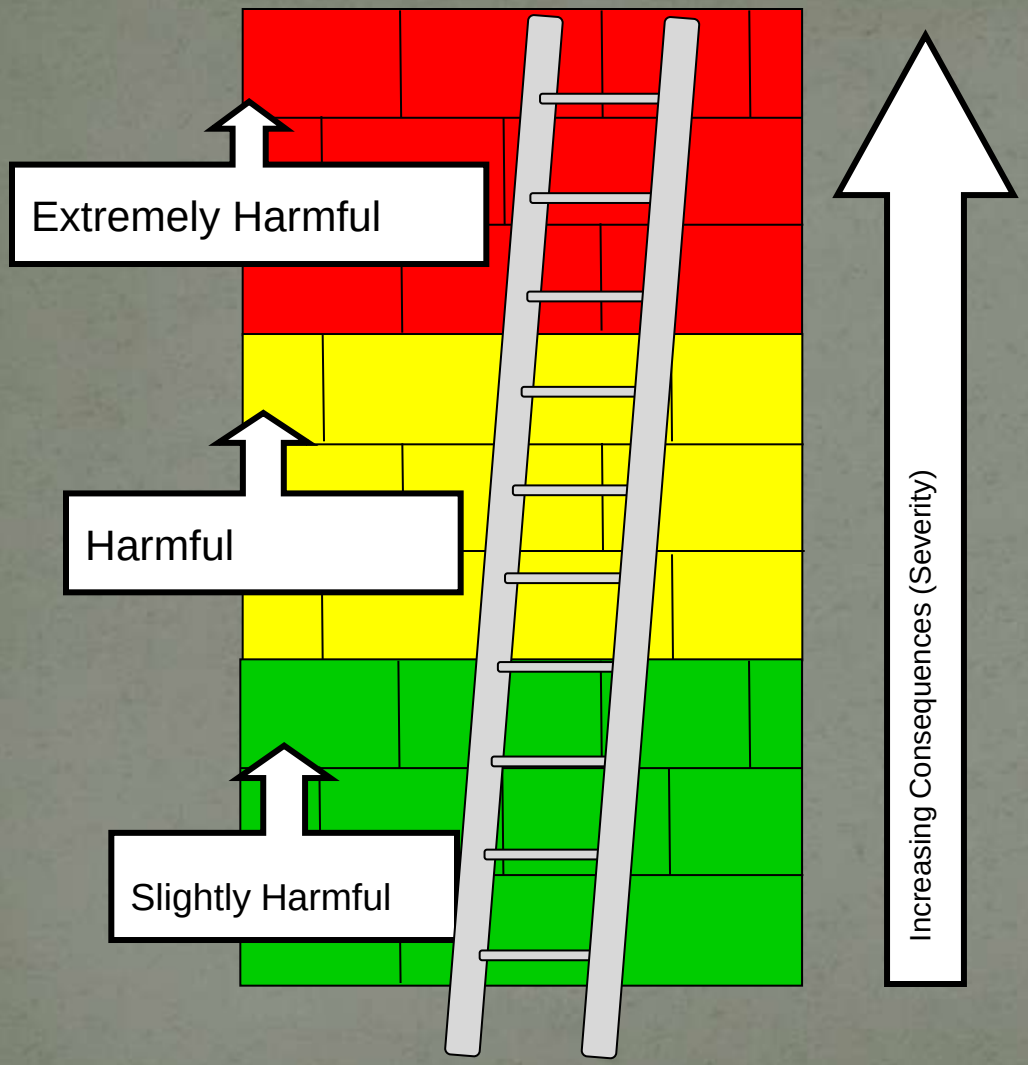
How likely?

Who & how many?



Likelihood

of falling from a ladder !



Consequences or severity of harm

Risk Level Matrix

Risk level = Likelihood x Severity of harm

likelihood of harm occurring

	Unlikely 1	Fairly Likely 2	Likely 3
Extremely harmful 3	3	6	9
Very harmful 2	2	4	6
Slightly harmful 1	1	2	3

Severity of harm

Activity: Post and Wire Fencing

TASKS	HAZARDS	RISK	
Mark out and clear fence line	Hand tools (slasher, loppers and bowsaw)	Deep lacerations Tool contact with public and other workers	
Install straining posts	Hand tools (spade, rabbit spade, shovholer, bar, saw hammer) Lifting and moving; stone, posts, heavy tools and earth. Treated timber Volunteer with existing back injury	Musculoskeletal injury from lifting Tool contact with other workers in close proximity Dropping heavy tools/materials on feet Repetitive strain injury Fatigue leading to loss of concentration Dermatitis and cancer from tanalith Exacerbating existing injuries	
Install intermediate posts	Post driver Long distances Hand tools including bar Volunteer with epilepsy	Injury when carrying (as above) Volunteer fitting whilst using post driver	
Install strut posts	Use of drill Wood dust Hand tools	Entanglement in drill – friction burns, scalping Asthma and throat irritation (hand tools as above)	
Strain wire and staple to posts	Barbed wire (weight, sharp) Straining wire Straining tools Hammer and staples	Cuts and musculoskeletal injury Dropping load on feet Wire breaking causing lacerations and eye injury (hand tools as above)	
Site hazards: Underground services Dog faeces		Explosion and electrocution Illness including toxocariasis	
Hazardous Events: Severe weather – hot and sunny Dog attack		Heat exhaustion, sunstroke, sun burn, cancer, death Deep lacerations and infections, trauma	

How to prevent & reduce risks

Safety Actions = Actions taken to reduce risks.

Effective Risk Control

A well known example of effective risk control is the 4 steps of the …

…. Green Cross Code…

- 1. find a safe place to cross
- 2. look and listen for traffic
- 3. wait for a safe gap in the traffic
- 4. look and listen while you cross

RRIP's Hierarchy

In TCV we ensure effective risk control using:

RRIP's Hierarchy:

- Remove hazards
- Reduce risks
- Instruct people
- Personal Protective Equipment
- supervision

RRIP's Hierarchy

- *1. **R**emove hazards*

RRIP's Hierarchy

2. Reduce Risk from Hazards by:

Substitution

Isolation

Limit exposure

RRIPs Hierarchy

- *3. Instruct people*

RRIPs Hierarchy

5. Personal Protective equipment (PPE)

RRIPS Hierarchy

6. Supervision

1. Remove hazards
2. Reduce Risk from Hazards
    - Substitution
    - Isolation
    - Control exposure
3. Instruct people
4. Personal Protective equipment
5. supervision

RRIPs Hierarchy

Activity: Post and Wire Fencing

TASKS	HAZARDS	RISK	SAFETY ACTIONS
Mark out and clear fence line	Hand tools (slasher, loppers and bowsaw)	Deep lacerations Tool contact with public and other workers	Safe working distances Well maintained tools, checked before use Gloves and suitable strong clothing Train in safe use of tools Safe storage of tools Supervise tool users and correct unsafe behaviours Wear leather rigger gloves when using bowsaw and loppers
Install intermediate posts	Post driver Long carrying distances Hand tools including bar Volunteer with epilepsy	Injury when carrying (as above) Post driver hitting head whilst used Volunteer fitting whilst using post driver	Have materials distributed along fence line by vehicle Post driver to be used by physically capable volunteers. When two people use if they must be of similar height and ability. Hard hats must be worn by post driver users Volunteers with health complaints such as epilepsy must not use post driver
Site hazards: Underground services Dog faeces Soil borne organisms		Explosion and electrocution Illness including toxocariasis and tetanus	Where there is a risk from underground services a plan must be obtained showing locatin of services. The location must be confirmed using CAT scanner and line marked. Dog faeces to be removed prior to work starting and subsequently when discovered Skin must be thoroughly washed with soap and water following any contact with dog faeces and before eating, drinking or smoking Cuts and damage to the skin should be cleaned, treated with first aid and covered
Hazardous Events: Severe weather – hot and sunny Dog attack		Heat exhaustion, sunstroke, sun burn, cancer, death Deep lacerations and infections, trauma	Check weather before arriving on site. Adjust work or cancel where the risks are high. Provide drinks and breaks in the shade. Monitor volunteers for signs of heat stress and administer fisrt aid following any signs of heat stress Cover skin and adopt good sun safety advice (wide brimmed

The 3 'R's – **Record**, Review, Revise

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Review = checking its still relevant

- at regular intervals
- if alterations or changes occur
- new research
- following an accident or incident
- Annually if not prompted by another reason

The 3 'R's – Record, Review, **Revise**

Revise = amend

When?

- significant changes have occurred
- New hazards have been identified
- new technology or systems appear that can further reduce risk

Before project

In the office:
Task Analysis
ID hazards
Evaluate Risk
Safety Actions

Site Visit:
Review & Revise RA
Site Hazards
Hazardous Events

Project day

Take RA document onto site
Review it
Revise if necessary
Use it to inform workers

Thank you