Designing the Staff Ride

A vehicle for learning from wildfire and prescribed burning operations in Australia

Building organizational capacity for high reliability

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Sandy Whight

Fire Management Officer (Policy and Assurance)

Sandy joined Tasmanian Parks and Wildlife in 2004, after 10 years working with the NSW NPWS as a fire technical officer, project officer and ranger, and volunteer fire fighter with the NSW Rural Fire Service. In her current role Sandy has been responsible for all fire management policy, standard operating procedures, some training, debriefing, and participating in all fire management activities. She has an honours degree in fire ecology and is very committed to creating the culture of a high reliability organisation within the Tasmanian PWS.

Adrian Pyrke

Manager Fire Operations

Adrian has been working in fire management for the Tasmanian Parks and Wildlife Service since 1994 where he now leads the fire program. He started his career as a trainee park ranger and then completed a PhD in Geography.

Phil Duggan

Phil joined the TFS as a volunteer in 1972, and has been actively involved in fire operations since that time. In 1998 he joined the PWS fire crew, and in 2007 he was appointed fire operations officer for northern region coordinating their planned burning program. He is a Level 3 operations officer, experienced divisional commander, has been involved in several interstate deployments, and has recently trained as a fire behaviour analyst.

Eddie Staier

Fire Management Officer, Northwest region

Eddie has participated in fire management on reserved land for 24 years in his roles as Ranger, Reserve Planner, Park Manager and Fire Management Officer.

Dr Christine Owen

Project Leader: Organizing for Effective Incident Management, Bushfire CRC

Christine has a strong background in organisational development and extensive experience in a range of high reliability domains. She was research project leader for BCRC Enhancing IMT effectiveness and organisational learning (to 2010) and CRC Education and Training Program Leader (2006-2010).

Dr Sue Stack

Project Manager: Higher Education Strategies, Bushfire CRC

Sue is an experienced educator and researcher creating deep learning experiences. She has worked with team leaders and teachers to help develop their capacities to build effective learning.

Part 1 – Background

Why this manual?

In 2010, Sandy Whight, Fire Management Officer (Policy & Assurance), of the Tasmanian Parks and Wildlife Service (PWS) was keen to organize a staff ride as part of the annual review and professional development program for her fire operations staff. She had heard positive feedback from people who had gone on Staff Rides in the USA and was interested in seeing if it could be done locally. She was interested in seeing what impact it might have in improving organizational learning.

In considering how to do plan and conduct a staff ride her first port of call was the Wildland Fire Lessons Learnt website - http://wildfirelessons.net . She found several sources which helped her get started, but in hindsight realised that they didn't quite fit the Australian context. Sandy worked with Burn boss, Phil Duggan, who was keen to use his Narawntapu National Park planned burn as a learning experience for others. The resultant staff ride was videotaped by the Bushfire CRC Teaching and Learning team who worked with Sandy and other members of the PWS team to reflect on the effectiveness of the Ride for staff learning.

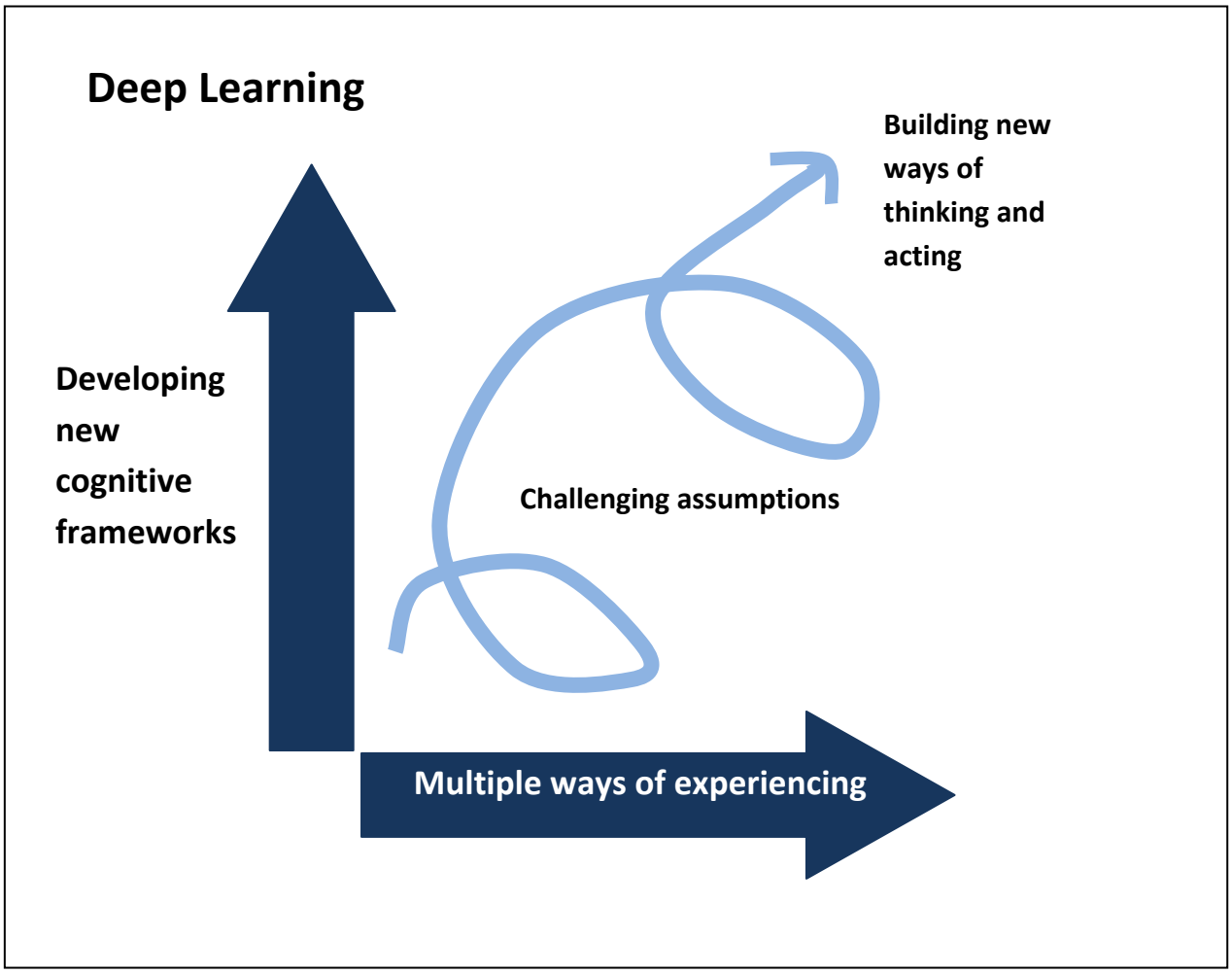
The positive feedback from the participants about their experience has encouraged Sandy to embed the staff ride as a professional learning strategy for her team. However, there are now things that Sandy and the others might do differently. Most importantly these include being more focussed in developing learning objectives for the ride and building facilitation skills to enable discussions with greater participation and purpose.

This manual:

- Builds on the Tasmanian PWS experience as well as USA experience in running staff rides
- Embeds Bushfire CRC Human Factors research knowledge about psychology of decisions under stress, team work and organizational behaviour.
- Integrates principles of High Reliability Organizations
- Provides guidelines which can help develop facilitation capacities for the leaders and group leaders of exercises like this.

Staff rides are based on learning from experience; either our experience and/or the experience of others.

In order to make the most of learning from a staff ride we need to value-add to that experience with deep reflection, sense – making and imagination.



What is a staff ride?

A staff ride is an intense learning experience which revisits an incident on the ground where it actually occurred. The underlying purpose is to build the capacity of the participants using a reflective and experiential mode of learning. Participants are provided with an operational situation, and hear the experiences and emotions of those who were involved in the incident. This process helps to bring into focus details that might normally be overlooked that reveal deeper systemic issues. It helps to build capacity around the five hallmarks of High Reliability. (see page 8)

Staff rides originated from the time of General Custer who used them as a learning exercise for his officers. Together, they would go over a battle ground and review the sequence of action and decision-making. Staff rides have been a learning tool of the military for many years and more recently have been applied to wildfire operations, particularly in the USA.

Staff rides are resource intense. If all you want from a staff ride is a review of an incident it can be done in more efficient ways. The challenge is to maximise the learning from a staff ride by having clear learning objectives and facilitating the group through sense-making processes.

Staff rides use actual past events, not hypothetical ones. They require events which have good documentation or understanding of what happened. They use key people who were engaged in the event to narrate what happened operationally from their perspective.

There are different ways of delivering staff rides. Staff Rides can be highly organized with key learning objectives and discussion topics for each location visited. Or they can be more open-ended, allowing the participants to find key learning points.

Adrian: "Fighting bushfires and lighting planned fires is fraught with risks. But it must continue to be an essential part of land management in Australia. We should always be thinking about the risks. If we aren't then we cannot hope to succeed. However, it is not about being risk averse but aware and ready to deal with the things that happen.

"I attended a workshop on high reliability organising in New Mexico in 2004 and I realised that it was an important way of thinking for our fire business. A high reliability organisation has a culture of mindfulness and systems to deal with the unexpected but is able to continue on with the business even if an operation does not go as intended."

1. ***Preoccupation with Failure***
   - a relentless hunt for lapses, errors and incongruities with well developed processes for reporting near misses, service provision upsets and small and localised failures of all sorts
   - wary of the potential liabilities of success including complacency, the temptation to reduce margins of safety and the drift into automatic processing

2. ***Reluctance to Simplify***
   - underlying state of mental functioning distinguished by continuous updating and deepening knowledge and understanding of context, potential problems and remedies
   - ability to pick up weak signals of potential trouble and interpret from them any significant meaning

3. ***Sensitivity to Operations***
   - keen awareness of what is actually going on
   - practices that keep people informed about operations as a whole, about how the system can fail and about strategies for recovery

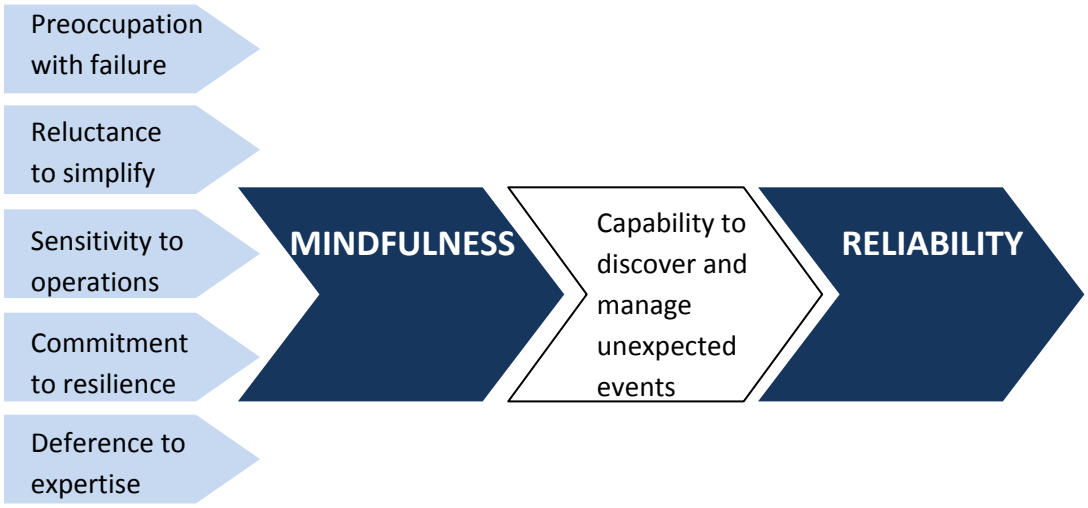
4. ***Commitment to Resilience***
   - ability to absorb strain and preserve functioning in the face of adversity
   - ability to recover from unforeseen events

5. ***Deference to Expertise***
   - authority migrates to the people with the expertise to deal with complex situation preparedness to allow people with expertise to make quick decisions when the situation demands.

High reliability principles – the foundation of a staff ride

Staff rides are an important learning tool for High Reliability Organizations (HROs) who work under trying situations and are required to manage the unexpected. The staff ride is an opportunity to reveal deeper organizational and policy issues and habits as well as build capacities for mindfulness and flexible thinking. It is not a blame hunt.

The five hallmarks of HROs provide a context for the staff ride, as well as shape the sort of the learning processes used and valued throughout the ride. Attention to these five principles helps to build mindfulness during operations and greater capacity to manage the unexpected.



A preoccupation with failure enables near misses to be seen as important signals indicating a need for organizational improvement. A staff ride enables a re-enactment of a failure through narrative of the key players on the actual terrain. The gradual unfolding of information seen from the various perspectives enables a focus on the details of an operation that might be missed in a report. The complexity of the situation becomes more visible. What emerges are the different ways that key players made sense of the information that they had and how this predisposed the decisions that followed. Participants are asked to consider what the cultural ways of operating might be that create these decision paths and what might be changed.

Conducting a staff ride well might be difficult in a culture of hierarchy, or where people are just used to “doing it” rather than “reflecting” on it. High Reliability Organizations aim to break down these barriers so that participants of all ranks can input their expertise to take away both personal and shared learning.

Use the following quiz to reflect on the extent to which your organization might be a high reliability organization.

In high reliability organizations people:

Are concerned about the unexpected.

Are sensitive to the fact that any decision or action during a time of dealing with the unexpected might be subject to faulty assumptions or analysis.

Feel safe to question assumptions of others and to report problems candidly.

Conduct incident reviews of unexpected events, no matter how minor.

Imagine a range of worst case scenarios, so they can take better precautions.

Consider close calls not as an evidence of their success at avoiding danger, but rather a failure that reveals potential danger.

Are wary of success, suspicious of quiet periods or habitual patterns that can lead to complacency.

Counteract simplification of analyses, assumptions and expectations through job rotation, retraining, or adversarial reviews.

Are able to share different perspectives in order to surface information not held in common. Are able to deal with the differences.

Develop collective cognitive maps of operations at any one moment, such as situation assessment, continual updates and collective story telling.

Weick, K. E., & Sutcliffe, K. M., (2001) *Managing the Unexpected: Assuring performance in an age of complexity*. Jossey-Bass: CA

Quiz – *To what extent are high reliability principles embedded within your organization?*

	1 – not at all	2 – to some extent	3 – a great deal
Preoccupation with Failure			
1. We regard close calls and near misses as a kind of failure that reveals potential danger rather than as evidence of our success and ability to avoid disaster			
2. We often update our procedures after experiencing a close call or near miss to incorporate our new experience and enrich understanding.			
3. Managers seek and encourage bad news.			
Reluctance to simplify			
4. People around here take nothing for granted.			
5. Questioning is encouraged.			
6. People are encouraged to express different points of view.			
Sensitivity to operations			
7. People are familiar with operations beyond their own job.			
8. We have access to resources if unexpected surprises crop up.			
9. People are always looking for feedback about things that aren't going right.			
Commitment to resilience			
10. People have more than enough training and experience for the kind of work they have to do.			
11. There is a concern with building people's competence and response repertoires.			
12. People learn from their mistakes.			
Deference to expertise			
13. If something out of the ordinary happens, people know who has the expertise to respond.			
14. People in this organisation value expertise and experience over hierarchical rank.			
15. If something unexpected occurs, the most highly qualified people, regardless of rank, make the decisions.			

Overall rating (approximate):

Comment:

Weick, K. E., & Sutcliffe, K. M., (2001) *Managing the Unexpected: Assuring performance in an age of complexity*. Jossey-Bass: CA

To be sensitive to operations
means in part, to put your understanding of operations into words:

First tell people:

- What you think we face;
- What you think we should do;
- Why you think that is what we should do;
- What we should keep our eye on because if that changes it's a whole new ballgame.

You then need to ask people:

- What is unclear;
- What you might have missed;
- What they think they may not be able to do

From: Managing the Unexpected in prescribed Fire and Fire Use Operations – A Workshop n the High reliability Organization

Example:

A prescribed burn gets out of control and burns down the local community hall. What questions might be asked relating to each of the five hallmarks?

1. Did we see it coming? Had the people planning the operation thought about the possibility that the community hall could get burnt and what they could do to prevent that happening? ***Preoccupation with Failure***
2. How did we misread this situation? Were we listening when being told about some problems and concerns for this operation? Was there anything that was said before the operation that in hindsight was critical but ignored at the time? ***Reluctance to Simplify***
3. Did the people running the operation have enough support at the time? How aware of the details of the operation were other people in the organisation, particularly supervisors? **Sensitivity to *Operations***
4. How do we cope? Did we learn from this experience and make the changes necessary without blaming individuals? ***Commitment to Resilience***
5. Who knew more than we did about how to handle it? Were the right people with adequate expertise undertaking the critical roles in this operation? Have we identified weaknesses in knowledge, skills and training? ***Deference to Expertise***

Further reading:

Weick, K. E., & Sutcliffe, K. M., (2001) *Managing the Unexpected: Assuring performance in an age of complexity*. Jossey-Bass: CA

Managing the Unexpected in Prescribed Fire and Fire Use Operations
A Workshop on the High Reliability Organization, Sante Fe, New Mexico, May 10-13, 2004
http://www.wildfirelessons.net/documents/MTU_Santa_Fe_Workshop_rmrs_gtr137.pdf

Part 2 – Planning a staff Ride

The Context of the Staff Ride

Staff rides are not likely to be stand alone events but rather part of professional development or annual operational debriefings. When introduced for the first time to a group it is important to lay some groundwork about why you are doing it, and its relationship to High Reliability Principles. Although there can be multiple designs of staff rides, generally they incorporate three phases.

The three phases of staff rides:

1. **Preliminary preparation ahead of the field trip** – This could involve preliminary reading where people are given some information about the event beforehand to familiarise themselves with the situation (e.g. Burn plans or investigations reports). It could also involve discussion or presentations – e.g. Presentations around High Reliability Principles or decision-making issues.

2. **Field Trip** – this is the ride itself where participants visit a number of different sites on the actual terrain. This exposes the participants to an actual operational situation, which unfolds in chronological order highlighting key decision-making moments. They are encouraged to think what they might do in a simular situation and to explore underlying issues that are revealed in the process. This can be facilitated through whole group or smaller group discussion with different learning objectives for different sites.

3. **The integration stage** – This can be an opportunity for healing where people can connect to the feelings of the day after the event, possibly a dinner. It can also involve more significant debriefing with discussion and exploration connecting back to High reliability principles . This is an opportunity to look at implications for organizational change or policy review.

When might you choose an incident where deaths were involved?

Sandy: “I know of people who experienced deaths of their colleagues, and I believe might have benefitted by doing a Staff Ride 18 to 24 months after the incident. Although there is access to counselling, you still don’t fully understand what actually really happened, and the grinding brutality of an inquest doesn’t help. I think a Staff Ride would have helped the healing. A case like this kind of staff ride, I think, should be closed to only those who worked on the day or close colleagues. Another staff ride of the incident might be useful for a group of people who are not connected to those who died – but they would be in a different group.”

A demand to know

Phil: “People in Parks wanted to know what had gone wrong with my prescribed burn and what we could learn from it. So it seemed like an ideal opportunity to design a staff ride around the incident. Although we had done an investigation more things came to light during the staff ride.”

Happy to disclose

Phil: “I didn’t want to hide anything. I wanted to tell it like it happened so everyone would benefit from reflecting on the incident. I have certainly learnt from it and already changed my procedures. I wanted people to understand how important it is to think outside the boundaries of your burn – to see what is on the other side of the fence, and to take it into account in your planning and resources.”

Re-telling the story can get emotional

Phil: ”When you are standing on the site and telling the story of what happened, you begin to re-live the day of the actual incident things are going through your mind of what happened on the day. It can bring up a bit of emotion.”

Choosing the incident

There might be a number of incidents that you could consider as a contender for a staff ride. What might help in choosing an effective incident for learning?

- Consider using near misses rather than ones involving fatalities or ones involved in legal compensation claims. While a key aspect of the Staff Ride is to accentuate the emotion of the narrators and not just to give the dry facts, there are some events which evoke too much emotion.
- The event should have sufficient distance – 12 to 18 months, however there may be advantage in people being able to see the impact of the fire on the vegetation.
- Avoid incidents which could end up as a witch hunt. Be careful of exposing "self", group or the organization to incompetence. The facts will look differently depending on whose shoes you are in.
- The incident needs to be supported by good documentation or understanding of a sequence of events. It helps to use maps to work out where fire fronts and resources were at key times to understand the logical consistency of the story.
- There needs to be sufficient people to provide a narrative of what happened and they need to be willing to disclose their thinking and decision making to others. They need to be comfortable with evoking memories which may be emotional.
- What might be key learning messages that could come out of an exploration of such an incident? What incidents might give more value for money in terms of the learning possible?
- An interest by potential participants in being able to understand more about a particular incident would provide excellent motivation for their learning.

Examples of Learning Objectives

To explore and understand issues of Leadership.

To reveal how tunnel vision can occur when worst case scenarios are not considered.

To encourage participants to understand that the facts are seen differently depending on whose shoes you are in, and to better share their alternative readings of the situation.

Choosing not to reveal information up front

Sandy: "When planning the staff ride with Phil, the Burn Boss, I discussed that you don't give it away in one go, that you actually try to get that sense of the unfolding story. So as people are walking around the site they are building a picture in their own minds as the story unfolds rather than having the whole thing revealed to you at once and then reliving that.

"I think that is fairly important not only to keep the interest there, but also because it makes it quite clear the sort of decisions that got made and how easy it is for the seemingly small decisions not being seen as important. When you are telling a story in a revealing sort of way people are reflecting for themselves. I am sure most of them are thinking "I wouldn't have done anything differently. "

"If they had the whole story all at once at the beginning they would have had a pretty clear idea of what they would have done differently, instead of them having it revealed to them and seeing it unfold in front of their eyes."

Getting the participants to work out what happened

Phil: "I wanted the participants to investigate the actual fire ground to determine whether the fire crossed a creek boundary or whether the incendiaries landed on the wrong side. For many it was an aha moment when they saw the fire had not burnt across the creek. We then had a lot of discussion about *why* the incendiaries landed on the wrong side."

Choosing the style and purpose of the ride

Different rides might be enacted differently because of different purposes. Variables might be:

- The amount of information you have found out beforehand. This will affect the selection of people to give certain perspectives, information, and alternative ways of thinking about the incident, illuminate particular issues…
- the amount of detective work you want to have the participants engaged in to work out what actually happened and why.
- the amount of facilitation you provide and how much emergence you allow for in the process:
    - do you design discussion topics for each site?
    - How might you encourage shift in types of thinking - e.g. Moving from detective mode, to questioning implicit assumptions, to generalising about organizational operations, to recommending new procedures …. etc
- the amount of pre-reading or thinking that people do. Is it just to familiarise themselves with the incident, or to answer some discussion questions, or do a personal reflection?
- the amount of integration or depth of insight that you want at the end. Will there be shared understandings and/or people taking away their own personal learnings? An issue might be with people taking away "misconceptions" – how do you understand what these might be and how do you challenge these?
- how much you want to get across clear messages about what you believe are important?
- how important is it to ascertain what people gained out of this?

How much do you need to know about the incident?

Sandy: " I used the incident investigation report and discussion with Phil, the Burn Boss of the day, to design the sequence of the ride. In hindsight I would have liked to have known a lot more about the incident…. You need to dig deeper. Things have emerged during the ride, and afterwards as people came and talked to me about it. Knowing more, I could have asked different people to speak. It is important to get a comprehensive list of people who were involved in the incident to help determine who might have important information to share on the day."

Learning Objectives up front

Sandy: "My objective in designing the staff ride was to `have a staff ride'. I never thought "what are the lessons that we want to learn from this?" I didn't want to go in with any preconceptions – I wanted to allow things to emerge. Now, I would like to have an understanding of some of the messages that I would hope would come out of the experience of the Staff Ride for people, and how I might facilitate discussion around these. I don't think I had even realised the key message about safety and potential implications of entrapment until I looked at the video – it didn't even come out of the day!"

Using different speakers

Sandy: "It is good to get different perspectives of what happened. Some people weren't available that would have been valuable to have been there. However you need to avoid getting direct confrontation of different views."

Giving a brief overview of the incident at the start

Phil: "In hindsight I should have given a quick overview of the whole incident at the beginning and then gone into more detail at each site. This would have helped people to understand why each site was important and where it fit in the story. I could have said: *The fire had come on the wrong side of the creek, heading up to a house, which we defended. It then died down before taking off again. We stopped it on the road here*."

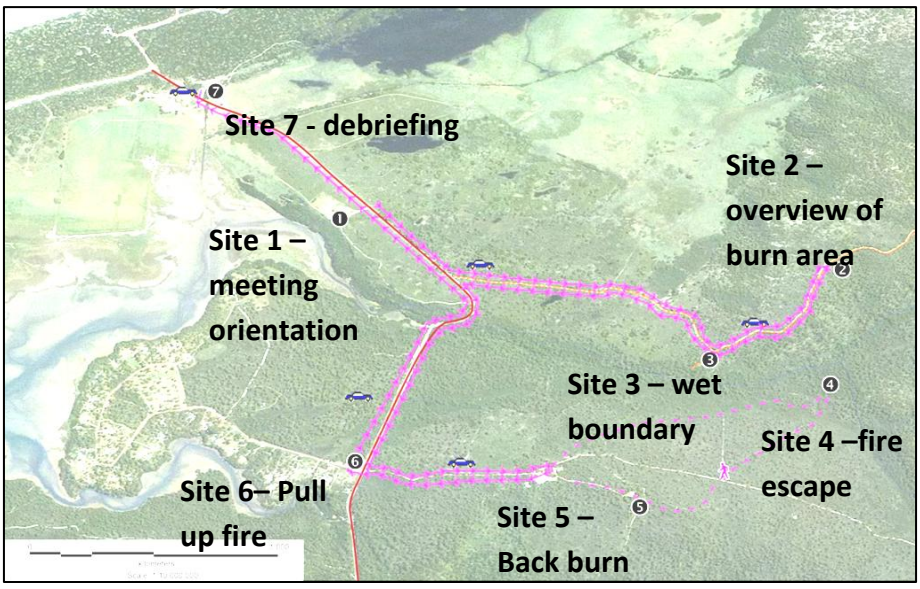
Choosing the sites to visit and the moments to highlight

In order to recreate the incident in a way to maximise learning the following need to be considered:

- Concentrate on key moments where decisions were being made and communicated.
- Have a coherent order, follow a chronological time line
- Decide how much information is given upfront to help orient people to the event and how much is revealed at each site so they can think through the unfolding story
- Each site could have a learning objective or a discussion topic which facilitators encourage smaller groups to discuss. E.g. "What does this reveal about planning processes…. Or leadership, communication … etc.
- Consider what visual aids could be used at each site to help participants understand the situation
- Use diverse resources and story-tellers to create a rich narrative.
- Make sure you have different perspectives to show the complexity of sense-making that is happening during the event
- Allow participants to see the complex and dynamic nature of fire-fighting

Particular considerations:

- Site 1 - You need to arrange a meeting site so people can be given the context of the ride, the rules of the ride, supporting materials, lunch, and can share transport. You might consider explaining briefly the key moments of the incident and how they relate to each site to be visited (without giving too much away.)
- Site 2 – This site provides an overview of the area to be burned – a high vantage point. The speakers at this site set the scene – what was actually planned.
- The last site can be the debriefing of the ride, or this can be left to dinner afterwards or a session on the following day. See Facilitation section on how to make the most of the debriefing.



Using a portable board

When there is a lot of information to get across at each site it is helpful to have visual cues of the most important information – e.g. the time, the weather readings, a map showing the position of the resources and the fire front at that stage. This could be presented on a portable board.

Choosing resources for the ride:

Sandy: "For the PWS ride we gave the participants the burn plan the night before and then handed out 2 maps on the actual day. One showed the planned sites for the ride. The other showed the burn area and the edges that had already been done. We decided not to give the investigation report because we wanted to allow the story to unfold, rather than have people know everything up front."

Using a portable board to record the group's ideas

Sandy: "Watching the video of the staff ride showed how many good ideas and thinking came out of the discussions. These weren't captured on the day. Either we needed someone responsible for taking these down or to capture these on a portable board with a flip chart so we could refer back to them later."

Time allocation

Sandy: "We allowed 4 hours for the ride starting at 8:30am. We visited 6 sites with the first site giving the briefing for the day, and the last one being the debriefing of the ride. We were all pretty tired at the end of it and it may have been better to have the debriefing on the following day, but we only had 2 days for our annual review."

Phil: "We allowed plenty of time for questions, but were surprised that people didn't ask as many as we thought they might have. People did quite a bit of talking while we were walking and driving."

Resources and Logistics

Resources for the ride could include:

- Map showing clearly the planned burn area, marking any pre-burnt edges, indicating creek or track boundaries to the burn
- The burn plan
- Map showing the staff ride route and marking sites
- Investigation report – consider what might be confidential and what the report might give away
- Biographies of key leaders
- Portable board
    - With maps to show where the fire front has moved to, and where the resources are for each site – pictures of trucks to stuck on with pins.
    - With the time and the weather conditions for each site
    - With paper to write down key issues which emerge

Allocating time

When allocating time for the ride you need to factor in:

- Information disclosure (story)
- Interaction time
- Movement time
- Debriefing time
- How many sites

Logistics

- Food
- Transport
- Safety
- Mobility of participants and accessibility of sites

Further information:

http://www.wildfirelessons.net/documents/2005_Ntl_Staff_Ride_Wkshp_Report_040805.pdf

http://www.wildfirelessons.net/documents/Staff_Ride_Workbook.pdf

http://www.wildfirelessons.net/documents/Santa_Fe_post_conference_reflections_kms.pdf

http://www.wildfirelessons.net/documents/MTU_Santa_Fe_Workshop_rmrs_gtr137.pdf

Avoid the trap of telling people

Avoid telling people the whole story – and giving too much information in one go – it will overwhelm people, or put them in an analytical rather than a reflective thinking space.

Avoid telling people the moral of the story or what the learning objectives are … allow them to join the dots for themselves.

Be careful of overwhelming your audience by revealing too much too soon

By encouraging people to challenge assumptions it helps develop their underpinning cognitive frameworks and structures

Trans-form-ation

In-form-ation

FORM	PROCESS
Adopting **new** cognitive structures	Reflection on process, content and premises
Adopting **new** points of view	Reflection on process and content
Analysis **within** existing frames of reference	Reflection on content
Elaboration **within** existing frames of reference	Gather content Incidental reflection

Yorks & Marsick (2000) Organizational Learning and Transformation. In Mezirow, Jack et al.(2000) *Learning as Transformation: Critical Perspectives on a Theory in Progress.* (pp253-281) CA: Jossey-Bass

Part 3 – Facilitating the staff ride

This section aims to help you build in-house capacity to facilitate learning events such as the staff ride. You may consider bringing in an external facilitator to work with in-house staff to build their capacity through a team approach to planning and running the ride.

Effective facilitation requires two key aspects:

1. Understanding the ways people learn and think. This will help you to design:

- effective environments for learning,
- effective questions for prompting discussion
- effective questions to get a sense of how people are thinking and making sense of their experience. This feedback is critical in modifying your approach.

2. Understanding the key issues or failure points likely in an organization. This helps you being alert to key lessons that can be teased out. See part 4.

What is the learning environment you want to create?

- honesty and willingness to share; it is OK to express emotions
- encouragement to think in new ways about familiar things
- encouragement to express thoughts that are not fully formed and to share intuitions
- it is not about consensus but sharing different points of view and thinking about why they might be different,
- recognising complexity,
- it is OK for us to change our minds about something
- inviting people to think about what it means to create a culture in the workplace where people feel OK to speak and question

What are the learning objectives?

Learning objectives are likely to come into two camps:

- Understanding of content knowledge – e.g. High reliability principles, organizational or operational procedure or issues (such as leadership, communication, succession etc), likely failure points.
- The development of new thinking processes and capacities. This not only means that participants walk away with understanding new information, they also have expanded their cognitive abilities and have developed new cognitive frameworks or structures in which to consider that information.

Effective facilitation will have both of these in mind.

Setting the rules

A sound-bite to participants at the start of the staff ride

"It is really important that we are not challenging people on their decisions or what they did. It is an opportunity for you to think about what happened, what you would do in that situation and what you would do now based on the knowledge you have learnt."

Do you need to facilitate discussion?

Sandy – "Some people were very quiet (however they still valued the ride and want another one.) How to get them to talk, and how to facilitate good discussion? Workplace culture in Australia is less reflective than in US, we tend to say "this is what we did". People are not used to talking in a particularly reflective way.

"I thought discussion would happen by itself, I didn't realise we would have to actively facilitate it. I found myself engaged in the discussions as a participant, not an organizer/facilitator – I was interested in getting to the bottom of things. By being more aware of the information I could have played a bigger facilitation role. We needed to split people into smaller groups for some of the discussions."

Distance of the Facilitator

Sandy: "The facilitator needs to have enough distance from the event so they are removed from underlying personality conflicts. There are going to be some hard truths coming out. You don't get to pick which ones are told. But you have to do it carefully so that people are not hung out to dry."

Orienting participants

People new to the event need help to orient themselves to the situation, the terrain and the processes of the Staff ride. It is important then to consider how you might orient people to:

- **To high reliability principles –** justification of the Staff ride and introduction to ways of thinking and inquiring about incidents – important to do this day before?
- **To the process of the ride** - It is important to orient people on the day to the process (e.g. don't be critical of those who are speaking) and also the sort of thinking spaces we might be visiting (see pages 32 -34)
- **To the site** - We need to orient them to the physical space as well as the unfolding story of the incident. People need time to familiarise themselves with the site - the story and map connected to the physical experience of the block.
- **To the context** – why we are burning, what was the objective of the burn (e.g. why did it need to have a certain intensity?) There needs to be enough information to justify actions.
- **To the story** – important to give unfolding story from personal perspectives mirroring the actual time sequence – capturing what they knew and thought at the time (do not provide the "god view" of someone who has worked out exactly what has happened after the fact). However an unfolding personal perspective approach, might be too disjointed for the participants to follow and some might need more glue that can help them get a handle on the events, sequencing and issues.

Orienting the narrators

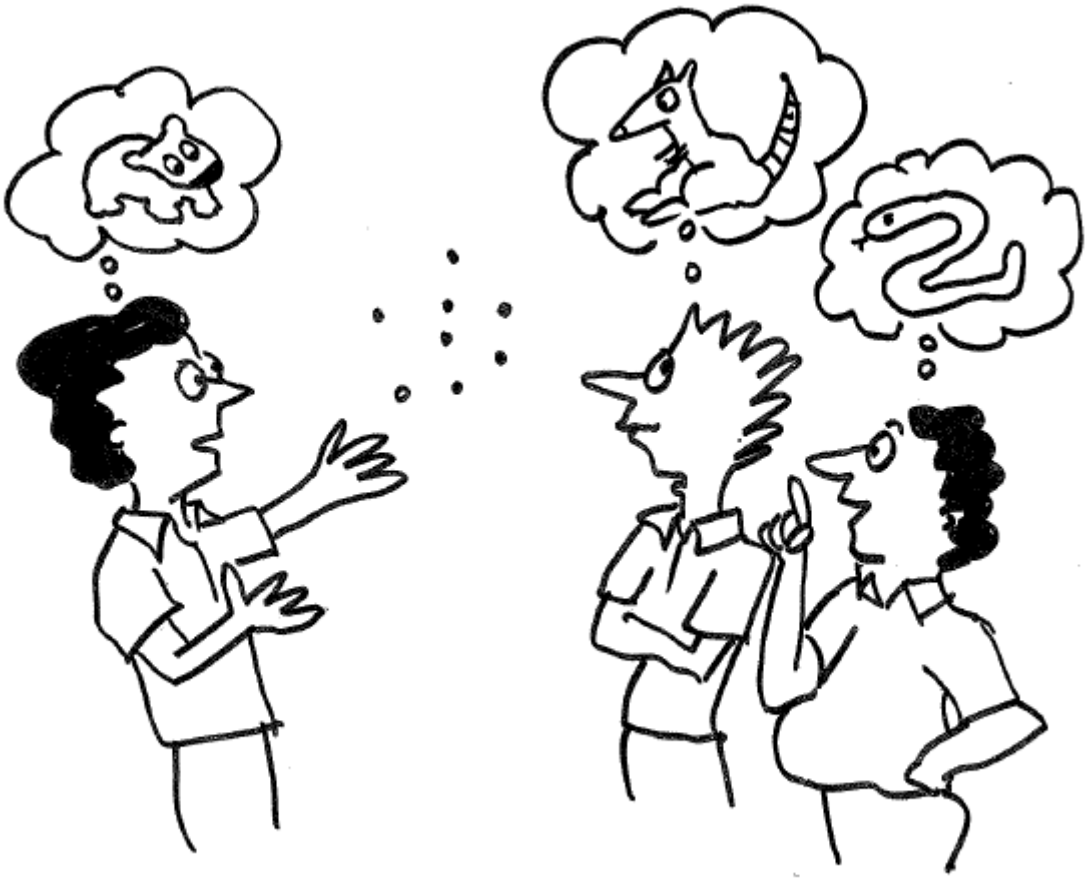
As the narrators tell their story they are likely to begin to relive the event and the emotions of the incident. It is an important part of the experience for others to hear that emotion and understand how it may have shaped decisions. The narrators will need to be briefed beforehand about what to expect.

Check what people are thinking

Don't ask "Do you understand?"

Rather ask, "What are you understanding?"

Deep learning happens when you provide the dots and the participants join them for themselves



However, everyone might create a different picture from those dots.

It doesn't matter that *they* ***are different, but you need to find out what they are. You need to encourage reflection on why they might be different and to then build a shared understanding.***

Sense-making

Staff rides encourage the sort of reflective discussions that are unlikely to be normal culture in organizations and may initially feel very uncomfortable. Yet this very practice of "talking aloud" what you are thinking or intuiting is an important principle of High reliability Organizations. In an operational situation fire operations staff are more likely to want to gain certainty, simplicity and agreement. However, they typically only have 60% of the information they need.

Karl Weick:

> "It is not about having more information, it is about the sense-making. You have to hammer some sense of what seems to be happening and then update that sense often and through discussion."

(Managing the Unexpected in
Prescribed Fire and Fire Use Operations –
A Workshop on the High Reliability Organization)

Staff rides give people time to reflect and make a different sense of information than they would normally. There might be some key moments during a staff ride where it becomes evident that people are coming up with different understandings to each other. This is the time to have a discussion to share the diverse perspectives that people have on the same information. A consensus is not required. In revealing their different perspectives to each other it enables deeper reflection and more imaginative sense-making. As a facilitator it is important to avoid the temptation to lead the group to the "right" judgement of the situation. Part of deep learning is participants engaging in sense-making for themselves.

These processes have the added benefit of helping to build greater capacity for thinking flexibly when in an operational situation, and being able to manage the unexpected. It also helps to build an operational culture where people are "speaking up to discover what they are thinking."

Questions that can help stimulate this discussion:

- What are you understanding at this point?
- From your point of view what do you think are the issues here?
- If you were thinking out aloud during the incident to your colleagues what would that sound like?

Everyone has preferred ways of making sense of new information

Theoriser

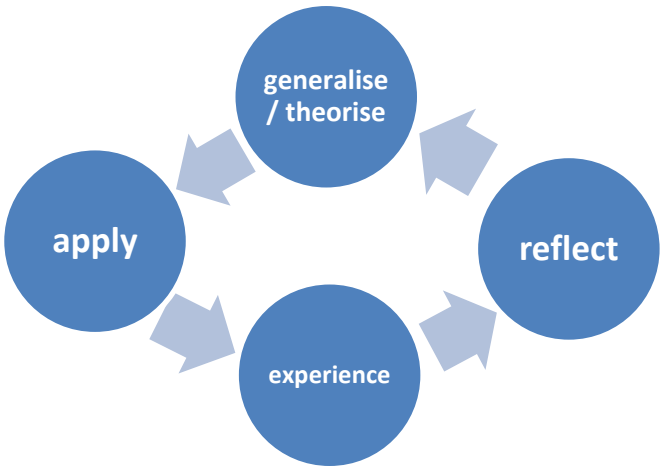
Reflector

Relater

All of these together make up rigor of inquiry

Learning processes

David Kolb believed that learning follows a four step sequence: We have an experience; we reflect on what happened; we try to make sense of it so that we can generalise to other instances and we do something different next time. It does not matter where learning starts but for learning to be effective, each of the four steps is needed. For example, experience, without reflection is meaningless and does not lead to new learning. Likewise, navel gazing about general principles is not going to lead to progress unless there is some form of action to do something different.

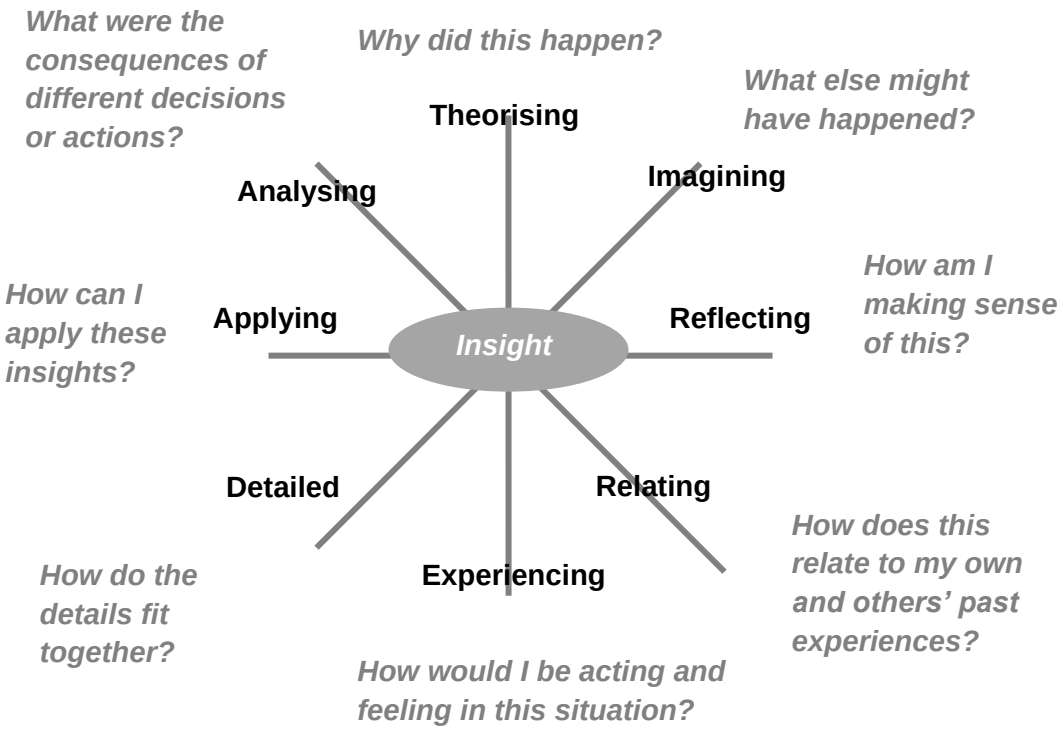


Learning Styles and thinking spaces

Every person has their own unique preferred ways of learning. Some people like to sit back and watch others and other people like be active and try and work it out for themselves. So some learning experiences will appeal to some of your staff and not others. For example, often people who are quiet are actually engaged – they are more reflective learners – needing time to think about things by themselves before they talk. Asking them to speak up in a big group before they have had time to think, or to test out their ideas with a mate is not going to be very comfortable for them.

As a facilitator you need to use your understanding of the people involved to assess whether they are silent and engaged in thinking, or not engaged. Avoid the temptation to “fill the silences with talk”. Give participants thinking time.

Questions participants could be considering on the staff ride field trip



Most people have a mixture of learning preferences:

- Need discussion with others to help them think.
- Need an actual experience.
- Need to apply their thinking to their own situations.
- Need to come up with theories of what happened
- Be interested in making sure the details make sense and are coherent.
- Be extrapolating and imagining outside of normal thinking.
- Wanting to critique the assumptions or decision-making

All these preferred ways of learning are important ways of thinking and together they can make up a rich thinking tapestry, which builds on Kolb's 4 key learning processes.

Your task as a facilitator is to help the group as a whole to visit these different "thinking spaces" as they traverse the actual physical terrain. It is an iterative process, and each time people will go deeper into the issues.

Some of the conversations and thinking will be in group discussions at the sites, but a lot of other learning might be happening in the travelling time, particularly giving time for your more reflective learners. Putting an experienced operations person in the same truck as less experienced ones can also provide a mentoring role as the less experienced ones can test out their ideas.

Naming and Nudging

By tuning into the type of thinking the group is doing you can get a sense of whether the conversation is working well or needs some nudging. To help the group move their thinking, it is useful to acknowledge the type of thinking they have been doing (***naming***) and then ***nudge*** them with a question to a new type of thinking. For example:

> "I get the sense that people have been able to a get a real handle on what happened, and have explored the details. Are there any insights you now have about operations and any applications to the way you might do things in future?"

How do you want people to be thinking differently?

It helps to have a sense of how you might want people to be thinking differently at the end of the day. People have limited ability to integrate complex information, so prioritise the top 3 things you think are important.

Questions to encourage integration

Integration Stage

The staff ride will have put people in a thoughtful and open state. The integration stage is an opportunity for deeper learning from the staff ride experience as well as an opportunity for organizational review and planning.

Integration could be on a spectrum:

- Just allow it to happen – people talk to each other informally – at a dinner or over the following months
- Quick reflection which enables people to report on what they have got out of the experience
- Critical reflection which encourages the unpacking of organizational culture or psychological factors in order to consider organizational change.

Review of suggestions and observations

If you have been recording participants' suggestions or observations during the ride then the first part of an integration session could be a review of these and asking the participants to pull out the common themes. "What are the assumptions that were made? What are the normal cultural ways we do things that might need to be challenged?"

Input of some background theory to find deeper causes

Part 4 of this manual details some of the common failure points in incidents. There might be one or two that you think are pertinent to the incident which you will want to bring to the attention of the participants. "When XXX occurred it sounds like tunnel vision… which is this… why do you think that might have occurred? What would help us in the future?"

Developing recommendations for organizational change

Once people have got a deeper understanding of the causes behind the incident it is possible to come up with recommendations for new ways of operating. However, there are often barriers to the take up of new initiatives and it may be helpful to tease out what these are. Often asking for a gut reaction from people about how they would feel about these changes and asking them to project themselves into what it will actually look like for them helps to name some of those barriers. Then the recommendations can be refined into ones which are likely to have greater practicality and traction.

Final reflection

"What will you personally take away from this?"

A key part of the staff ride is to encourage people into thinking spaces they might not normally enter. So it is important to ask people to reflect a little bit about what this was like for them and how they might draw on this style of thinking and talking in the workplace in the future.


TUNNEL
VISION

Part 4 - Building understanding of likely Failure Points

The assumption that we are making in this section is that the Staff Ride is designed around incidents where mistakes occurred. These mistakes may have been missed and led to a negative outcome. They also may have been detected, leading to a near miss or recovery of a situation which may have gone bad or been much worse.

The following are descriptions of mistakes likely to be made under incident management conditions. It draws on concepts from High reliability organising, human factors, and research work conducted under the auspices of the Bushfire CRC.

The logic of error

The mistakes people make are typically very logical and 'intelligent' to the person making them. This means that when we make a mistake we are actually applying some rule or procedure that we think will solve the problem. It is important to try to understand the weakness in the underlying logic to help people work out why their planned action was wrong.

Impact of stress on thinking

When people are faced with stressful and challenging situations their focus of attention can shrink; their working memory can decline (clutter of ambiguous information) and they can revert to old patterns of thinking/acting what was first learned (e.g., native language).

Reluctance to change plans

People tend to stick with established plans even if it becomes obvious that the situation demands an alteration to original plans. For more information see resources.

Tunnel Vision

It is normal for people to dismiss new information that they do not understand fully, that they disagree with or that they think will never work in their particular area.

It is then easy for people to get fixated on a particular task and narrow their awareness of potential risks and warning signs like weak signals. For more information see resources.

Optimistic bias and thinking about worst case scenarios

People also typically imagine that everything will be all right, that they will get on top of the challenges. In debriefing it might be helpful to encourage participants to reflect and consider where there might have been moments to think about worst case scenarios. For more information see resources.

Uncertainty and Fear of speaking up

In uncertain and continually changing environments there is a trade off between cost of action and risk of non-action. People also have a tendency to tend to wait until an already deteriorating situation deteriorates before acting. Under these circumstances there can sometimes be a fear of raising a concern, particularly when there is a high "power-distance" between leaders and followers. This can be overcome through setting up expectations that people will share what they know and what they think might be assumptions that need to be challenged.

Power-distance between leaders and followers

Power distance can be considered as the status difference between two parties reflected by the ability of one party to control the other's behaviour. In a work context, it is harder for the subordinate looking up to challenge the superior, than it is for the superior looking down, to criticise the subordinate. As that power-distance increases, so too does the fear of speaking up. Remember what it was like to be the fresh and inexperienced new person on the job - how difficult it was to voice any concerns. There is the fear that one will appear foolish in front of a more experienced person.

Risk homeostasis

No matter how well you train fire-fighters or improve equipment people will moderate their behaviour to a level of risk they find tacitly acceptable. For example, if a road is made safe for driving at 110 kilometres an hour we are tempted to "push the envelope" and do 115 k/hour. For more information see Okray & Lubnau (2007).

Resources available through the Bushfire CRC:

Douglas, J. (2010) The role of affect in incident management teams available online at: http://www.bushfirecrc.com/resources/poster-presentation/role-affect-incident-management-teams

Dwyer, I (2009) A taxonomy of team-based work effectiveness indicators. Available online at: http://www.bushfirecrc.com/publications/citation/bf-1354

Dwyer, I & Owen, C. (2009) Organising for high reliability in emergency management: An empirical link. Available online at: http://www.bushfirecrc.com/managed/resource/0909_firenote45_lowres.pdf

Elliot, G. (2010) Pre-mortems: understanding how things might go wrong before they do:

http://www.bushfirecrc.com/managed/resource/2010_poster_glenn_elliott.pdf

Elliot, G. Omodei, M. & Johnson, C. (2009) How human factors drive decisions at fire ground level. Available online at : http://www.bushfirecrc.com/managed/resource/0909_hf_firenote44_lowres.pdf

Hayes, P. Omodei, M. & Cumming, G. (2010) A "team of experts" or an "expert team":Performance differences between pre-formed and ad hoc incident management teams online at http://www.bushfirecrc.com/resources/poster-presentation/team-experts-or-expert-team-performance-differences-between-pre-formed

Johnson, C. Omodei, M & Cumming, G. (2010) The Use of Worst Case Scenarios in Decision Making By Bushfire Fighters. Available online at: http://www.bushfirecrc.com/resources/presentation/use-worst-case-scenarios-decision-making-bushfire-fighters

Johnson, C. & Cumming, G. (2009) How expert bushfire incident managers anticipate worst case scenarios: Seeing the future earlier. Available online at: http://www.bushfirecrc.com/managed/resource/program-d-claire-johnston.pdf

Hickey, G. & Owen, C. (2009) Guidelines for enhancing Incident Management Team communication in Incident Control Centres. Available online at: http://www.bushfirecrc.com/publications/citation/bf-2489

Owen, C. & Hickey, G. (2009) Observing teamwork in emergency management. Available online at: http://www.bushfirecrc.com/managed/resource/0910_firenote42_lowres.pdf

Owen, C. (2011) Strategic implications for incident control systems in Australia and New Zealand. Available online at http://www.bushfirecrc.com/firenotes

Other Resources:

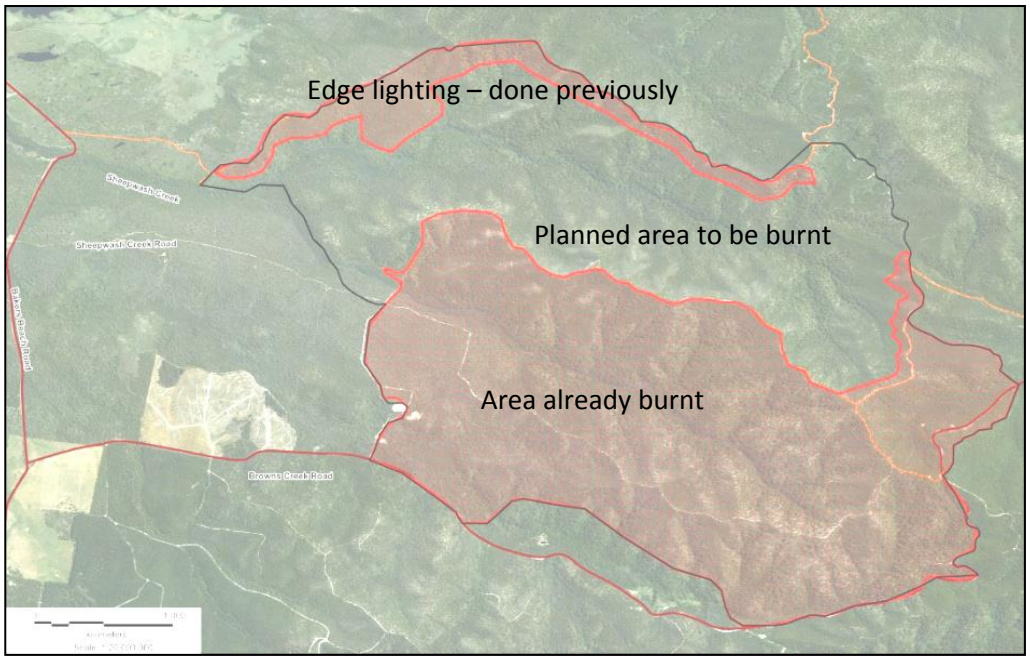
Okray, R. & Lubnau, T. (2004) Crew resources management for the fire service Penn Well, Corp, Tulsa.

Weick , K & Sutcliffe, K. (2007) Managing the unexpected: Resilient performance in an age of uncertainty. Wiley & Sons,

U.S. Wildland Centre for Lessons Learned. Has a wealth of material on both high reliability organizing and staff rides. For more information : http://wildfirelessons.net/Home.aspx

Hint:

You should not reveal the learning objectives of the ride to the participants up front. Your role is to set up the learning experiences (the dots) so that the participants can draw their own meaning and then share the differences.



Part 5 – Practice

Design a staff ride from an actual incident

As part of this package there is a *Lessons Learnt* video on the Narawntapu National Forest Prescribed Burn in Tasmania. This burn turned into a wildfire, threatening a property. A fire crew were nearly entrapped as they defended it.

Watch the video and think how you might organize a staff ride around this incident to maximise the learning from the event.

You might like to think about the following questions in understanding what might be key "learning moments" to highlight on the ride.

- If you were involved in an event like this what further information would you need to make decisions? How might you improve your situational awareness?
- What assumptions do you think were being made at key stages? What questions to yourself would you be asking to challenge your thinking and assumptions if you were in such a situation?
- What might be operational or management areas that you would target for improvement?

Checklist:

Preliminary preparation

What presentations or readings will you provide?

Staff Ride:

- What are the sites and their key learning objectives?
- Who will be talking at each site?
- What visual information will be at each site?
- How long will you need for each site, and the transport in between?
- Who will be facilitating and what questions might they ask?
- Who will be recording and how will they collect the group's ideas?

Integration

- How do you want people to be thinking differently?
- What failure points theory can you connect to?

Staff Ride: Narawntapu Park

How does your designed ride for Narawntapu park compare to the one that PWS designed? Watch the video here.

Reflection questions:

- What are your first impressions?
- What do you think were key learning points that people might have gained from this ride?
- What might have been other learning objectives that you would want to see?
- How might you improve the experience for the group?

Read the conversation on the following pages between Sandy and Eddie, one of her Fire Managers, after they watched the video.

How might you improve your staff ride design in the light of this?

Reflections about the Staff Ride…

Sandy:

Until I looked at the video of the staff ride it just hadn't occurred to me that this had the potential to become an entrapment event and a safety issue.

A key safety message was overlooked – Phil (and all of us at the ride) seemed to have lost sight of the fact that the crew were trapped when they tried to defend the house. Losing a house would have been bad, losing a crew would have been tragic.

The house was indefensible. In hindsight, the decision to defend the house should not have been made. A triage assessment of the house should have shown it was indefensible – it had no cleared area, the gutters were full, it had high surrounding veg. What assumptions was Phil making to come to his decision to defend it?

Eddie:

At the staff ride, I thought that I would make the same decisions as Phil. You just do one step at the time and each is a logical extension of the next. I think you would have had to be thinking very differently to begin with to make any other decision.

Sandy:

You need to have in your head up front "what does catastrophic failure look like?" If you have thought it through first, then you can recognise it when it begins to happen. We don't have any language regarding the spectrum of failure – sometimes a failure in a burn is actually good – we get to burn more area using the same resources. This burn could have been a "catastrophic failure."

Eddie:

One of the things I got from looking at the video is that we need more procedure, more structure – we are flying by the seat of our pants most of the time.

Sandy:

I don't want to create more forms to fill in. I actually think we have enough procedure – it is just how well people engage with it.

Eddie:

Maybe we need to see paperwork in a different way. Most people do it "because I have to", not because "it helps me"…

Sandy:

One of the things I have realised is that the forms and documents can be intimidating. We are making big assumptions about people's literacy levels and that people are reading the forms in the way we intended them. We really need to get people to think about procedures on the ground, rather than something you just fill out on a form.

Eddie:

I agree – I think there is a disconnect between the rules you are meant to follow and the "she'll be right" attitude on the ground where you are following your instincts.

Sandy:

Another problem is that burn plans are often done up to 18 months before the actual burn. So you go through the thinking about the risks when planning, but when doing the burn the person is only looking at the completed burn document. They are disconnected from the risk.

I also have burn planners asking me to change the risk calculation formula so that their burn can be put on a lower risk rating. I won't do that – they need to see the risk is "high" and then understand the drivers to that risk and plan to mitigate against them.

Sandy:

Another thing I picked up from the video, was the fact that Phil had already driven a 4 hour drive from the east coast to the north of the state leaving at 6am in the morning. So he was already fatigued.

Eddie

That is pretty typical… we will often drive 4 hours to get to a site and then drive home late in the evening… we just spend too much time away, you want to get home. We then think that this is normal and are not aware of its impact on our decision making ability under stress.

Sandy

I reckon there was also complacency with the site- they knew it well and had burnt 4 weeks earlier.

Eddie:

There was also complacency with the conditions – they were very benign. I think the assumptions that Phil made was that it was an easy, straight-forward burn and that he could manage with light resources.

Sandy

You know, I don't think that Phil has recognised even now that he wasn't safe at the house. I imagine he felt responsible for ensuring it wasn't lost and that was his foremost thought – not to lose a building as in the case of the "Laundry" (lost at Strahan in a prescribed burn). These assumptions set you onto a certain track of thinking and not another.