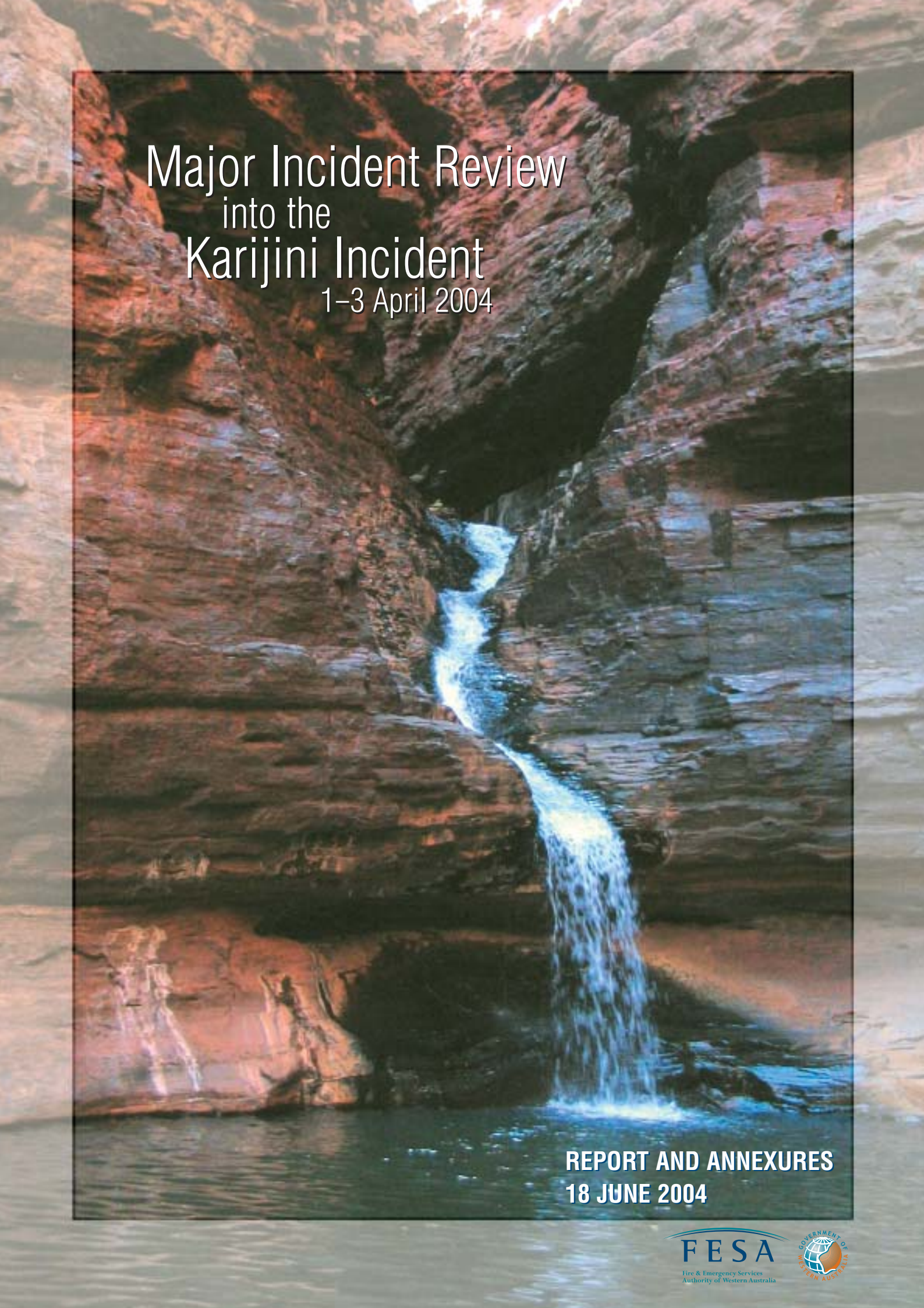

Major Incident Review into the Karijini Incident

1–3 April 2004

REPORT AND ANNEXURES

18 JUNE 2004

FESA
Fire & Emergency Services Authority of Western Australia

GOVERNMENT OF WESTERN AUSTRALIA

FESA
Fire & Emergency Services Authority of Western Australia

GOVERNMENT OF WESTERN AUSTRALIA

Major Incident Review

Karijini Cliff Rescue

(Death SES Volunteer – James Martin Regan)

Hancock Gorge – Karijini National Park

Incident Number: OCN 76110604

Incident Date: 1 April 2004

Prepared by:	Mr L J Cuneo	FESA Director Professional Standards
	Mr A J Gale	FESA District Manager SES
	Mr G J Swift	Acting FESA Manager Professional Standards

Date MIR Process Commenced: 8 April 2004

Date Report Completed: 18 June 2004

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Contents

EXECUTIVE SUMMARY

This incident highlights the dedication and commitment of FESA Emergency Service volunteers and the personal sacrifices not only in time, effort and training, but also to their personal well being in providing this vital service to their communities.

The events of the 1st to 3rd of April 2004 involving the death of FESA SES volunteer James Martin (Jim) Regan were tragic. The tragedy has had profound effect within his community, the Fire and Emergency Services Authority, and notably within the State Emergency Service as this death was the first loss during operations. The Review Team is of the opinion that although the initial incident was reported as a single rescue and possibly routine, a series of other contributing factors led to it becoming a major incident.

In conducting this Major Incident Review the review team has been cognisant of working in hindsight, and the intention is not to lay blame with respect to actions of individuals. However, this review is an opportunity to analyse the current systems and procedures that were implemented, to identify areas where improvement can be achieved and make recommendations. These recommendations should not only lessen the likelihood of such a tragedy occurring again, but also reduce the impact of such emergencies on volunteers and improve the effectiveness of FESA. Some of the recommendations made will require the cooperation and commitment of the Western Australian Police Service (Hazard Management Agency), the Department of Conservation and Land Management (Land Manager) and FESA to achieve. The key recommendations of the report are summarised as follows:

- The Hazard Management Agency, the Land Manager and FESA establish an interagency committee to implement agreed Prevention, Preparedness, Response, and Recovery strategies for Vertical Rescue emergencies in the Karijini National Park.
- An independent review is undertaken of the vertical rescue role within FESA including equipment used, training, techniques, policies, processes and procedures. This is to achieve a whole of FESA standard for vertical rescue.
- FESA SES policies, procedures, and other operational doctrine are reviewed to ensure it meets the needs of the organisation, particularly in time critical events such as rescue.
- Communications competencies of FESA SES responders are assessed and developed to ensure effective communications planning is implemented at all incidents, to achieve effective communications with a Local Headquarters or similar at all time. Communication systems review is also required in some areas.
- A review is undertaken of FESA SES Command, Control, and Coordination structures and systems at all levels to identify any areas of improvement which will support time critical emergencies.

During the review process all SES volunteers and Career personnel interviewed provided a high level of cooperation and assistance to the team. This cooperation was commendable considering the stress and emotion associated with the event. The volunteers expressed a clear expectation to the team that this review is to achieve meaningful outcomes.

This Major Incident Review contains many recommendations ranging from the strategic level impacting on the whole organisation through to tactical level which

may be specific to a single SES Unit. Considering the aforementioned and the time required to implement some of these recommendations, responsibility for implementing the endorsed recommendations should reside with the FESA Executive Director SES/VMRS. The recommendations will be entered into the FESA Professional Standards Directorate database for ongoing review and reporting on actions implemented.

INTRODUCTION

Major Incident Review Karijini Gorge Incident, 1st, 2nd, & 3rd April 2004

Background

At 0400hrs 2 April 2004, five people were swept away during a flash flood, which occurred while personnel from FESA SES, Police and CALM were carrying out a cliff rescue operation at Hancock Gorge in the Karijini National Park.

Four people were rescued but one SES volunteer from Newman, Mr James Martin Regan remained missing. Around 1600 on 3 April 2004, the body of Mr Regan was found at Garden Pool in Hancock Gorge.

Review team

The FESA Professional Standards Directorate has been tasked with facilitating a FESA Major Incident Review (MIR) of the Karijini Gorge incident that resulted in the death of State Emergency Service (SES) Volunteer James Martin Regan.

The appointment of the FESA Director Professional Standards as the external facilitator and report writer is in line with FESA's Incident Analysis Policy (54).

The purpose of the Review is to determine:

1. **What happened—all aspects of prevention, preparedness, response and recovery;**
2. **Outcomes—both expected and unexpected;**
3. **Lessons Learned—strengths and weaknesses, and areas requiring attention;**
4. **How FESA Performed—evaluation of operation effectiveness; and**
5. **Recommended Actions for improving service delivery.**

The Major Incident Review team comprises:

- Mr Lindsay Cuneo FESA Director Professional Standards;
- Mr Graham Swift FESA A/Manager Professional Standards; and
- Mr Allen Gale FESA District Manager SES.

TERMS OF REFERENCE

In relation to the Karijini Gorge incident, FESA will conduct a Major Incident Review to:

1. Examine all factors that contributed to the death of SES Volunteer James Martin Regan.
2. Examine all aspects of FESA's PPRR relating to the incident including incident background, response factors and communications.
3. Determine the effectiveness of FESA's activities in relation to the incident.
4. Assess the strengths and weaknesses of FESA policies, procedures, practices and equipment standards relevant to this incident.
5. Examine any other matters relevant to this incident.
6. Make recommendations for improving service delivery.

PREAMBLE

This Major Incident Review (MIR) is conducted by FESA in terms of *FESA Policy Statement 54 – Incident Analysis*, and the terms of reference provided by the Acting Chief Executive Officer on the 8th April 2004. The primary aim of the MIR is to assess FESA's performance as a Combat Agency in support of the Hazard Management Agency (HMA) the Western Australian Police Service for this Land Search and Rescue. In terms of the *State Emergency Management Committee (SEMC) Policy Statement 7 (PS7) – Western Australian Emergency Management Arrangements* the roles of specific entities are defined and a copy of SEMC Policy is attached as Annexure A. Although not the HMA, FESA State Emergency Service (SES) provides the major response role for Vertical Rescue and is therefore a key stakeholder in any improvements determined necessary.

It must be noted that some of the information provided was based on personal recollections and has been given to assist FESA to work towards preventing a similar occurrence in the future. The information collected has come from a variety of sources including but not limited to the following:

- Review of the relevant data available from within FESA's record systems.
- Interviews of key stakeholders associated with the incident and the FESA SES Units that responded.
- Review of FESA SES current policies and procedures including:
    - Policy Statements.
    - Operations Instructions.
    - Administration Instructions.
    - Operational Planning Systems and Doctrine.
    - Regional and Local SOPs, etc.
    - Relevant publications and training materials.

The Review Team was very appreciative of information provided during all interviews and discussions, particularly from volunteers and has used this information to formulate many of the opinions and recommendations. A summary of the strengths and weakness from these interviews and discussions is attached as Annexure B.

Not withstanding the above there will be recommendations which will require the agreement/cooperation of other organisations including the HMA (WAPOL) and the National Park Manager, the Department of Conservation and Land Management (CALM). The main emphasis of the report is not to lay blame with individuals or organisations, but to identify areas where improvement or change will be beneficial.

SEQUENCE OF EVENTS

On Thursday the 1st April 2004 at approximately 1330 an injury occurred in the Hancock Gorge and a person using the Emergency Radio at the entrance to Hancock Gorge raised the alarm. The Tom Price Police received a telephone call at 1415 that a male tourist had fallen 3 metres in Weano Gorge. At approximately 1420 a message was left on the SES mobile and at 1430 the Tom Price SES Unit called the local Tom Price Police requesting they respond to the Karijini National Park to rescue the injured person. Police also contacted Hamersley Iron Marandoo Mine who responded with an ambulance at 1438.

Emergency Radio at entry to Hancock Gorge.

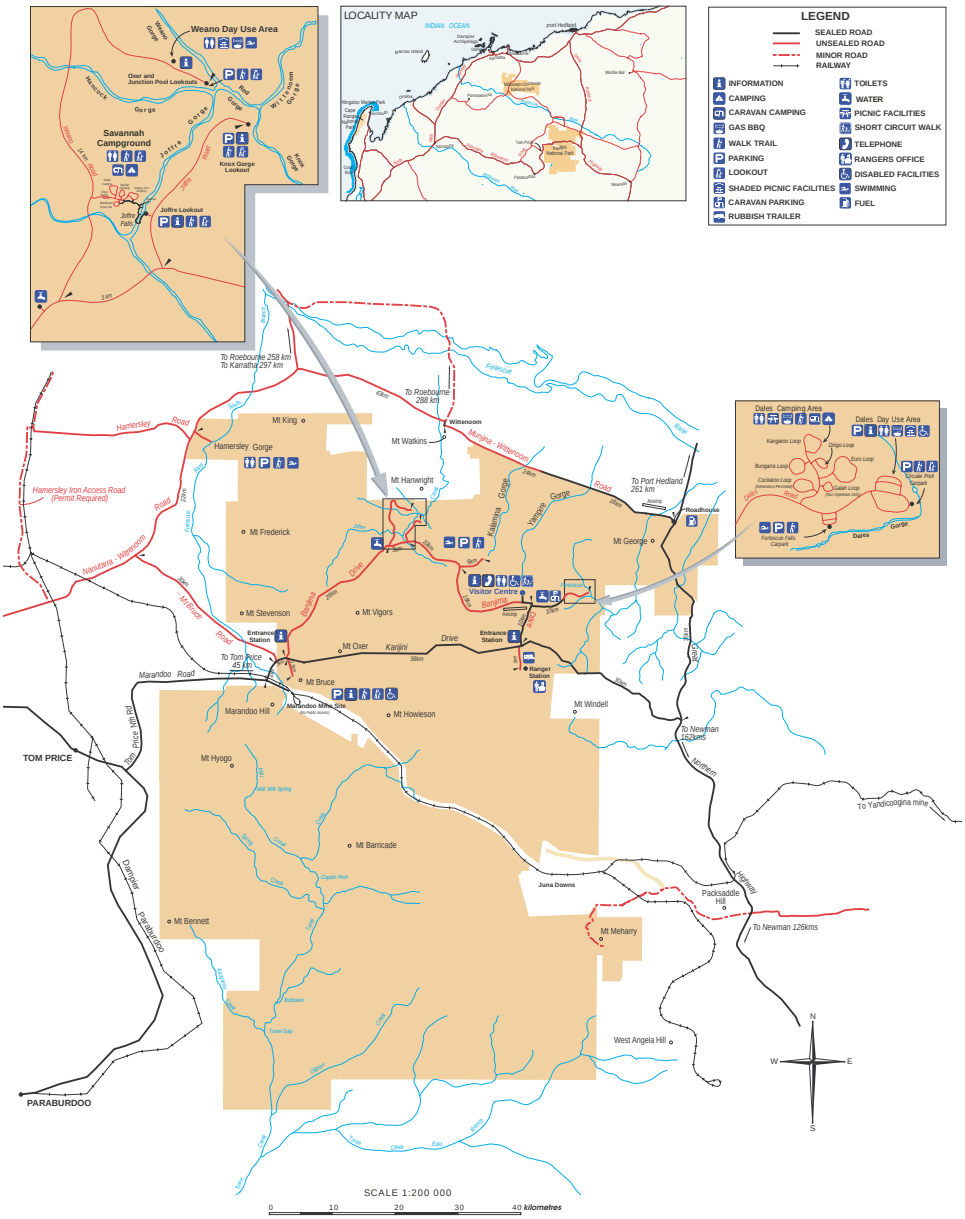
The following page contains a map of the Karijini National Park, the location of the various tourist gorges, tourist facilities and its location within the Pilbara region of Western Australia.

As several members of the Tom Price SES Unit were absent from the town and the school semester was ending at the time of the call, there was an initial delay in organising an effective response. The Karijini Gorge area had been affected by rain associated with tropical cyclones Faye and Monty in the preceding month. Responders indicated that gravel roads in the Karijini National Park were affected by rain and during the afternoon and evening of the rescue (1/4/04) thunderstorms and lighting were observed in the distance.

As per the *Tom Price SES Unit Standard Operating Procedure (SOP)* (Annexure E) the SES Newman SES Unit was contacted to respond at approximately 1430 to assist with rescue operations. The first elements of the Newman SES Unit response were underway at 1550 and arrived Karijini at 1800.

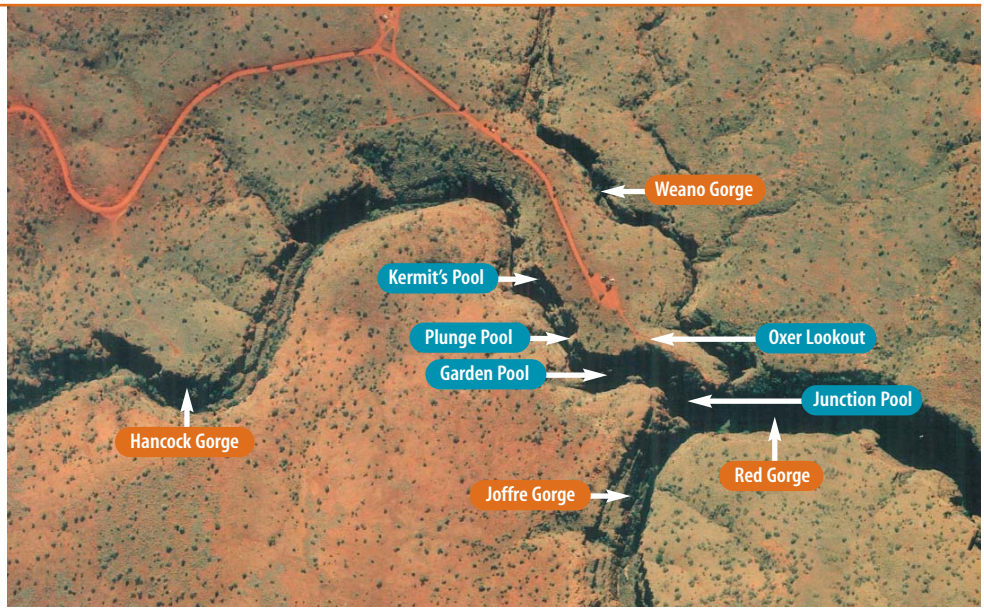
The Tom Price SES Unit assembled sufficient volunteers, were briefed by Police at to the location and departed at 1610. They arrived at the incident location at 1715. Upon arrival the Tom Price rescue team was advised there was a second casualty from another unrelated incident in a different location of Hancock Gorge and that the injured female would also need to be rescued.

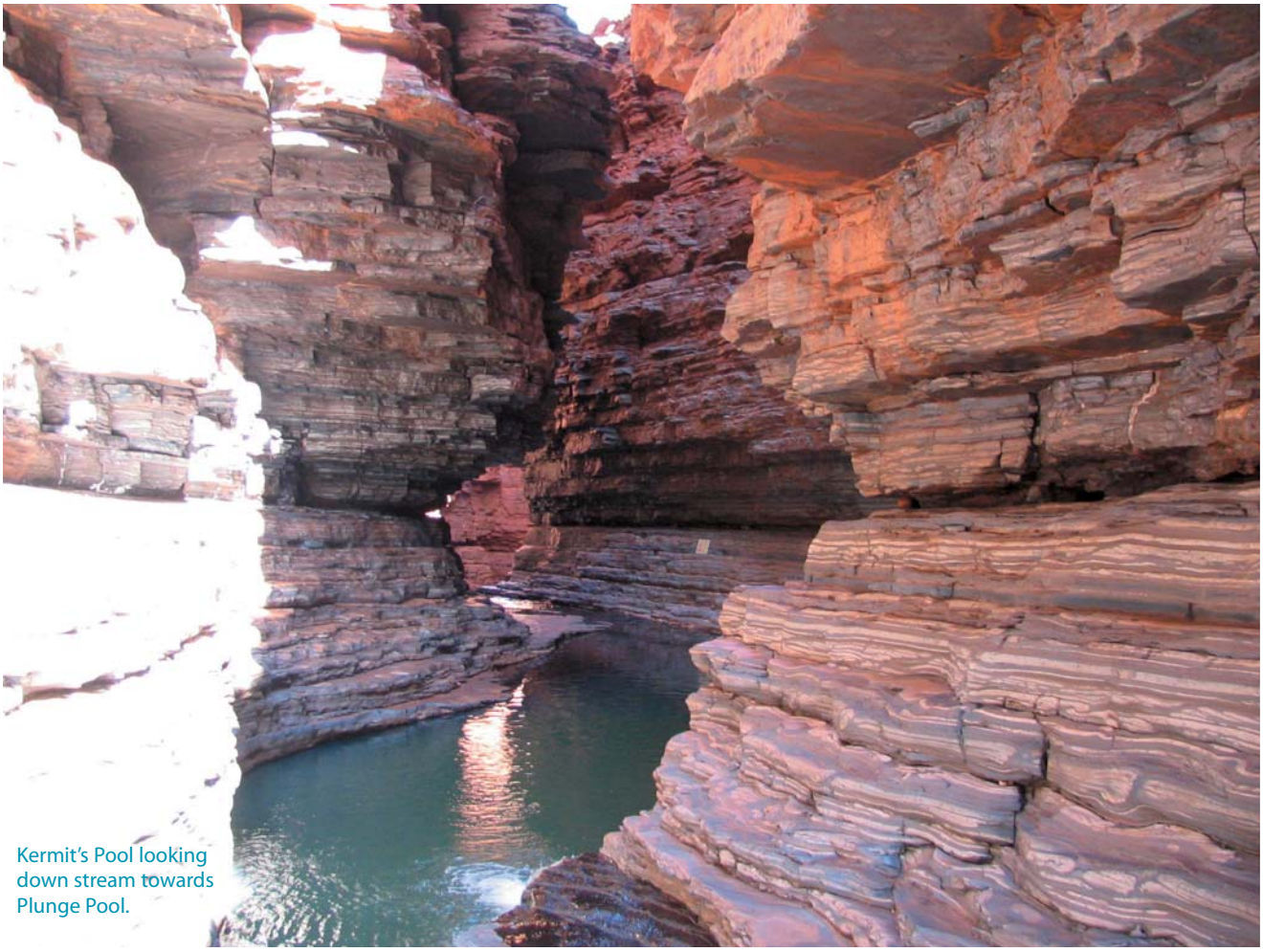
Map of Karijini National Park (courtesy of Department of Conservation and Land Management).



The first casualty (Male – Oliver Peace, 110kg, head and leg injuries) was located at Junction Pool and the second casualty (Female – Michelle Suri, lower back injury) was reported to be located at Kermit's Pool (later determined to be at Plunge Pool).

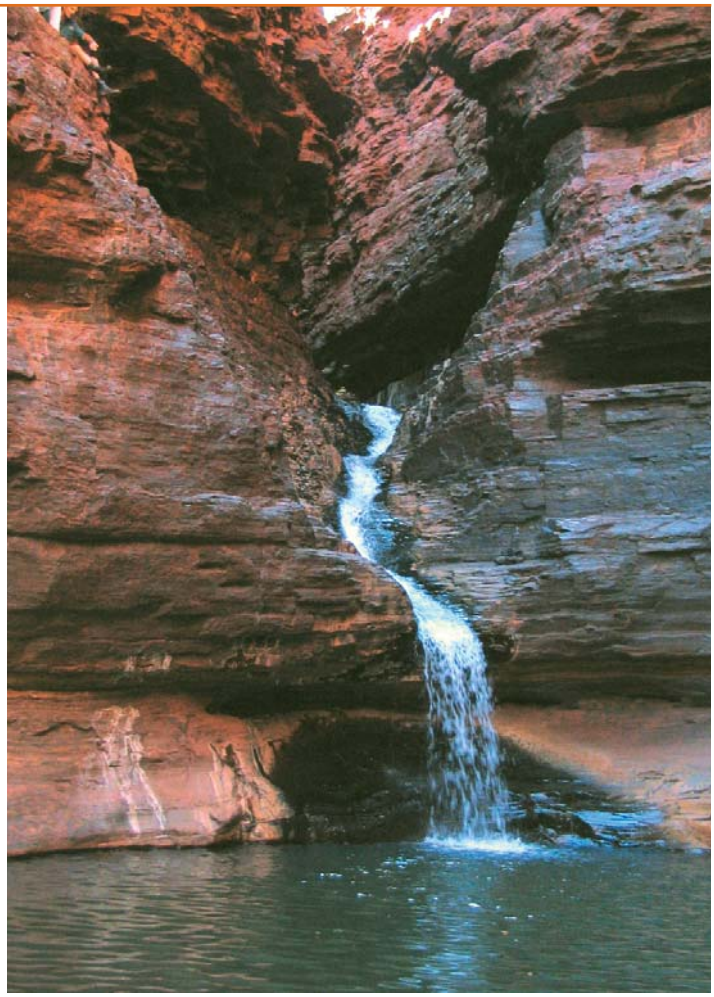
Aerial view of gorge system.



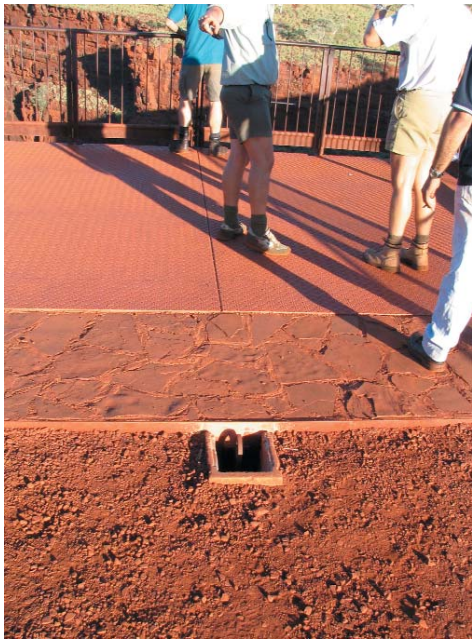


Kermit's Pool looking down stream towards Plunge Pool.

Plunge Pool looking upstream towards Kermit's Pool.



The Tom Price and Newman SES Units commenced the establishment of a rescue system for the first casualty at 1825 from Oxer Lookout that is above Junction Pool. The gates on Oxer Lookout were opened at 2000 to commence the rescue of the first casualty (Oliver Peace) from Junction Pool. In the period from 2038 to 2134 the stretcher and escort were lowered into the Gorge. The Operations Log provided by Tom Price indicates the Police Officer advised the SES Team Leader (2130) that due to rain in the area there is a danger of flooding in the Hancock Gorge where the rescue operations were underway. However, the SES Team Leader indicated she had not received such specific advice from the Police Officer. The first casualty was in the stretcher at 2200.



Oxer Lookout and Rescue Point.

Oxer Lookout into Junction Pool.

At 2207 the second rescue site was determined through confirmation with rescuers in the Gorge. The Newman rescue team commenced assembly of the second rescue system to extricate second casualty reported to be in Kermit's Pool in Hancock Gorge.

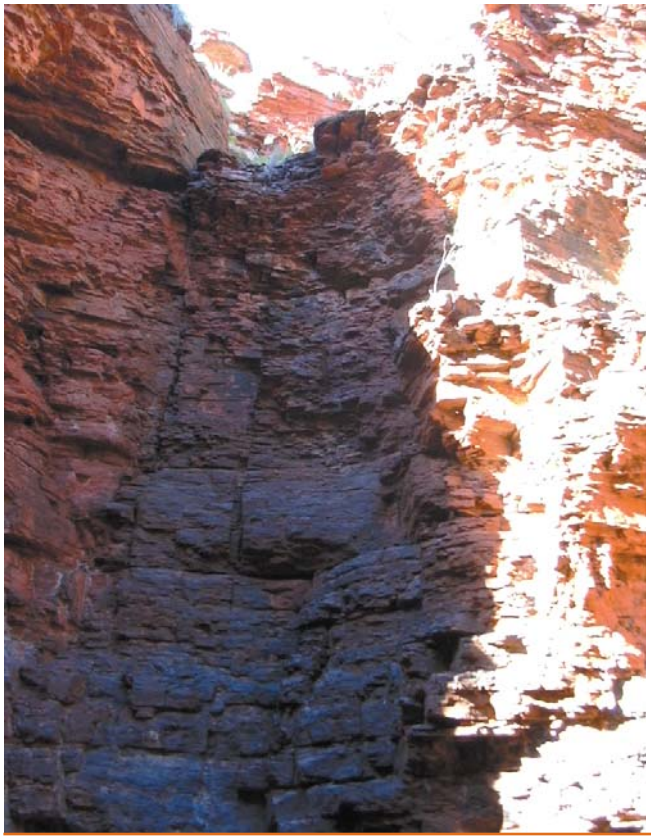
Second Rescue Site—top of Hancock Gorge.

Second Rescue Site looking into Hancock Gorge.

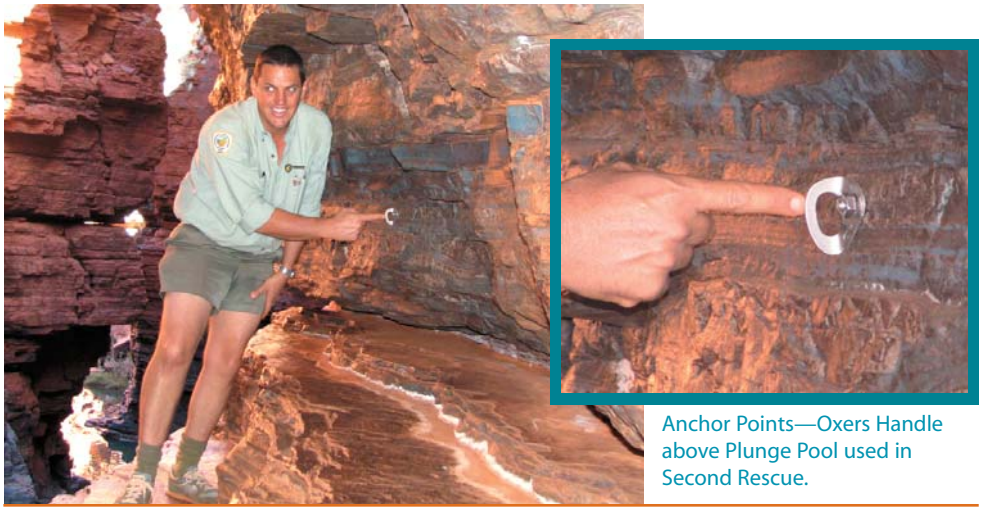
The available volunteers assembled in preparation to lift the first casualty out of the Gorge at 2230. At 2250 the "mule team" were given a briefing on the lift process and at approximately 2305 the lift commenced. During the lift process there were several pauses due to rock overhangs and loose rock above the escort and patient.

At 0025 the casualty reached the lookout and, at 0030, he was taken by stretcher to the ambulance.

All available SES personnel were deployed to the second rescue site at 0050. At 0125 radio communications with the rescuers in the Gorge confirmed two of the eight persons there were departing to return to the top of the Gorge. They arrived at the top at 0250. The stretcher escort (James Regan) commenced descent into the Gorge at 0200 and reached the base at 0240.



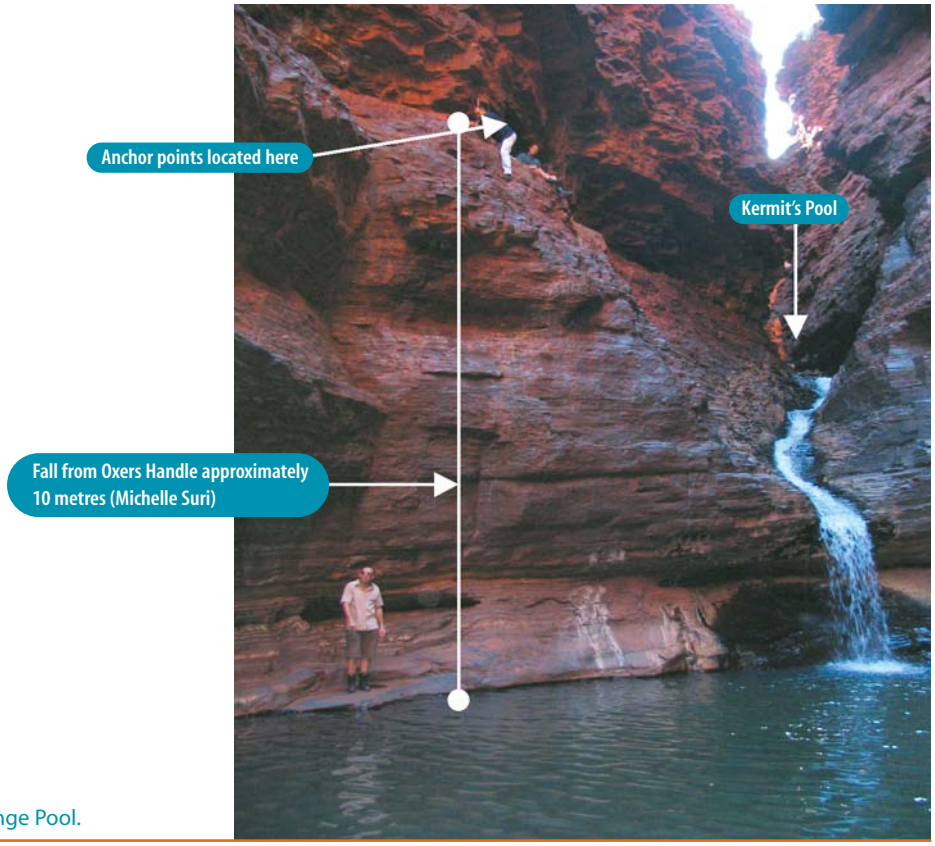
Second Rescue Site looking up from Plunge Pool.



Anchor Points—Oxers Handle above Plunge Pool used in Second Rescue.

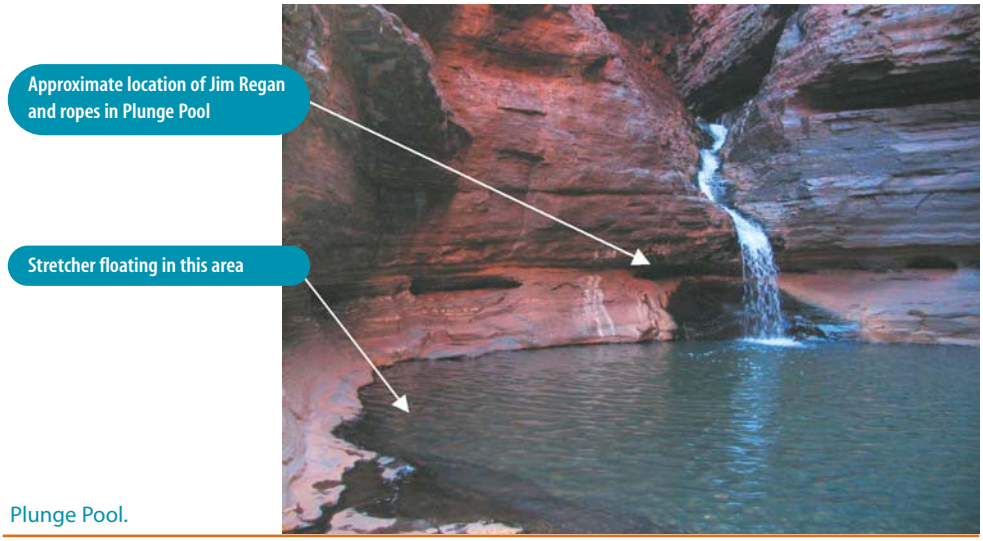
As the casualty was located at Plunge Pool and not Kermit's Pool, as had been reported, the rescue system was anchored above the waterfall between Kermit's and Plunge Pools. The anchor points were therefore approximately 10 metres above the water level of Plunge Pool. These anchor points were not installed to anchor rescue systems. Their suitability for this task and location has been questioned by the review team.

Note: Had it been identified that the casualty was in Plunge Pool the rescue would have been performed from pre-established manmade anchor point at the end of Garden Pool.



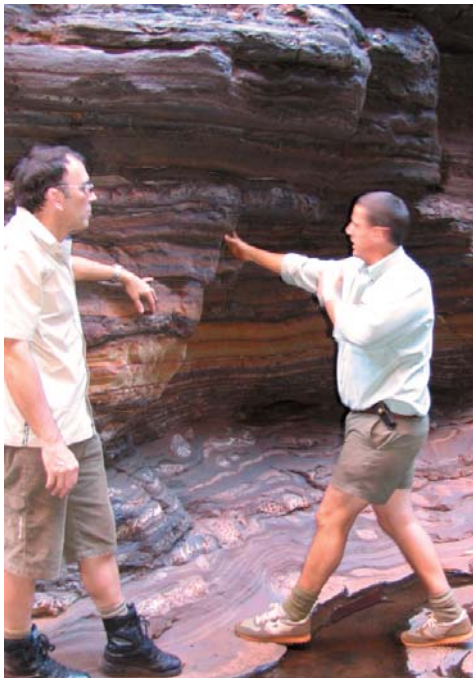
Plunge Pool.

To facilitate the rescue, the stretcher (with casualty lashed into it) was to be floated across Plunge Pool, the tension was to be removed from the rescue system and ropes lowered into Plunge Pool and then the stretcher and escort attached to allow the extrication.

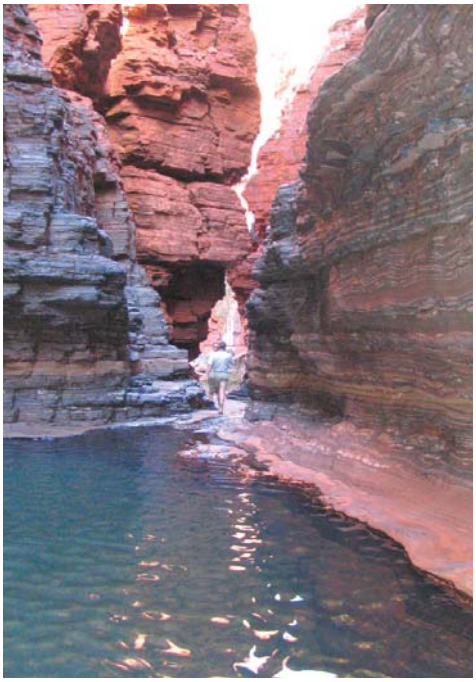


Plunge Pool.

Inner tubes were attached to the stretcher to provide floatation and the second casualty (Female – Michelle Suri) was secured in the stretcher (approximately 0340) in preparation for being floated over Plunge Pool and to be secured to the rescue lines. While waiting for the operation to commence, three rescuers held the stretcher on the edge of Plunge Pool just above the waterfall between Plunge Pool and Garden Pool.



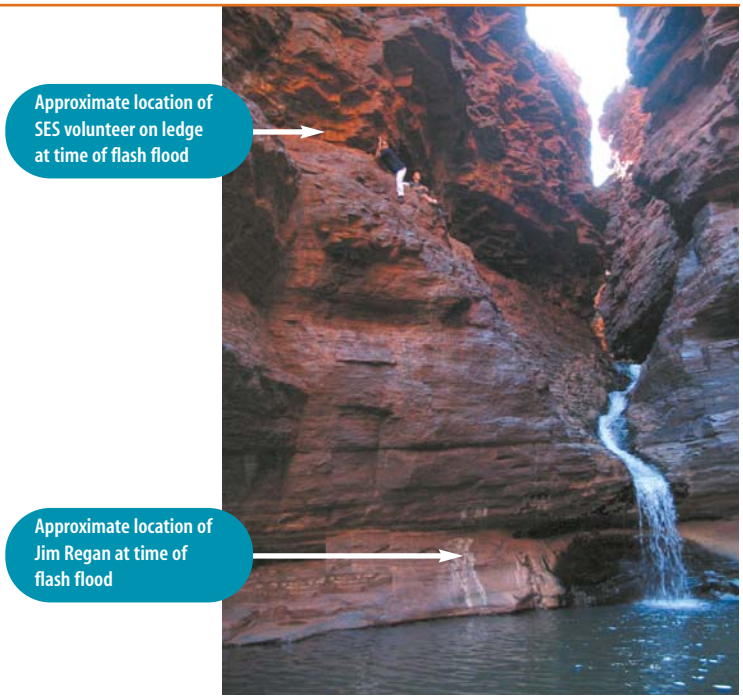
Ranger identifying hold point during flash flood before being washed away.



Plunge Pool looking downstream towards chute leading to waterfall into Garden Pool.

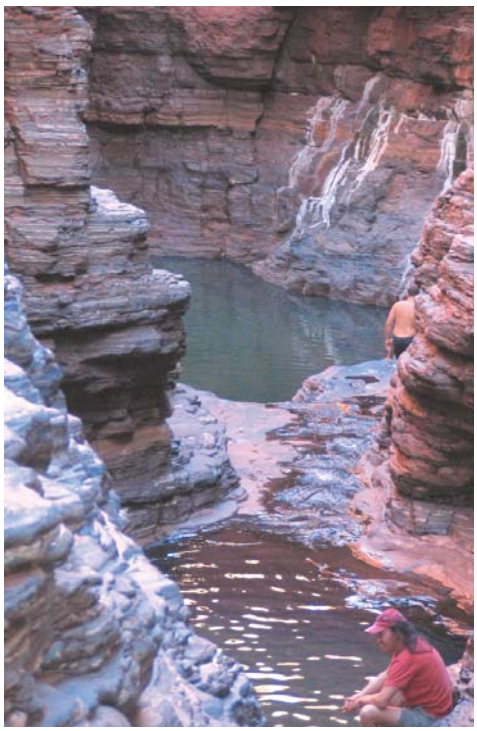
At approximately 0400 a "sudden unexpected rush of water was heard" by the rescuers at the top of the Gorge. Similar comments were made by rescuers within in the gorge below. The flash flood washed away 4 of the 6 rescuers (CALM Ranger, Police Officer and 2 SES Volunteers) and the casualty from Plunge Pool. The 2 remaining SES rescuers located on a ledge above Plunge Pool communicated with the rescuers at the top of the Gorge that, although safe, they were stranded by fast flowing water.

At the time of the flash flood, SES volunteer James Regan was adjacent to the waterfall in Plunge Pool gathering the lowered ropes. From witness accounts it would appear that he was able to maintain his position for a short time before the water washed him away. One witness believed that he appeared to make a conscious effort to try and reach the other rescuers who were holding the stretcher in the now fast flowing waters near the exit to Plunge Pool.

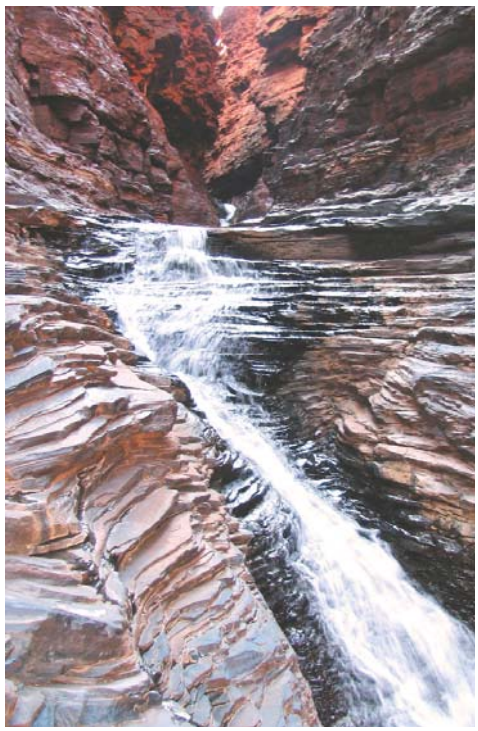


The 3 other rescuers (Police Officer, CALM Ranger and SES Volunteer) were commencing to float the stretcher and casualty across Plunge Pool to the ropes as the flash flood hit. They endeavoured to hold themselves and the stretcher against the rock wall near the exit of Plunge Pool. They too were washed away and over the waterfall with the Police Officer and SES volunteer ending up downstream in Garden Pool. The SES volunteer breaking his left wrist.

The CALM Ranger, who maintained hold of the stretcher, ended up further downstream in the rocks at the end of Garden Pool. As they were washed away by the flood waters, the stretcher with the casualty securely lashed inside became upturned on two occasions but the Ranger was able to right the stretcher. When eventually pushed against rocks he was able to secure himself and the stretcher until the flood waters subsided.



Plunge Pool (foreground) with chute leading to waterfall and Garden Pool (background).



Waterfall at end of chute entering Garden Pool—approximately 3 metre fall.

Aluminium scrape left on rock in the chute by stretcher as it was washed away.

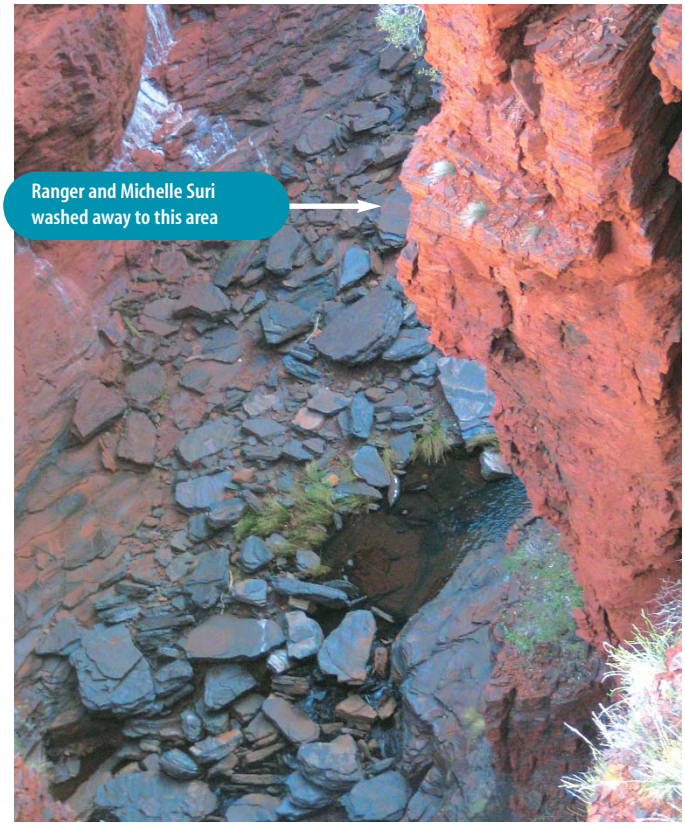
While the 3 rescuers and the casualty were located in Garden Pool, approximately 20 metres from each other, they could not see each other due to the darkness and the shape of the Gorge wall. In addition, the sound of the rushing water through the Gorge prevented them from hearing each other.

Garden Pool with Gorge wall blocking view.

In the early morning gloom the 2 rescuers on the ledge above Plunge Pool saw two unidentifiable persons down stream and secure in Garden Pool. The location and circumstances of the other 2 rescuers and the casualty was unknown. At 0410 the Police Officer at the top of the Gorge notified the Tom Price Police that water in the Gorge had swept away 4 rescuers and the casualty. The Police notified the FESA SES District Manager in Port Hedland of the event at 0424 and he notified the FESA SES Regional Director. With FESA alerted, fresh Vertical Rescue Teams from Karratha and Perth were activated, other SES personnel were subsequently mobilised or placed on standby and organisational policies and procedures implemented.

At 0455 the 2 SES rescuers located on the ledge and not affected by the flash flood reported the water level was dropping. At 0515 the first of these volunteers was lifted to the top of the Gorge and at 0537 the second rescuer reached the top.

At 0545 yelling could be heard from below and on checking one person was seen in the Gorge. At sunrise (approximately 0600) there was a visual sighting of a person on a stretcher and another person swimming in Garden Pool. The CALM Ranger swam through Garden Pool and around the Gorge wall jutting into the Pool, and located one SES volunteer and the Police Officer. The two groups then joined up and were visible from the top.



Looking into Garden Pool from Oxer Lookout.

Looking towards Oxer Lookout from end of Garden Pool.

Three Tom Price Police Officers arrived at the rescue site at 0650 and a FESA Fire Services Officer arrived at the Tom Price Police station at 0700 to assist with the incident. At 0653 the rescue teams made a decision to establish a third rescue system to extract the 4 people from Garden Pool. SES volunteer James Regan remained unaccounted for.

The Volunteer SES Unit Manager from Karratha departed by helicopter to be the SES Operations Officer, (also referred to as Agency Commander in WESTPLAN Land Search and Rescue [LANDSAR]) in the field at approximately 0730. The helicopter, Unit Manager and two volunteers arrived in Karijini at 0900. The Karratha SES Vertical Rescue Team, arrived by separate helicopter (with winch capacity) at 1200.

The following FESA resources were deployed to the incident location throughout its duration:

Table 1: FESA Resources Deployed

Resource	Function	Deployment		Return
		Mobilised	On Location	Home
SES Tom Price	Vertical Rescue (Karijini)	1420 1/4/04	1715 1/4/04	1800 2/4/04
SES Newman	Vertical Rescue (Karijini)	1430 1/4/04	1800 1/4/04	2051 2/4/04
SES Karratha	Operations Officer and Advance team (x2) (Karijini)	0445 2/4/04	0900 2/4/04	1320 4/4/04
SES Karratha	Vertical Rescue (Karijini)	0445 2/4/04	1200 2/4/04	1730 2/4/04
VFRS Tom Price	Incident Support and establish communications (Karijini)	0920 2/4/04	1105 2/4/04	2/4/04
SES Metro Combined	Vertical Rescue (Karijini)	0905 2/4/04	1445 2/4/04	1615 4/4/04
SES Peer Support Port Hedland	Peer Support (Karijini, Tom Price and Newman)	0800 2/4/04	1429 2/4/04	1830 4/4/04
SES Port Hedland	Communications, Field Base, and Land Search (Karijini)	0700 2/4/04	1500 2/4/04	1136 4/4/04
SES Roebourne	Land Search (Karijini)	1305 2/4/04	1930* 2/4/04	1200 4/4/04
SES Acting Executive Director & FESA Manager Health Safety & Welfare	Welfare Support (Tom Price and Newman)	0800 2/4/04	1240 2/4/04	2030 4/4/04
SES Exmouth	Land Search (Karijini)	1350 2/4/04	1900** 2/4/04	1600 4/4/04
SES Carnarvon	Land Search (Karijini)	1350 2/4/04	1830** 2/4/04	1600 4/4/04

* Roebourne forward based at Auski Roadhouse to deploy direct to Karijini next morning.
** Carnarvon and Exmouth were deployed to Tom Price on the 2nd April 2004.

At 0815 the Police requested a helicopter to fly the Gorges to look for the missing SES volunteer. The helicopter that brought the initial SES personnel (x3) from Karratha was used for the task. At 1115 the casualty was secured in the stretcher and the lift began. The order and times each person was recovered to the top of the Gorge were as follows:

- Casualty (1300)
- SES Volunteer (1339)
- Police Officer (1403)
- CALM Ranger (1440)
- Stretcher Escort (1500).

As the Puma helicopter (with winch fitted) was to return to Karratha the SES Vertical Rescue team were told to also return to Karratha. Due to insufficient room in the helicopter the Karratha Unit Manager (Operations Officer) and 2 volunteers who arrived in the earlier helicopter at 0900 had to stay. Operations concluded at 1630, with the Port Hedland unit to maintain a watch at the Gorge overnight and establish a field operations centre. The remaining teams returned to Tom Price for rest overnight and to return next day.

Due to the fatigue and emotion being experienced by the Tom Price and Newman Units at the rescue site, buses were organised to deliver each team to their respective headquarters on the Saturday afternoon. This negated them having to drive while fatigued.

During the evening of Friday 2 April 2004, a meeting was conducted between the Police and the SES Operations Officer and a plan developed to search the Gorge system the next day up until 1630. The operation was to be completed before darkness. Police divers had been organised by the Police to arrive from Perth the next day and commence searching the pools. Due to sediment in the water visibility in the pools the visibility was very poor.

Teams located in Tom Price, on Saturday 3 April 2004, had been briefed to assemble at 0430 and following breakfast departed for Karijini at 0545. On the Saturday the Search and Rescue Mission Controller (Incident Manager) was Inspector Phil Clews from WAPOL (HMA), the Field Search Controller was Karratha SES Unit Manager, and Sergeant Bowman was the Police Service Liaison Officer in the field.

The SES volunteers were divided into 8 teams of qualified personnel to undertake various operations including searches of the gorge systems and surrounding area, both up and down stream. Due to the weather forecast predicting possible thunderstorms, flood warning lookouts were established upstream, and teams with ropes were placed on the top of the gorges shadowing teams conducting the search within the gorges.

All personnel searching the gorges were advised to be aware of high ground and travel with minimal gear due to water hazards within the gorge systems. Teams with ropes were to be above at all times. A small helicopter was used to move crews, drop supplies, and search from the air as required. The search continued throughout the day and various items of equipment that had washed away were recovered.

The Police divers arrived in Karijini at 1315, were lowered with their equipment into the Gorge and commenced searching Garden Pool at 1540. At 1555 the divers in Garden Pool located a deceased person fitting the description of SES volunteer James Regan. The body, divers and their equipment were then recovered as quickly as possible.

Garden Pool where the body of Jim Regan was located by Police Divers.

By 2030 all the remaining personnel and equipment were recovered and then everyone returned to Tom Price (2200) for meals and accommodation.

Following the locating of the deceased, the Police attended to the identification process and the notification of the next of kin. FESA peer support and welfare support personnel provided support to the family (Newman) and volunteers in both Tom Price and Newman. The Tom Price SES Deputy Unit Manager identified the deceased at 1935 on the 3rd April 2004.

On Sunday arrangements were made to return crews assisting to their home locations. FESA SES career personnel were at the return locations or the departure locations for each returning crew to provide support during the demobilisation.

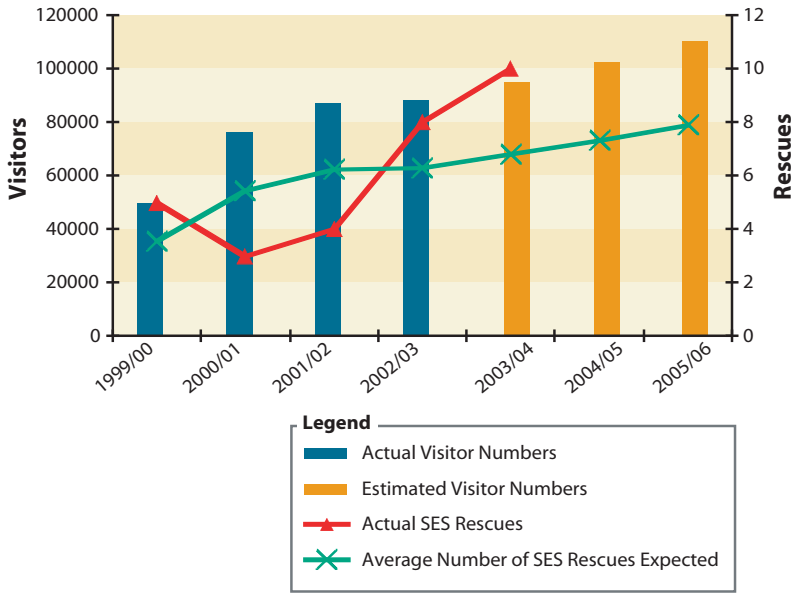
PREVENTION

In terms of State Emergency Management Committee (SEMC) Policy 7 the responsibility for prevention rests with the HMA. However, due to the nature of the Karijini National Park this responsibility needs to be on a collaborative basis between the HMA (WAPOL) and the land manager the Department of Conservation and Land Management (CALM). These groups also need to consult with and use the expertise of the primary combat agency, FESA SES.

Rescue Incidents

A review of the number of rescues being performed by SES Tom Price indicates that there has been an increase in the number of rescues over recent years. There is also correlation between the sealing of the access road to the park and the increase in park visitor numbers. Based on the visitor data provided by CALM and the number of rescues attended by SES Tom Price, the following is a projection of the number of park visitors and rescues which could be expected in the next 3 years:

Graph 1: Karijini Visitors and Rescues

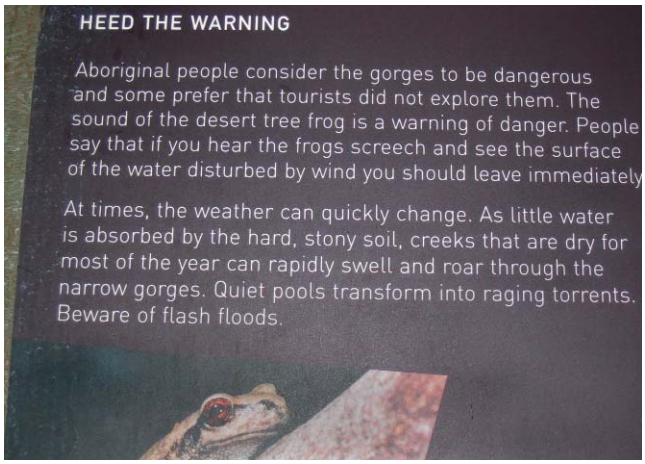


Note: The base information provided by the Department of Conservation and Land Management indicates visitor numbers may not be accurate, however for this purpose the reliability is considered good. The number of actual rescues performed is based on the information provided by CALM and FESA. There is some concern from the SES Tom Price Unit that not all rescues have been recorded, however this should not significantly effect the predictions.

Considering the above, it is not unreasonable to expect the HMA, CALM and FESA SES to cooperatively look at measures that could be introduced to mitigate the risk. Without this action being undertaken there is a possibility that the capacity for SES volunteers to respond will be lost due to excessive workload. Currently the Tom Price Unit are, on average, conducting a rescue per every 14,000 visitors to the park or 6 rescues per year. These averages should be used as the benchmark for measuring the effectiveness of the prevention measures introduced with the aim of maintaining the number of rescues below 6 per year.

Gorge Walks—Level 2

The information at the Visitor Centre and the literature produced by CALM identifies the risks associated with walking trails within the Karijini National Park including the warning *"Flash floods can occur. Do not enter the gorges if there is rain in the area. If you are already in the gorges, leave as quickly as you can"*. In addition, at the entrance into Hancock Gorge and in other areas throughout the park, there is signage that further highlights the "gorge risk". Signage also exists in Hancock Gorge at Kermit's Pool that advises you are entering a 'Level 2 route'. There is confusion however as to who should or can access Level 2 routes and there is no system in place other than signs requesting contact with a Ranger to ensure persons with appropriate skill and competence proceed into the higher risk areas.



Karijini Visitor Centre sign.

Hancock Gorge Access sign.

The signage at Kermit's Pool has been damaged by water over time and needs to better reflect the risk associated with 'Level 2' routes and possibly also reflect a mandatory statement not to proceed unless Ranger approval has been given.

Warning sign located at Kermit's Pool before Oxer Handle above Plunge Pool.

Anecdotal information provided to the investigation team indicated there has been an increase in "Adventure Tourism" accessing the park, particularly the Miracle Mile section of Hancock Gorge. Should this be the case there is likely to be an increase in the number of persons requiring rescue from the more hazardous areas of the gorge systems. This increase in "Adventure Tourism" and greater risk taking could be related to in the significant increase in rescues in the last couple of years as indicated by Graph 1 (p 22). The advent of "Adventure Tourism" if unchecked and not tightly controlled may result in many more rescues than that predicted, as the ratio of injury per visitor will increase. In other words the current ratio of one injury to 14,000 visitors could change if more visitors enter the more dangerous areas of the Park.

In the development of prevention measures there is a need to consider actions that will improve safety, particularly in areas where climbing and walking accidents will result in a significant fall. A review of "Adventure Tourism" advertising tours of the gorges does not highlight the risks associated with the gorges and is usually covered by a statement as follows "Adventure travel carries a higher than normal risk and a signed release will be required from all participants before tour departure".

Recommendations:

1. **FESA recommend to the Western Australian Police Service (HMA) and CALM that an interagency committee be formed including FESA SES to review the recommendations of this report and implement the approved strategies to improve Prevention, Preparedness, Response, and Recovery in the Karijini National Park. This committee is to meet at least 2 times in each year and oversee the development of a response plan for Vertical Rescue in the Karijini National Park.**
2. **FESA recommend the interagency committee cooperatively develop a range of prevention strategies to lessen the number and impact of rescues in the Karijini National Park. The effectiveness of strategies are to be measured yearly to ensure cliff rescues are not on a 3 year average exceeding 6 per year.**
3. **FESA recommend to CALM that signage in the Karijini National Park be upgraded to deter persons progressing beyond level 1 walks in the gorge system unless safety systems are introduced.**

PREPAREDNESS

Policy and Procedures

The relevant FESA SES Policy Statements, Operational Planning Systems and Doctrine, Operations Instructions, Administration Instructions and Standing Operating Procedures deemed as applicable to this event have been reviewed. Within the SES Division of FESA, SOPs are developed individually at the local, regional and state level. It appears that the Units develop local level SOPs with minimal input from FESA SES Career managers. This creates the following problems:

- SOPs for same activity are different for the various Units.
- SOPs can refer to an individual with a key skill.
- The SOPs may not be "best practice".
- Units travelling to assist have different approaches and SOPs to the same activity.
- Some Units may not develop SOPs at all.
- There is no state/organisation perspective.

Part of the reason this approach is followed is that there appears to be a lack of a state level approach to this type of activity. In addition, it appears that many regional personnel may not have the expertise to provide guidance on certain specialist areas (eg. Vertical Rescue); therefore they are likely to divorce themselves from the development/consultation process in relation to policies and procedures.

The Research and Logistics (R & L) area has the task of preparing certain SOPs for various tasks. In some instances Regional personnel do not support the central coordination of activities and therefore work outside this parameter. If SOPs and policy are not followed it can become a "free for all" with confusion and frustration from FESA SES Career Managers and Units. Although the actions of responders are assessed further against relevant policies and procedures later in the report, the following are specific policy areas requiring review:

Vertical Rescue

SES Policy Statement No 7 - Vertical Rescue (Annexure C) details at an organisational level the requirements and procedures for vertical rescue within the SES at all levels. The following procedures within this policy require review:

- ***Each designated FESA SES Vertical Rescue Team is to have eight persons available to deploy at any time and the team is to be ready to respond within 40 minutes of activation.***

The requirement to respond within 40 minutes may not meet community expectations, particularly when considering many vertical rescue incidents involve injury and could be considered time critical.

- ***All Vertical Rescue Team Members are to be qualified in induction training, senior first aid, and single rope techniques. At least four members of each team are to be qualified to Vertical Rescue Team Member level. The team leader is required to be qualified as a Vertical Rescue Team Leader.***

This procedure will be reviewed further in the next section on training as many of the above indicated that training requirements were not met at this incident.

- *Periodic checking and reporting on FESA SES Vertical Rescue Teams performance is required. Regional Directors are to ensure that suitable independent persons conduct annual checks of readiness, training, equipment and procedures.*

As part of this review the three responding regions were requested to provide evidence of the annual checks of readiness. Unfortunately no reports were available and feedback received indicated that this requirement needs to be reviewed as the practicality was questioned.

Pilbara Cliff Rescue Response Procedure (Annexure D) details the response procedures and unit/individual roles within the FESA SES Pilbara region. The 3 units within the Pilbara that have a designated cliff rescue role are Karratha, Newman and Tom Price. From the information provided, there was no evidence of the following policy requirements being met during the incident.

5D. The primary response unit will establish radio communications with the District Manager on HF Radio or via telephone.

6D. Provision of regular Situation Reports to RHQ.

These matters will be addressed in the response section of the report.

7. It is imperative that all appreciations, operational logs, plans and orders be recorded and retained in the form of a Post Operation Report. This report will be forwarded to the District Manager for distribution to all participating Units.

In relation to 7 above, the review team and the Police Officer assisting the Coroner requested details of the above incident reports from the region. The reports were supplied to the Police Officer. It is assumed that the Major Incident Review (MIR) has superseded the need for this regional report.

Tom Price SES Standard Operating Procedures – Vertical Rescue (Annexure E) the following areas within the local SOP require review:

- To maintain the vertical rescue role the Tom Price SES Unit needs to ensure sufficient capability exists within the unit to effect rescues.
- The need to obtain a satellite phone from Hamersley Iron is not acceptable considering the individual requirements of the Tom Price SES Unit.
- Mobilisation of the Newman SES Unit to all emergencies may not be appropriate due to the distance and response time. The current call out procedures for contacting an individual in the Newman SES Unit does not comply with the Pilbara Regional Response Procedure.
- The Newman SES Unit should be placed on standby, and responded for multiple rescues and relief of the Tom Price SES Unit during extended duration emergencies only.

The Newman SES Unit did not have a vertical rescue SOP. It also needs to be noted that the review team requested copies of various documents to analyse and found that many of those provided were out of date. The review team ascertained that there does not appear to be an effective system for communicating changes to policy and procedures. From the information provided it appears EM 2000 is used as the electronic dissemination system, but this approach is reliant on volunteers and career personnel accessing the system and then locating changes.

Karijini National Park – Vertical Rescue Response Plan

Currently there is no Vertical Rescue Response Plan for the Karijini National Park. CALM has advised the review team that they utilise the park *Fire Control Working Plan* for the management of emergencies within the park. Considering the number of vertical rescue emergencies FESA needs to recommend to the HMA and CALM that a response plan be developed and to include the following to provide the most timely and effective response to the community:

- A cache of vertical rescue equipment to be stored within the Park. Upon receipt of a call CALM park personnel are to respond and commence the establishment of the rescue system and to assist the SES throughout the rescue.
- CALM are to provide a person to brief arriving SES crews as to the location of casualties and progress with assembly of the rescue system.
- Due to the isolated location of the park and the extended time duration for backup support to arrive in an emergency (injury to rescuers, etc), Marandoo Mine be asked to place a Vertical Rescue Team on standby for deployment in an emergency. This is due to their proximity, capability and direct communication link with Karijini National Park.
- The HMA conduct an annual exercise in conjunction with CALM and FESA SES to test the response plan.

Recommendations:

4. **FESA SES review the procedures detailed in FESA *SES Policy Statement No 7 – Vertical Rescue* with particular emphasis on reducing the time to respond (response time to reflect that of other similar volunteer emergency services) and to ensure the requirements for annual checks of readiness meet the requirements of the SES.**
5. **The FESA SES Director Pilbara/Kimberley is to manage a review of the *Regional Vertical Rescue SOP* to ensure its effectiveness and alignment with state requirements. When completed the revised SOP is to be communicated to all units within the region that have a Vertical Rescue role. Each local Units Vertical Rescue SOPs are to be reviewed to ensure effectiveness and alignment with the regional and state requirements.**
6. **The *Tom Price SES Vertical Rescue SOP* to include placing Marandoo Mine on standby in case of an emergency, and the Newman SES Unit to be the second response for multiple rescues or relief during extend duration emergencies.**
7. **FESA SES develop state level SOPs, SAI and SOIs for all HMA and Combat roles, and recommend their use as "best practice" to all Units.**
8. **The SES Research and Logistics SOPs be discussed, reviewed and endorsed by the FESA SES Executive Management Team (EMT).**
9. **A system be developed and implemented for the communication of changes in FESA SES policy, instructions, and procedures to ensure personnel are more effectively informed.**
10. **Due to the isolated location of the Tom Price and Newman SES Units, a satellite phone be purchased for each unit to supplement the HF primary communication systems.**

Recommendations (cont.):

11. FESA recommend to the HMA (WAPOL) and CALM that a Vertical Rescue Response Plan be developed for the Karijini National Park. This plan is to involve CALM personnel as part of the emergency response. The HMA is to conduct an annual exercise to test the effectiveness of this plan and provide the opportunity for SES and CALM to train together.
12. FESA recommend to CALM that a cache of vertical rescue equipment be stored within the Park. Upon receipt of a call CALM park personnel are to respond and commence the establishment of the rescue system and to assist the SES throughout the rescue.

Operating Instruction No 5 – Financing of Operations

The review team enquired as to the level of expenditure for the incident and the levels of expenditure individuals can authorise. Although the aspects of expenditure appear to be within policy there is the need for a system of financial delegation so approval is obtained when total expenditure reaches predetermined levels. This will ensure the Executive Director SES/VMRS is informed of significant levels of expenditure during an operation and is prepared to respond to questions from Treasury or other external parties in relation to this expenditure.

Recommendation:

13. Operating Instruction No 5 – Financing of Operations be reviewed to include authority levels for expenditure similar to those in relation to Wildfire Financial Assistance.

Weather

Information for this review was obtained from an interview with Bureau of Meteorology (BoM) personnel in Perth. Summary of the information provided is as follows:

- Little data available—Hancock Gorge is on the periphery of the radar range. The radar can make detections though. The radars are slowly being upgraded and moving to automatic alarms. Tom Price, Paraburdoo and Newman will not be getting radar improvements in the near future though.
- It is highly unlikely in the near future that the BoM will be able to provide detailed intelligence.
- Remote sensing and observation is not that detailed in that location.
- Error margins can be large when relying on extrapolation.
- Radar is the only method available in this area.
- Thunderstorms can be heavy rain in one spot and light rain within 100m.
- BoM can advise of "increased risk of heavy rainfall" when there is a lot of moisture in the air, i.e. following a cyclone (TC Fay contributed to the moist environment on this occasion).
- BoM system was trying to signal the event on this occasion (diagnostics).

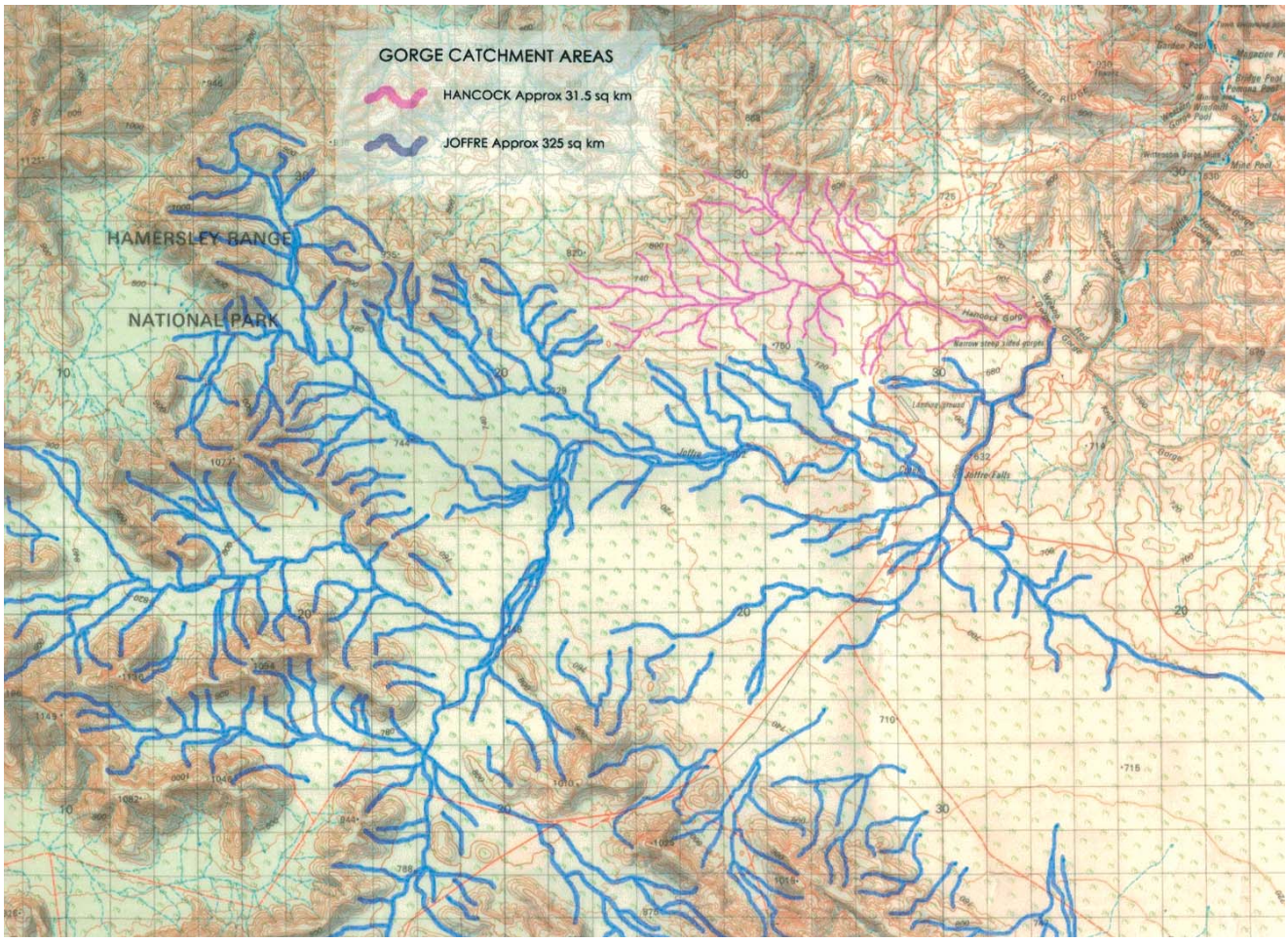
The BoM advised that Spot Forecasts are provided when asked for, with one being requested at 0430 on 2 April 04, which was after the gorge flood. They have an

issue with coordinating Spot Forecasts, as many points can be asking for the same information. This highlights an issue identified later in relation to command and control structures. BoM also have no problem with key decision makers talking direct to the forecaster any time. BoM Info Service exists via the internet for FESA.

There is no severe warning service provided by BoM for the Pilbara at present, though this is likely to change in the near future. The monitoring service is much better for the SW of the state due to the population density, observers and the climatology. Specific locations cannot be warned—too unpredictable for gorge flooding.

A review of previous injuries and events within the Karijini National Park indicates 3 people were washed away in a flash flood on 15 April 1998 in Joffre Gorge. This combined with the flash flood warning signs, indicate consideration needs to be given to preventing access during periods of high flash flood risk and development of a evacuation warning system to remove tourists from the gorges.

The review team was provided with a catchment map for the Hancock and Joffre Gorges. Should there be any rainfall or likelihood of rainfall within the catchment area then a Spot Weather Forecast is to be obtained from the Bureau of Meteorology. Similar catchment maps for other gorges within the Karijini National Park, where rescues are likely to occur and potential for flash floods exist, are to be obtained and included in the response plan.



Hancock and Joffre Gorge Catchment map.

Recommendations:

14. All SES Units amend their Vertical Rescue SOPs to include the mandatory requirement to obtain a Spot Forecast from the Bureau of Meteorology when attending gorge rescues and rainfall has or is likely to occur in the area. In addition, when the risk of flash floods exists, a flood watch be established upstream to provide early warning.
15. Distribute air horns (canister type) to Tom Price and Newman Units and develop SOPs which detail horn blasts as warning/help required signals.
16. Catchment maps be obtained for all tourist gorges where the potential for flash floods exists and there is a likelihood of rescues occurring. These catchment maps are to be included in the Karijini National Park Vertical Rescue Response Plan.
17. FESA recommend to CALM that when periods of high rainfall are occurring within the area of the park, consideration be given to closing the affected gorges to tourists.
18. FESA recommend to CALM that a evacuation system for the gorges be developed to facilitate the removal for persons from the Gorges in times of danger.

Registration of Members and Training

A key component of SES preparedness is for career personnel and volunteers to have the competencies to safely and effectively combat emergencies. As part of this review the training records of the individual responders were examined against the requirements detailed in *SES Policy Statement No 7 – Vertical Rescue*. This analysis identified the following:

- All Vertical Rescue Team members are to be qualified in induction training, senior first aid, and single rope techniques. At least four members of each team are to be qualified to Vertical Rescue Team member level. The team leader is required to be qualified as a Vertical Rescue Team Leader.
- Members of Vertical Rescue teams including trainers/assessors must participate regularly in continuation training to maintain their readiness and ensure their safety. SES Units with Vertical Rescue teams are to ensure that regular continuation training is conducted. Team members who are qualified only to Single Rope Techniques level should be included in team continuation training.

From the review of training records provided, it was clear that many volunteers that responded to the Karijini incident appear not to meet all the requirements as stipulated in the Vertical Rescue policy. As there are significant gaps, this raises the following questions:

- Are the training records accurate?
- Are persons being given recognition for a skill/competency when all prerequisites are not held? or
- Does the policy meet the requirements of FESA SES?

It would also appear that the training records system used by FESA SES needs to be amended to ensure a skill, course, or competency will only appear, when all prerequisites or co requisites are held within the persons training records.

In addition, the review of the training records that have been provided do not identify an expiry date on a competency/skill, the date that refresher training is due, or competency/skill maintenance details. Information in relation to competency maintenance appears to be unit specific with some volunteers utilising unit specific log books which, although good for a personal record perspective, don't readily indicate that the above policy requirements are being met. Compliance with the above needs to be managed centrally as part of the FESA Training database to ensure:

- recognition and certification are only received when all prerequisites are achieved; and
- the competency remains current while a person participates in regular continuation training.

A defined standard as to what "regular continuation training" is needs to be determined and included in the *SES Policy Statement No 7 – Vertical Rescue*.

In addition, Newman SES Unit has only one person qualified as a Vertical Rescue Team Leader. This matter needs to be addressed as it is considered insufficient for the Unit to maintain the capability and role.

Of the 79 people that are listed as attending the Karijini incident, 15 are not registered as members in the SES database and another 9 had no records of completing any SES training. One of the 15, who were not registered, had only been involved in the SES for 3 months. She had no training, but was in the initial helicopter with 3 volunteers that responded from Karratha in support of the incident. The review team were concerned with the deployment of an apparently untrained volunteer in the initial response to a potentially dangerous incident where safety was a key consideration and supervision was likely to be minimal.

A summary of the individual training records is attached as Annexure F.

Recommendations:

19. **A review of training records for all SES units with roles detailed in the Vertical Rescue Policy be undertaken to ensure persons undertaking any roles meet all the training requirements stipulated in the policy. Gap training is to be implemented for those who have not achieved the required standard and should be completed within a maximum period of 1 year.**

20. **The FESA SES training records system be amended to ensure no person can achieve or is recognised with a skill, course or competency until all prerequisites and/or co requisites are held and recorded within their training records.**

21. **FESA SES develops a standard system for measuring "regular continuation training", for all skills and competencies which require ongoing maintenance. The system developed is to be centrally located and managed for the recording of competency/skill maintenance activities. This is to enable a record to be produced of all persons who are current in a skill or competency.**

22. **FESA SES develop and disseminate a policy determining a minimum level of training/competency (best practice) for a volunteer to achieve prior to them being able to safely respond to any type of incident.**

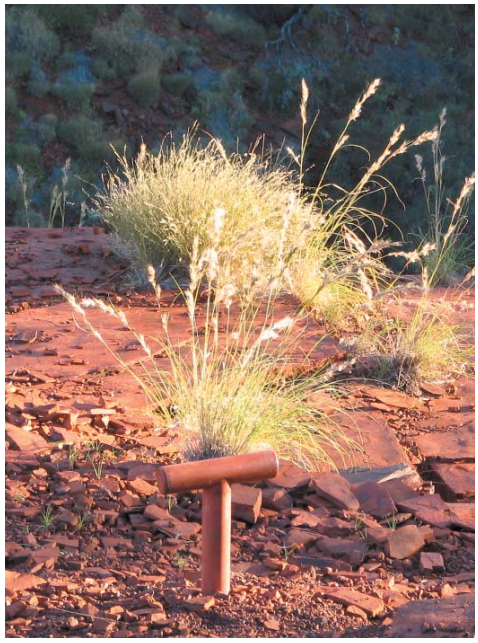
23. **The FESA SES Pilbara/Kimberley Directorate is to oversee the enhancement of the Vertical Rescue Team Leader capability in the SES Newman Unit.**

Predetermined Rescue Points and Maps for Major Gorges within Karijini

On the day of the rescue the available maps were of a scale that did not allow their effective use and they did not contain the relevant information on names, landmarks and features within the Gorge. In other words, there was no predetermined plan detailing various agency response requirements and associated material to assist responders at a rescue.

Not all the Tom Price or Newman teams were familiar with the gorges, the names of various pools and the location of rescue aids (bollards). This was highlighted during the second rescue where it was reported that the casualty was at Kermit's Pool, when the casualty had fallen into Plunge Pool. This confusion led to the second rescue system being established in the wrong location, rather than using the dedicated bollards further down stream near Garden Pool. Detailed maps would have assisted all teams including those from Tom Price and Newman in the performance of their respective duties. Not having good quality maps available to assist incoming teams hampered the search efforts on the Saturday (third day).

Information provided from various persons associated with the area for considerable time indicated that some predetermined rescue points had been established within Hancock Gorge that then enabled casualties to be moved to predetermined locations for rescue. For example, casualties are moved to the bollards immediately downstream of Garden Pool for rescues in Plunge Pool and Garden Pool.



Pre-established manmade Anchor Point at top of gorge for rescues from Garden Pool.

Pre-established manmade Anchor Point at bottom of gorge for rescues from Garden Pool.

Below the level of Garden Pool in the Miracle Mile casualties are taken to Junction Pool for rescue to Oxer Lookout.

Oxer Lookout showing pre-established manmade Anchor Point at rear.

Note: Due to risk of injury from accessing the area the review team did not enter Junction Pool and take photographs. However, the team was informed there are no pre-established anchor points at the base of that location to assist vertical rescue teams secure lines.

The use of predetermined rescue locations with pre-established manmade anchor points (top and bottom) would reduce the times taken to assemble rescue systems and effect rescues. These predetermined rescue locations would also enable volunteers to train and become familiar with the risks associated with each location.

Comprehensive maps need to be developed for major tourist gorges with walks trails, showing the location of the rescue locations and areas of the gorges to which they apply. A review of the existing rescue points also needs to be undertaken with the intent of establishing further bollards or similar anchor points throughout all gorges with tourist walks and where a casualty cannot be carried out.

Environmental damage caused to the park by rescue teams was raised as an issue by CALM. The establishment and use of recognised rescue points will lessen the impact of rescues and training on the park environment. Further consideration also needs to be given to securing these locations so the general public don't follow a path to a rescue point and fall into a gorge.

Recommendations:

24. **FESA in conjunction with CALM source/develop appropriate scale maps of the Karijini National Park for distribution to the Tom Price and Newman SES Units. The maps are to clearly identify locations within the gorge systems and dedicated rescue points for injuries within specified areas of a gorge and be part of the Vertical Rescue Response Plan for Karijini National Park.**

25. **FESA Regional personnel and the Local Units to work with CALM to identify high risk areas within Karijini National Park. FESA also recommend to the HMA and CALM, that suitable sites for establishment of further bollards or similar fixed rescue points and rescue aids be identified and established. These aids are to be easily identified to ensure there is no confusion as to the rescue aid or anchor point being used during a rescue operation.**

Vehicles and equipment stowage

Tom Price SES has an extensive quantity of Rescue Equipment that is located at the Unit headquarters. Upon receiving a call to a vertical rescue, the appropriate equipment is loaded into a trailer for transport to the incident. The need to pack the trailer on each occasion is very time consuming. Consideration needs to be given to maintaining the majority of the vertical rescue equipment permanently in the vehicle and trailer, with only equipment required to be stored in specified conditions not maintained in vehicles. However, this special conditions equipment needs to be stored and available for immediate loading.

As some of the roads between Tom Price and the Karijini National Park are unsealed, and can be effected by rain, etc, it is dangerous to travel on these roads at speeds greater than 60 kph with trailers. To improve the response time to these emergencies a more appropriate vehicle needs to be considered, thus removing the requirement for a trailer.

The Newman SES Unit has vehicles to transport the rescue equipment to the incident. This is fortunate as even travelling at the designated speed limits it will take approximately 3 hours to get to Karijini. While the vehicles are suitable for the task, similar to Tom Price SES Unit the equipment is not maintained on vehicles in preparation for a rapid response. Therefore, following receipt of a call to an incident, again equipment has to be sorted and loaded onto vehicles before mobilisation occurs. This approach increases the risk of items of equipment being left behind.

Recommendations:

26. **Tom Price SES to be equipped with an appropriate vehicle(s) to transport equipment and rescuers to incidents at Karijini National Park.**

27. **SES SOP to have equipment required for an emergency response role permanently located on vehicles/trailers, with only that equipment required to be stored under specific conditions stored separately.**

RESPONSE

Confusion on Organisation of Response Teams

Upon receiving notification that the rescue team had been swept away in the Gorge the FESA SES Regional Director:

- Notified the FESA Executive Director SES (ED SES/VRMS) that SES volunteers had been swept away and were missing.
- Telephoned FESA SES Directors MGM and Metropolitan to request resources.

In addition the FESA SES Research & Logistic Section was also involved in organising the mobilisation of resources.

As in any emergency of this type there was limited information available to Regional personnel. The size and complexity of the incident was not known and there was considerable concern from within FESA to ensure sufficient resources were mobilised to assist the Units in their time of need at such a remote location.

As a result of the above factors it appears that there was some duplication of resources with teams being organised through different areas. Not everyone knew, when mobilised, their role and their timeframes for the deployment. People were deployed despite having been used in consecutive operations (cyclones) and some had insufficient warning to enable the packing of personnel effects for the deployment.

Some crews arrived in the area without the knowledge of the people managing the incident, transport was not available and Tom Price and Newman SES teams were unaware people were coming to assist. Crews arrived at Karijini without knowledge of who was in charge, who to contact or where to go. It also appears that on the Friday, in the haste to mobilise teams, that there was no documentation on the comings and goings of SES people. On the Sunday it appears some teams were left to their own devices to find food and as some volunteers did not have money to purchase items there was some confusion/frustration as to what they should do.

However, the decisive action taken by personnel to arrange the rapid deployment of crews from both the Perth metropolitan area and Karratha should be commended. The quick deployment enabled incoming teams to be at the incident site and assist fatigued crews with the search and extrication of casualties.

The Gosnells SES Unit was given the task early Friday morning to contact eight volunteers qualified in vertical rescue. Unfortunately the contact list for qualified metropolitan cliff rescuers was two years old and had not been kept up to date. While the lack of up to date records did not prohibit the mobilisation of the team the contact list should be updated regularly.

Some incoming teams complained of:

- teams not having any local knowledge;
- lack of local knowledge in planning;
- teams not being acclimatised to the area;
- search teams also having to work as “mules” within the rescue team; and
- the operation taking so long.

While these complaints may have been of general concern to some groups the investigation team did not feel any of these issues impacted negatively on the operation. Hence no recommendations flow from the comments made.

Recommendations:

28. The Incident Management Team liaises with the FESA SES District Headquarters to organise the deployment of all additional resources from outside the local area. When assistance is required from outside of the region, all interregional requests are managed and coordinated by SES Research & Logistic Section.
29. The SES Research & Logistic Section is formally allocated the role for the coordination and management of all interregional resources for all future events requiring interregional support.
30. SOPs are written and promulgated to reflect the two preceding recommendations.
31. All volunteer contact lists held within the SES (Research & Logistic Section and regions) are to be updated at least annually.

Divisional Coordination

In this instance the ED SES/VMRS, in consultation with the CEO FESA, determined it was appropriate to deploy to the incident scene. Volunteers commented in a positive manner to the presence of the ED SES/VMRS at the emergency and providing reassurance and support.

However, as the ED SES/VMRS was not available it is difficult to ascertain who was overseeing the coordination of the SES resources from a Divisional perspective. It would appear from the information provided, that additional resources were arranged on an ad hoc basis between individual FESA SES Regional Directors. This approach does not have a state-wide perspective and does not take into account other operations which may have been occurring at this time. Although the resources appear to have come from appropriate locations (despite the appearance of some duplication) this method may not be best practice if separate events are competing for limited resources. Had such a State level overview been available/maintained the coordination of resources may have been improved.

The responsibility for coordination and mobilisation of resources to assist a region to a great extent rests with the respective Regional Director/s through District Headquarters (Regional Coordination Centres). This approach has shown, through a number of slow build up deployments for cyclones, to be effective. However, for this emergency the Regional Director was in Karratha on his own, he had minimal support in the way of experienced FESA SES Career personnel to assist and this incident was dynamic and time critical. Fortunately some Fire Service personnel provided assistance. Access to the Fire Service personnel was agreed to by the two FESA Directors located in Karratha but was dependent on availability. It would appear that with one FESA Director only per region that emergency response would be enhanced by:

- Improved resource coordination of the limited FESA resources.
- Greater flexibility and interoperability.
- Direct access to more personnel.

Recommendations:

32. FESA undertake a review of the Pilbara Kimberley region to determine how and when to split the region into two FESA regions with one FESA Director only per region.
33. FESA conduct an independent review into the FESA SES control structure to determine appropriate state-wide coordination mechanisms.

Identification

From the information provided it appears that on the Thursday night and Friday there was not an identifiable Incident Management Team (IMT) at the site. Incoming teams could not readily identify whom to report to, inform them they had arrived and receive an appropriate briefing. The IMT members and other key personnel at an emergency need to be readily identifiable to both FESA and other agencies.

Recommendations:

34. FESA personnel when a member of IMT will wear appropriate identification tabards and that this be reflected in all relevant SES SOPs and Policy Statements.
35. FESA discuss at the appropriate level the use of identification tabards with other emergency services within Western Australia.

Subject Experts

It appears that some volunteers with time, knowledge and experience become local subject experts on particular SES skills and roles. In fact many of these subject experts acquire far greater operational competencies than some SES career personnel. However, as the SES career personnel may not have the same level of subject competency, they are not able manage the specialist training and verify competency of Unit members.

In addition, the local Units subject experts also develop SOPs for various operations such as to rescues in Karijini National Park. It appears that without the technical background FESA SES career personnel are not able to check the appropriateness of locally developed SOPs.

Recommendation:

36. On a regional basis the FESA career personnel competencies/skills are to match that of the Units within the area.

SES Team Leaders

It appears that many SES volunteers with the greatest subject expertise become specialist team leaders. The leader of a vertical rescue team not only has specific tasks to undertake as a key member of the rescue team but also in managing the safety of both the team and that of the patient. However, focusing on specific tasks makes it extremely difficult for the Team Leader to also manage the more strategic, interagency and coordination issues that need to be considered by an incident manager. The team leader on the Thursday was confronted with:

- Not one, but two complex rescue operations;
- An extremely long operation;
- Fatigued volunteers;
- Inexperienced team members;
- Isolation, remote location and lack of communications;
- A night operation in an extremely hazardous location; and
- Personnel from various agencies and other organisations.

An integrated incident management structure as detailed under AIIMS ICS would have been appropriate to manage an incident of this complexity.

The SES Volunteer Unit Manager sent from Karratha to Karijini to be the Operations Officer was also presented with a difficult scenario. Upon arriving at the scene early on the Friday he was confronted with rescue teams that were clearly fatigued and under immense stress following the flash flood and the loss of a colleague. In addition, there was not an incident management team as such operating to manage the planning and logistics functions. It would also appear that his appointment was not effectively communicated to the Police or within the SES structure, hence there was some lack of acceptance of this person as the SES Operations Officer/Agency Commander at Karijini.

It also appears there was some confusion as to the role of the SES leader within the incident management structure now that the Division has formally adopted the AIIMS ICS and the Police who are the HMA have not adopted this approach.

Discussions with volunteer groups after the emergency have clearly identified that there were varied opinions on the deployment of various individuals/groups to assist and different points of view in relation to the way the rescue systems had been set up. As an incoming volunteer had obtained his qualifications through "recognition of prior learning" (RPL) and not the traditional SES qualification system there were issues in relation to the individual's competency to undertake his role in a safe and competent manner. While rescue teams at Karijini did not make an issue of the individual's competency during the emergency, the matter has been raised extensively after the incident.

Recommendations:

37. **FESA SES reviews the role of specialist team leaders and incident managers to determine a suitable structure for emergencies which includes a person managing the overall incident who is not the specialist team leader.**
38. **AIIMS ICS training for SES volunteers is to reinforce the SES role where Police are the HMA.**
39. **FESA SES reviews the Vertical Rescue qualification and RPL process used to qualify volunteer and career personnel in vertical rescue to ensure it meets the needs of the organisation.**

Management of Incident

Incident control and coordination has been reviewed at the various levels and locations and can be described as:

Karijini

The SES team leaders from Tom Price and Newman were heavily committed with task functions on the Thursday and Friday. As a result a normal AIIMS ICS structure was not established at the emergency during this period. With no formal structure the maintenance of a log of operations throughout the entire incident, a register of Units and volunteers at the incident was not kept, and no documented operational plans were developed and implemented. In addition, the development of communication or traffic plans appear not to have been considered and, it appeared that the only method employed for communicating outside of Karijini was through the Police satellite telephone.

The Police had a limited command structure in place at Karijini on Thursday and Friday. Late Friday afternoon additional officers arrived and by Saturday an effective command structure was in place with an SES volunteer representing the combat agency. At no time did a SES career manager attend the site to assume control of combat agency operations. It appears the absence of FESA career personnel at the incident inhibited the coordination of operations and allowed fatigued personnel to continue to work in a dangerous environment when fresh reliefs were present on site. It was also reported to the review team that there was a desire by the Police to have career managers at the incident site for accountability. By not doing so the volunteer personnel were left completely accountable for the Combat Agency's on site activities. The provision of career personnel at the incident site would have provided immediate support and better protection to the SES volunteers present.

Tom Price

On the Friday following the flash flood a Fire Service Officer was located at the Tom Price police station to assist a number of Police with the management of the emergency. This group managed a number of Logistical matters for the Police Officer in charge of the incident. Although the Fire Service Officer's efforts were acknowledged by people involved in the incident, he was clearly hampered by a lack of information flow within the SES (ie. from Karijini and Port Hedland District Headquarters). There is also a major concern within the review team in relation to the use of the FESA Fire Services Officer undertaking this key role by himself. This person had only been in the District for a very short period of time and had not been exposed to SES operations in the past. There is no disputing that he was the appropriate immediate response, however he should have been relieved as soon as possible with a more experienced FESA career manager enabling him to then fulfil a support role at Tom Price.

From discussions, it has been made clear that communications between Karijini and outside the Park were limited. It appears there was no VHF radio communications back to Tom Price and the HF radio and satellite phones only operated spasmodically.

The flash flood that swept away James Regan occurred at approximately 0400 Friday morning. The Police Divers commenced the search of the water at about 1540 on the Saturday with the body being located within 15 minutes. It appears that had this search operation commenced earlier it may not have been necessary to place volunteers at risk in this hazardous environment throughout Saturday in a fruitless search.

Port Hedland

The SES Port Hedland District Headquarters (DHQ) was established with both FESA career personnel and volunteers. Extensive consultation took place between the SES Regional Director and District Manager. The DHQ were of the opinion they were undertaking the roles of Planning and Logistics for the incident, which was not the case. In the main the Port Hedland DHQ liaised with other FESA personnel outside the region and the FESA Fire Services Officer at Tom Price, and organised some SES logistical activities only.

On the Friday two Fire Service career personnel were deployed at different times to assist run the Centre in Port Hedland DHQ and another Fire Service career manager in Karratha was allocated the Media Liaison Officers role. Late on the Friday three SES career managers arrived in Port Hedland from Perth to replace the FESA Fire Service career personnel there and undertake the liaison role with the media. This provided 4 FESA SES Career personnel in Port Hedland to operate the DHQ. In addition there was a minimum of 10 volunteers and the District Support Officer working in this location. The Newman SES Unit commented during the debriefing session with the review team that the District Headquarters did not supply sufficient information, return calls or make decisions. This again illustrates that the District Headquarters was not part of the incident management team, did not have access to information and that communications between Karijini and the outside world were very limited.

Confusion existed as to which agency was managing the different aspects of the emergency and who was undertaking various logistical roles which resulted in incoming teams arriving without appropriate support. The same confusion also arose during the demobilising process. From the information provided it would appear that the DHQ did not commence demobilisation arrangements for the Karijini response teams at Tom Price until the Sunday morning. This created significant concern/anxiety amongst these teams at the 2200 debrief in Tom Price on the Saturday night as no information could be provided. Therefore, return transport for crews was not organised in a cost efficient manner and some volunteers were left to fend for themselves on the Sunday while waiting for transport. Clearly the planning for demobilisation of crews should have occurred following the location of the deceased and been communicated when crews returned to Tom Price on the Saturday night at 2200. This may have enabled the use of regular commercial flights out of Paraburdoo and Newman at significantly less cost, where delays were minimal.

Recommendations:

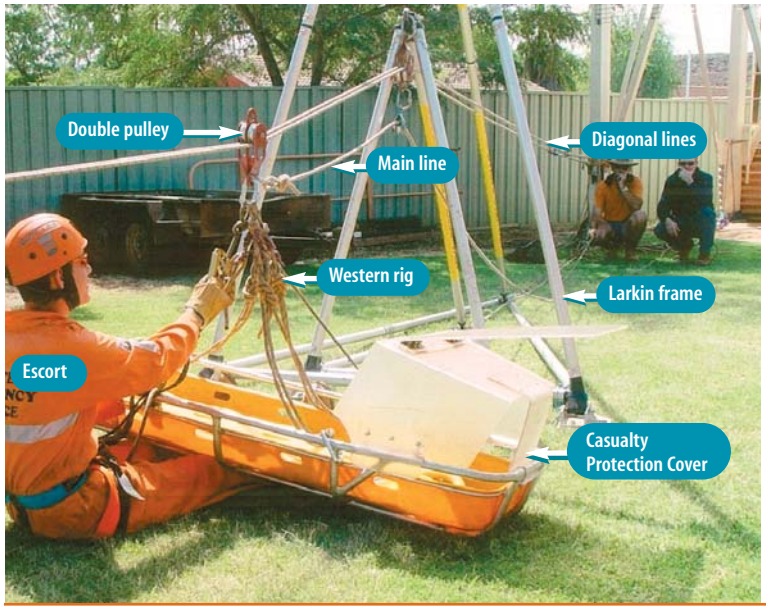
40. **FESA SES Circulars, SOPs, Policy Statements and training reinforce the need to establish an AIIMS ICS command structure at all emergencies.**
41. **FESA SES conducts a review of operations to determine the role of District Headquarters for this type emergency when another agency is the HMA. This should form part of the independent review into the FESA SES command structure.**
42. **FESA SES review career managers' role in relation to response in this type of emergency, particularly any event involving significant injury, near miss or death of a volunteer, or is considered complex.**

Equipment and Procedures

Vertical Rescue Equipment and Procedures

During the review process the team encountered considerable feedback as to the standard of equipment and practices employed by FESA SES in vertical rescue. Although the suggestions made by stakeholders (some with similar roles in industry) as to improvements were different there was a clear expectation that change needed to be made. An example provided was a person assisting the escort of a stretcher was using a "whale tail" to ascend with the stretcher. This required the ascent to pause while the rope was continually fed through this device. There was also evidence provided of FESA SES adopting new equipment (eg. Petzl ID D20 descender) and placing it on the purchasing contract for Units, however this equipment was optional and not included in vertical rescue training. A review of the equipment available for purchase under the FESA contracts indicates there are many options for different pieces of equipment such ascenders and descenders, rather than an agreed standard piece of equipment that is provided and trained with statewide. Personnel also purchased their own equipment for use in vertical rescue and this appears to be unregulated and without any control as to equipment quality, standard and application.

Clearly the rescue systems being established were complicated and time consuming with minimal mechanical advantage, hence the standard for a team is 8 people to haul patients during rescues. The time consuming nature of the task is demonstrated through the Tom Price crew arriving at 1715 and despite the rescue being conducted from an established rescue point (Oxer Lookout) the first casualty was not recovered until 0030 some 7 hours later. The second rescue was still occurring at 0400. This extended timeframes must contribute to fatigue and increase the risk of accident and injury. The systems and equipment appear to have little mechanical advantage, which will also contribute to the fatigue and time taken to affect rescues.



Set up for a diagonal rescue as used during the Karijini rescues 1 April 2004 (except Larkin frames were set up side by side, not inside each other as shown here).

Note: This and the following two photographs have been provided by the Deputy Unit Manager SES Tom Price.

Specialised Equipment

Rescues from the Karijini gorges are unique in that, in many cases, the casualties are lifted from water, the gorges are very deep and they have large amounts of loose stone on the edges. If lifted from water, inner tubes are tied to the Stokes Litter, the casualties are secured in a litter so they cannot move, and the casualty is floated across pools until at the appropriate location for extrication to occur. The Tom Price SES Unit "Stokes" is also fitted with a Unit developed shield to protect the casualty from falling rocks displaced by ropes as they are raised from a gorge.

Western Rig used to attach Stokes Litter to system.

Oxy Viva Equipment

As many of the casualties have significant injuries they are supplied with oxygen via an oxy viva. While lightweight composite oxygen cylinders are available they are not used at Tom Price and drawn steel cylinders are used. These cylinders are heavy which is a crucial consideration and adds to the difficulty when equipment is lowered and raised significant distances and when used on water.

Recommendations:

43. An independent review be conducted into vertical rescue equipment, techniques and training to develop a single whole of FESA standard and approach. This review is to endeavour to progress the vertical rescue role as close to best practice as practicable by lessening the time taken for personnel to affect rescues, develop a single standard set of approved modern equipment for vertical rescue and minimise the number of personnel needed to undertake rescue.

44. As part of the review of vertical rescue equipment and techniques attention be given to finding a more suitable rescue litter that will provide adequate protection to casualties from falling rocks, not require the lashing of inner tubes for floatation, and be quick and simple to secure and release a casualty.

45. An Oxy Viva with lightweight oxygen cylinders be provided to Tom Price SES Unit and consideration be given to make this the standard for all Oxy Viva cylinders in Units with the vertical rescue role.

Welfare

As incident management was not adequately resourced and actions were predominantly task focused in the first 24 hours of the operation, there was little planning to ensure there was sufficient food, water and amenities for people at Karijini National Park. One volunteer surmised that as he was sick on the Saturday due to food poisoning from the food he had consumed at Karijini on the Friday. While this cannot be verified it appears the individual involved consumed sandwiches that had not been appropriately stored. Other volunteers commented as to the poor quality of food storage on the Friday with some choosing not to consume food because of this.

While many of the volunteers flown in to assist with the operation were happy with the accommodation provided, some felt the rooms and lack of facilities was inappropriate. The review team received reports of stained floors and bed linen and inadequate facilities for females. From the disparate opinions the review team concluded that the majority of rooms must have been adequate and that facilities in some isolated cases were not appropriate. Consideration also needs to be given to the limited availability of accommodation and facilities in this remote location.

By Friday morning following the flash flood, the original vertical rescue teams were extremely tired and under stress. From discussions with this group it appears some of the incoming teams made comments and needed to be more sensitive to the onsite volunteers who were directly affected by the emergency. It would have been more appropriate and safer to stand down the Tom Price and Newman teams when the first relief vertical rescue team arrived from Karratha at 1200 on Friday.

Following news that a number of volunteers had been swept away, there was a need to inform next of kin of the wellbeing or otherwise of partners and family members. Communication difficulties and lack of information prohibited this from occurring. This only created greater frustration and anxiety for loved ones.

Recommendations:

46. AIIMS ICS training provided within FESA to further stress the importance of providing timely and appropriate welfare (hygiene is maintained) to operational teams.

47. All SES Units to maintain an up to date register of next of kin details and contact numbers. Consideration is given to applying this throughout all divisions of FESA.

Media management

Media Liaison Officers initially appointed in both Perth and Karratha managed inquiries at these locations effectively. By late Friday afternoon the Officer in Karratha had handed over the Regional Media Liaison role to a Manager flown into Port Hedland and located at the DHQ.

A number of comments were made by rescue teams at Karijini that media crews got too close to the rescue teams and the edge of the Gorge and intruded in operations when it was inappropriate to do so. It appears neither FESA SES nor the HMA appointed an onsite Media Liaison Officer to manage requests or control the media. The deployment of a FESA career person to the Karijini site to support and influence the HMA may have ensured adequate management of the media took place. The use of demarcation tape at this type of incident to prevent media and bystanders from entering the combat area needs to be implemented for this type of emergency.

Recommendations:

48. An SOP is developed for combat area security, including the use of demarcation tape to define a combat area.

49. AIIMS ICS training to reiterate the need for a Media Liaison Officer (MLO) and media management at incidents. A single, whole of FESA approach be developed for the role and responsibilities of FESA MLO's and their location during incidents attracting significant media attention.

Helicopters

It appears three helicopters were used during the operations. The first helicopter transported three volunteers from Karratha to Karijini and then was commandeered by the Police and used for aerial observation. The SES Unit Manager had planned to use the helicopter for a similar purpose with "trained observers" but did not get the opportunity. Its was noted that none of the 3 initial SES Karratha volunteers training records indicated they were trained/qualified as Airborne Observers.

The second helicopter (Super Puma) was slow to deploy with another nine volunteers from Karratha to Karijini as there were contractual issues that had to be resolved and a winch fitted. This helicopter was unsuitable for air reconnaissance or searching and the winch was not used due to the depth of the gorges. Due to cost considerations and the requirement to meet other contractual obligations the helicopter returned to Karratha late on Friday afternoon. As the helicopter left the incident it was decided that the volunteers would also return to Karratha although the operation was not completed.

A third helicopter was used to search the gorges on the Saturday. The major concern with the use of helicopters was that there were no designated landing sites for large helicopters. It was fortunate the Super Puma landed with the incoming team as this contractor will normally only land on bituminised or concrete landing pads.

When the various helicopters flew over the incident the noise created confusion and hindered rescue operations. It was indicated to the review team that on one occasion a rescue operation was halted due to the noise prohibiting communications. People in the helicopter at the time were taking photographs of the rescue. There was no ground to air communications, except via HF to the helicopter base, as the appropriate radio equipment had not been transported to the incident. Without the communications equipment it was not possible to direct their operations from Karijini or prevent them from hindering rescue operations.

Note: The review team did not review the compliance with FESA *SES Operations Instruction No 12 - Hire of Rotary Wing Aircraft in Support of Operations* as part of this review.

Recommendations:

50. FESA develop a regional resource plan to facilitate timely access to helicopters within the region, including after hours contact details, hire rates and aircraft type. This resource plan is to be reviewed and updated annually.

51. SES Research and Logistics Section review the use of Helicopters and other aircraft in this incident against SES policy and report direct to the EDSES.

Communications

In the opinion of the review team the inability to establish and maintain effective communications between the incident site and Tom Price or Port Hedland significantly hampered the incident response and management. Without an effective and reliable communications plan and system, the coordination of resources and meaningful incident information, was not available to provide timely and effective support.

Karijini National Park has its own VHF radio repeater tower, but the signal only has range within the vicinity of the park and not to an external community such as Tom Price. However, this radio system does reach the Park Visitor centre and the Marandoo Mine site gatehouse both of which have base radios on this network. To achieve direct radio communication with Tom Price consideration needs to be given to the extension of the VHF radio repeater network (or similar). Such an improvement will also provide support to FESA Fire and Rescue Service during road accident rescues on roads between Karijini and Tom Price.

During the emergency High Frequency radios and satellite phones were used with limited success as neither provided a suitable communication medium between the incident scene and bases at both Tom Price and Port Hedland. Several people who responded to the incident in leadership positions were questioned in relation to the effectiveness of HF radio at the incident for communications to Tom Price or Port Hedland DHQ. The responses were varied and ranged from some not trying, lack of confidence in operation on the radios and a general reliance on the limited number of satellite telephones. From statements and comments made there was a clear impression that the over-reliance on mobile and satellite telephones had led to a loss of volunteer competency in use of HF radio networks and equipment.

There was also the impression of a general lack of appreciation as to the importance of maintaining communication with a base or headquarters. In this incident the failure to maintain communications with a headquarters/base is contrary to the principles detailed in SES Operational Planning Systems and Doctrine (OPSAD) Part 6 – Communications Systems. These communications are required for safety and the dispatch of emergency messages in case of injury or breakdown. In addition, it is also vital to facilitate critical information flow within the agency including incident updates and support requirements, and provide vital community information and warnings.

Communications at the Karijini incident site worked effectively using UHF radios on the Saturday. However, the Port Hedland Unit who were deployed to establish a Field Headquarters and communications were unable to establish effective communications back to either Tom Price or the Port Hedland DHQ. It was reported to the review team that although a UHF repeater was brought to the site the mast mounted antenna was left in Port Hedland rendering the equipment ineffective.

The handheld radios worked effectively but comments made by teams were that there was too much chatter through a lack of radio discipline and that the radios were not water proof. The Vox system used on some handheld radios significantly shortened their battery life as they transmitted large amounts on non messages such as breathing and face to face discussions between rescuers. The use of Vox systems is unsuitable in extended duration incidents where the life of the batteries can be exhausted prior to the completion of operations. This can be overcome by using the standards press to talk microphone and only transmitting when required.

Recommendations:

52. Tom Price Unit be allocated plastic bags to seal handheld radios in for use in water environments.

53. FESA SES review the use of Vox systems on handheld radios during extended duration incidents/rescues which may extend beyond the radio workable battery life.

54. FESA SES with CALM investigate the development of an effective and reliable radio network to enable all weather communications between Karijini National Park and Tom Price. This communications network is to be incorporated into the Karijini National Park Response plan.

55. All SES Units to be reminded of the requirement to maintain communications with a local headquarters or similar, and to provide ongoing incident updates/information on a regular basis.

56. All SES Units equipped with HF radio to have their competence/skill in its use assessed to ensure their ability to effectively use this equipment in operations.

57. The need for a documented communications plan at all but very simple incidents is to be included in SES SOPs, policies, and the importance of communications planning as detailed in AIIMS ICS is to be communicated to all SES Units via a safety circular.

Park Environment

A concern was raised by the managers of the Park that the establishment of rescue systems in immediate proximity to a gorge edge and the need to remove vegetation has the following negative impacts:

- Provides safety issue as the path/trail leads directly to the edge of a gorge which could be followed by tourists leading to a slip or fall into a gorge.
- Impacts on the appearance of the park as some of the vegetation will take approximately 10 years to recover.

The use of uncontrolled rescue points causes damage to the parks natural environment. They also compromise the safety of all involved in the rescue as rescue systems are required to be more complex and use untested natural features (eg. trees as anchor points rather than permanent manmade anchors which have been tested).

Third Rescue site with vegetation removed.

Anchor Points (trees) at Third Rescue site. Spinifex heaped to sides of manmade hauling paths.

Second Rescue site vegetation (Spinifex) flattened.

Peer support

During the course of the incident a number of Peer Support personnel responded to the scene from various organisations. While the Peer Supporters provided an appropriate level of assistance to people on site there were comments that they could not be distinguished from other personnel. Comments were also made that the number of peer support personnel who attended the incident scene was overwhelming. This could have been the result of each organisation involved (FESA, WAPOL and CALM) providing some level of peer support to the incident. More effective coordination of these activities between the agencies involved may have produced a better outcome. Not withstanding the above, the general feeling was this activity was done very well, with particular preference for the use of people from within the region for peer support.

Following the incident some crews were of the opinion that they participated in a operational debrief only and not a psychological defusing. It appears the type of debriefing received was dependant upon who was conducting the activity and the expectations of the persons in attendance.

On returning to Perth a rescue team was separated from their families at the airport by Peer Supporters to discuss the incident and offer assistance. The group did not think that was appropriate.

Recommendations:

58. **When rescues are undertaken from uncontrolled sites, that FESA recommend to CALM that measures be implemented to prevent persons following trails and to aid natural vegetation regeneration.**

59. **FESA investigate Peer Supporters wearing tabards or other types of identification at incidents.**

60. **FESA Health Safety and Welfare review approach to meeting teams returning from operations.**

61. **FESA Health Safety and Welfare review group/individual support strategies utilised following a traumatic event.**

62. **FESA Health Safety and Welfare review the procedures for providing Peer Support at multi-agency incidents to ensure this function is better coordinated between agencies.**

OCCUPATIONAL HEALTH AND SAFETY ISSUES

Deaths

The following death occurred at the incident:

James Martin REGAN: SES Volunteer – Newman

DOB: 17 July 1967 (Age 36)
Sex: Male
Occupation: Mining Contractor

Was swept away in flash flood in Hancock Gorge at approximately 0400 on 2 April 2004. His body was located in Garden Pool by Police Divers at 1555 on 3 April 2004. Certificate of Life Extinct issued 1905 and positive identification at 1935 3 April 2004. Cause of death unknown, believed drowned.

Injuries

Injuries at the incident which were reported to the review team are as follows:

Oliver PEACE: Tourist – United Kingdom

DOB: Unknown approx. Age 29
Sex: Male
Occupation: Travel Agent

Fell in Hancock Gorge while climbing up a rock chimney out of Junction Pool at approximately 1330 on 1 April 2004. Reported to have sustained head, broken teeth, and leg injuries. Casualty transferred to St John Ambulance for medical treatment.

Michelle SURI: Tourist – United Kingdom

DOB: Unknown approx Age 28
Sex: Female
Occupation: Unknown

Fell from Oxer Handle into Plunge Pool in Hancock Gorge at unknown time in afternoon 1 April 2004. Reported to have sustained bruising on back and buttocks, could walk but not climb. Casualty transferred to St John Ambulance for medical treatment.

Ian Alan Neil McCALLUM: SES Volunteer – Tom Price

DOB: 15 November 1974 (Age 29)
Sex: Male
Occupation: Engineer

Was swept away in flash flood in Hancock Gorge at approximately 0400 on 2 April 2004. Sustained a fracture of left wrist (radius head) with no lost time from employment to our knowledge. Medical treatment was required.

Near misses

Three near misses were reported to the review team. They were as follows:

Excessive equipment for water hazard

On the Saturday teams were organised to search the various gorges for James Regan. The search teams were instructed to take minimal equipment due to safety concerns with having to swim through water. Despite the instruction some members of SES search teams took excessive equipment into the gorges and had to swim with this gear through water hazards. During vertical rescue training it is

mandatory that a dedicated Safety Officer is appointed, this practice should also be mandatory during vertical rescue incidents.

Final Equipment breakdown

On the Saturday evening as darkness was looming and the last person was being raised from the Gorge an order to breakdown the equipment was given. Crews who were tired and wanting to go home immediately started to breakdown equipment to expedite the process. The rescue team leader took immediate action to prevent the rescue frame securing lines from being untied.

Working on the edge without being secured

Despite an SES SOP that details the appropriate safety considerations during the incident a SES volunteer moved too close to the edge of the Gorge without being appropriately secured by a line.

While not recorded as a near miss rescue teams working in an environment as harsh and dangerous as the gorges in Karijini National Park need to take special care. In addition, radio communication between all volunteers at the top of the Gorge and all teams members in the Gorge is not always possible. In the event of an injury to a volunteer or other emergency arising it may not be possible to contact or warn team members by radio communications.

Recommendations:

63. **During all vertical rescue operations a dedicated Safety Officer be appointed.**
64. **Review FESA SES SOPs and training material to ensure safety issues/near misses are appropriately detailed and documented.**
65. **Develop FESA SOPs for rescues in Karijini to ensure a minimum number of volunteers are placed at risk by having to move around in Gorge after dark.**

RECOGNITION OF PERSONNEL

This section intentionally blank—not for release.

Category 1

Category 2

Category 3

AUTHORISATION

The Major Incident Review team inquiring into the death of SES volunteer James Martin Regan at Karijini National Park confirm that we unanimously support the findings and recommendations presented in this report.

A J Gale — Date: **2 July 2004**
FESA District Manager SES

G J Swift — Date: **2 July 2004**
Acting FESA Manager Professional Standards

L J Cuneo — Date: **2 July 2004**
FESA Director Professional Standards

ENDORSEMENT

Endorsed by W F (Bill) Forbes — Date: **16 July 2004**
FESA Chief Executive Officer

ACTION AND IMPLEMENTATION SCHEDULE

Major Incident Review for Karijini Gorge Incident – OCN No: 76110604

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
1.	FESA recommend to the Western Australian Police Service (HMA) and CALM that an interagency committee be formed including FESA SES to review the recommendations of this report and implement the approved strategies to improve Prevention, Preparedness, Response, and Recovery in the Karijini National Park. This committee is to meet at least 2 times in each year and oversee the development of a response plan for Vertical Rescue in the Karijini National Park.					
2.	FESA recommend the interagency committee cooperatively develop a range of prevention strategies to lessen the number and impact of rescues in the Karijini National Park. The effectiveness of strategies are to be measured yearly to ensure cliff rescues are not on a 3 year average exceeding 6 per year.					
3.	FESA recommend to CALM that signage in the Karijini National Park be upgraded to deter persons progressing beyond level 1 walks in the gorge system unless safety systems are introduced.					
4.	FESA SES review the procedures detailed in FESA *SES Policy Statement No 7 – Vertical Rescue* with particular emphasis on reducing the time to respond (response time to reflect that of other similar volunteer emergency services) and to ensure the requirements for annual checks of readiness meet the requirements of the SES.					
5.	The FESA SES Director Pilbara/Kimberley is to manage a review of the Regional Vertical Rescue SOP to ensure its effectiveness and alignment with state requirements. When completed the revised SOP is to be communicated to all units within the region that have a Vertical Rescue role. Each local Units Vertical Rescue SOPs are to be reviewed to ensure effectiveness and alignment with the regional and state requirements.					
6.	The *Tom Price SES Vertical Rescue SOP* to include placing Marandoo Mine on standby in case of an emergency, and the Newman SES Unit to be the second response for multiple rescues or relief during extend duration emergencies.					
7.	FESA SES develop state level SOPs, SAI and SOIs for all HMA and Combat roles, and recommend their use as "best practice" to all Units.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
8.	The SES Research and Logistics SOPs be discussed, reviewed and endorsed by the FESA SES Executive Management Team (EMT).					
9.	A system be developed and implemented for the communication of changes in FESA SES policy, instructions, and procedures to ensure personnel are more effectively informed.					
10.	Due to the isolated location of the Tom Price and Newman SES Units, a satellite phone be purchased for each unit to supplement the HF primary communication systems.					
11.	FESA recommend to the HMA (WAPOL) and CALM that a Vertical Rescue Response Plan be developed for the Karijini National Park. This plan is to involve CALM personnel as part of the emergency response. The HMA is to conduct an annual exercise to test the effectiveness of this plan and provide the opportunity for SES and CALM to train together.					
12.	FESA recommend to CALM that a cache of vertical rescue equipment to be stored within the Park. Upon receipt of a call CALM park personnel are to respond and commence the establishment of the rescue system and to assist the SES throughout the rescue.					
13.	Operating Instruction No 5 – Financing of Operations be reviewed to include authority levels for expenditure similar to those in relation to Wildfire Financial Assistance.					
14.	All SES Units amend their Vertical Rescue SOPs to include the mandatory requirement to obtain a Spot Forecast from the Bureau of Meteorology when attending gorge rescues and rainfall has or is likely to occur in the area. In addition, when the risk of flash floods exists, a flood watch be established upstream to provide early warning.					
15.	Distribute air horns (canister type) to Tom Price and Newman Units and develop SOPs which detail horn blasts as warning/help required signals.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
16.	Catchment maps be obtained for all tourist gorges where the potential for flash floods exists and there is a likelihood of rescues occurring. These catchment maps are to be included in the Karijini National Park Vertical Rescue Response Plan.					
17.	FESA recommend to CALM that when periods of high rainfall are occurring within the area of the park, consideration be given to closing the affected gorges to tourists.					
18.	FESA recommend to CALM that an evacuation system for the gorges be developed to facilitate the removal for persons from the Gorges in times of danger.					
19.	A review of training records for all SES units with roles detailed in the *Vertical Rescue Policy* be undertaken to ensure persons undertaking any roles meet all the training requirements stipulated in the policy. Gap training is to be implemented for those who have not achieved the required standard and should be completed within a maximum period of 1 year.					
20.	The FESA SES training records system be amended to ensure no person can achieve or is recognised with a skill, course or competency until all prerequisites and/or co requisites are held and recorded within their training records.					
21.	FESA SES develops a standard system for measuring "regular continuation training", for all skills and competencies which require ongoing maintenance. The system developed is to be centrally located and managed for the recording of competency/skill maintenance activities. This is to enable a record to be produced of all persons who are current in a skill or competency.					
22.	FESA SES develop and disseminate a policy determining a minimum level of training/competency (best practice) for a volunteer to achieve prior to them being able to safely respond to any type of incident.					
23.	The FESA SES Pilbara/Kimberley Directorate is to oversee the enhancement of the Vertical Rescue Team Leader capability in the SES Newman Unit.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
24.	FESA in conjunction with CALM source/develop appropriate scale maps of the Karijini National Park for distribution to the Tom Price and Newman SES Units. The maps are to clearly identify locations within the gorge systems and dedicated rescue points for injuries within specified areas of a gorge and be part of the Vertical Rescue Response Plan for Karijini National Park.					
25.	FESA Regional personnel and the Local Units to work with CALM to identify high risk areas within Karijini National Park. FESA also recommend to the HMA and CALM, that suitable sites for establishment of further bollards or similar fixed rescue points and rescue aids be identified and established. These aids are to be easily identified to ensure there is no confusion as to the rescue aid or anchor point being used during a rescue operation.					
26.	Tom Price SES to be equipped with an appropriate vehicle(s) to transport equipment and rescuers to incidents at Karijini National Park.					
27.	SES SOP to have equipment required for an emergency response role permanently located on vehicles/trailers, with only that equipment required to be stored under specific conditions stored separately.					
28.	The Incident Management Team liaises with the FESA SES District Headquarters to organise the deployment of all additional resources from outside the local area. When assistance is required from outside of the region, all interregional requests are managed and coordinated by SES Research & Logistic Section.					
29.	The SES Research & Logistic Section is formally allocated the role for the coordination and management of all interregional resources for all future events requiring interregional support.					
30.	SOPs are written and promulgated to reflect the two preceding recommendations.					
31.	All volunteer contact lists held within the SES (Research & Logistic Section and regions) are to be updated at least annually.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
32.	FESA undertake a review of the Pilbara Kimberley region to determine how and when to split the region into two FESA regions with one FESA Director only per region.					
33.	FESA conduct an independent review into the FESA SES control structure to determine appropriate state-wide coordination mechanisms.					
34.	FESA personnel when a member of IMT will wear appropriate identification tabards and that this be reflected in all relevant SES SOPs and Policy Statements.					
35.	FESA discuss at the appropriate level the use of identification tabards with other emergency services within Western Australia.					
36.	On a regional basis the FESA career personnel competencies/skills are to match that of the Units within the area.					
37.	FESA SES reviews the role of specialist team leaders and incident managers to determine a suitable structure for emergencies which includes a person managing the overall incident who is not the specialist team leader.					
38.	AIIMS ICS training for SES volunteers is to reinforce the SES role where Police are the HMA.					
39.	FESA SES reviews the Vertical Rescue qualification and RPL process used to qualify volunteer and career personnel in vertical rescue to ensure it meets the needs of the organisation.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
40.	FESA SES Circulars, SOPs, Policy Statements and training reinforce the need to establish an AIIMS ICS command structure at all emergencies.					
41.	FESA SES conducts a review of operations to determine the role of District Headquarters for this type emergency when another agency is the HMA. This should form part of the independent review into the FESA SES command structure.					
42.	FESA SES review career managers' role in relation to response in this type of emergency, particularly any event involving significant injury, near miss or death of a volunteer, or is considered complex.					
43.	An independent review be conducted into vertical rescue equipment, techniques and training to develop a single whole of FESA standard and approach. This review is to endeavour to progress the vertical rescue role as close to best practice as practicable by lessening the time taken for personnel to affect rescues, develop a single standard set of approved modern equipment for vertical rescue and minimise the number of personnel needed to undertake rescue.					
44.	As part of the review of vertical rescue equipment and techniques attention be given to finding a more suitable rescue litter that will provide adequate protection to casualties from falling rocks, not require the lashing of inner tubes for floatation, and be quick and simple to secure and release a casualty.					
45.	An Oxy Viva with lightweight oxygen cylinders be provided to Tom Price SES Unit and consideration be given to make this the standard for all Oxy Viva cylinders in Units with the vertical rescue role.					
46.	AIIMS ICS training provided within FESA to further stress the importance of providing timely and appropriate welfare (hygiene is maintained) to operational teams.					
47.	All SES Units to maintain an up to date register of next of kin details and contact numbers. Consideration is given to applying this throughout all divisions of FESA.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
48.	An SOP is developed for combat area security, including the use of demarcation tape to define a combat area.					
49.	AIIMS ICS training to reiterate the need for a Media Liaison Officer (MLO) and media management at incidents. A single, whole of FESA approach be developed for the role and responsibilities of FESA MLO's and their location during incidents attracting significant media attention.					
50.	FESA develop a regional resource plan to facilitate timely access to helicopters within the region, including after hours contact details, hire rates and aircraft type. This resource plan is to be reviewed and updated annually.					
51.	SES Research and Logistics Section review the use of Helicopters and other aircraft in this incident against SES policy and report direct to the EDSES.					
52.	Tom Price Unit be allocated plastic bags to seal handheld radios in for use in water environments.					
53.	FESA SES review the use of Vox systems on handheld radios during extended duration incidents/rescues which may extend beyond the radio workable battery life.					
54.	FESA SES with CALM investigate the development of an effective and reliable radio network to enable all weather communications between Karijini National Park and Tom Price. This communications network is to be incorporated into the Karijini National Park Response plan.					
55.	All SES Units to be reminded of the requirement to maintain communications with a local headquarters or similar, and to provide ongoing incident updates/information on a regular basis.					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
56.	All SES Units equipped with HF radio to have their competence/skill in its use assessed to ensure their ability to effectively use this equipment in operations.					
57.	The need for a documented communications plan at all but very simple incidents is to be included in SES SOPs, policies, and the importance of communications planning as detailed in AIIMS ICS is to be communicated to all SES Units via a safety circular.					
58.	When rescues are undertaken from uncontrolled sites, that FESA recommend to CALM that measures be implemented to prevent persons following trails and to aid natural vegetation regeneration.					
59.	FESA investigate Peer Supporters wearing tabards or other types of identification at incidents.					
60.	FESA Health Safety and Welfare review approach to meeting teams returning from operations.					
61.	FESA Health Safety and Welfare review group/individual support strategies utilised following a traumatic event.					
62.	FESA Health Safety and Welfare review the procedures for providing Peer Support at multi-agency incidents to ensure this function is better coordinated between agencies.					
63.	During all vertical rescue operations a dedicated Safety Officer be appointed					

No	Recommended Action	Note whether the action is incident specific (IS) or generic (G)	Person responsible for implementing the action	Date action is to be:		Current Status (include brief explanation)
				Reviewed	Completed	
64.	Review FESA SES SOPs and training material to ensure safety issues/near misses are appropriately detailed and documented.					
65.	Develop FESA SOPs for rescues in Karijini to ensure a minimum number of volunteers are placed at risk by having to move around in Gorge after dark.					

MAJOR INCIDENT REVIEW PARTICIPANTS

Incident: Karijini Gorge

SES Volunteers:	Name	Unit
	Todd Pender	Armadale
	Joe Taylor	Gosnells
	Tracey Verbiest	Gosnells
	Paul Hollamby	Gosnells
	Graham Fixter	Gosnells
	Ian Milne	Kalamunda
	Chris Hudson	Stirling
	Terry Swetman	Karratha
	Annie Clifford	Karratha
	Lenny Delandgraftt	Karratha
	Dave Goodwin	Karratha
	Damien Muller	Karratha
	George Baird	Karratha
	Toni Walsh	Karratha
	Amanda Crook	Karratha
	Emme Wild	Karratha
	Trevor Patten	Karratha
	Bob Hunter	Karratha
	Col Elliott	Karratha
	Steve Cable	Karratha
	Peter Morris	Roebourne
	Liz Ellis	Roebourne
	Clinton Taylor	Roebourne
	Gary Moore	Tom Price
	Michael Lorraine	Tom Price
	Andrae Moore	Tom Price
	Dave Campbell	Tom Price
	Jackie Maloney	Tom Price
	Chris Sousa	Newman
	Paul Wright	Newman
	Peter Ryan	Newman
	Linley Murray	Newman
	Ernie Hanselmann	Newman
	Rohan Loos	Newman
	Mike Starling	Newman
	Ariana Wright	Newman
	Allison Cusak	Port Hedland
	David Cusak	Port Hedland
	Peter Angle	Port Hedland
	Luke Gale	Port Hedland
	Maria Theiss	Port Hedland
	Steve Parnham	Port Hedland
	Paul Attwood	Port Hedland
	Gordon Mcloud	Port Hedland
	Jairus Angel	Port Hedland
	Kerry Angle	Port Hedland
	Betty Mathews	Port Hedland
	Dennis Bumbak	Carnarvon
	Russell (Darren) Brooks	Exmouth
	Russell Levien	Exmouth

FESA Personnel:	Name	Organisation/Division
	Colin Brown	FESA SES
	Mike Wadley	FESA SES
	Robert Te	FESA SES
	Gordon Hall	FESA SES
	Mike Piper	FESA SES
	Brian Doley	FESA SES
	Heather Galbraith	FESA SES
	Ric Gornik	FESA Acting Executive Director SES/VMRS
	Murray Horbury	FESA Human Services
	Greg Pobar	FESA SES
	Darryl Ott	FESA SES
	Peter Cann	FESA Fire Services
	Gary Gifford	FESA SES
	Tony Taylor	FESA Fire Services
	Peter Cameron	FESA SES
	Steve Mathews	FESA Fire Services
	Jan Bandy	FESA SES
	Jim Cahill	FESA SES
	Terry Coles	FESA Fire Services

	Name	Organisation
	Connie Howells	Tom Price St John's
	Andrew Howells	Tom Price St John's
	Phil Ballard	Tom Price St John's
	Wayne Gibbens	Tom Price St John's
	Rebecca Molnav	Tom Price St John's
	Steve Eames	Tom Price St John's
	Chris Muller	DCALM

ANNEXURES

Annexure A: State Emergency Management Committee – Policy Statement 7 – Western Australian Emergency Management Arrangements

Annexure B: Strengths and Weaknesses from Interviews

Annexure C: SES Policy Statement 7 – Vertical Rescue

Annexure D: Pilbara Cliff Rescue Response Procedure

Annexure E: Tom Price Standing Operating Procedures – Vertical Rescue

Annexure F: Training Records Summary – Karijini Gorge Rescue Personnel

Annexure A: State Emergency Management Committee – Policy Statement 7 – Western Australian Emergency Management Arrangements

This document is part of a series of policy documents for emergency management practices in Western Australia.

WESTERN AUSTRALIA

STATE EMERGENCY MANAGEMENT COMMITTEE

WESTERN AUSTRALIAN EMERGENCY MANAGEMENT ARRANGEMENTS

(Revised as at November, 2001)

POLICY STATEMENT No. 7

INTRODUCTION

1. On 18 July 1985, Cabinet approved the establishment of a State Counter Disaster Advisory Committee[1] to undertake the role of determining policy and development of necessary planning to achieve an effective response to disaster or emergency situations.

2. Western Australia does not have emergency management legislation. The emergency management arrangements are detailed in a series of State Emergency Management Committee[1] (SEMC) policy statements.

3. This document is the overarching Policy Document that reflects the findings of the Barchard and Evaluation Group Reports of 1997. They are subject to review and change with the approval of the Minister for Police and Emergency Services.

AUTHORITY

4. This document is issued under the authority of the State Emergency Management Committee as approved by Cabinet on 18 July 1985 to determine policy and develop necessary planning to achieve an effective response to disaster or emergency situations.

AIM

5. The aim of this Policy Statement is to outline the emergency management arrangements for Western Australia.

DEFINITIONS

6. **COMBAT** - to take steps to eliminate or reduce the effects of a hazard on the community.

7. **COMBAT AGENCY** - an organisation which, because of its expertise and resources, is responsible for performing a task or activity such as fire fighting, rescue, temporary building restoration, evacuation, containment of oil spills, monitoring of radioactive materials. An emergency operation may involve a number of Combat Agencies.

8. **COMMUNITY EMERGENCY RISK MANAGEMENT** – a systematic process that produces a range of measures which contribute to the well being of communities and the environment. (See also – RISK MANAGEMENT)

9. **CONTROL** – The overall direction of emergency management activities during an *Incident* or *Operation.*

10. **COORDINATION** – the bringing together of organisations and elements to ensure an effective response, primarily concerned with the systematic acquisition and application of resources (organisation, human resources and equipment) in accordance with the requirements imposed by the threat or impact of an emergency.

11. **DISASTER** - see EMERGENCY

12. **EMERGENCY** - an event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which is beyond the resources of a single organisation to manage or which requires the coordination of a number of significant emergency management activities.

    NOTE: The terms "emergency" and "disaster" are used nationally and internationally to describe events which require special arrangements to manage the situation. "Emergencies" or "disasters" are characterised by the need to deal with the hazard and its impact on the community.

    The term "emergency" is used on the understanding that it also includes any meaning of the word "disaster".

13. **EMERGENCY COORDINATOR** - that person designated by the Commissioner of Police to be the District or Local Emergency Coordinator with responsibility for ensuring that the roles and functions of the respective District or Local Emergency Management Committee are performed, and assisting the Hazard Management Agency in the provision of a coordinated multi-agency response during *Incidents* and *Operations*. At the State level this is the Commissioner of Police. At the District level it is the District Police Officer. At the local level it is the Senior Police Officer responsible for the police sub-district.

14. **EMERGENCY MANAGEMENT** - is a range of measures to manage risks to communities and the environment. It involves the development and maintenance of arrangements to prevent or mitigate, prepare for, respond to, and recover from emergencies and disasters in both peace and war.

15. **"FUNCTION" SUPPORT COORDINATOR** - that person appointed by an organisation or committee to be the Coordinator of all activities associated with a particular support function, e.g. Welfare Coordinator, Medical Coordinator, etc., and includes coordinating the functions of other organisations that support that particular function, e.g. Red Cross in the State Welfare Plan.

16. **HAZARD** - a situation or condition with potential for loss or harm to the community or the environment.

17. **HAZARD MANAGEMENT AGENCY** - that organisation which, because of its legislative responsibility or specialised knowledge, expertise and resources is responsible for ensuring that emergency management activities pertaining to the prevention of, preparedness for, response to and recovery from a specific hazard are undertaken. Such organisations are either designated by legislation or detailed in State level emergency management plans.

18. **INCIDENT** – an *Emergency*, which impacts upon a localised community or geographical area but not requiring the co-ordination and significant multi-agency emergency management activities at a district or state level.

19. **INCIDENT AREA** – the area, defined by the *Incident Manager,* incorporating the localised community or geographical area impacted by an *Incident.*

20. **INCIDENT MANAGEMENT GROUP (IMG)** – the group that may be convened by an *Incident Manager* in consultation with the relevant *Local Emergency Coordinator* to assist in the overall management of an *Incident.* The IMG includes representation from key agencies involved in the response.

21. **INCIDENT MANAGER** – the person designated by the relevant *Hazard Management Agency,* responsible for the overall management and *control* of an *incident* and the tasking of agencies in accordance with the needs of the situation.

22. **LIFELINES** – systems or networks that provide for the circulation of people, goods, services and information upon which health, safety, comfort and economic activity depend.

23. **OPERATION** – an *Incident* or multiple *Incidents* which impact, or is likely to impact, beyond a localised community or geographical area.

24. **OPERATIONS AREA** - that area, defined by the *Operations Area Manager,* incorporating the entire community or geographical area impacted, or likely to be impacted, by an *Operation* and incorporating a single or multiple *Incident Areas.*

25. **OPERATIONS AREA MANAGEMENT GROUP (OAMG)** – the group that may be convened by an *Operations Area Manager,* in consultation with the relevant *District Emergency Coordinator(s),* to assist in the overall management of an *Operation.* The OAMG includes representation from key agencies involved in the response.

26. **OPERATIONS AREA MANAGER** - the person designated by the relevant *Hazard Management Agency*, responsible for the overall management of an *Operation* and provision of strategic direction to agencies and *Incident Manager(s)* in accordance with the needs of the situation.

27. **RISK** - a concept used to describe the likelihood of harmful consequences, arising from the interaction of hazards, communities and the environment.

28. **RISK MANAGEMENT** – The systematic application of management policies, procedures and practices to the task of identifying, analysing, evaluating, treating and monitoring risk. Refer to AS/NZS Standard 4360:1999 (Risk Management).

29. **STATE EMERGENCY COORDINATION GROUP (SECG)** - a group that may be established at State level, by the State Emergency Coordinator, at the request of, or in consultation with, the Hazard Management Agency, to assist in the provision of a coordinated multi-agency response to and recovery from the emergency. It is the operational arm of the State Emergency Management Committee and includes representation, at State level, from key agencies involved in the response and recovery for the emergency.

30. **SUPPORT ORGANISATION** - an organisation whose response in an emergency is either to restore essential services (e.g. Western Power, Water Corporation of WA, Main Roads WA etc) or to provide such support functions as welfare, medical and health, transport, communications, engineering, etc.

EMERGENCY MANAGEMENT CONCEPTS

31. The emergency management concepts for Western Australia are consistent with those of the Commonwealth and are based on the following:

    a. The All Hazards Approach. This approach deals with all types of emergencies or disasters and civil defence using the same set of management arrangements. Specific emergency response measures may vary from hazard to hazard. However, the broad-based management structure will remain the same.

    b. The Comprehensive Approach. This approach to emergency management provides for a comprehensive and systematic way of managing each hazard. It separates the managing aspects of each hazard into the four elements of **Prevention, Preparedness, Response and Recovery** (PPRR). Each element represents a dynamic set of actions flowing into the next. Together they make up the full scope of a legitimate and valid system of emergency management.

    PREVENTION activities eliminate or reduce the probability of occurrence of a specific hazard. They also reduce the degree of damage likely to be incurred.

    PREPAREDNESS activities focus on essential emergency response capabilities through the development of plans, procedures, organisation and management of resources, training and public education.

    RESPONSE activities combat the effects of the event, provide emergency assistance for casualties, and help reduce further damage and help speed recovery operations.

    RECOVERY activities, support emergency affected communities in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing. During recovery operations, actions are taken to minimise the recurrence of the hazard and/or lessen its effects on the community.

    c. The All Agencies (or Integrated) Approach. Arrangements for dealing with emergencies and disasters involving an active partnership between Commonwealth, State and Territory, and local levels of government, statutory authorities and voluntary and community organisations. Emergencies recognise no boundaries, levels of response, organisations or timings. Their magnitude and scale of impact may effect all agencies at all levels.

d. Community Emergency Risk Management. Western Australia has adopted AS/NZS Standard 4360:1999 (Risk Management) which provides communities with a systematic process in which they can identify, analyse, evaluate and treat risks within their community.

It focuses on the vulnerability rather than the emergencies that may result from risk.

e. The Prepared Community. A community which has developed effective Emergency Management arrangements at the local level; resulting in:

(1) an alert, informed and active community which supports its voluntary organisations;

(2) an active and involved local government;

(3) agreed and coordinated arrangements for prevention, preparedness, response and recovery (see SEMC Policy Statement No. 3 – Local Community Emergency Management Arrangements); and

(4) an appropriate knowledge of emergency management arrangements.

f. Graduated Response. Responsibility for resourcing and responding to an emergency initially rests at the local level. Where an emergency requires resources beyond the capability of local community support from district resources may be obtained. Similarly State resources can be provided should district resources be inadequate. This can be supplemented on request by Commonwealth resources (see SEMC Policy Statement No. 9 – Commonwealth Physical Assistance).

EMERGENCY MANAGEMENT BOUNDARIES

32. Western Australia is divided into emergency management Districts and sub-Districts aligned with Local Government and Police District and sub-District boundaries. Details of those boundaries are given at Annex A.

ORGANISATION FOR EMERGENCY MANAGEMENT

33. The State emergency management organisation is based on:

a. A committee structure established within the community at State, district and local level, to assist the Coordinating Authority in the development and implementation of the emergency management arrangements;

b. A coordination structure, responsible for ensuring the development and implementation of emergency management arrangements on a State wide basis; and to assist the Hazard Management Agency (HMA) in the provision of an integrated management approach to incidents and operations;

c. A hazard management structure that utilises government departments and non-government organisations identified as "hazard management agencies", "combat agencies" and "support organisations" to prevent, prepare for, respond to and recover from (PPRR) the effects of an emergency;

d. An operations management structure, managed by the respective hazard management agency, for the provision of a coordinated multi-agency response to an emergency; and

e. A recovery management structure based upon the principle that recovery should be coordinated and managed at the community level.

Committee Structure

34. The emergency management committee system is based on a three tier structure at the State, district and local level.

a. State Emergency Management Committee (SEMC). Chaired by the Commissioner of Police, as State Emergency Coordinator, with the Chief Executive Officer of the Fire and Emergency Services Authority (FESA) as Deputy Chair. The Executive Director, Emergency Management Services, FESA, is the Executive Officer. The SEMC is comprised of an executive and four functional groups whose membership includes those organisations essential to the State's emergency management arrangements. The chair of each of the functional groups is also a member of the SEMC Executive group. The functional groups are:

(1) Emergency Services Group;

(2) Public Information Group;

(3) Lifelines Services Group; and

(4) Recovery Services Group.

b. District Emergency Management Committees (DEMC). Based on emergency management districts and chaired by Police District Officers, as District Emergency Coordinator, (except for the Metropolitan Emergency Management Coordination Group which is chaired by the Assistant Commissioner Metropolitan) with a Regional Director of Fire and Emergency Services Authority as Deputy Chair. Executive Officer support is provided by FESA managers nominated by CEO FESA.

c. Local Emergency Management Committees (LEMC). Based on either local government boundaries or emergency management sub-districts. Chaired by the Shire President (or a delegated person) with the Local Emergency Coordinator, whose jurisdiction covers the local government area concerned, as the Deputy Chair. Executive support should be provided by the Local Government.

35. The role, functions and composition of these committees are fully detailed at

Annexes B, C, D and E.

Coordination Structure

36. On 18 July 1985, Cabinet assigned responsibility for the overall coordination of emergency management arrangements within Western Australia to the Commissioner of Police as the State Emergency Coordinator. The State Emergency Coordinator reports to the Minister for Police and Emergency Services. These responsibilities are:

a. The development and implementation of emergency management arrangements for Western Australia; and

b. For coordination during emergencies.

37. As the State Emergency Coordinator, the Commissioner of Police delegates emergency coordination responsibilities at district and local level to the Assistant Commissioner (Metropolitan), Police District Superintendents and Officers in Charge of Police sub-Districts.

38. The responsibilities of the Emergency Coordinator at district/local level are divided into two distinct areas:

a. Planning (in non-emergency situations):

(1) Chair and manage the activities of the State, Metropolitan, and District Emergency Management Committees to ensure that the roles and functions of the committee are performed. *(Refer to Policy Statement No. 4 for separate Metropolitan arrangements)*; and

(2) In partnership with local government, and other agencies and stakeholders, Emergency Coordinators at the local level will ensure that the roles and functions of the Local Emergency Management Committee are performed.

b. Operations (in emergency situations):

(1) Participate as a member of the Operations Area/Incident Management Group(s) as determined in consultation with the relevant Operations Area/Incident Manager;

(2) Chair and manage the State Emergency Coordination Group, as required, during major multi-agency emergency events;

(3) Assist the Hazard Management Agency (HMA) with the coordination of resources and/or services, when required;

(4) Monitor the Incident or Operation, maintaining a strategic overview; and

(5) Provide input to the HMA for a Post Operation Report.

Hazard Management Structure

39. The hazard management structure consists of "hazard management agencies", "combat agencies" and "support organisations" who are at some level involved with preventing, preparing for, responding to and recovering from the effects of a hazard.

40. Hazard Management Agency (HMA)

a. A HMA is an organisation which, because of its legislative responsibility or specialised knowledge, expertise and resources, is responsible for ensuring that emergency management activities pertaining to the prevention of, preparedness for, response to and recovery from a specific hazard are undertaken.

b. The identified HMAs are listed at Annex F.

c. HMA responsibilities are listed at Annex H.

41. Combat Agency

a. A Combat Agency is an organisation with expertise and resources that has responsibility for performing a task or activity such as fire fighting, rescue, temporary building restoration, evacuation, containment of oil spills, monitoring of radioactive materials.

b. Combat Agency responsibilities are listed at Annex H.

42. Support Organisation

a. A Support Organisation is an organisation whose response in an emergency is to provide support functions such as welfare, medical and health, transport, communications, engineering and essential services.

b. The designated "function" support agencies are detailed at Annex G.

c. Support Organisations responsibilities are listed at Annex H.

Operations Management Structure

43. The Operations Management Structure consists of:

a. Incident Management Group(s) (IMG):

(1) Activation. Activated by the HMA Incident Manager, in consultation with the relevant Local Emergency Coordinator.

(2) Composition:

(a) Chair – the Incident Manager appointed by the HMA.

(b) Members – representatives from those agencies and the community directly involved in the response and recovery of the event as determined by the Incident Manager.

(3) Role. Assist the Incident Manager with the overall management of the Incident.

(4) The Incident Management Group is the operational arm of the respective Local Emergency Management Committee.

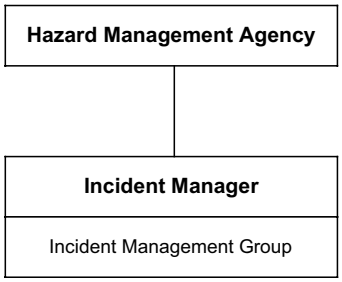


Figure 1 – Operations Management Structure for a Localised Incident

b. Operations Area Management Group (OAMG):

(1) Activation. Activated by the HMA Operations Area Manager, in consultation with the relevant District Emergency Coordinator.

(2) Composition:

(a) Chair - as determined by consultation between the Operations Area Manager and the relevant District Emergency Coordinator.

(b) Members – representatives from the key agencies involved in the response and recovery for the event.

(3) Role. Assist the Operations Area Manager in the overall management of the operation.

(4) The Operations Area Management Group is the operational arm of the respective Metropolitan, or District Emergency Management Committee.

Figure 2 – Operations Management Structure for a Multiple Incident Event or beyond a Localised Area

c. State Emergency Coordination Group (SECG)

(1) Activation. A SECG **may** be established by the State Emergency Coordinator at the request of, or in consultation with, the HMA.

(2) Composition. Membership includes representation, at State level, from the key agencies involved in the response and recovery for the emergency.

(3) Role. To assist in the provision of a coordinated multi-agency response to and recovery from the emergency.

(4) The SECG is the operational arm of the State Emergency Management Committee.

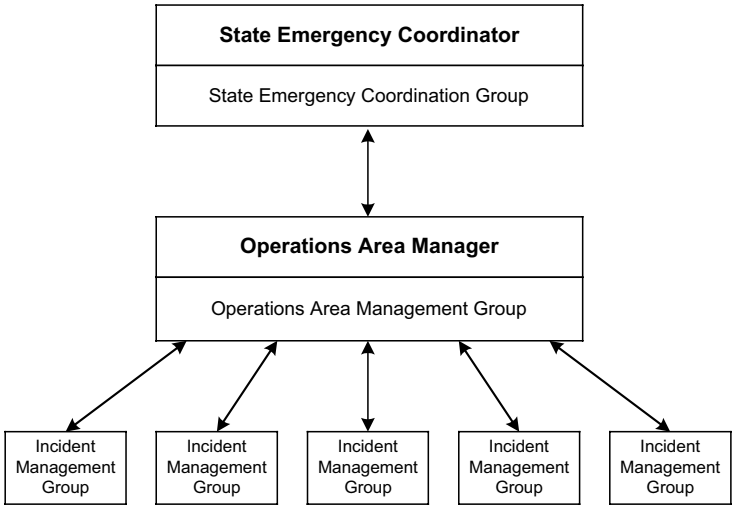


Figure 3 – Operations Management Structure for a Major or Complex Emergency

44. The composition of the Incident Management Group(s), Operations Area Management Group and State Emergency Coordination Group must be flexible to the needs of the emergency and the membership will change as the incident/operation progresses.

45. The sequence of events for the Operations Management Arrangements are detailed at Annex I.

Recovery Management Structure

46. The recovery management structure applied in Western Australia comprises the following components:

    a. a Local Recovery Coordinator, appointed by the relevant local government authority;

    b. a Local Recovery Committee, chaired by the elected municipal head. Its membership should include relevant local community and business leaders, a representative from the HMA and appropriate State Government officers;

    c. a State Recovery Management Agency, being the Department of the Premier and Cabinet;

    d. a State Recovery Coordinator, appointed by the Department of the Premier and Cabinet to coordinate the management of recovery at the State level; and

    e. a State Recovery Coordinating Committee, chaired by the Department of the Premier and Cabinet, with the Department for Community Development as Deputy Chair. Membership includes senior state government officers and representation from the Insurance Council of Australia, Lord Mayor's Disaster Relief Fund and the Western Australian Local Government Association. The role of the committee is to detail the arrangements for the provision of recovery from emergency and assist the State Recovery Coordinator coordinate the management of recovery at the State level.

47. State policy and arrangements for recovery, including recovery management structures and responsibilities, are detailed in the State Recovery Emergency Management Plan.

REVIEW

48. Responsibility for management and review of this document rests with the State Emergency Coordinator as Chair of the State Emergency Management Committee and will be reviewed within a period not exceeding two years.

B E MATTHEWS
CHAIRMAN

21 November, 2001

Annex:

A. Emergency Management Boundaries – LGA Allocation to Districts
B. State Emergency Management Committee
C. District Emergency Management Committee
D. Metropolitan Emergency Management Coordination Group
E. Local Emergency Management Committee
F. Hazard Management Agencies
G. Function Support Agencies
H. HMA, Combat and Function Support Agency Responsibilities
I. Operations Management Arrangements

EMERGENCY MANAGEMENT DISTRICTS
(LOCAL GOVERNMENT LISTINGS)

COUNTRY DISTRICTS

Kimberley Emergency Management District

Shire of Broome
Shire of Derby/West Kimberley
Shire of Halls Creek
Shire of Wyndham/East Kimberley

Pilbara Emergency Management District

Shire of Ashburton
Shire of East Pilbara
Shire of Exmouth
Shire of Port Hedland
Shire of Roebourne

(Excludes that area east of the Canning Stock Route in the East Pilbara Shire but includes the top portion of the Shire of Meekatharra, which forms part of the Newman Police sub-district.)

Mid West-Gascoyne Emergency Management District

Abroholos Islands
City of Geraldton
Shire of Carnamah
Shire of Carnarvon
Shire of Chapman Valley
Shire of Coorow
Shire of Cue
Shire of Greenough
Shire of Irwin
Shire of Upper Gascoyne
Shire of Meekatharra
Shire of Mingenew
Shire of Morawa
Shire of Mt Magnet
Shire of Mullewa
Shire of Murchison
Shire of Northampton
Shire of Perenjori
Shire of Sandstone
Shire of Shark Bay
Shire of Three Springs
Shire of Wiluna
Shire of Yalgoo

(Excludes approximately one quarter of the top portion of the Shire of Meekatharra but includes the northern half of the Shire of Leonora, which forms the Leinster Police sub-district.)

Goldfields-Esperance Emergency Management District

City of Kalgoorlie Boulder
Shire of Coolgardie
Shire of Dundas
Shire of Esperance
Shire of Laverton
Shire of Leonora
Shire of Menzies
Shire of Ngaanyatjarraku
Shire of Ravensthorpe
Shire of Yilgarn

(Includes that area east of the Canning Stock Route in the East Pilbara Shire, but excludes the northern half of the Shire of Leonora, which forms part of the Meekatharra emergency management district.)

South West Emergency Management District

City of Bunbury
Shire of Augusta/Margaret River
Shire of Boyup Brook
Shire of Bridgetown/Greenbushes
Shire of Busselton
Shire of Capel
Shire of Donnybrook/Balingup
Shire of Harvey
Shire of Nannup
Shire of Manjimup
Shire of Collie
Shire of Dardanup

Wheatbelt Emergency Management District

Shire of Bruce Rock
Shire of Beverley
Shire of Chittering
Shire of Cunderdin
Shire of Dalwallinu
Shire of Dandaragan
Shire of Dowerin
Shire of Gingin
Shire of Goomalling
Shire of Kellerberrin
Shire of Koorda
Shire of Merredin
Shire of Moora
Shire of Mt Marshall
Shire of Mukinbudin
Shire of Narembeen
Town of Northam
Shire of Northam
Shire of Nungarin
Shire of Quairading
Shire of Tammin
Shire of Toodyay
Shire of Trayning
Shire of Victoria Plains
Shire of Westonia
Shire of Wongan-Ballidu
Shire of Wyalkatchem
Shire of York

Peel Emergency Management District

City of Mandurah
Shire of Boddington
Shire of Murray
Shire of Serpentine-Jarrahdale
Shire of Waroona

Great Southern Emergency Management District

City of Albany
Shire of Brookton
Shire of Broomehill
Shire of Corrigin
Shire of Cranbrook
Shire of Cuballing
Shire of Denmark
Shire of Dumbleyung
Shire of Gnowangerup
Shire of Jerramungup
Shire of Katanning
Shire of Kent
Shire of Kojonup
Shire of Kondinin
Shire of Kulin
Shire of Lake Grace
Shire of Narrogin
Shire of Pingelly
Shire of Plantagenet
Shire of Tambellup
Shire of Wagin
Shire of Wandering
Shire of West Arthur
Shire of Wickepin
Shire of Williams
Shire of Woodanilling
Town of Narrogin

EMERGENCY MANAGEMENT DISTRICTS METROPOLITAN

EMERGENCY MANAGEMENT DISTRICTS
(LOCAL GOVERNMENT LISTINGS)

METROPOLITAN

South East Metropolitan Emergency Management District

City of Armadale
City of Belmont
City of Canning
City of Gosnells
City of South Perth
Town of Victoria Park

South Metropolitan Emergency Management District

City of Cockburn
Town of East Fremantle
City of Fremantle
Town of Kwinana
City of Melville
Rottnest Island
City of Rockingham

North West Metropolitan Emergency Management District

City of Joondalup
City of Wanneroo

East Metropolitan Emergency Management District

Shire of Mundaring
Shire of Kalamunda
City of Swan
Town of Bassendean

West Metropolitan Emergency Management District

City of Stirling
City of Bayswater

Central Metropolitan Emergency Management District

Town of Cambridge
Town of Claremont
Town of Cottesloe
Town of Mosman Park
City of Nedlands
Shire of Peppermint Grove
City of Perth
City of Subiaco
Town of Vincent
Kings Park

STATE EMERGENCY MANAGEMENT COMMITTEE

The State Emergency Management Committee (SEMC) is comprised of an executive and four functional groups.

1. SEMC Executive

a. Composition:

(1) Chair: Commissioner of Police (State Emergency Coordinator)

(2) Deputy: FESA Chief Executive Officer

(3) Members: Chairs of each Functional Group:

- Emergency Services
- Lifelines Services
- Public Information
- Recovery Services

Directors General of:

- Department for Community Development
- Department of Health

(4) Executive Officer: FESA Executive Director, Emergency Management Services

b. Role:

To assist in the development of emergency management policy and provide direction, advice and support to Government agencies, industry, commerce and the community so as to ensure an efficient emergency management capability for the State of Western Australia.

c. Functions:

(1) Provide a forum for the purpose of whole of community coordination, relating to the minimisation of the effects of emergencies.

(2) Provide a forum for the development of community wide information systems contributing to the improvement of emergency management in Western Australia.

(3) Develop and coordinate risk management strategies that will clearly provide accurate assessments of community vulnerability to all levels of Government.

(4) Provide statewide policies and plans governing emergency management across the prevention, preparedness, response and recovery spectrum.

(5) Ensure that emergency management becomes a standard planning consideration across the community.

(6) Provide advice to the Minister for Police and Emergency Services.

2. Emergency Services Group

a. Composition:

- Western Australia Police Service - (Chair)
- Agriculture (Department of)
- Community Development (Department for)
- Conservation and Land Management (Department of)
- Defence Corporate Support Centre WA
- FESA
  - Emergency Management Services
  - Fire Services
  - State Emergency Service
- Health (Department of)
- Industry and Resources (Department of)
- Planning and Infrastructure (Department for)
- Public Transport Authority
- St John Ambulance/WA Ambulance Service
- Water Corporation
- Western Australian Local Government Association
- WestNet Rail

b. Role:

To develop policies and emergency management protocols to assist Hazard Management Agencies and Support Agencies to meet their emergency management responsibilities.

c. Functions:

(1) Provide a forum for development of inter-agency emergency management arrangements and to ensure effective inter-agency co-operation;

(2) Undertake reviews, research and other emergency management projects to identify and/or improve the systems and processes associated with multi-agency events;

(3) Provide advice and recommendations to the SEMC to improve the State's emergency management arrangements; and

(4) Contribute to the implementation of the SEMC Strategic Plan.

3. Lifelines Services Group

a. Composition:

- Consumer and Employment Protection (Department of) – Energy Safety Directorate - (Chair)
- Alinta
- Epic Energy
- FESA – Emergency Management Services
- Main Roads WA
- Planning and Infrastructure (Department for) - (Co-opted)
- Telstra
- Water Corporation
- Western Power

Lifelines are defined as systems or networks that provide for the circulation of people, goods, services and information upon which health, safety, comfort and economic activity depend.

b. Role:

The role of the Lifelines Services Group is to provide a forum for the exchange of information that will assist or improve the operation of lifeline services or functions at times of emergency, for the benefit of the community.

c. Functions:

The Lifelines Services Group will undertake discussions, policy development and projects that will foster, in an emergency management context, the following outcomes:

(1) A state of professional preparedness by each lifeline organisation;

(2) Mutual understanding and support between lifeline organisations, both at the operational and strategic level;

(3) Participation by lifeline organisations, where relevant, in the emergency management planning and development of procedures by emergency services agencies;

(4) Sound operational working relationships between lifeline organisations and emergency services agencies; and

(5) Better understanding of lifeline issues by the community.

4. Public Information Group

a. Composition:

- Bureau of Meteorology (Chair)
- Agriculture (Department of)
- Australian Broadcasting Corporation
- Community Development (Department for)
- Conservation and Land Management (Department of)
- FESA
  - Emergency Management Services
  - Media and Public Affairs
- Government Media Office
- Health (Department of)
- Media Alliance
- Water Corporation
- Western Australia Police Service
- Western Australian Local Government Association

b. Role:

To develop and maintain arrangements for the provision of public information and public education related to emergencies in accordance with SEMC policies.

c. Functions:

(1) Prepare and maintain a plan for the provision of public information and public education related to emergencies;

(2) Provide advice to SEMC on all aspects of emergency public information and education.

5. Recovery Services Group

a. Composition:

- Premier and Cabinet (Department of the) - (Chair)
- Agriculture (Department of)
- Community Development (Department for) - (Deputy Chair)
- Defence Corporate Support Centre WA - (Co-opted)
- Education and Training (Department of) - (Co-opted)
- Environmental Protection (Department of) - (Co-opted)
- FESA
  - Business Services
  - Emergency Management Services
- Health (Department of)
- Insurance Council of Australia
- Lord Mayor's Distress Relief Fund
- Western Australian Local Government Association

b. Role:

To develop policies and sound practical emergency management protocols that will assist an affected community to recover subsequent to a major emergency in accordance with SEMC policies.

c. Functions:

(1) Make appropriate recommendations to the SEMC to improve the State's emergency recovery preparedness;

(2) Prepare and maintain a State Recovery Emergency Management Plan, which prescribes the concepts, organisation, responsibilities for the planning and management of recovery from emergencies on WA;

(3) To provide advice and support to those persons, organisations and Local Government involved in or responsible for planning and/or managing the recovery process;

(4) Provide an open forum for discussion/resolution of emergency recovery issues;

(5) Review post operations/exercise reports involving recovery issues with the view to amending arrangements in "WESTPLAN – RECOVERY", where appropriate; and

(6) Provide advice to the SEMC on all aspects of Recovery Management.

6. Functional Group Administrative Arrangements

a. Functional Groups may co-opt such other members as they consider necessary to fulfil their Terms of Reference. The SEMC should be advised through the Secretary SEMC.

b. Executive and Secretariat support to be provided by the chairing agency.

c. Groups are to meet at least quarterly.

d. Copies of the minutes of each Functional Group meeting are to be provided to the SEMC Secretary as soon as they are available.

e. Each Group is to provide a written report to the SEMC prior to each SEMC meeting.

f. Notice of Agenda Items for the SEMC is to be provided to the SEMC Secretary at least three weeks prior to the date of the meeting together with supporting papers. Each agenda item is to be supported by an "Agenda Paper", in the form available from the Secretary SEMC. The paper is to clearly indicate the action required by the SEMC.

g. All papers are to be provided to the SEMC Secretary at least three weeks prior to the relevant SEMC meeting to allow for their issue to members with the notice of meeting.

h. Each year each Group is to provide, by 30 July, to the SEMC Secretary a report detailing the activities and achievements of the Group, as they relate to the SEMC Strategic Plan, over the past financial year, and planned activities for the next financial year.

i. Functional Group Chairpersons are to ensure that the Secretary SEMC has a list of all members of each Group with full contact details and that these details are kept up to date.

DISTRICT EMERGENCY MANAGEMENT COMMITTEE

1. Composition

   a. Chair: District Police Superintendent (District Emergency Coordinator)

   b. Deputy Chair: To be nominated by CEO FESA

   c. Executive Officer: FESA District Manager nominated by CEO FESA

   d. Members: Drawn from organisations, which have emergency management responsibilities or special expertise essential to the development of emergency management arrangements.

2. Role:

   To assist the District Emergency Coordinator (Police District Officer) to establish and maintain effective emergency management arrangements for the district.

3. Functions:

   a. Prepare a strategic plan for the District Emergency Management Committee.

   b. Monitor the development, maintenance and testing of local emergency management plans within the district in accordance with the state emergency management policy.

   c. Liaise with participating agencies in the preparation of emergency management arrangements for application throughout the district.

   d. Prepare an annual report on Committee activities for submission to the State Emergency Management Committee.

   e. Contribute to the development and implementation of State Emergency Management Committee policy in the District.

   f. Carry out other emergency management functions as directed by the State Emergency Management Committee.

METROPOLITAN EMERGENCY MANAGEMENT COORDINATION GROUP

1. Composition:

   a. Chair. Assistant Commissioner (Metropolitan Region) (Metropolitan Emergency Coordinator).

   b. Deputy Chair. Nominated by CEO FESA *(FESA SES Regional Director Metropolitan*)

   c. Executive Officer. Nominated by CEO FESA *(FESA SES District Manager)*

   d. Members

      (1) Nominated by CEO FESA *(FESA Regional Director Fire Services).*

      (2) Emergency Services Coordinator, Department for Community Development.

      (3) Western Australian Local Government Association representative

      (Nominated by WALGA Committee).

      (4) OIC Response and Emergency, Western Australia Police Service.

      (5) Other HMA representatives as co-opted by the standing committee.

      (6) Lifelines Agencies representative.

2. Role

   Assist the Assistant Commissioner (Metro Region) (Metropolitan Emergency Coordinator) to ensure effective emergency management arrangements for the Perth Metropolitan Region.

3. Functions

   Refer to SEMC Policy Statement No. 4 – Emergency Management in the Perth Metropolitan Region.

LOCAL EMERGENCY MANAGEMENT COMMITTEE

1. Composition:

   a. Chair: Shire President/Town or City Mayor (or nominee)

   b. Deputy Chair: Local Emergency Coordinator

   c. Executive Officer: A nominee of Local Government

   d. Members: To include those agencies which have specific emergency management responsibilities (i.e. HMAs) or have expertise which are essential to the development of emergency management arrangements. As a guide, membership may include the following where appropriate:

      (1) Western Australia Police Service representative.

      (2) a senior officer of the Local Government.

      (3) the Captain of the local Fire and Rescue Brigade.

      (4) the Chief Bush Fire Control Officer.

      (5) the Manager of the local FESA SES unit.

      (6) the Officer in Charge of the local ambulance service.

      (7) a health/medical representative.

   (8) the Department of Conservation and Land Management Senior Officer located in the area.

      (9) the Officer in Charge of the local Meteorological Office.

      (10) a representative from the Lifelines agencies.

      (11) a representative of industry.

      (12) a Department for Community Development Officer.

      (13) a representative for community groups.

2. Role:

   To assist the Local Emergency Coordinator (Officer in Charge of Police sub-district) to develop and maintain effective emergency management arrangements for the local area.

3. Functions:

   a. Liaise with participating agencies in the development, review and testing of emergency management arrangements.

   b. Assist with the preparation of emergency management operating procedures for application in the local area.

   c. Prepare an annual report on Committee activities for submission to the District Emergency Management Committee.

   d. Participate in the emergency risk management process.

   e. Carry out other emergency management functions as directed by the District Emergency Management Committee.

HAZARD MANAGEMENT AGENCIES - (HMA LIST BY HAZARD)

The following list of hazards/emergencies identifies the HMA responsible for that hazard/emergency. The hazards/emergencies identified are by no means exhaustive and will be added to as required.

SER	HAZARD/EMERGENCY	HAZARD MANAGEMENT AGENCY
1	Air Transport Emergencies	Western Australia Police Service
2	Dam Break (including major hydraulic structures)	Water Corporation (1)
3	Earthquake	Fire and Emergency Services Authority
4	Exotic Animal Disease	Agriculture (Department of)
5	Fire (CALM Managed Land)	Gazetted Fire Districts: Fire and Emergency Services Authority Other: Conservation and Land Management (Department of)
6	Fire (Rural and Urban)	Gazetted Fire Districts: Fire and Emergency Services Authority Other: Local Government Authorities
7	Flood	Fire And Emergency Services Authority
8	Fuel Shortage Emergencies	Consumer and Employment Protection (Department of) - Energy Safety Directorate
9	Hazardous Materials Emergencies (including radioactive materials)	Fire and Emergency Services Authority
10	Human Epidemic	Health (Department of)
11	Land Search and Rescue	Western Australia Police Service
12	Landslide	Fire and Emergency Services Authority
13	Marine Oil Pollution	Planning and Infrastructure (Department for)
14	Marine Transport Emergencies	Planning and Infrastructure (Department for)
15	Nuclear Powered Warships	Western Australia Police Service
16	Offshore Petroleum Operations Emergencies	Industry and Resources (Department of)
17	Rail Transport Emergencies • Urban Passenger • Freight Network	• Public Transport Authority • WestNet Rail
18	Road Transport Emergencies	Western Australia Police Service
19	Sea Search and Rescue	Western Australia Police Service
20	Space Re-Entry Debris	Western Australia Police Service
21	Storm/Tempest	Fire and Emergency Services Authority
22	Tropical Cyclone	Fire and Emergency Services Authority
23	Tsunami	Fire and Emergency Services Authority

NOTES

(1) HMA responsibilities are limited to those hydraulic structures for which WC is the managing agency.

HMA LIST BY AGENCY

AGENCY	HAZARD
Agriculture (Department of)	▪ Exotic Animal Disease
Conservation and Land Management (Department of)	▪ Fire (CALM managed land other than in Gazetted Fire Districts)
Consumer and Employment Protection (Department of) – Energy Safety Directorate	▪ Fuel Shortage Emergencies
Fire and Emergency Services Authority	▪ Earthquake ▪ Fire (CALM managed land in Gazetted Fire Districts) ▪ Fire (Rural and Urban in Gazetted Fire Districts) ▪ Flood ▪ Hazardous Materials (including radioactive materials) ▪ Landslide ▪ Storm/Tempest ▪ Tropical Cyclone ▪ Tsunami
Health (Department of)	▪ Human Epidemic
Industry and Resources (Department of)	▪ Offshore Petroleum Operations Emergencies
Local Government Authorities	▪ Fire (Rural and Urban in areas other than Gazetted Fire Districts)
Planning and Infrastructure (Department for)	▪ Marine Oil Pollution ▪ Marine Transport Emergencies
Public Transport Authority	▪ Rail Urban Passenger Transport Emergencies (only those rail systems for which the PTA is the managing agency)
Water Corporation	▪ Dam Break (including major hydraulic structures but only those for which WC is the managing agency)
Western Australia Police Service	▪ Air Transport Emergency ▪ Land Search and Rescue ▪ Nuclear Powered Warships ▪ Road Transport Emergencies ▪ Sea Search and Rescue ▪ Space Re-entry Debris
WestNet Rail	▪ Rail Freight Transport Emergencies (only those rail systems for which WestNet Rail is the managing agency)

"FUNCTION" SUPPORT AGENCIES

The following table lists the agencies responsible for managing the provision of support functions in emergencies are:

Support Function	**Responsible Agency**
Communications	Respective HMA
Health and Medical Services	Health (Department of)
Lifelines	Consumer and Employment Protection (Department of) – Energy Safety Directorate
Public Information	Western Australia Police Service
Recovery	Premier and Cabinet (Department of the)
Resources	Respective HMA
Welfare Services	Community Development (Department for)

RESPONSIBILITIES OF HMAs, COMBAT AND SUPPORT AGENCIES

1. HMA RESPONSIBILITIES

a. Ensuring emergency management activities relating to the prevention of, preparedness for, response to and recovery from a specific hazard are undertaken;

b. Preparing a strategic plan or arrangements (WESTPLANs) designed to cope with the particular hazard, that includes details of joint agency operational arrangements;

c. Appointing an Incident Manager(s) and Operations Area Manager, where appropriate, responsible for:

(1) management of the *Incident* or *Operation,* within the context of planning, leading, organising and control;

(2) preparing and implementing an operational plan;

(3) public information and community awareness;

(4) activating the Incident Management Group or Operations Area Management Group where appropriate, in consultation with the relevant Emergency Coordinator(s);

(5) ensuring the activation of the appropriate recovery arrangements;

(6) providing progress/situation reports to the higher levels of their parent organisation and the emergency management organisation (refer Policy Statement No. 1 - Emergency Management Information Dissemination System); and

(7) submitting a post operations report (see Policy Statement No.12 – Post Operation Report).

2. COMBAT AGENCY RESPONSIBILITIES

a. executing combative action in accordance with their statutory responsibilities;

b. executing tasks as allocated in the tactical response plan;

c. providing progress reports to the designated Incident Manager or Operations Area Manager;

d. providing progress reports to the higher levels of their parent organisation; and

e. contributing to a post operations report.

3. SUPPORT ORGANISATION RESPONSIBILITIES

a. restoring essential services affected by the emergency;

b. providing "function" support as part of the tactical plan, e.g. Department for Community Development to provide welfare services;

c. managing their own resources and those given to them in support of their specific function;

d. providing progress reports to the designated Incident Manager or Operations Area Manager;

e. providing progress reports to the higher levels of their organisation; and

f. contributing a post operations report.

OPERATIONS MANAGEMENT ARRANGEMENTS

When an emergency occurs or warning of a possible emergency is received the following sequence of events will occur:

1. The HMA will nominate an Incident Manager.

2. The Incident Manager will define the Incident Area. This is the locality or geographical area affected or likely to be affected by the emergency.

3. The Incident Manager, in consultation with the relevant Local Emergency Coordinator, may establish and chair an Incident Management Group, to assist in the provision of a coordinated multi-agency response to the Incident.

4. If the Incident escalates beyond the capabilities of local resources or beyond a single localised community or geographical area (Incident Area) the Incident Manager may seek the appointment of an Operations Area Manager by the HMA.

5. If required, the HMA will nominate an Operations Area Manager. For some events, such as a cyclone the HMA may appoint an Operations Area Manager prior to impact, and subsequently appoint Incident Manager(s) once the impact area is known.

6. The Operations Area Manager defines the Operations Area. This is the entire community or geographical area impacted, or likely to be impacted, by the emergency and may incorporate a single or multiple Incident Areas.

7. The Operations Area Manager, in consultation with the relevant District Emergency Coordinator(s), may establish an Operations Area Management Group to assist in the overall management of the Operation.

8. The Chair of the Operations Area Management Group is to be determined by consultation between the Operations Area Manager and the relevant District Emergency Coordinator

9. A State Emergency Coordination Group (SECG) may be established by the State Emergency Coordinator at the request of, or in consultation with, the HMA to assist in the provision of a coordinated multi-agency response to the emergency.

10. The requirement for an SECG may be determined by the Operations Area Manager based upon criteria specified in the HMA's Hazard Management Plan.

Annexure B: Strengths and Weaknesses from Interviews

Initial Response Teams

STRENGTHS	WEAKNESSES
Experienced leaders, smooth operation, equipment worked well, Units worked as one and kept going.	No suitable floatation device for stretchers.
Two sets of equipment on site enabled quicker operation and deployed extra gear just in case.	Suitability of vehicles towing trailers on gravel, dangerous at speeds greater of 60 km/h.
Familiarity with location – Training & Incidents.	Difficult to find way in gorge in dark, need good personal lighting and did not take sufficient lighting equipment.
Number of people who responded from Tom Price and Newman – mainly to act as 'mules' while unfamiliar worked well together.	Concerns with Karratha coming to assist due to competency issues of an individual, comments he made and safety concerns.
Timely arrival of Karratha personnel.	Lack of welfare on Friday on-site. Had a toasted sandwich in the morning – nothing else and little water.
Develop local stretcher cover to protect casualties from falling rocks, rain drops etc.	Helicopter noise effected ability to hear commands for teams and at times operations had to be stopped.
During incident people stuck to their tasks and remained level headed. Even though personally involved.	Post incident only operational debrief and not psychological defusing.
Unnecessary people removed from the gorge when no longer required to rest for later employment and to take on welfare.	SOP refers to individuals with key skill and Newman did not have vertical rescue SOP.
Appointment of to work with Police leaving CRT Team Leaders to concentrate on rescues.	Do operations need to take so long "it takes hours & hours to set up" and are labour intensive. Can more be put in place permanently?
Buses for return transport of Tom Price and Newman crews (fatigue/emotion).	Media moved in too close to operation and debriefs. Appears no one was managing.
Support of HI (Rio Tinto) and Education Dept with people released.	Lack of promptness of recognition by FESA to employers and Business that helped.
Tom Price Team Leader keeping team members informed at all times, including off-site after stand down.	Marandoo personnel are not SES qualified and do not know the SES rescue techniques – different to industrial rescue.
Call out procedure, staged deployment – rapid response crew, followed by equipment vehicle then logistics support vehicle.	Police and visitors to the site were a distraction when near the edge.
SES volunteer a psychologist was a benefit being part of the operation.	Duplication of buses and bus drivers that were offered to DHQ but no request was received to task them so police were told gave permission for Newman SES to task the buses with drivers.
FRS volunteers in Newman provided excellent support to Newman SES volunteers.	Didn't know Perth team was coming but was happy to work with them when she determined who had trained them.
Had good communications with Ranger and with Marandoo mine site using VHF radio Ch 14 in Newman vehicle.	No one on-site to meet the team when they first arrived.
Dispatching Peer Supporters through DHQ.	Forgot the key to the lookout gate.
Command and Control onsite between 0500 and 1000 and the strength to carry on.	Communication between locations, Units, Agencies and DHQ not effective. Did not deploy with ground-to-air radios so could not communicate with helicopter. Too much chatter on hand held radios no battery charger.
Peer Support with familiar faces on-site was good and personal support has been more than what was expected.	More research and development required for CRT equipment, methods and training. Untrained people in team – need to change the way they are trained (ie. learn rope mobility skills after learning CRT)
Fantastic Safety.	Large turnover of population means it is difficult to keep sufficient numbers, trained volunteers and retain experience.
Police attending the site at the commemcment of the incident.	A member leaving the gorge did noticed that the water level had risen near ladder.
Support to team on-site by police was excellent, they fitted in and had a good attitude	Key role at Newman played by a new member who had little knowledge of the SES structure and who's who.
Information sharing with RD is excellent.	Inaccurate Log Entry – regarding the rainfall and flood potential.
	Second injury (rescue task) was not reported to incoming teams or to DHQ. Teams fatigued for second rescue.
	Though members were almost exhausted, they needed to finish the rescue themselves
	Miscommunication between teams, so didn't know second rescue was above water. The bottom anchor was too high.
	Next of Kin list not part of the SOP, needed to let know who was ok.

Secondary Response

STRENGTHS	WEAKNESSES
Willingness of the volunteers to respond quickly, had a team ready from Karratha within 30 minutes and on site within 4 hours of flash flood.	Getting the foundation right, know the gear and get things started.
Region worked hard to organise transport.	Command, Control and Coordination were lacking at the site. Confusion and ineffective incident management until the Saturday.
The skills of the Karratha unit members.	Unclear if police in Tom Price informed as to who was to be in charge of SES resources. Needed an Operations Officer on day one
Resources available from Karratha eg. Super Puma helicopter.	No direct Communications to DHQ possible only through Police and Tom Price. Confusion between information on site and DHQ.
Karratha unit trains people to be free thinkers.	Need for improved inter agency response plans.
Strength of the Port Hedland Unit to respond with all their equipment, truck and personnel.	Cliff Rescue Teams should have been stood down due to fatigue as soon as Karratha SES team arrived.
Able to get volunteer onto the ledge and then down the bottom to start to relieve tired members.	Rapport building programme needs to be started up again in the Pilbara.
Having a helicopter on-site for air search and insertion from the air.	Team Leaders had a disagreement in front of the casualty.
On-site people were co-operative within moments (on Saturday).	Pilot letting police take the chopper and left SES members behind
Having the police 'out of the loop' on site.	Not aware that CALM VHF Radio operated there.
Karratha Fly Away Ops Kit performed well.	Did not have sufficient resources on Fri to start something.
Had enough equipment generally. Equipment taken enabled camp on site	Cliff Rescue training is only done one way which results in some SES Rope Rescuer's are tunnel visioned.
Having mine rescue teams on-site to assist.	Did not know that Oxers Lookout was a 'designated rescue point.'
Ambulance and St John's volunteers on-site the whole time.	Inadequate mapping. Maps should show where radio repeaters are established and where designated rescue points are.
Having people who are trained to 'check' each other.	Reviewed SES procedures are needed for Karijini rescue responses and protocols need to be tidied up.
Local knowledge enabled site location for 1st Helicopter	Lack of training in the Karijini National Park by other teams
Call out list and availability for people to leave work in all industries.	Cliff Rescue equipment, procedures and training is in need of overhaul/review by instructors, equipment manufacturers and other users. SMAG process is not effective enough.
A Field HQ and Support Base was established on-site by SES on Saturday.	Hazard info needs to be supplied to ie. Weather forecasts or warnings.
Assimilation into Newman and Tom Price teams who were tired and not wanting to stand down.	10 Karratha rescuers were returned to their home base after only being on-site for three hours.
	Tom Price does not have a light weight Oxy-Viva cylinder.
Saellitet phone provided communications while HF not effective.	Safety officer is always provided in training, but not Operations, as "everyone is a safety officer in the real thing.
Portable radio's (new Kenwoods) worked well all day and on site communiatons worked well inc relays, sitreps operation run well on Sat. (Mgmt & Team Leadership).	Every second satellite phone call was to do with Personal Welfare. This support was over bearing, too many peer supporters on-site and identification of on site peer supporters not clear
Fitness level of teams.	Team leaders not clearly identified, all agencies.
Food was ready, good quality, plentiful at Tom Price (Sat night).	Need for control contact at Woodside and Hamersley for release of chartered helicopters.
When tasked by DHQ they were clearly instructed to report on arrival to Vince Kinsella, Police OIC on-site.	Some compromises in CRT operations due to other SES people becoming involved/intervening in operations when not the appointed Team Leader. Senior SES person involved in direct combat function, rather than Control & Coordination of SES resources.
Excellent support given (had knowledge of people).	No designated large helicopter landing site and helicopter (Puma) unsuitable for air reconnaissance or search.
Interagency assistance good – Newman FRS.	No ground to air communications, except via HF to heli base (no ground to air specific were taken to the site).
EDSES/VMRS on site representing the organisation.	Location of incident relied on local knowledge – delayed deployment of second team. Exact coordinates were not provided
Buddy system and mentoring employed in DHQ in order for relatively new volunteer members to be of use.	Friday – No registration of Crews on site. No documentation on coming & goings of SES people Friday
Decided to include personal vertical rescue kits ready for deployment with members, even though it was not requested (Team was deployed as a Land Search Team)	Near miss, some search team members did not follow instruction to only take minimal equipment then working in water with full kit (Overalls boots, and full gear)
Overall impression is that the operation was pretty well conducted	Handheld radios not suitable to water environment, need 'wet bags' for protecting radios in wet areas
All crews chipped in pack up of equipment.	Food drops were from helicopter were unsuccessful.
Due to common standards & cross training, teams were able to integrate successfully.	Management of demobilisation process caused some confusion and anxiety, difficult to source aircraft
Logistics generally very well handled, even though there were lots of little hick-ups.	If Police Divers had arrived (say at 1200) activities could have been concluded earlier.
Media Liaison person identified early and very good at taking pressure of units for media enquiries.	. Equipment breakdown should have been packed next day in daylight not Saturday in the dark
Willingness for HI to assist.	No up to date list for Cliff Rescue Teams – 2 years old and who was competent?

Registration of volunteers at field HQ which had comms, all crews were registered in teams and qualifications identified on Saturday.	No information provided to Perth team about what, where, when at the airport (ie where to go).
Use of stretcher and escort to recover equipment very effective.	Inadequate welfare for teams (food, water, accommodation).
Transport organised for Tom Price and Newman crews on Friday due to fatigue to get them and their equipment home.	No “hot debrief” on-site, just thanks
Identified rescue points a benefit.	FESA Regional vehicle Satellite phone didn’t work and HF auto tune didn’t work well.
Worked very well as a team particularly on Saturday using a planned approach with a recognised structure in place.	Lack of familiarity with incident type and slow response.
All volunteers contacted made themselves available.	Bringing in teams not acclimatised to area
Team meeting held in plane en route and discussion of possible scenario’s they may face.	Rope systems didn’t appear to be to same standards with slight variation showing up in some methods and techniques used
Separate team sent up due to circumstances, with no direct emotional ties to the area of operations.	. Lack of clarity in pack up when breaking down system while people still using system.
CRT Team (local) on Friday well in control doing their task composite – Tom Price and Newman (Amongst confusion).	Lack of media management. Could rarely speak with Terry Coles at Tom Price because he was dealing with the media so much
Having 4 CRT Leaders on site enabled better flexibility to independently set up systems and allow for reliefs.	Safety device – air horn (canister) would have been an excellent audible warning device for use by upstream observers
Employer releasing staff member immediately to attend DHQ.	Only use qualified Peer Supporters, not externally qualified people not familiar with the organisation.
Ops Room SOP worked well and Info Mgt System operated successfully.	More training required for volunteers to input data to EM2000. Much of the data is of little or no value and should never have been entered or was entered incorrectly
Worked well with people from Perth who had all worked in the DHQ previously.	Port Hedland SES high gain radio antenna was missing so erection of the portable mast was halted. Ended up using HF radios to talk to upstream observers.
Members handled themselves very well, particularly under the circumstances.	Some teams not provided with adequate deployment instructions. Several team members found themselves standing around with little or nothing to do at times on Saturday, as they did not have the gear.
Logistics – transport, catering, accommodation was well organised under the circumstances	Communication into the gorges was poor, even with a relay. There was still some risk that searchers in the gorge would not receive some radio transmissions.
Initiative made a difference eg. Taking a torch into the gorge in the morning in the event that members may still be there after dark	Operational Leadership experience at times when tasking teams eg. There are not really “a lack of anchors in the base of the gorges” as was stated when teams were being deployed into the gorges on day 3 to search.
Upstream Observer team for early warning of flash flood was a good initiative	Lack of torches/lighting when decision was made to keep working after dark.
	No FREE phone facilities available to make call home so had to use own money to get information related to return home etc.

Divisional Assistance

STRENGTHS	WEAKNESSES
Mobilisation of crews intrastate within 2 hours 45 min (Perth) (Exmouth ready within 55 min)	With short lead times people can be (were) deployed without personal effects ie. clothing, toiletries etc.
Teams being put together from Metro and MGM simultaneously.	Confusion as to who was doing what in organising response teams (duplication).
Country airstrips directory being available online and aircraft details available in regions.	Staff deployed had been used in consecutive operations (Monty, Fay & Inigo cyclones.
FESA Liaison Officer was always included by police in their command structure and decision making.	Peer support for Perth teams returning may not have been appropriate.
Willingness of cross divisional support in several areas.	Lack of early deployment to incident site and search HQ of appropriate career staff.
Crews on standby on 30 min notice to deploy.	Could not contact Karijini site by satellite phone (telephone them), though a call was received regularly from the site via SAT phone
Appointment MLO @ Port Hedland early and liaison with Perth FESA MLO & Police (HMA) MLO @ Tom Price (as per SEMC 7).	Volunteer needed to return to Carnarvon within 24 hours of arrival. Need to commit for more than a day when travelling this far.
Planning Officer skills set matched operations occurring.	Information flow at Tom Price police station could have been more effective. Not aware that Roebourne SES was on-site but police at Tom Price new they were moving to site.
EDSES attending incident scene (NW).	Incident management not effective until Saturday.
Appropriate persons meet Metro team returning to Perth & Midwest Manager to Paraburdoo to interact prior to de mobilisation.	Police were possibly insensitive by interviewing witness immediately on arrival from the incident site.
Established a regular communications schedule with Port Hedland SES HQ from Tom Price Police Station, so was in touch with SES District Manager frequently.	Team lists were not being delivered to Tom Price for logistics management. Some had to be gathered from Port Hedland HQ
Always considered by SES RD and included in all briefings.	Overwhelming requirement for personnel at the Tom Price Police Station on Friday.
Support by Media and Public Affairs branch.	A FESA laptop computer would have enabled access to FESA information management systems.
FESA Manager did a good job at Tom Price.	No FESA representative on-site. Operations Officer" was also nominated as a media point of contact on-site.
Local knowledge for sourcing helicopter in Newman.	An MLO needed in Tom Price for this type of incident. Lack of information at times – the press knew first.
Support staff manning levels at Port Hedland DHQ from the Local HQ at South Hedland.	On occasions just needed someone to sit down say 'this is what we know'.
Sent in senior SES volunteer from Karratha to act as Operations Officer for the police Field Search Controller.	Difficult to get information from FESA-SES in Port Hedland ie. Who is on-site, how many etc.
Pilbara units were notified of the search result immediately the information was available.	Trouble sourcing the second helicopter from Karratha, including through Police Air wing, so went for back door approach through Karratha SES Unit members.
Having personnel at DHQ who were from outside of the district who did not know Jim Regan and did no suffer the same impact as those from within the district.	Fire Service planning officers didn't have a search background, though both did well.
Regional/District staff would meet every volunteer on return to their home airport.	District Manager very tired and overwhelmed by requests and offers throughout Friday 02 April.
Line rescue teams available from mining companies at Wickham, Port Hedland and Paraburdoo.	Had to let planes go that were on standby on Saturday afternoon for use by others. No coordination of flights between agencies.
FESA Staff arrived at the right time in Newman following body identification.	No registration of personnel at the site, so there was difficulty knowing who was on the ground and how many. DHQ had to source lists from the Districts and Units that had deployed members.
BoM good and should be used for all jobs.	Did not hear from Operations Officer at the site.
Teleconference good.	No apparent system in place to deal with lots of information. There was some confusion as a result. Lack of knowledge of any system (EM200). No units in the Pilbara have access to EM2000 to be able to log required information.
Appreciative of assistance.	Lack of clarity as to which agency was the HMA.
Information freely shared.	No specific plans or procedures in place for this type of incident.
	ICS was not as effective as could have been.
	Need a list from units of who was being booked onto flights/charters eg. Carnarvon and Exmouth
	Contact at Karijini with outside world extremely difficult.
	Conjecture as to the best location to respond to – Tom Price or Newman – went to Karratha.
	Police commitment in the first instance did not appear urgent.

External Organisation

St John's Tom Price Volunteers

STRENGTHS	WEAKNESSES
On arrival of Karratha and Perth teams, the assimilation was seamless and their professionalism was marvellous.	Media cameras were being directed into the rear of ambulance because Media was not being controlled adequately on-site.
Communications on-site was excellent and everyone worked together as a team. Jackie reported the storm "over near Marandoo" to Ambulance Personnel via SES members in gorge.	Very limited communications between site and Tom Price.
Fresh people brought in from Karratha were impressive. No mucking around, just moved in and assisted where required, without taking over.	No staging point was operating on Friday for people to 'sign in' on arrival at site.
	Fire Services volunteers not required on-site in their usual role and with their current attitude where they will not accept direction from the control agency. SES and St John work well together
	Stretcher cover needs to be over full body because patient got 'hammered by falling rocks' during extraction.
	Better floatation system needed for stretchers.
	Steel Oxy bottles need to be replaced by Kevlar bottles because they are much lighter, but WA Ambulance Service want release them beyond Metro due to risk damage in transit.
	Having a problem with Hamersley Iron management to get personnel released, but are working on it locally. There are mixed messages coming through the various mining company Emergency Services Officers.

Annexure C: SES Policy Statement 7 – Vertical Rescue

FIRE & EMERGENCY SERVICES AUTHORITY

Title:	**Policy Statement No. 7 Vertical Rescue**	
Responsibility:	**DIVISION:**	**State Emergency Service**
	BRANCH:	**Research & Logistics Support**
	RESPONSIBLE OFFICER:	**Manager, Research & Logistics**
	DATE APPROVED:	**May 2004**
	DATE FOR REVIEW:	**May 2005**

POLICY STATEMENT

This Policy Statement is to outline the responsibilities for State Emergency Service (SES) Units with a Vertical Rescue role.

AIM: **The aim of this policy statement is to ensure that the Units who have a SES Vertical Rescue role meet their responsibilities.**

LEGISLATION*:* Nil

FESA VALUES: The following FESA values underpin the application of this policy.

Put the community first – The specialised training required for Vertical Rescue personnel, will ensure optimum safety during rescues for community members.

Continuously improve our services – Vertical Rescue training and equipment is constantly researched and updated for maximum efficiency and safety.

RISK MANAGEMENT: The risks associated with the absence of a policy on FESA SES Vertical Rescue are:

1. In the absence of this Policy, annual training to maintain vertical rescue qualification, would not be a pre-requisite and may cause death or injury to SES personnel or members of the community being rendered assistance: and
2. Would expose FESA under its duty of care obligations.

DEFINITIONS: Nil

APPLICATION: This policy is applicable to the State Emergency Service.

DELEGATIONS:

FESA-SES State Training Section Forestfield Training and Development Officers are responsible for ensuring that this policy is part of FESA SES's operational requirements for qualified personnel.

FESA SES Operations and Training Officers (OTO's) and FESA District Managers (DM's) (in appropriate districts) are to ensure that all Vertical Rescue qualified members in their District comply with this Policy.

Local SES Unit Training Managers are to advise appropriate District Staff of any vertical rescue members due for re-training/evaluation/assessment.

PREVIOUS POLICY:

Replaces the Fire & Emergency Services of WA State Emergency Service (FESA-SES) Policy Statement No.7 May 2003.

PROCEDURES:

1. The SES is a Combat Agency for Vertical Rescue and as such, is the primary agency in Western Australia for providing Vertical rescue services.

2. Commercial organisations, private organisations and individuals that engage in climbing or abseiling have a responsibility for rescuing themselves or their members where this is within their capabilities. Western Australian Police Service (WAPS) determine the need to conduct Vertical rescues and activate and task FESA SES. FESA SES can also be activated through FESA COMCEN.

3. FESA SES Districts have a responsibility for establishing and maintaining a District rescue strategy to ensure FESA SES Vertical Rescue responsibilities can be met from within the District. District strategies may involve individual Units or combined teams drawing suitably qualified members from a number of Units.

4. Vertical Rescue Teams consisting of a team leader and seven team members conduct FESA SES Vertical rescues. Teams may be established in designated SES Units or as District Teams using members from several SES Units.

5. Vertical rescue teams are required to maintain a high degree of readiness including a high level of fitness, expertise, equipment serviceability and response time.

6. FESA SES Vertical Rescue Teams are ideally to have qualified persons available to deploy within 40 minutes of activation.

7. Each designated FESA SES Vertical Rescue Team should have enough qualified people available to respond at any time within 40 minutes of activation.

8. Vertical Rescue Team members should be qualified in induction training, senior first aid, and single rope techniques. At least four members of each team should be qualified to Vertical rescue team member level. The team leader is required to be qualified as a Vertical Rescue Team Leader.

9. Dependant on the risk analysis and circumstances of the incident, qualified Vertical Rescue Team Leaders may deploy to and conduct rescues with more or less personnel than indicated by para. 7

10. Members of Vertical rescue teams including trainers/assessors must participate regularly in continuation training to maintain their readiness and ensure their safety as per the Vertical Rescue Training Instructions.

11. Each team is to have all items of equipment from both the Basic Rescue - Unit Scale and Vertical/Cave Rescue - Team Scale lists.

12. Periodic checking and reporting on FESA SES Vertical Rescue Teams performance is required. Regional Directors are to ensure that annual checks of readiness, training, equipment and procedures are conducted by suitable independent persons.

13. Units that have the role for vertical rescue have been granted "emergency vehicle" status for the vehicle designated for this task. The emergency vehicle status is conditional on the following:

    a. The status of "emergency vehicle" is only extended to vehicles responding to a vertical rescue incident.

RESOURCES:

The Research & Logistics Support Branch (SES) will be responsible for coordinating advice and interpretation regarding this policy. Directorates will be responsible for ensuring this policy is enacted and monitored for compliance.

MONITORING: The Research & Logistics Support Branch (SES) will be responsible for reviewing this Policy.

EVALUATION:

APPROPRIATENESS

Is measured against the need for Vertical rescue.

EFFECTIVENESS

The number of FESA SES personnel qualified in Vertical Rescue maintaining their skill will measure the effectiveness of this policy.

FURTHER INFORMATION:

FESA SES Research & Logistics Support Branch
(08) 9277 0555
(08) 9277 8320
mbreen@fesa.wa.gov.au

REFERENCES: Administration No: 6 Vehicle and Trailer Responsibilities – *Point 8 'P' Plate Drivers*

Annexure D: Pilbara Cliff Rescue Response Procedure

Response Procedures

Introduction

1. The WASES is the combat agency for Cliff Rescue. Activation of this response may come from Police, CALM, Local Government or a member of the public. In all cases a procedure of mutual support is to activated.

Unit Roles

2. There are three Units within the Pilbara Region who have the designated role of Cliff Rescue. These are: -

   A. Karratha
   B. Tom Price
   C. Newman

3. These Units are fully equipped to discharge this role and are charged with the responsibility of maintaining a team of trained personnel, to an approved standard, available for responses at all times. In addition there are Units within the Regions that have trained and equipped personnel who may be called on for support.

4. It is Pilbara Regional policy that the primary response unit will be that unit in whose area of operation the event occurs, or who is the closest responder. The other units will be required to place their manpower and equipment under the operational command of the aforementioned primary response unit.

Response Procedure

5. The following procedures will apply: -

   A. The District Manager will telephone the relevant Unit giving details of the task and R/V point.

   B. The primary response Unit Local Manager will activate its Cliff Rescue team.

   C. Support Cliff Rescue Units will place their teams on stand-by.

Response Procedure Contd.:

D. The primary response unit will establish radio communications with the District Manager on HF Radio or via telephone.

F. The District Manager will deploy the nearest, or first available, Support Unit to back up the primary responder in consultation with and if requested by the Primary Response Unit.

G. The District Manager will advise the R/D of the situation as required.

H. The situation will be monitored till its conclusion.

Primary Response Unit Responsibilities

6. The Primary Response Unit is responsible for the following: -

A. Operational command of the Cliff Rescue tasks.

B. Activation and Staffing of the Local Unit Headquarters as the Support Base.

C. Processing all resource request from the operational area, including requests for physical support through the District Manager.

D. Provision of regular Situation Reports to RHQ.

E. Making arrangements for an operational de-brief and the preparation of a comprehensive Post Operation Report to RHQ within four weeks.

Post Operation Report

7. It is imperative that all appreciations, operational logs, plans and orders be recorded and retained in the form of a Post Operation Report. This report will be forwarded to the District Manager for distribution to all participating Units and the following: -

Regional Director Pilbara/Kimberley

8. Further distribution of the report for training or information purposes will be at the discretion of the recipients. However, on no account is the report to be released to the media or members of the public without the express permission of the District Manager. This is particularly the case should a coronial inquiry be established.

Annexure E: Tom Price Standing Operating Procedures – Vertical Rescue

Standard Operating Procedures

Vertical Rescue

Vertical Rescue Standard Operating Procedures

1. Verify information with police if call-out comes from another source.
   (08) 91891344

2. Notify Region and obtain OCN.

Pilbara Region	91732333
Jim Cahill	0419937834
Duty officer Perth	9277 0555

3. Commence unit callout procedures.

Priorities	Local Manager	D Campbell (9189 1273,0418 941 906)
	Or Deputy:	J Maloney (9189 1273, 0409 434 485), Andrae Moore (9189 3335, 0416 244 797)
	VRTL	D Campbell J Maloney
	VRTL Newman	Ernie Hanselman Ernie home 9175 2431 Newman unit mobile 041 7976231 Request VRTM, SRT, Personnel, Equipment
	VRTM	
	SRT	
	Other personnel	

4. Commence paperwork
   Nominal Roll
   Operations Log
   Resource Deployment chart

5. Appoint personnel to oversee trailer packing.
   See attached list.

6. Appoint personnel to continue callout.

7. Appoint personnel to oversee vehicle checks.
   Obtain further vehicle/s from a.)shire and b.) hire firms

8. Appoint comms operator
   Net diagram
   Frequencies UHF
   HF
   Ensure all radios are packed with spare batteries (See attached list)
   Obtain Satellite phone from HI ring gatehouse 91433220
   St John's Ambulance 9189 1744

9. Secure Oxer's Lookout key and hand to Team Leader

10. SMEAC

11. Travel to destination

12. Secure area

13. RAPO

14. SMEAC

15. Establish raising/lowering system

16. Effect Rescue

17. Disassemble all gear and repack trailer

18. Short on-site debrief

19. Return to base

20. Recommission all gear
    Repack containers
    Recommission personal kits

21. Full Debrief

22. Critical Incident Stress Debrief
    Make available phone number and confidential counselling as necessary

23. Post op Report
    Collect all receipts - originals to region with report
    Diagram
    Recommendations
    Template is on computer

Annexure F: Training Records Summary – Karijini Gorge Rescue Personnel

Karijini Gorge Rescue Personnel 01-03 April 2004

Legend

CRTL	- Cliff Rescue Team Leader	CRTM	- Cliff Rescue Team Member
SRT	- Single Rope Techniques qualified	SFA	- Senior First Aid Qualified
IND	- SES Induction	**Q**	**Qualified/Competent**

SURNAME	OTHER NAME	UNIT	DAY(S)	CRTL	CRTM	SRT	SFA	IND	Comments
Clowes	David	TOM	**1 2**			**Q**			Cliff Rescue Role
Griffith	Joe	TOM	**1 2**						
Haynes	Richard	TOM	**1 2**		**Q**	**Q**		**Q**	Cliff Rescue Role
King	Roz	TOM	**1 2**						
Lorraine	Michael	TOM	**1 2**						Cliff Rescue Role
Maloney	Jackie	TOM	**1 2**	**Q**	**Q**	**Q**		**Q**	Cliff Rescue Role
McCallum	Ian	TOM	**1 2**			**Q**			Cliff Rescue Role
Moore	Andrae	TOM	**1 2**			**Q**	**Q**	**Q**	
Moore	Gary	TOM	**1 2**		**Q**	**Q**			Cliff Rescue Role
Paton	Lisa	TOM	**1 2**						
Pomery	Jen	TOM	**1 2**						
Pomery	Kath	TOM	**1 2**						
Smart	Michael	TOM	**1 2**						
Tang	Seng	TOM	**1 2**						
Taylor	Jennifer	TOM	**1 2**						
Hanslemans	Ernie	NEW	**1 2**	**Q**	**Q**	**Q**		**Q**	Cliff Rescue Role
Kane	Dennis	NEW	**1 2**						
Loos	Rohn	NEW	**1 2**			**Q**			Cliff Rescue Role
Lyons	Dave	NEW	**1 2**						
Regan	James	NEW	**1 2**		**Q**	**Q**			Cliff Rescue Role
Simeon	Steve	NEW	**1 2**						Cliff Rescue Role
Simpson	Chantelle	NEW	**1 2**						
Sousa	Chris	NEW	**1 2**						Cliff Rescue Role
Starling	Mike	NEW	**1 2**					**Q**	
Wright	Paul	NEW	**1 2**						
Cook	Geoff	KAR	**2**						
Gifford	Annie	KAR	**2**						
Hollins	Amy	KAR	**2**					**Q**	
Hunter	Bob	KAR	**2**	**Q**	**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Napier	Deb	KAR	**2**			**Q**			Cliff Rescue Role
Napier	Mick	KAR	**2**			**Q**			Cliff Rescue Role
Patton	Trevor	KAR	**2**			**Q**		**Q**	Cliff Rescue Role
Walsh	Tony	KAR	**2**						
Watkins	Richard	KAR	**2**		**Q**	**Q**	**Q**		Cliff Rescue Role
Hudson	Chris	STI	**2 3**	**Q**	**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Angel	Jarius	PHE	**2 3**			**Q**		**Q**	
Angel	Kerry	PHE	**2 3**				**Q**		Peer Support
Attwood	Paul	PHE	**2 3**		**Q**	**Q**			
Barrett	Cliff	PHE	**2 3**						
Cusack	Alison	PHE	**2 3**						
Cusack	Dave	PHE	**2 3**		**Q**	**Q**		**Q**	
Hanley	Paul	PHE	**2 3**		**Q**	**Q**			
Hilton	Mike	PHE	**2 3**						
Jones	Derek	PHE	**2 3**						
Mascord	Matt	PHE	**2 3**						
McCann	James	PHE	**2 3**			**Q**	**Q**	**Q**	
McLeod	Gordon	PHE	**2 3**			**Q**			
Messner	Shoena	PHE	**2 3**					**Q**	
Parnham	Steve	PHE	**2 3**			**Q**			

Schlater	Colin	PHE	**2 3**						
Schlater	Michelle	PHE	**2 3**						
Tower	Gary	PHE	**2 3**					**Q**	
Williamson	Veronica	PHE	**2 3**						
Milne	Ian	KMN	**2 3**		**Q**	**Q**		**Q**	Cliff Rescue Role
Cable	Steve	KAR	**2 3**	**Q**	**Q**		**Q**		Cliff Rescue Role
Muller	Damian	KAR	**2 3**			**Q**	**Q**		Cliff Rescue Role
Wild	Emme	KAR	**2 3**						Air Observer
Hollamby	Paul	GOS	**2 3**	**Q**	**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Taylor	Joe	GOS	**2 3**		**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Verbiest	Tracy	GOS	**2 3**		**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Clarke	Peter	ARM	**2 3**	**Q**	**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Pender	Todd	ARM	**2 3**	**Q**	**Q**	**Q**	**Q**	**Q**	Cliff Rescue Role
Balito	Gordon	ROE	**3**						
Ball	Bobbiejoe	ROE	**3**						
McConnell	John	ROE	**3**					**Q**	
Morris	Peter	ROE	**3**						
Taylor	Clinton	ROE	**3**			**Q**		**Q**	
Brooks	Darren	EXM	**3**						
Brooks	Paul	EXM	**3**						
Cameron	Kenneth	EXM	**3**			**Q**			
Gee	Terry	EXM	**3**			**Q**			
Gyr	Cath	EXM	**3**						
Singleton	Phil	EXM	**3**						
Waters	Kenneth	EXM	**3**			**Q**			
Black	Gavin	CVN	**3**	**Q**	**Q**	**Q**	**Q**		Cliff Rescue Role
Bryan	Chad	CVN	**3**						
Bumbak	Dennis	CVN	**3**		**Q**	**Q**	**Q**		
Fitzhugh	Janet	CVN	**3**						
Jolly	Andrew	CVN	**3**		**Q**	**Q**	**Q**		Cliff Rescue Role