



FIRE CONTROL OFFICERS & CAPTAINS GROUP, MUNDARING BUSH FIRE SERVICES

All correspondence to: The Chairman
1 Melville Crt
Helena Valley WA 6056
Email: nigel@webxdesign.com.au

To: Parkerville Fire Review Team.
20 Southport St West Perth.

Introduction.

This Submission is made by the combined Captains and Fire Control Officers of the Bush Fire Service in Mundaring.

This group consists of the;

- 3 Volunteer Deputy Chief Bushfire Control Officers,
- 9 Volunteer Bushfire Brigade Captains,
- 10 Volunteer Bushfire Control officers,
- Volunteer Fire and rescue service Captain and First Lieutenant,
- Senior representatives from the Mundaring Fire Training School, Volunteers.

Together this group provides training, preparation and operational and tactical direction to approximately 450 ordinary community members who volunteer their time to train, prepare and respond to the risk of fire.

These 450 volunteers operate 20 fire appliances operating from 10 purely volunteer fire stations and we are very active in all areas in the treatment of fire threat commencing with risk reduction and covering all other areas of response , suppression and , incident management. Although we predominately respond to fire and other emergencies in the Shire of Mundaring, our resources and people are often called to assist in incidents in other areas. The Perth Rural/Urban interface area of the Darling Scarp in the Perth Hills is an area of high bush fire risk with many assets exposed to threat in the event of fire. Wildfire behaviour in this region can be very severe and devastating. It is amongst the highest area of risk to assets in W.A.

We have been preparing and responding to this risk for a very long time, most of our volunteer brigades have a service histories of greater than 50 years and their beginnings commenced a long time before that. Broadly the local community has been responding to fire since the establishment of the first villages in the hills in the last century.

'To represent our Brigades and enhance community safety through continuous improvements in the delivery of fire services within the Shire of Mundaring'

We consider our people to be very knowledgeable and experienced in bushfire matters, particularly in the Perth Hills, and that we have the knowledge and experience to provide expert comment and review. However, our members have a general view that the major fire agency DFES has little recognition of this knowledge and experience in the management of fire operations.

We trust that, our history and experience will be considered in high regard in our submission.

In relation to the Major Incident Reviews into the Parkerville Fire, we advise you that our members have already participated in;

- Individual brigade reviews, post Incident analysis (PIA),
- A whole of Shire PIA,
- A DFES chaired Major Incident Review (MIR)
- Some of our members were requested to provide input at the MIR at SEMC.

We note that previous reviews by Mr Keelty into major fires made many recommendations and we generally agree with the direction and findings of all of Mr Keelty's recommendations. However we note that not all of these recommendations have been implemented and our general view is that there has been very little real change. The bush fire risk is still there. Following are our concerns.

Communications.

Initial mobilisation.

The initial COMCEN callout to this fire was inadequate given the recognised awareness of the risk on the day.

The Area of Richardson Rd where the ignition occurred and was reported is in Zone 2 and the Zone 2 response protocols should apply.

We believe that technically the agreed minimum response was activated, but we strongly believe that local knowledge and experience in bushfires would have seen an enhanced initial callout.

There were skilled experienced bush fire crews in very close proximity to the point of ignition but they were not immediately called.

Had an enhanced callout of multiple BFS brigades been made then the initial fire may have been pulled up before major escalation.

It cannot be said that an enhanced response was not warranted, there was much preplanning for what was accurately predicted to be very bad fire weather days.

This indicates a lack of bush fire awareness in COMCEN.

The initial callout was made to a single BFS brigade at Parkerville and a single FRS brigade from Kiara which was a single axle drive Medium Pump accompanied by a Light Tanker.

Why send a non 4WD appliance to the initial report of a paddock fire?

As well, in this fire, due to a lack of local knowledge by the first response DFES crews, the wrong communications plan MCC1 was implemented, this area should use MCE4 which uses channel 238 which has excellent coverage of this area. COMCEN accepted without question this radio plan. This should not have happened.

This also indicates a lack of bush fire awareness in COMCEN.

Radio congestion.

This is a very serious ongoing problem.

Although there are multiple areas and multiple communication paths they all come together to a single point at COMCEN. The result is that;

- On days of high fire activity it can become impossible to access this single point.
- Metropolitan FRS radio traffic is transmitted on the same platform as rural/urban bushfire and this gets very congested and radio traffic is swamped resulting in an often inability to make radio transmissions.
- COMCEN appears to place priority on dealing with FRS traffic over BFS traffic.
- FRS often make calls on this single radio platform during major bushfire emergencies and this adds to the congestion and can prevent BFS effective radio messages.

To overcome this, on days of Very High or above Fire Danger Indices (FDI), COMCEN should be required to split radio traffic into manageable sectors. The other States sector their incoming radio communications but WA does not.

Bush Fire Resource arrangements.

The State Operations Officer in conjunction with Regional Operating Centre (ROC) and COMCEN can become overwhelmed during major incidents.

This is a resourcing issue to be addressed within COMCEN.

Further, on days of Very High or above FDI, all bush fire decisions and resource allocations must be made by managers who are experienced and skilled in bush fire suppression and bush fire management. This is a training and experience issue within COMCEN.

Bush Fire Doctrines.

Suitability.

The Rural Urban Interface doctrine is a good doctrine, but it does not address the need to handle a major fast moving wildfire.

The resource availability level at bushfires is simply too small to put a medium pump and Light Tanker (LT) at every property and have them stay there, the fire is moving, in this case at about 3 km/hr.

The RUI property defence doctrine does not allow for follow up of properties that have been impacted by fire and the major fire suppressed, at this point the appliances move on often with no follow up and this is often a time when the remaining fire at the property enters the property and destroys it. Follow up of impacted properties by defending units or even the property owners is critical.

Tasking.

A major failure was that appliances were tasked by COMCEN to properties directly and they were not assigned within the Incident Management Team (IMT). In many cases these appliances ignored the IMT directions and adhered to the tasking given to them by COMCEN. Thus making re-assignment according to priority a difficult task.

ALL appliances should be directed to adhere to the fire ground IMT directions and establish themselves into the IMT structure.

Married appliances.

When metropolitan FRS stations turn out to a major bushfire they turn out as a brigade and stay together at the fire ground. It is usual that the 2WD medium pump, which cannot travel up the many gravel access driveways, must stay with the 4WD LT.

This is an inefficient usage of resource. The incoming brigade should register both appliances at the IMT and they can then be individually assigned to tasks, the 2WD medium pump to bitumen surface roads and the 4WD LT to firefighting roles.

It is imperative to allow FRS appliances to be able to operate within the IMT structure and independent of the other unit from the same brigade.

This will require a doctrine change.

Knowledge and experience.

There was a very wide range of knowledge and experience at this fire.

Many of the people on the fire ground, both career and volunteers had little or no experience in major bushfires. Yet many, both career and volunteer were very skilled and bushfire aware. Many of the initial crews were not bushfire experienced and many had little or no situational awareness. These are hard skills to acquire, often taking many years practical exposure.

In some cases the fire crews assigned to property protection were somewhat ineffective and in some cases were not actively engaging in fire suppression. This has caused considerable community comment.

Every opportunity must be sought to train in theory and in practice the exposure to bushfire. Our experience is that our best training tools are our own fire school, our own experienced leaders and a commitment to spending real time and hands on experience in bushfire through hazard reduction burning. (HRB)

It should be a requirement that FRS career staff who may be called upon to attend bushfires should complete bushfire theoretical and practical training and gain experience thru HRB.

Local Knowledge and Skills.

During this fire there were many occasions where the local knowledge and skills of the local BFS volunteers were sought, respected and utilised, but there were many cases where these were ignored. It should be included in DFES doctrines that local knowledge and skills is a very valuable asset and should be fully engaged and not passed over. In cases the local knowledge and skills were ignored and DFES staff were used in roles where they had little or no experience and completely lacked local knowledge. This needs cultural change.

Equipment and suitability.

Two wheel drive appliances.

These can be limited useability at a major bushfire as they cannot proceed off of the bitumen road, many will not go into a gravel driveway.

This raises obvious questions on usability and on avoiding the risk of entrapment.

Most 2WD appliance operation becomes restricted to the bitumen surface road or driveway and this causes questions on commitment with residents and volunteers questioning why these appliances are parked and not engaging beyond the roadway.

The Suburban Medium Pump from a Metropolitan FRS station is a highly specialised vehicle and really only suitable for property defence where the property is readily accessible. Many hills homes are not.

4WD appliances at bushfires is best practice and this should become DFES doctrine.

Petrol powered water pumps.

The petrol powered pumps on Light Tankers (LT) were questioned as a major safety factor.

The heat of the day and the fire caused a number of pumps to fail.

The pump motor has limited petrol storage which makes on fire ground refuelling desirable but very dangerous hence the appliance is off the fire ground at critical times when refuelling is needed.

The petrol is a fire hazard and many experienced volunteers seriously question why this has not been corrected.

Water Capacity.

The light tanker has limited water capacity due to the weight limitations of the vehicle.

In a house defence situation the water tank will be rapidly depleted, crews face the agonising decision “do we use it all and hope to save the house or do we follow the doctrine and leave some to save ourselves if things turn bad” Most volunteers will do everything they can to save the house.

To refill a light tanker will involve going to a safe hydrant and connecting up and refilling which takes considerable time. This becomes very appliance inefficient if there is a very high water demand in a property defence situation and the time taken to replenish the water may mean another property lost. Greater water capacity is a critical need.

Appropriate Protective clothing.

Many FRS crews attended the fire in the only protective clothing (PPC) they have, level two turn out coats. These are said to be very suitable for house and structure fires but inappropriate for the continued physical effort of a bushfire on a hot day. Some crews had to shed some PPC in order to continue.

A review of FRS PPC for bushfires and a review of the bushfire doctrine should see FRS in suitable for bushfire PPC at bushfires.

Emergency Management Centres

A longstanding problem is access to Emergency Management Centres (EMC) and access to support for volunteers.

In both this fire where the Parkerville recreation centre was established as an EMC and in the last major exercise where the Mundaring co location emergency centre was used as an EMC the glaring deficiency was a lack of IT for such things as communication, mapping, records etc. Fires cannot be managed without mapping which requires computers and printers.

The usual answer is contact COMCEN and a crew equipped with these will be dispatched, maybe. But this is not always an effective solution if the incident is not being fully supported by DFES.

Preformed and equipped EMC's should be established in key areas to cater for all incidents. This to include incidents that are being supported by DFES as well as those that DFES is not supporting.

Volunteers need to be able to access IT at these EMC's. At present volunteers are prevented from accessing Information Technology systems. Non employees are not allowed access to corporate mapping and systems.

The State has expended considerable funding to provide live vision streaming from the Air Intel helicopter to the DFES Cockburn centre.

This vision cannot be received at fires where DFES has not provided full IT support to that incident.

We believe that DFES should be required to provide, where practical, this vision access to any agency that requests it.

This will require the provision of infrastructure and IT access to agencies that attend fires without DFES level 3 incident support teams.

In the Perth Hills rural/urban interface areas, preformed and equipped EMC's should have the ability to receive this vision regardless of which agency is attending the fire incident.

Private Fire appliances.

At this fire there was a considerable contribution made by private fire appliances.

There was later some misinformed comment about the legality of this, but reference to the Bush Fires Act will show that there is a definite need and role for private appliances. What is needed is a defined management method for these which will encourage safe and registered usage of these.

Command and Control.

All persons at a fire should use a common AIIMS structure and comply with the IMT command system.

This is difficult if appliances are tasked directly to properties by COMCEN.

At fires all information flow should be by command radio to allow all persons within the command structure to maintain situational awareness. This is bypassed if crews communicate by mobile phone, which can be a common practice amongst some crews. DFES doctrine should mandate that all fire ground decisions and directives are communicated on the command radio structure.

There were instances where DFES staff assumed that their directions would be followed in accord with their DFES rank. This is not correct, command and control doctrine assigns tasking and direction via the AIIMS and IMT structures, not on a staff members rank.

- All persons on the fire ground must operate to the Incident Management Team structure and direction.
- Command and Control must utilise local knowledge and experience and not ignore this.

Inter-operability.

The crews from DFES, BFS and DP&W should be trained and experienced to a common operating platform at bushfires. In cases this was very good, in cases it was poor.

The local Mundaring VFRS crews are very highly skilled in bush fire operation and integrate perfectly with other agencies. This example of inter-operability should be encouraged by Doctrine in all agencies.

Metropolitan FRS crews need actual bushfire experience and must be trained and be willing to integrate into a Bush Fire control situation.

Recovery

There are major positives in Recovery:

- Western Power achieved a miraculous result of re-instatement and should be thanked.
- During the fire, and, in the immediate follow up, there were local community, church based volunteer vehicles from “Rapid Relief Team” providing delivery to firefighters of food and drinking water as well as community support and assistance to affected homeowners.
They stayed and maintained kitchen and food/water distribution facilities for 4 days and supported residents with items like loan generators, fuel, food, water and a shoulder to support them.
These were local community members, they were not formally engaged by anyone and the materials were sourced from their own donated funds.
This is community members helping community members at its best and was well appreciated by those affected by the fire.
This was a service provided by the community, not by any authority.
- One strategy to comment on is that we kept all vehicles moving around and within the fire ground to allow the residents to observe that the fire was still being monitored and suppressed. This was maintained by local BFS volunteers for several weeks.

Homeowners staying to defend.

The DFES publicized “Prepare, Act, Survive and Stay and Defend policies were negated by actions of Police (WAPOL) and agencies. Some people needed to be reminded to leave in the face of the threat, some did not, but no person should have been forced to leave. There are reports that WAPOL threatened homeowners with arrest and removal if they stayed and did not evacuate. This negates the Stay and Defend policy.

Those that chose to stay and did stay were not supported by the authorities’ but the local churches did offer support where possible.

There are reports that after the fire front had passed, the homeowners who stayed were able to suppress remnant fire and in general saved further property loss. BUT if they tried to leave the area for a short time they were prevented from returning!

They could not even leave to buy bread or milk. Why?

There is a lack of logic in this and we feel that homeowners should not be penalised for staying to defend. Rather we see that stay and defend is a good policy, ---if safely applied.

Members of the public who had chosen to “Stay and defend” were effectively isolated from the outside world as many didn’t have power to run radios or computers and had no access to Internet or Land lines during the Fire Period.

The recovery process to the community was greatly enhanced by homeowners being able to either remain with their homes or where practical to return to them very early and this undoubtedly reduced further losses.

Entry Permit system.

A policy “*on the run*” we believe, was implemented that allowed some home owners to obtain a written permit to enter the “hot zone” if they had good cause to do so. This sounds fine but needs refinement. The traffic control contractors had little understanding of the policy, nor did many of the affected homeowners.

The DFES bushfire policy should be reviewed to provide clear guidelines to WAPOL and to Fire agencies and to homeowners.

Asbestos.

Although local government has an asbestos register, communication of this between LG and COMCEN was not occurring.

BFS volunteers were being routinely called to attend properties already destroyed by fire and heavily contaminated by asbestos.

This is a major safety issue and safety policies (Doctrine) should address this.

Counselling.

The provision of Counselling Services by DFES and Mundaring Shire Council is seen as a vital and important function in the aftermath of a major incident. We are aware that some fire fighters took advantage of the offered services to assist them in understanding the impacts of a major incident on their mental wellbeing. The value of the assistance provided during counselling session(s) is unmeasurable but vital to the ongoing welfare of both career and volunteer Fire Fighters and their support networks.

We (Fire Fighters) need to be provided with information (pamphlets etc. including maps, contact numbers) to take in our vehicles, on the Evacuation Centre(s) and Counselling Services so that the Fire fighters can support impacted members of the public with detailed and correct information.

The provision of this information and the ability to update this is another example of the strategic importance of pre formed and equipped EMC's.

Support.

We would like to acknowledge the tremendous support given to the management of this disaster in all phases from other volunteer organisations such as the State Emergency Service, the St John's Ambulance service and the Salvation Army catering services.

Our State relies heavily on volunteers.

In Summary.

There were many cases where inter-operability between FRS, BFS and DP&W crews was absolutely fantastic, but there were cases where this was very poor. We believe that this may be a culture issue, or it may be a lack of training or a belief that crews operate solely to their own rank structure.

This issue has occurred on previous major incidents and we recommend that DFES place more emphasis on FRS crews gaining actual bushfire experience and require that this must be gained in both joint hazard reduction experience and wildfire experience. The crews must work together.

We believe that there is a critical need for DFES to accept responsibility to provide a much greater level of training and involvement for its staff in all matters relating to bushfire as well as providing a much more focussed communication system for Fire incidents.

We also believe that the Shire of Mundaring has been very pro-active in bush fire risk reduction but clearly many of the property owners did not comply with the regulated bush fire risk reduction requirements of the LG fire break notice.

This is a very serious problem. The WA Bush Fires act places responsibility for some of the land with LG, but there is no requirement for State or Commonwealth land.

Enforcing Bush Fire Risk reduction is not going to be an easy task.

There are 138 local Governments in W.A and of these 119 have Bush Fire areas and controls in their areas of Jurisdiction, the 119 LG's are not completely compliant, and as they are subject to elected councillor control there is very wide range in regulation and compliance. And many LG's are not skilled or resourced to the task.

Regulation and compliance, or more precisely the lack of such is a major issue. As is the lack of defined standards which are regulated across all land tenures.

This has been identified in previous reviews but has not been corrected.

We believe that we must;

- Define a minimum stand of bush fire risk reduction and,
- Require all land owners and managers –including State and Commonwealth to comply. This must be mandatory without having to be directed at a local level.
- Provide a monitoring and governance regime, independent of the 138 differing local governments.
- Require the State Fire Agency DFES to become actively involved in bush fire risk reduction.
Thus gaining better knowledge and experience.
- Require DFES to participate with Local Government BFS Brigades in the conduct of Hazard Reduction burning and in wildfires in a manner that ensures total and mutual operating principles and techniques.

Mr Keelty said it well when he called it a shared responsibility, unfortunately not everyone is meeting that responsibility.



Nigel Morgan.
Chairperson.
Mundaring Volunteer Fire Control Officers and Captains Group.

TO:- EVAN FERGUSON, INVESTIGATING OFFICER,
CONTACT ADDRESS VIA: HON MINISTER FRANCIS
MINISTER FOR EMERGENCY SERVICES, W.A.

FROM:- NICHOLAS STEVEN READ

* NEW START ALLOWANCE: CRN 603360426B

* HANDY PERSON (ONLY INCOME TO SUPPORT THIS BUSINESS)

* THE LEAF DIRECTIONAL VORTEX CONSERVATORY FOR
HIGH AIR FILTER PLANTS: - ARN 66553347410

INTELLECTUAL PROPERTY CLASSIFICATIONS BEING:-
REGISTERED DESIGN N° 354616

SERVICE:- CLASS 44: HYGIENIC CARES FOR HUMAN BEINGS.

GOODS:- CLASS 10: MEDICAL APPARATUS

ANZSIC CODE: 2412 BEING: MEDICAL EQUIPMENT MANUFACTURE

PO BOX 712, SOUTH PERTH, 6951, WESTERN AUSTRALIA.

PHONE: 0414298756.

DATE:- 4/2/16

SUBJECT:- YARLOOP FIRE & SOLUTION TO STOP IGNITION.

DEAR MR FERGUSON,

I DRAW YOUR ATTENTION TO YOUR INVESTIGATION
INTO THE YARLOOP FIRE (7/1/16) AND MY SOLUTION TO STOP
IGNITION (WORLDWIDE). FIRSTLY I DRAW YOUR ATTENTION TO:-

LETTER TO:- HON J.M. FRANCIS, MIN FOR EMERGENCY SERVICE,
19/9/14, SUBJECT: FIRE DATA ANALYSIS & MANAGEMENT

LETTER TO:- PAUL ELLENBROEK, PLANNING DEPT, 24/8/15

SUBJECT:- INPUT FROM THE LEAF DIRECTIONAL VORTEX
CONSERVATORY FOR HIGH AIR FILTER PLANTS, FOR DEPT OF
PLANNING CONTACT FOR DEVELOPMENT ON LOTS LESS THAN 100 S.MTS.

LETTER TO:- HON J.M. FRANCIS & WAYNE GREGSON - E.DIR D.F.E.S.,
8/12/15, SUBJECT:- JOB DONE..... ALL ENCLOSED.

MY CONCLUSION VIA MY BUSINESS - ARN 66553347410
- DUE TO CLIMATE CHANGE, IGNITION & HENCE FIRE IS GREATER,
I.E. RATES OF SPREAD, LIGHTNING. RESOURCES CANNOT COPE - YARLOOP.

SOLUTION:- VIA MY REGISTERED DESIGN (1) TOTAL AMOUNT OF GREENHOUSE
CASES THAT ARE PROCESSED ARE GREATER, OVERTIME, THAN THOSE
GREENHOUSE CASES TO PRODUCE THE MATERIALS TO CONSTRUCT
CONSERVATORY: EG STEEL FROM AUSTRALIAN ORE OR ALUMINIUM.

(2) AS A CONSEQUENCE OF REGISTERED DESIGN - A CURVED ROOF,
TO THE GROUND, MAY BE EMPLOYED, NO IGNITION POINTS

VIA SUBMISSION - I TOLD G20 - BRISBANE - (1) ABOVE.
WOULD YOU WRITE BACK ADVERTISE ENCLOSED, YOU ASSURELY N. READ

COPY TO: - WAYNE WRELDUN EXECUTIVE DIRECTOR U.F.E.S.; ADVERTISING MATERIAL ADDRESS 3347410 ENGLA

TO:- HON J M FRANCIS
MINISTER FOR EMERGENCY SERVICES
FROM:- NICHOLAS READ 74/3 SHERWOOD ST, MAYLANDS, WA
OWNER, OCCUPIER; PO BOX 712, SOUTH 6951, WA
DATE:- 19/9/14 (POSTAGE: ABN 66553347410)
SUBJECT:- FIRE DATA ANALYSIS & MANAGEMENT
DEAR MINISTER FRANCIS:

THIS LETTER IS A POINT OF VIEW, BEING MY OPINION, IN RELATION TO FIRE DATA ANALYSIS & MANAGEMENT, CONSEQUENTLY RESOURCES. I DRAW ON A TRAINED BACKGROUND OF FOREST KNOWLEDGE, CLIMATE CHANGE KNOWLEDGE & MY INVENTED KNOWLEDGE, BEING INTELLECTUAL PROPERTY BEING PROVIDED VIA:- THE LEAF DIRECTIONAL VORTEX CONSERVATORY FOR HIGH FIR FILTER PLANTS (ABN 66553347410).

MY BUSINESS IS A REGISTERED CONSERVATORY DESIGN, TWO BEDROOM CAN BE CONVERTED TO FOUR BEDROOM, THAT AMONGST OTHER THINGS, PROCESSES GREEN HOUSE GASES BETTER BECAUSE OF ITS CONFIGURATION & SHAPE. 10% OF GREEN HOUSE GASES ARE FROM A HUMAN ACCOMMODATING STRUCTURE. COMPONENTS OF DESIGN - THE 3 HARMONISERS CAN BE USED IN AN EXISTING HUMAN ACCOMMODATING STRUCTURE, SPECIFIC TYPES OF PLANTS CAN NOW PHOTOSYNTHESISE, RESPIRE AND CONSEQUENTLY GROW BETTER & PROCESS GREEN HOUSE GASES BETTER.

IT IS MY OPINION THAT DUE TO AN INCREASE IN GREEN HOUSE GASES AND AS A CONSEQUENCE CLIMATE CHANGE, FIRE HAS INCREASED, PER UNIT OF TIME IN BOTH CITY & FOREST AREAS. FIRE DATA WOULD SHOW THIS. MY OWN KNOWLEDGE DOES, WITHOUT SCIENTIFIC METHOD. I KNOW THE FOREST. IN CITIES, WORLD WIDE, WITH SOME TEMPS RISING, HUMIDITY DECREASING & THUS THIS IS OF BENEFIT TO FIRE. IN FOREST, THE, THERE IS A GREATER DIFFERENCE IN COLD TO HOT AIR. GREATER MOVEMENT OF AIR. AIR MOLECULES ARE MORE CHARGED. MORE LIGHTNING TO TREES GROUND. MORE FIRE. JOB APPLICATION ENCLOSED. N° DPW3102903

WITHOUT SOLAR ON AND ON, THE BIG PICTURE, IN MY OPINION IS TO PROCESS GREEN HOUSE GASES BETTER AND NOT TO PURCHASE EVEN MORE FIRE ENGINES, & THUS MANAGEMENT. I PUT IT TO YOU THIS WAY - IT IS BETTER TO STOP THE FIRE IN THE FIRST PLACE, THAN TO PUT IT OUT. WHAT DO YOU THINK?
YOURS SINCE 26/7/11. ROAD NICHOLAS READ

TO:- MR PAUL ELLENBROEK, PLANNING MANAGER 1 of 4
URBAN POLICY DEPARTMENT OF PLANNING
140 WILLIAM STREET, PERTH, WESTERN AUSTRALIA, 6000.

FROM:- NICHOLAS READ, PROPRIETOR:- THE LEAF DIRECTIONAL
VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS.
ABN:- 66553347410. PHONE 0414298756
PO BOX 712 SOUTH PERTH 6951, WESTERN AUSTRALIA.

DATE:- 24/8/15

SUBJECT:- INPUT FROM THE LEAF DIRECTIONAL VORTEX
CONSERVATORY FOR HIGH AIR FILTER PLANTS, FOR
DEPARTMENT OF PLANNING CONTACT FOR DEVELOPMENT
ON LOTS LESS THAN 100 SQUARE METRES

DEAR MR ELLENBROEK;

I WILL COME STRAIGHT TO THE POINT.

NO DEVELOPMENT SHOULD BE MADE ON LOTS LESS THAN 100
SQUARE METRES. I AM VERY INTERESTED AND GIVE YOU MY REASONING.
I SELL A DESIGN (NOT CHANGED MY PRICE, \$518K ST INCLUSIVE).
IT IS A CONSERVATORY THAT PEOPLE CAN LIVE IN - TWO BEDROOM, CAN
BE CONVERTED TO A FOUR BEDROOM (INTELLECTUAL PROPERTY).
AS DUE TO ITS CONFIGURATION & SHAPE, VIA SPECIFIC TYPES
OF PLANTS IT CAN NOW:- CATER FOR. (1) SICK BUILDING
SYNDROME, (2) PROCESS CARBON DIOXIDE, (3) REDUCTION OF
CARBON MONOXIDE (4) INHIBIT AND PROCESS BACTERIA &
VIRUSES. THIS IS ALL CLIMATE CHANGE RELATED. I AM LOOKING
AT A WORLD MARKET AS 10% OF GREEN HOUSE CASES ARE
FROM A HUMAN ACCOMMODATING ENVIRONMENT. I PUT IT
TO YOU THAT I HAVE THE BEST DESIGN FOR WORLD MARKET
CONDITIONS, TODAY AND IN THE FUTURE, BY PRESENTING
THE FOLLOWING EVIDENCE & NEGOTIATION THAT IS
TAKING PLACE RIGHT NOW, THEREFORE LOTS LESS THAN
100 SQUARE METRES SHOULD NOT HAVE DEVELOPMENT.
BUSINESS CARD ATTACHED.

HYGIENIC CARE FOR HUMAN BEINGS	PROPRIETOR - NICHOLAS READ	
	ABN 66553347410 PHONE 0414 298 756	
	TRAINING SESSION/SALES	
	PROVIDED VIA:	CATERS FOR:
	THE	1. SICK BUILDING SYNDROME
	LEAF DIRECTIONAL	2. PROCESS CO ₂
	VORTEX	CARBON DIOXIDE
	CONSERVATORY	3. REDUCTION OF CO ₂
	FOR	CARBON MONOXIDE
	HIGH AIR FILTER	4. INHIBIT AND PROCESS
PLANTS	BACTERIA & VIRUSES	
CLIMATE CHANGE	920 RELATED	

VIA MY BUSINESS:- A BN: 66553347410, I HAVE 20/4
MADE SUBMISSIONS TO:-

- EMISSIONS REDUCTION FUND - 23/12/13
- RESERVE BANK OF AUSTRALIA - MEDIA OFFICE;
MITCHEL DE LOS MOZOS - 20/8/14; SUBJECT:- STRATEGY TO
REDUCE WORLD DEBT, THEREFORE INFLATION, VIA INCOME.
- THE G20, HELEN MARRIOTT, THE TREASURY - 31/10/14 &
7/11/14
- TAX WHITE PAPER TASK FORCE, THE TREASURY - 19/5/15
- MITCHEL DE LOS MOZOS, RESERVE BANK OF AUSTRALIA -
MEDIA OFFICE; SUBJECT:- ALTERNATIVE TO NEGATIVE
GEARING.

AND OTHER PARTIES, PRIVATE & GOVERNMENT.
VIA MY DESIGN, AS CONSEQUENCE OF THE DESIGN,
I WANT TO CONVEY TO YOU TWO VERY IMPORTANT ASPECTS -
① BEING A TWO BEDROOM THAT CAN BE CONVERTED TO A FOUR
BEDROOM, BY PARTITIONING THAT DOES NOT COMPROMISE SOUND,
DUE TO THICKNESS OF PARTITIONING IN RELATION TO WAVELENGTH,
THIS MEANS THAT AN INDIVIDUAL CAN DEVELOP AND A
FAMILY CAN LIVE AND NOT SELL.

② TOTAL AMOUNT OF GREEN HOUSE GASES THAT ARE PROCESSED
ARE GREATER, OVER TIME, THAN THOSE GREEN HOUSE GASES
TO PRODUCE THE MATERIALS TO CONSTRUCT CONSERVATORY.
E.G. STEEL FROM AUSTRALIAN ORE. CAN YOU SEE WHAT
A TOOL THIS IS TO COUNTER CLIMATE CHANGE & EMPLOYMENT?

I AM CLASS 44 (I.P CLASSIFICATION); BEING -
MYCENIC CARE FOR HUMAN BEINGS (SERVICE); (FOODS)
- I MAKE/SELL HARMONISERS - CLASS 10 BEING -
MEDICAL APPARATUS; GETTING ON TRACK.

MY DESIGN GIVES QUALITY AIR FOR HUMAN BEINGS.
AND AGAIN, AS A CONSEQUENCE OF DESIGN OTHER
QUALITIES A HUMAN REQUIRES ARE MADE/MADE BETTER,
BEINGS:-

- CAN BE A CHASSIS, FUSELAGE, HULL.
- STEREO SOUND FOR ENTERTAINMENT.
- BUILT IN A CIRCLE, NINE, ABOVE & BELOW - BETTER INSULATION, LESS MATERIALS TO BUILD A GREATER VOLUME... COST LESS TO BUY.
- TRANSPORTABLE, IF CLIENT REQUIRES.
- LESS LIGHTING REQUIRED AS LIGHT CAN COVER A NUMBER OF ROOMS DUE TO CONFIGURATION & SHAPE.
- PARENTS CAN LISTEN TO BABY, NEXT DOOR.
- OFF THE SCALE ENERGY RATINGS SAVINGS, EITHER AS A SINGLE CONSERVATORY OR TOGETHER.
- SHAPE RESISTS CYCLONE DAMAGE - CLIMATE CHANGE, FIRE, FLOOD, HAIL - INSURANCE COMPANIES MAY REDUCE PREMIUMS.
- INTERNAL DIRECTIONAL ANTENNA, HIGHLY ACCURATE, IF USED AS A CHASSIS, FUSELAGE, HULL OR PLAN OF LOTS.
- TOTAL FLOOR AREA IS 142.6 m^2 IF AN AVERAGE OF A APARTMENT COMPLEX BUILT TODAY WAS MADE, BEING AVERAGE WITHIN THE ONE COMPLEX OF PENTHOUSE, THREE, FOUR, TWO, ONE BEDROOM ONE WOULD FIND THAT FLOOR AREA IS MUCH LESS THAN 142.6 m^2
- (I CHALLENGE YOU TO FIND ANYTHING BETTER ON THE MARKET)
- I THINK THE OTHER WAY DESKIN REDUCES INFRASTRUCTURE AS HUMANS DON'T GET SICK, THEREFORE DON'T HAVE TO GO TO HOSPITAL, VERY IMPORTANT, COUNTRY, CITY, INTERNATIONAL ENVIRONMENTS. EVERY DOCTOR ACKNOWLEDGES IT IS MORE IMPORTANT NOT TO GO TO HOSPITAL IN THE FIRST INSTANCE.
- ALL CLIMATE CHANGE RELATED VARIABLES, ES GENETIC DIVERSITY, ARE KEPT AT BAY, BY A SOUND STRATEGY OF DESIGN, INTERNAL & EXTERNAL.
- FUN, ENJOYMENT WITH PLANTS, BUT TRUE SCIENCE. NOT PANSIES ON A BALCONY.

• I COULD GO ON WITH OTHER QUALITIES, HOWEVER ^{WAY}
I DRAW YOUR ATTENTION TO LETTER TO :-
MR MITCHEL DELOS MOZOS, RESERVE BANK OF
AUSTRALIA, SUBJECT :- ALTERNATIVE TO NEGATIVE
CLEARING.

SIMPLY PUT, I PROPOSE :- TO REDUCE WORLD
DEBT, THEREFORE INFLATION VIA INCOME FOR MY CLIENTS.
THE MONEY WORLD GOVERNMENTS ARE DIRECTING TO
CLIMATE CHANGE ISSUES, SOME, COULD BE EXCHANGED
TO MY CLIENTS TO CATER FOR CLIMATE CHANGE AS AN
INCOME IN THE PURCHASE OF MY SERVICE, PRODUCTS.
(MY OPINION IS, MY CLIENTS WOULD MAKE MORE MONEY,
INSTEAD OF THE CONSEQUENCES OF NEGATIVE CLEARING,
ONE BEING INFLATED REAL ESTATE PRICES THAT CAN
NOT BE SUSTAINED, IE BOOM/BUST. PEOPLE WHO PAY RENT,
WHO DO NOT WANT TAKE ACCOMMODATION TO PAY RENT
CAN/COULD BUY MY DESIGN WHICH SAVES/MAKES
THEM MONEY AND COUNTERS CLIMATE CHANGE, THE
GOVERNMENT'S STRATEGY WITH EMPLOYMENT/AGRIUM
IN MIND.

FOR ALL OF THE ABOVE REASONING, AS MY
DESIGN CATER FOR ①* & ②* ABOVE, CLIMATE CHANGE
& BEAUTY AS A CONSEQUENCE, I RECOMMEND :-

NO DEVELOPMENT ON LOTS LESS THAN 100 SQUARE METRES.
COULD YOU GET BACK TO ME, IN WRITING, WITH YOUR
CONCLUSIONS ON YOUR INVESTIGATION, AS I, VIA MY
BUSINESS HAVE EXAMINED THE SAME PROBLEM VIA DESIGN.
THANK YOU FOR YOUR TIME. ADVERTISING MATERIAL
ENCLOSED. HARMONISERS CAN BE USED IN EXISTING STRUCTURES

YOURS SINCERELY, N. READ

NICHOLAS READ.

TO:- WESTERN AUSTRALIAN PLANNING

COMMISSION:- 140 WILLIAM ST, PERTH 6000.
WESTERN AUSTRALIA.

FROM:- NICHOLAS READ

PO BOX 712, SOUTH PERTH 6151
WESTERN AUSTRALIA.

DATE:- 4/8/15

SUBJECT:- CONTACT NAME TO POST TO WORKING GROUP.

DEAR WA PLANNING COMMISSION;

PLEASE PROVIDE A CONTACT
NAME FROM THE WORKING GROUP OF THE WA
PLANNING COMMISSION, BEING THE WORKING GROUP
WHO ARE INVESTIGATING LOT SIZES LESS THAN
100 SQUARE METRES, SO I MAY CONVEY INFORMATION
TO YOURSELF (THE COMMISSION) ABOUT THE MATTER.

I REQUIRE THIS BY 11/8/15.

THANK YOU FOR YOUR

ASSISTANCE

YOURS SINCERELY

N. READ

NICHOLAS READ.



Mr Nicholas Read
PO Box 712
SOUTH PERTH WA 6951

Dear Mr Read

**DEPARTMENT OF PLANNING CONTACT FOR DEVELOPMENT ON LOTS
LESS THAN 100 SQUARE METERS**

I refer to your letter dated 4 August 2015 addressed to the Western Australian Planning Commission requesting the name of the Department of Planning contact person to liaise with in respect to development upon lots less than 100 square meters.

Please address any correspondence on this matter to the following officer:

Mr Paul Ellenbroek
Planning Manager
Urban Policy
Department of Planning
140 William Street
PERTH WA 6000

Paul may also be contacted by email at: paul.ellenbroek@planning.wa.gov.au or by telephone on 6551 9458

Yours sincerely

Kym Davis
A/Executive Director Infrastructure, Projects, Policy and Research

13/08/2015

TO: - HON J M FRANCIS, MINISTER FOR EMERGENCY SERVICES
WAYNE GREGSON, EXECUTIVE DIRECTOR FOR D.F.E.S

FROM: - NICHOLAS READ, ABN 66553347410
THE LEAF DIRECTIONAL VORTEX CONSERVATORY FOR
HIGH AIR FILTER PLANTS.
PO BOX 712, SOUTH PERTH, 6951, WESTERN AUSTRALIA
INDUSTRY CODE (ANZSIC) 2412 BEING: - MEDICAL
EQUIPMENT MANUFACTURE, WITH NOTATION FOR SERVICE
FOR SALES FOR DESIGN.

INTELLECTUAL PROPERTY CLASSIFICATIONS:-
SERVICE:- CLASS 44 BEING:- HYGIENIC CARE FOR
HUMAN BEINGS.

REGISTERED DESIGN N^o: 354616

GOODS:- CLASS 10 BEING:- MEDICAL APPARATUS

PHONE NUMBER:- 0414298756

DATE: - 8/12/15

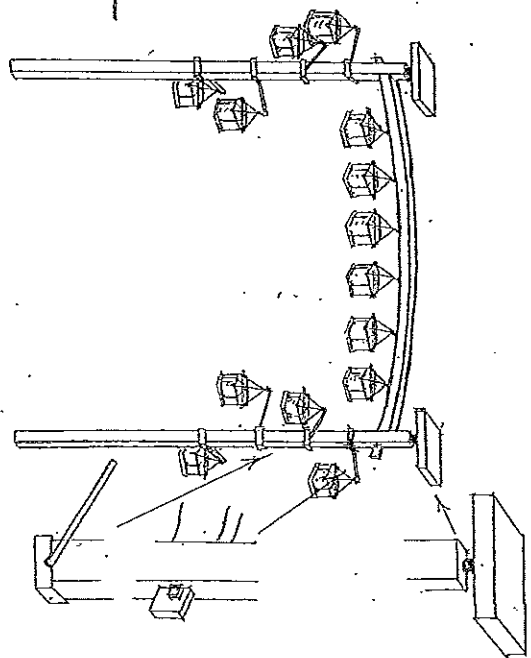
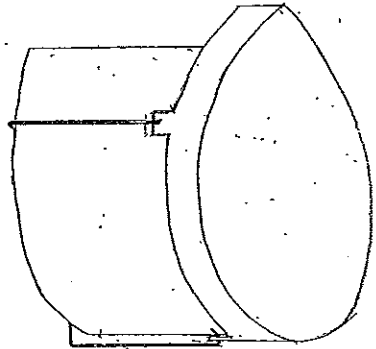
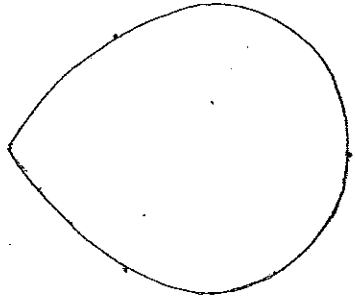
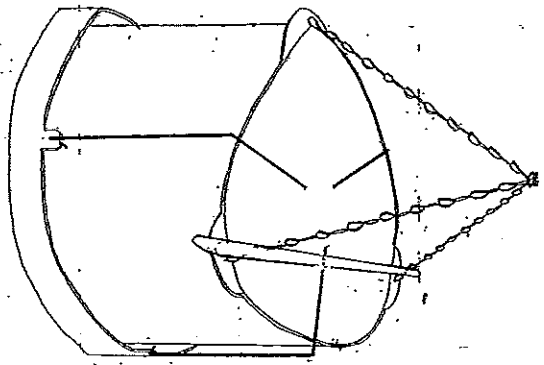
SUBJECT: - JOB DONE.

DEAR HON MINISTER FRANCIS & E. DIRECTOR GREGSON,
I REFER TO LETTER TO YOURSELF, MINISTER FRANCIS,
DATED - 19/9/14; SUBJECT - FIRE DATA ANALYSIS & MANAGEMENT,
FROM MYSELF, NICHOLAS READ; OF WHICH EXECUTIVE
DIRECTOR, YOURSELF, WAYNE GREGSON, HAVE A COPY.

THE JOB HAS BEEN DONE VIA: THE LEAF DIRECTIONAL
VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS:-
ABN:- 66553347410; IN RELATION TO VULNERABILITY TO
IGNITION BY FIRE TO A HUMAN ACCOMMODATING STRUCTURE.
IN THAT IGNITION WOULD BE NIL TO VERY LOW AS A
CONSEQUENCE OF DESIGN NO 354616 (REGISTERED); FOR
"BUSH FIRE ATTACK LEVEL ASSESSMENT" - IE A CURLED ROOF
MAY BE EMPLOYED. ALSO - SEE PART (2) OF LETTER TO
PAUL ELLENBROEK, DEPT OF PLANNING, DATE . 24/8/15 (ENCLOSED)
IE. TO COUNTER CLIMATE CHANGE. HIGHLIGHTED - PINK

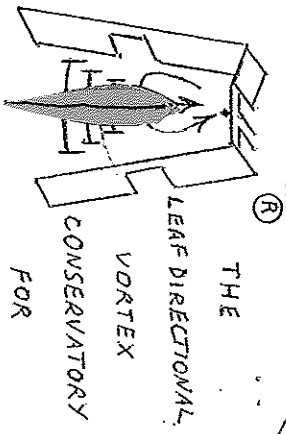
PARTIES OF LATE (7/12/15), WHO I HAVE TOLD ABOUT
ABOVE ARE: - HELEN MARRISIT - THE TREASURY
KIERAN KINSELLA - M.R.A
KYM DAVIS - DEPT OF PLANNING. } AND FAR PRIOR
PRIVATE, ALSO NOTIFIED. } TO

PLAN (ADVERTISING MATERIAL ENCLOSED); LOOK NO FURTHER,
I AM THE BEST. YOURS SINCERELY N. READ NICHOLAS READ.

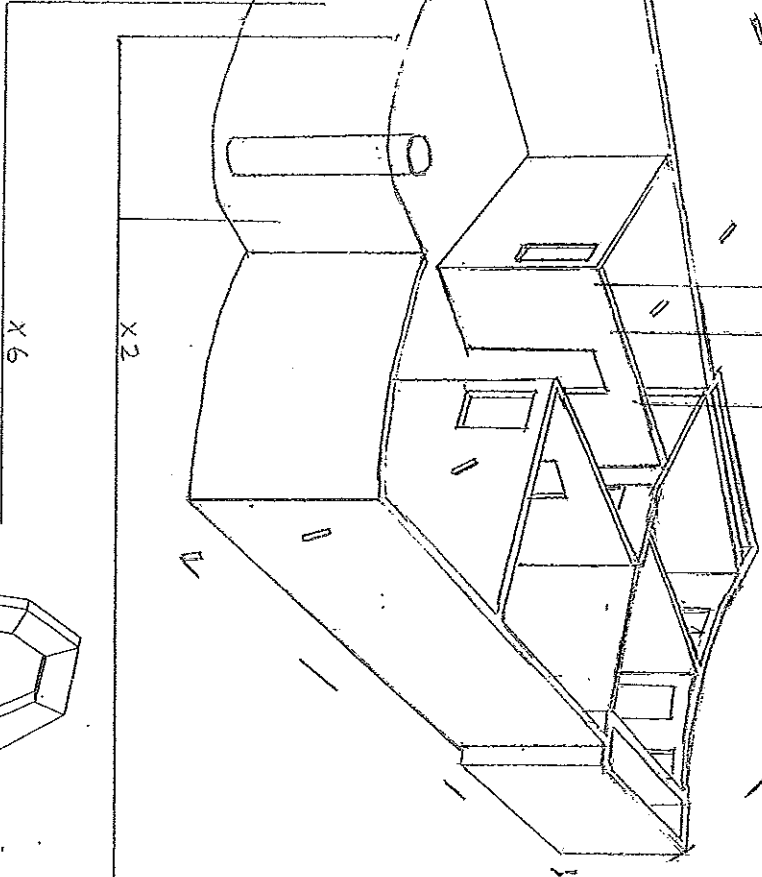


X42

X3

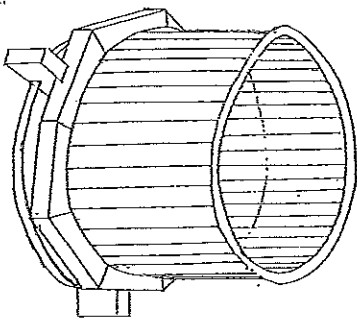
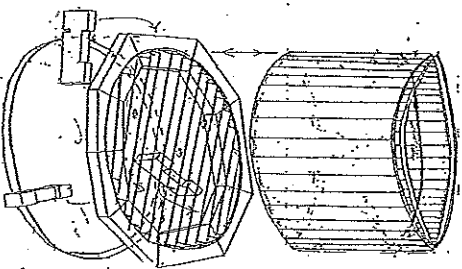
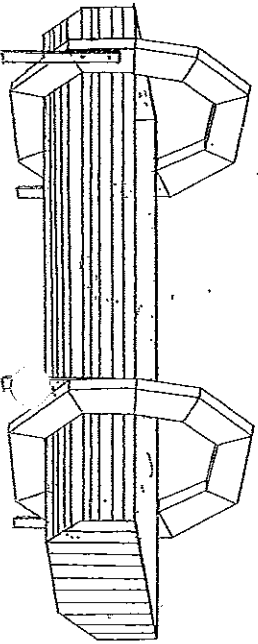


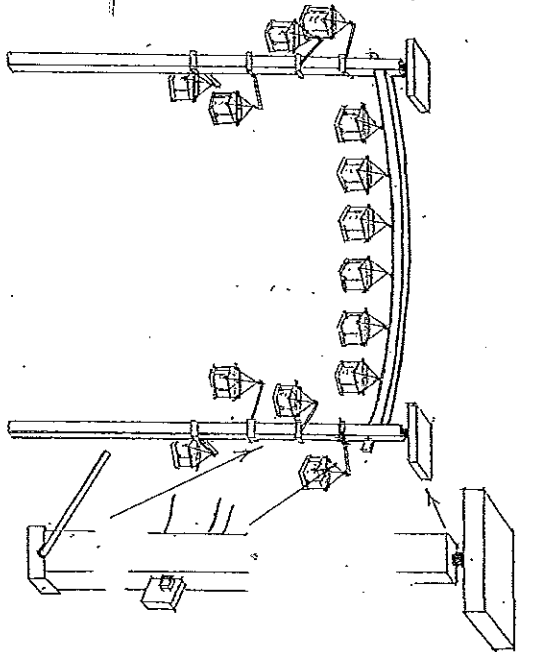
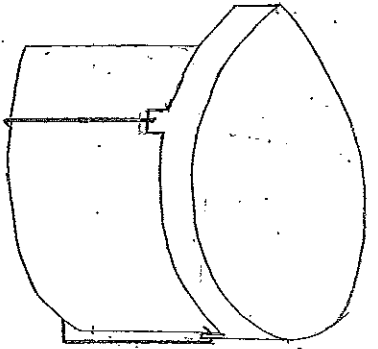
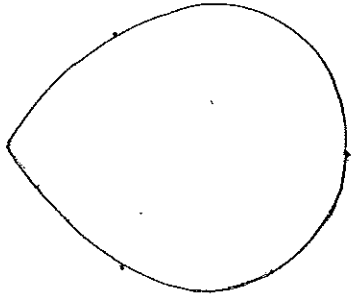
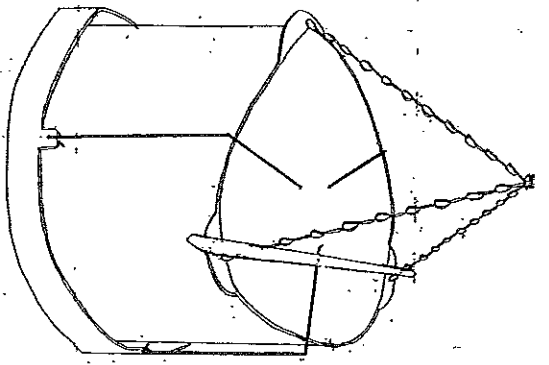
THE
LEAF DIRECTIONAL
VORTEX
CONSERVATORY
FOR
HIGH AIR FILTER
PLANTS



X6

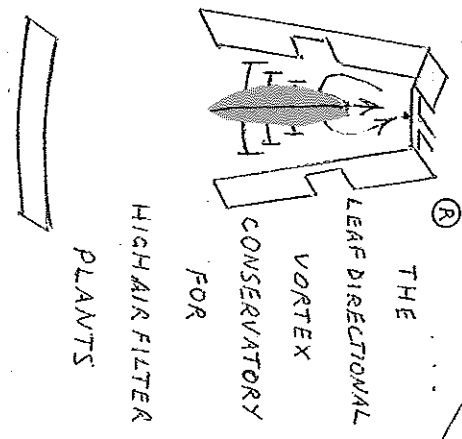
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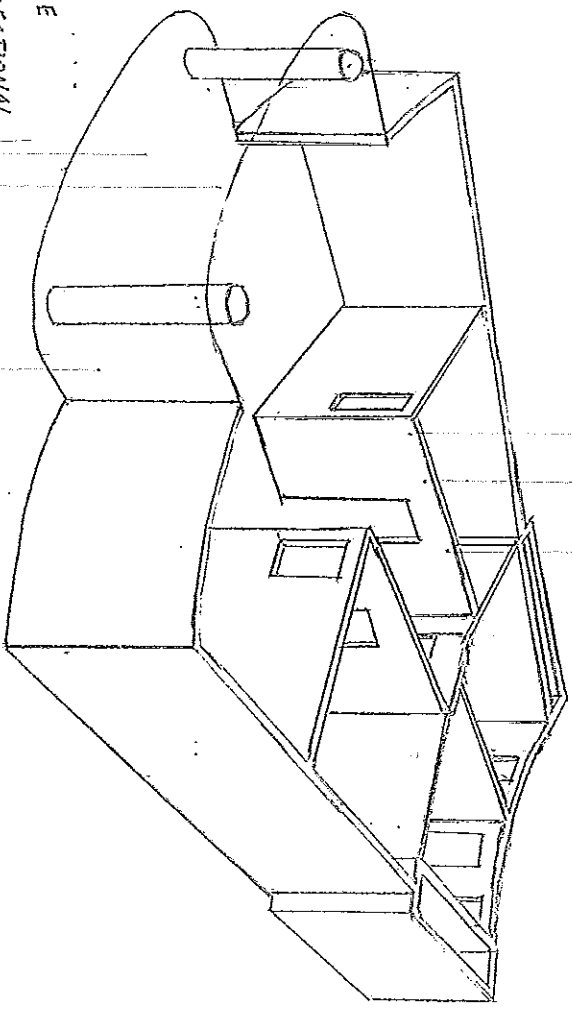


X4.2

X3

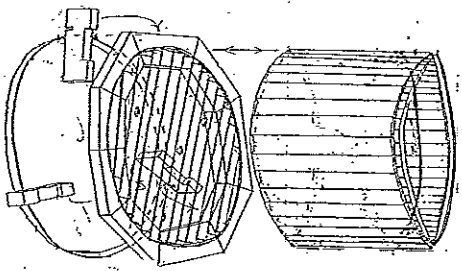
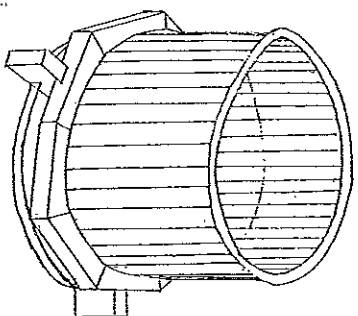
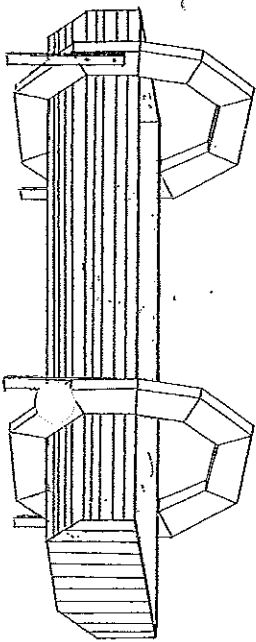


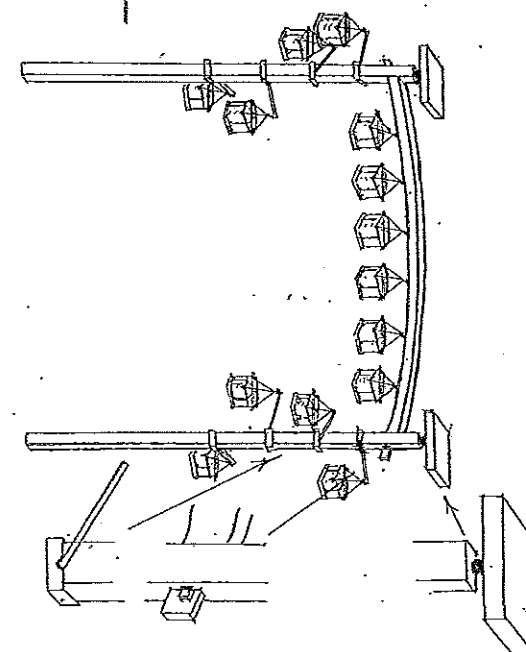
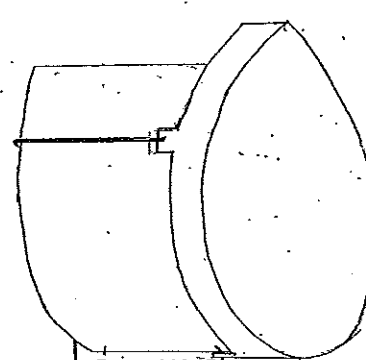
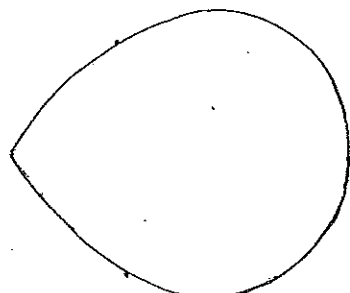
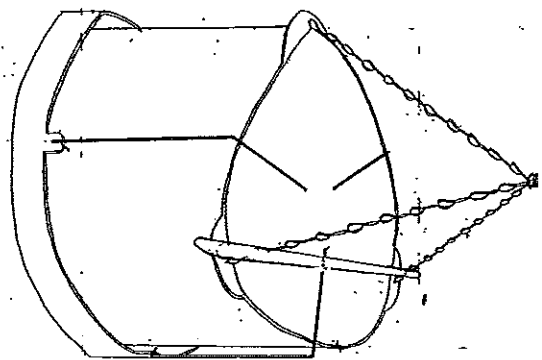
Ⓐ
THE
LEAF DIRECTIONAL
VORTEX
CONSERVATORY
FOR
HIGH AIR FILTER
PLANTS



X2

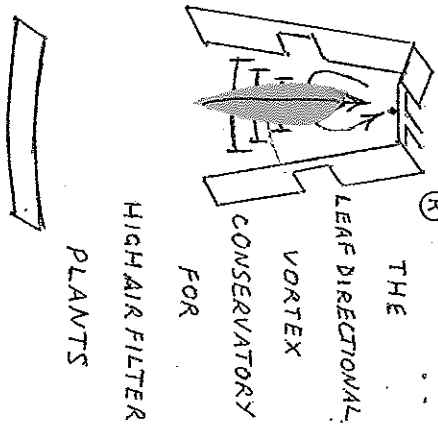
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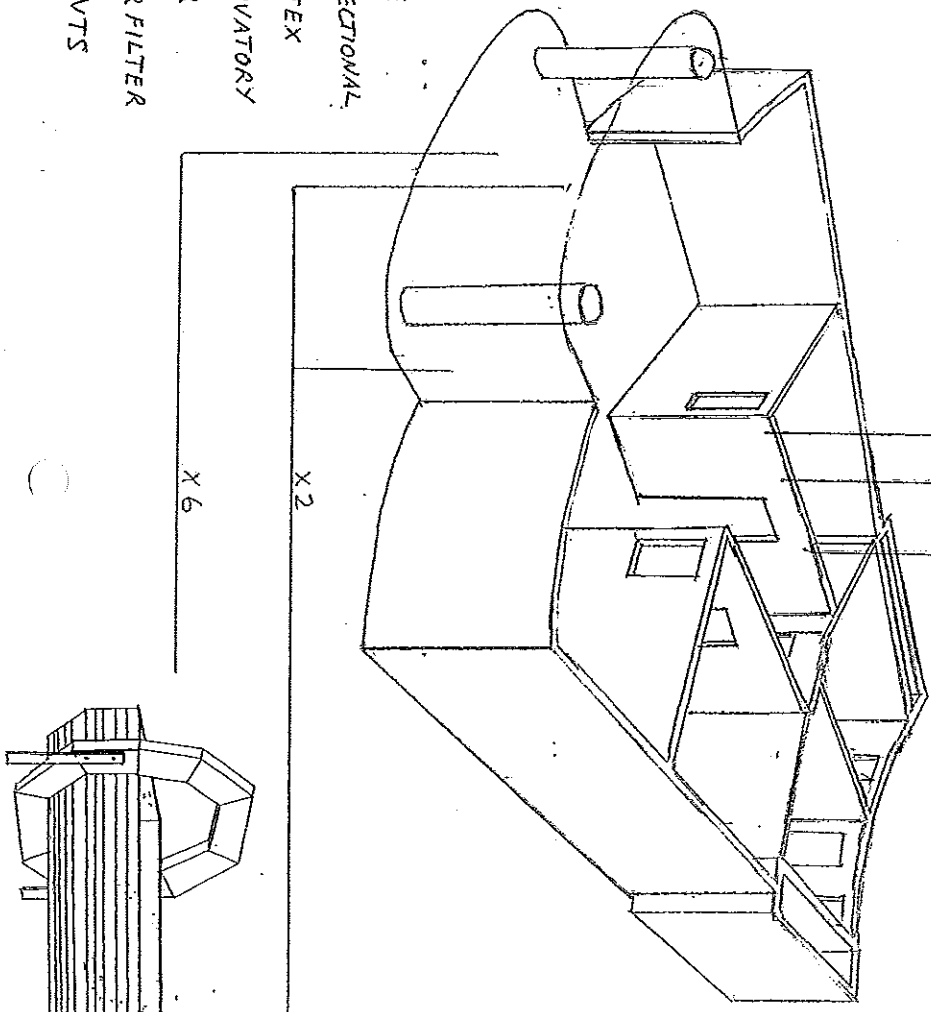


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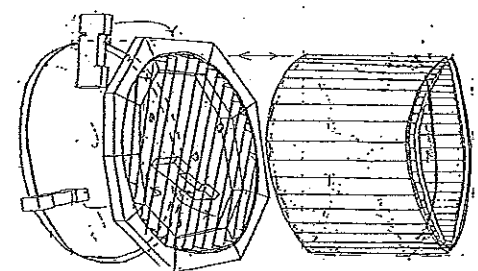
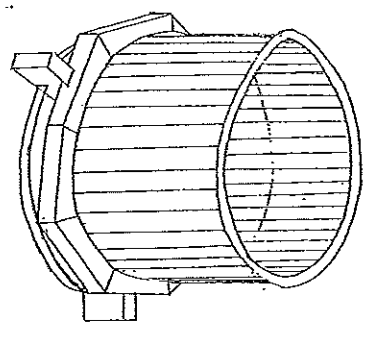
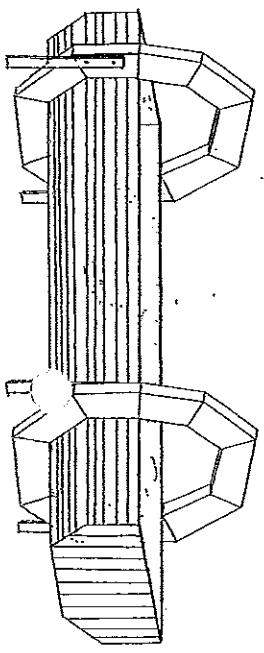


THE
LEAF DIRECTIONAL
VORTEX
CONSERVATORY
FOR
HIGH AIR FILTER
PLANTS



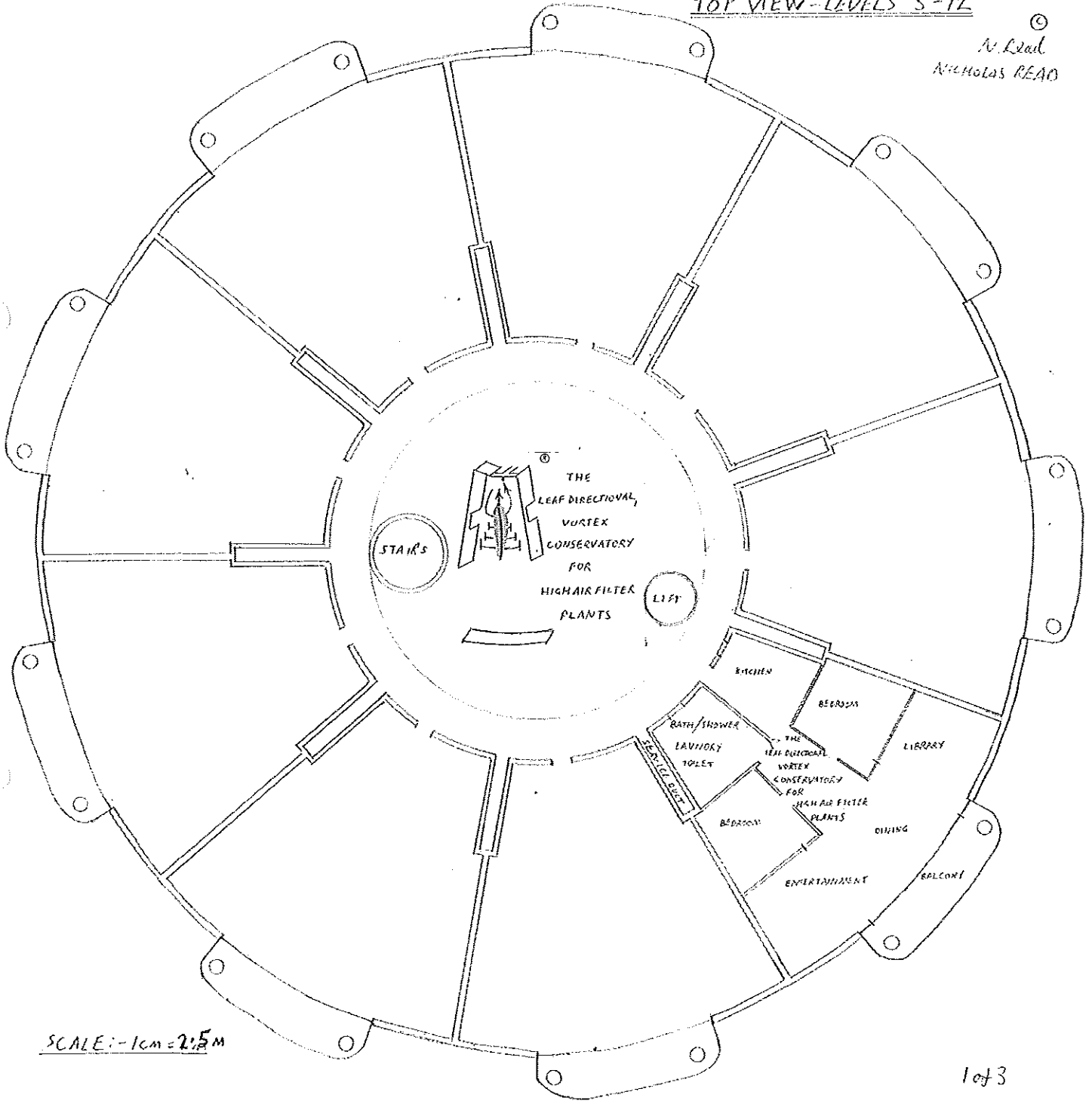
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X2



TOP VIEW - LEVELS 3-12

©
N. Read
NICHOLAS READ

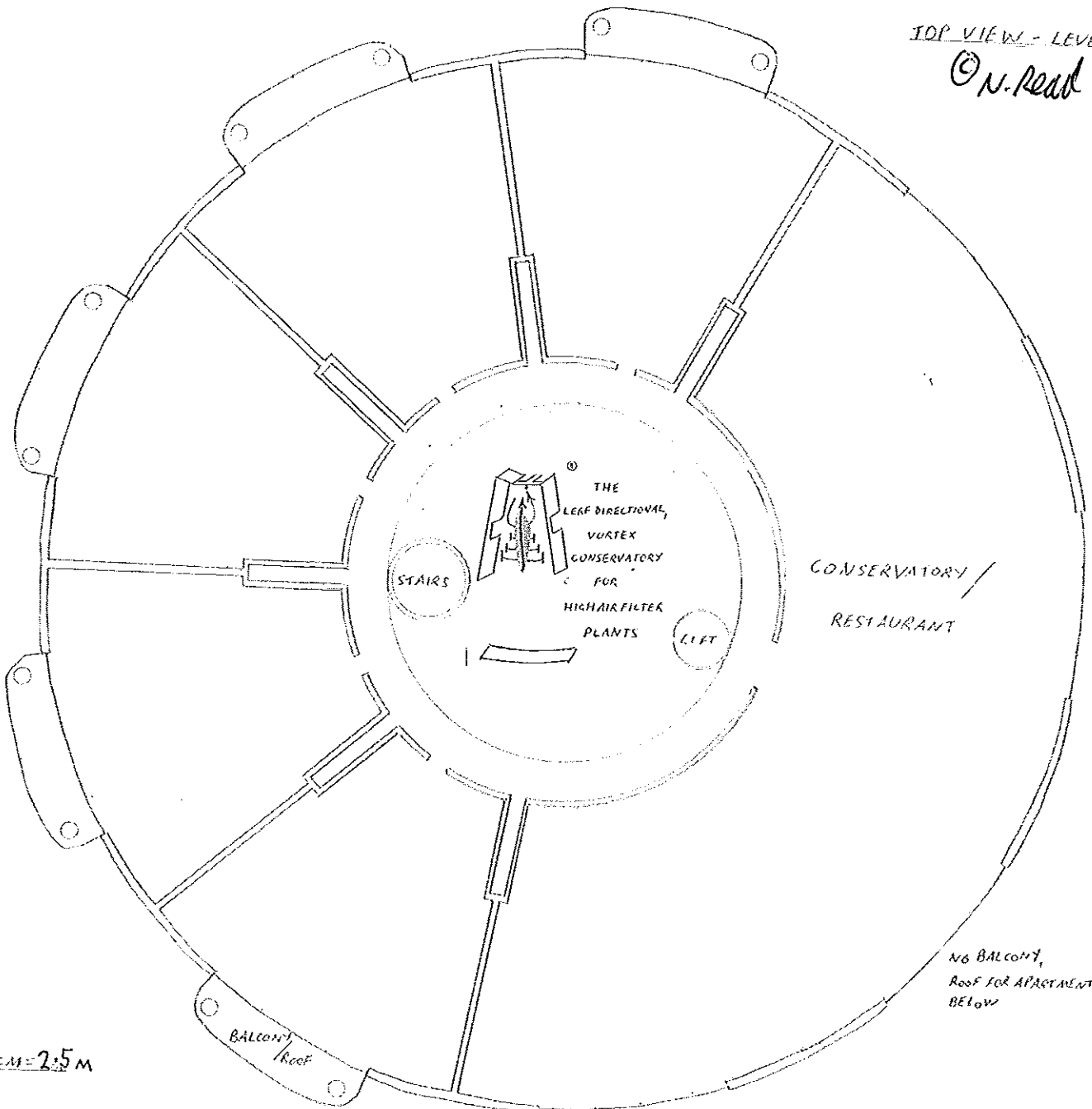


SCALE: - 1cm = 2.5m

TOP VIEW - LEVEL 13

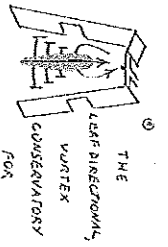
© N. Read

NICHOLAS
READ



SCALE: 1 CM = 2.5 M

NO BALCONY,
ROOF FOR APARTMENT
BELOW



THE
LEAF BIRCHMOUNT
WINTER
CONSERVATORY
FOR
HIGH AIR FILTER
PLANTS

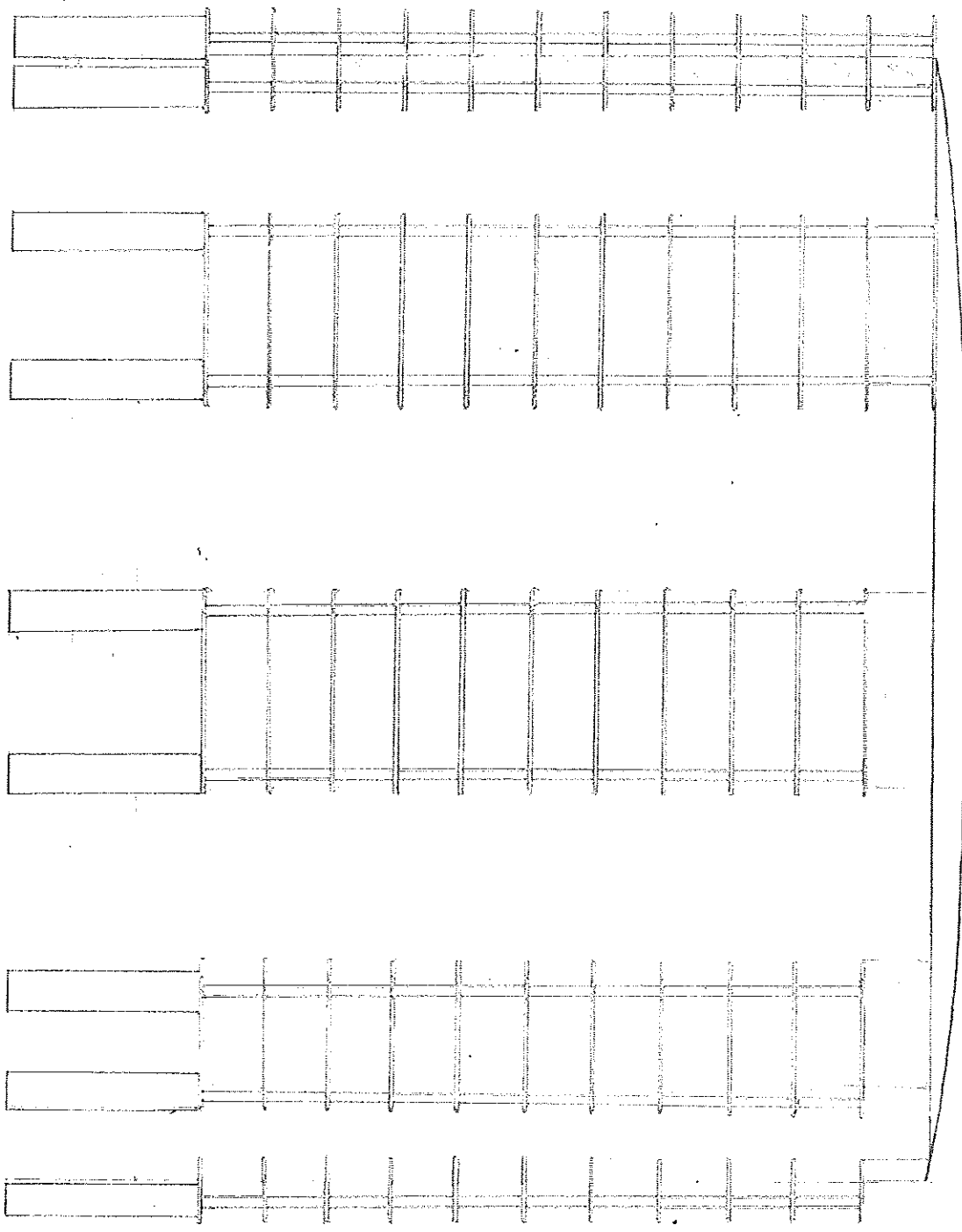
SIDE VIEW

GROUND PLUS 2 LEVELS - VEHICLES
10 LEVELS APARTMENTS
1 LEVEL APARTMENTS & RESTAURANT/
CONSERVATORY

TOTAL 25 APARTMENTS.
GROUND - 12 LEVELS

N. B. B. B.
KILMURRAY ROAD

SCALE: - 1cm = 2.5m



THE BOSTON FERN HARMONISER ©

(NEPHROLEPIS EXALTATA)

Congratulations on your purchase of the Boston Fern Harmoniser. It has been designed specifically for the Boston Fern, (*Nephrolepis Exaltata*) and the Leaf Directional, Vortex Conservatory for High Air Filter Plants. There are design specifications of the Boston Fern Harmoniser and specifications provided by/via the Leaf Directional, Vortex Conservatory for High Air Filter Plants and associated forest structures (Plant furniture), that enable the Boston Fern(s) to do their job better in a human accommodating environment.

The Leaf Directional, Vortex Conservatory for High Air Filter Plants caters for the following:

1. Sick Building Syndrome
2. Process CO₂ Carbon Dioxide
3. Reduction of CO Carbon Monoxide
4. Inhibit & Process – Bacterial & Viruses

It does the above better because of its structure in a human accommodating environment.

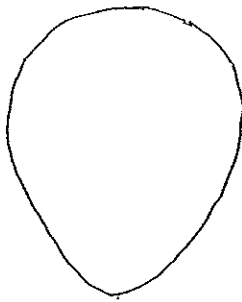
A leaflet is enclosed.

EXPLANATION OF DESIGN FOR THE BOSTON FERN HARMONISER

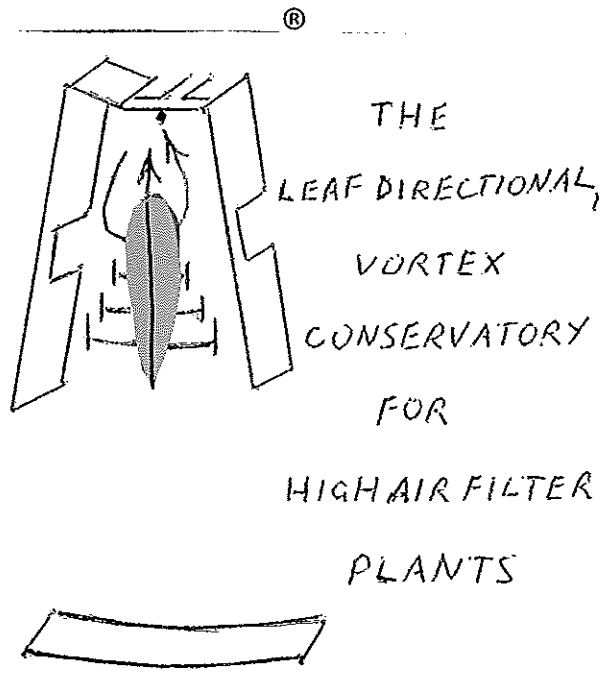
It should be noted to achieve the goals of 1 – 4 above and others better, the design specifications provided via the Leaf Directional, Vortex Conservatory for High Air Filter Plants should be employed. The Boston Fern Harmoniser is only for the Boston Fern (*Nephrolepis Exaltata*).

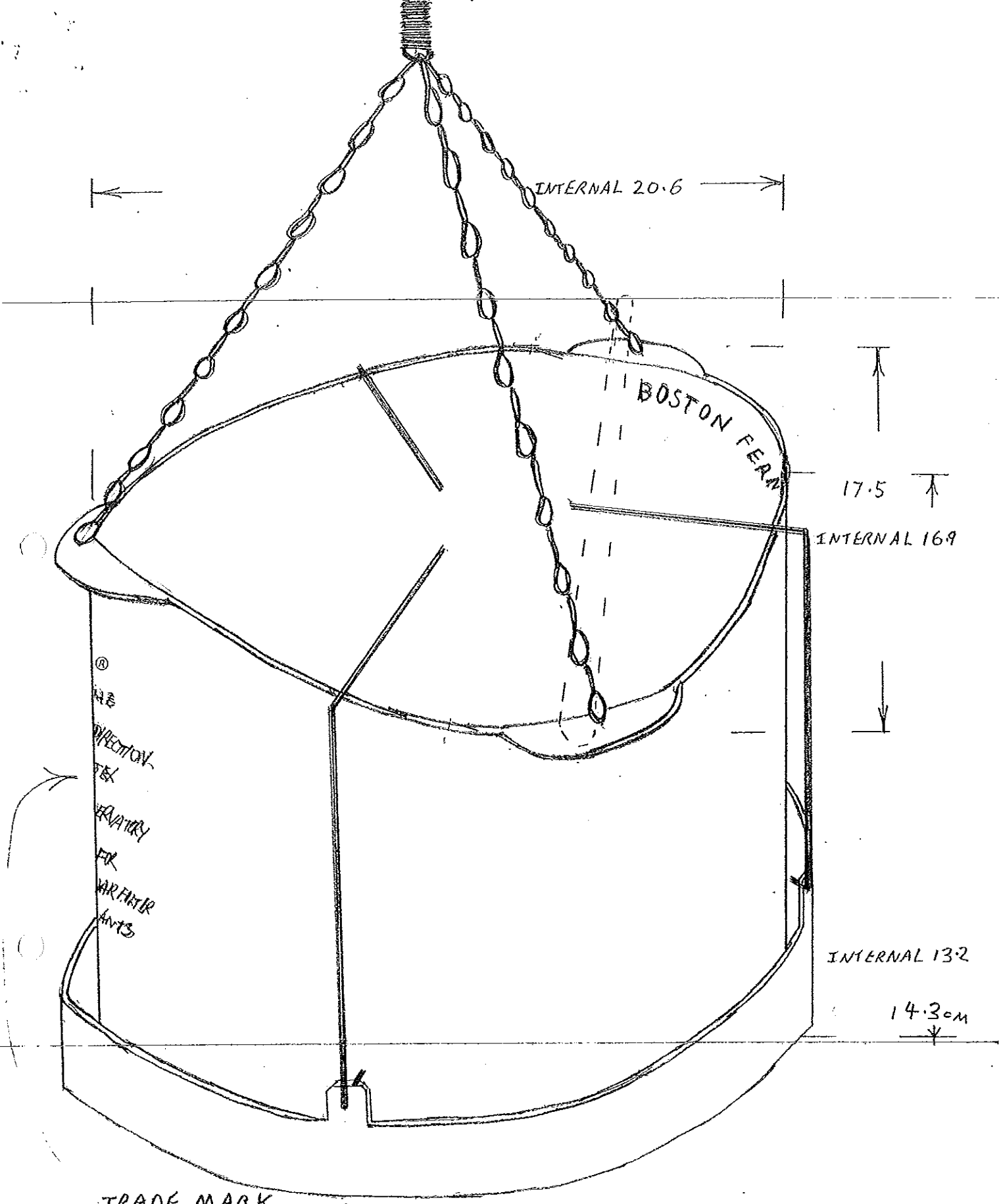
1. The outside of the walls are curved in such a way that airflow continues around the entire wall of the Harmoniser, in part of a Vortex. This is an advantage as there is no partial vacuum/reduced airflow on the other side of the Harmoniser-wall- from which part of the Vortex is coming from. The Boston Fern fronds are therefore in an increased airflow, thereby photosynthesis and respiration and consequently growth is better.
2. At the same time because of the shape of the Harmoniser (top view) the roots of the Harmoniser are compacted – Boston Ferns are adapted to grow like this. (For 1. & 2. The best ratio of airflow to compactness has been calculated).
3. A paddle, located on the chains, directs air to a soil mix ratio of one-third bark to two-thirds potting mix (not supplied), when used in the Leaf Directional, Vortex Conservatory for High Air Filter Plants.

4. The Harmoniser is white to keep the roots cool.
5. The plant, Boston Fern, should be planted on the side of the Harmoniser that part of the Vortex is coming from. By this method, runners will propagate toward the light and new plants can be transplanted or left. Top view of the Harmoniser shows it is elongated.
6. It is a hanging Harmoniser.
7. It is stackable for storage.
8. The saucer can be used as a lid for storage of components/tools for the Leaf Directional, Vortex Conservatory for High Air Filter Plants. It may be placed in the refrigerator.
9. For cleaning purposes the saucer can be removed.
10. Wire covers the drainage holes.
11. The Harmoniser is raised to stop water logging.
12. Because drag is reduced, wind/air velocity can be less.
13. A spring is employed on the chain for safety reasons.



Top View of
Boston Fern Harmoniser
Aim Pointy End
toward the Light



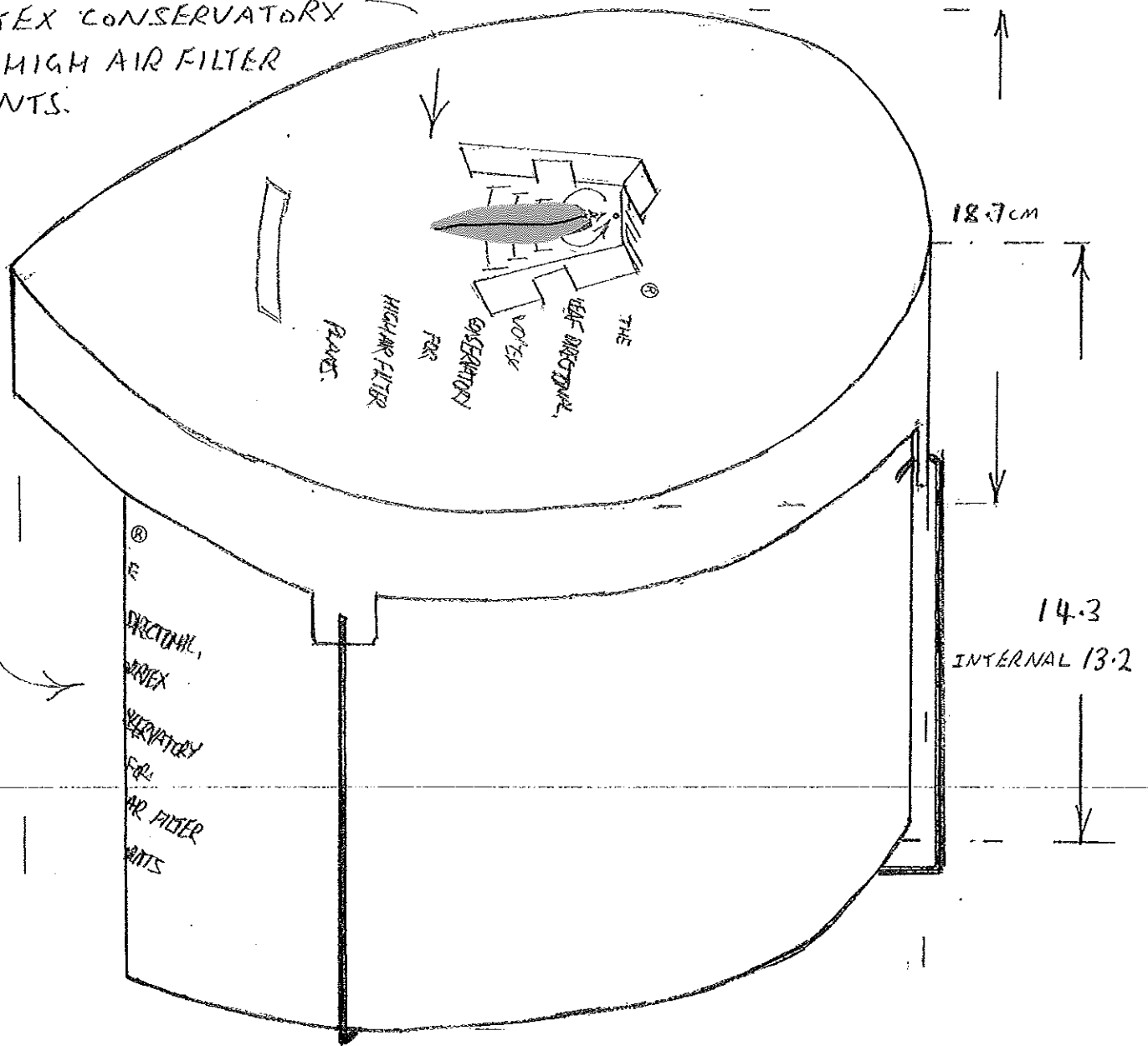


THE LEAF DIRECTIONAL VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS

BOSTON FERN HARMONISER

TRADE MARK

THE LEAF DIRECTIONAL,
VORTEX CONSERVATORY
FOR HIGH AIR FILTER
PLANTS.



BOSTON FERN HARMONISER

ORDERS FOR THE

BOSTON FERN HARMONISER

1 = \$20

NAME(S)	QUANTITY	ADDRESS AND/OR PHONE N ^o

POST TO :- NICHOLAS READ, PROPRIETOR :-
THE LEAF DIRECTIONAL VORTEX CONSERVATORY FOR
HIGH AIR FILTER PLANTS
PO BOX 712
WESTERN AUSTRALIA. 6951 SOUTH PERTH,

10% OF GREEN HOUSE GASES ARE FROM A HUMAN ACCOMMODATING ENVIRONMENT

TICKETS:-

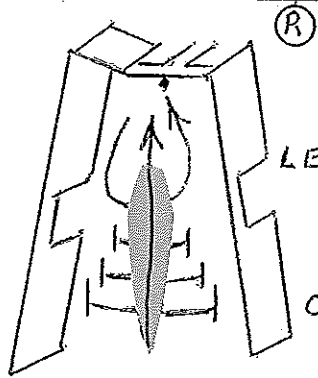
\$217.40

CONCESSION

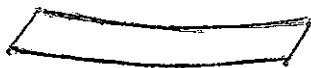
\$195.65

TO USE

INTELLECTUAL
PROPERTY, PAY
DIFFERENCE TO \$518
G.S.T INCLUSIVE



THE
LEAF DIRECTIONAL
VORTEX
CONSERVATORY
FOR
HIGH AIR FILTER
PLANTS



POST CHEQUE, MONEY ORDER
TO, MADE OUT TO PROPRIETOR
OF THE LEAF DIRECTIONAL,
VORTEX CONSERVATORY
FOR HIGH AIR FILTER
PLANTS, NICHOLAS READ
PO BOX 712
SOUTH PERTH, 6951 WA,
AUSTRALIA
TICKET & RECEIPT
SENT TO YOU
NO MONEY ACCEPTED
7 DAYS PRIOR TO
SESSION / SALES

TRAINING SESSION / SALES

16 PAGE DOCUMENT SUPPLIED, WITH ATTACHMENTS
FROM THE PRIME EVIL SLIME BEING,
THE HUMAN RACE,
INTELLECTUAL PROPERTY BEING, PROVIDED VIA

THE
LEAF DIRECTIONAL,
VORTEX
CONSERVATORY
FOR
HIGH AIR FILTER
PLANTS

HAS BEEN INVENTED :- ABN 66553347410
CATERS FOR ① SICK BUILDING SYNDROME

② PROCESS CO₂, CARBON DIOXIDE

③ REDUCTION OF CO, CARBON MONOXIDE

④ INHIBIT & PROCESS - BACTERIA & VIRUSES

BECAUSE OF THE STRUCTURE OF THE CONSERVATORY
FOR NEW STRUCTURES IN A HUMAN ACCOMMODATING ENVIRONMENT
VENUE:- CONTACT NICHOLAS READ, IN WRITING ABOVE ADDRESS, FOR DETAILS.

DATE:-

TIME:-

MORE GREEN HOUSE GASES ARE PROCESSED THAN ARE
PRODUCED FROM THE PRODUCTION OF MATERIALS TO
CONSTRUCT CONSERVATORY, OVER TIME -
ASSOCIATED APARTMENTS / HUMAN ACCOMMODATING
STRUCTURE.

FOR EXAMPLE - STEEL FROM AUSTRALIAN ORE.

THE CITRUS HARMONISER – (DWARF ROOT STOCK) ©

CAN BE USED FOR OTHER PLANTS

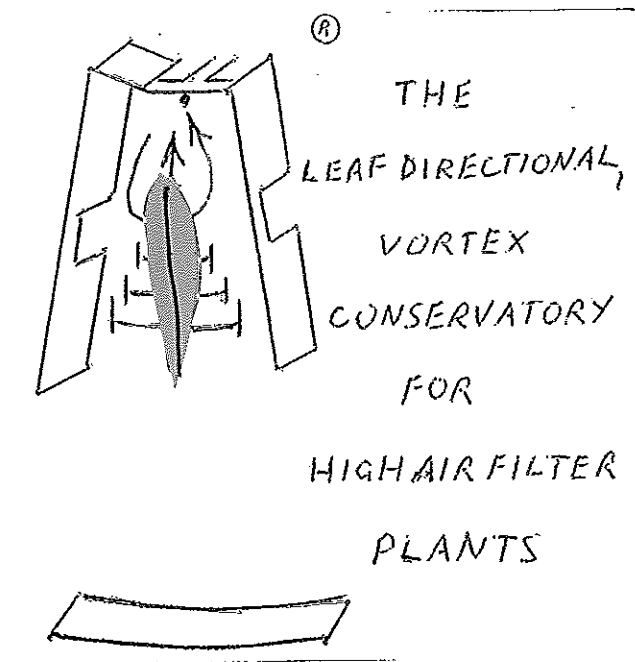
CONGRATULATIONS ON YOUR PURCHASE OF THE
CITRUS HARMONISER (DWARF ROOT STOCK).

IT HAS DIMENSIONS THAT ARE FOR DWARF
ROOT STOCK, FOR CITRUS TREES, THAT IS;-
500MM DIAMETER; 350MM DEPTH (INTERNAL)

• THE ADVANTAGES OF THE CITRUS HARMONISER ARE AS FOLLOWS;-

1. IT IS CONSTRUCTED IN A CIRCLE FOR THE ROOTS.
2. BEING MADE OF TIMBER (PINE), THE ROOTS ARE KEPT COOL.
3. AS AIR CAN DIFFUSE THROUGH DRAINAGE HOLES (FREE DRAINING) & THROUGH VERTICLE JOINS IN TIMBER, BOTH O₂ FOR RESPIRATION & AIRBORNE FUNGUS, VIRUS/BACTERIA FOR THE BREAKING DOWN OF MATERIALS/COMPOUNDS FOR GROWTH CAN BE UTILISED QUICKER.
4. IT IS RAISED. THIS ALLOWS GOOD AIR FLOW TO THE ROOTS.
5. A SAUCER IS KEPT IN PLACE TO CATCH DRAINED WATER, JUST BEFORE IT EVAPORATES.
6. EASILY TRANSPORTABLE.
7. WHEN THE YOUNG DWARF ROOT STOCK IS PLANTED IN THE CITRUS HARMONISER PLASTIC MAY BE USED (SUPPLIED), POSITIONED JUST BELOW THE SURFACE ROOTS, AS THEY WILL GROW OVER THE PLASTIC SHEET, MOST OF THE WATER IS TAKEN UP BY THE SURFACE ROOTS. IT CAN BE CUT TO SIZE AND HOLES MADE SO A PROPORTION OF WATER PERCULATES TOWARD THE DEEPEST ROOTS.
8. THE WALLS ARE VIRTICLE & NOW :-
 - A. CAN BE STACKED TO GROW MUSHROOMS/WORMS
 - B. WILL NOT DRIP
 - C. DESIGNED FOR THE ROOTS

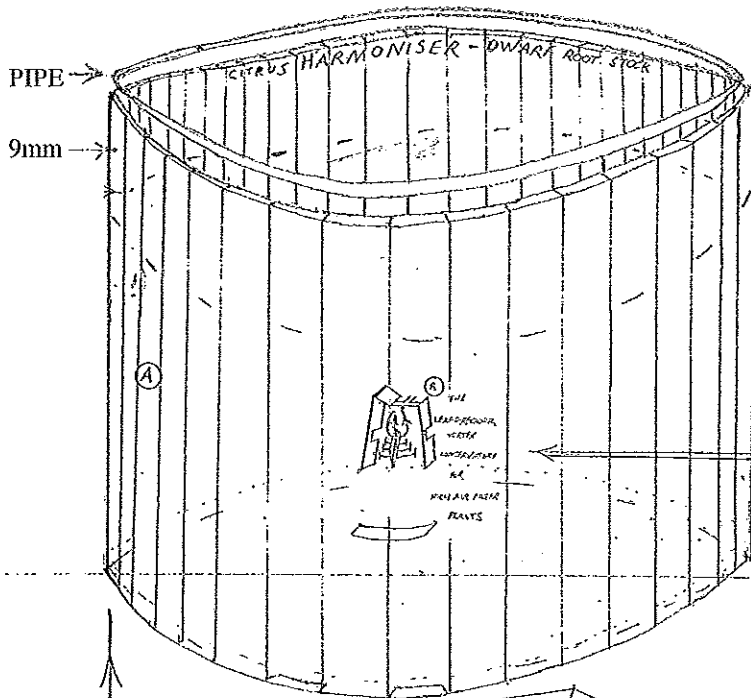
9. VERY STABLE.
10. TIMBER IS VARNISHED FOR PROTECTION.
11. IT CAN BE USED IN CONJUNCTION WITH THE LEAF DIRECTIONAL, VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS, WHEN A BALCONY OR VERANDA IS EMPLOYED. THE CITRUS HARMONISER CAN BE PLACED JUST OUTSIDE OR INSIDE THE WINDOW, IF LIGHT INTENSITIES ALLOW THIS.



MORE LIGHT ADAPTIVE SPECIES ARE PLACED FURTHER TOWARD THE LIGHT. ONE DESIGN SPECIFICATION OF THE LEAF DIRECTIONAL, VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS IS THAT IT IS CONSTRUCTED AS A TROPICAL TREE WOULD BE, IN THAT MORE LIGHT IS INTERCEPTED CLOSE TO THE WINDOW, AND AS A CONSEQUENCE OF SHADE, LESS LIGHT IS INTERCEPTED FURTHER AWAY FROM THE WINDOW, HENCE THE DESIGNED VOLUME IS LESS FURTHER AWAY FROM THE WINDOW SEE TRADE MARK:-

MORE INFORMATION ABOUT THE LEAF DIRECTIONAL, VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS CAN BE OBTAINED BY CONTACTING PROPRIETOR
NICHOLAS READ – PO BOX 712, SOUTH PERTH 6951
WESTERN AUSTRALIA

CITRUS HARMONISER (DWARF ROOT STOCK)

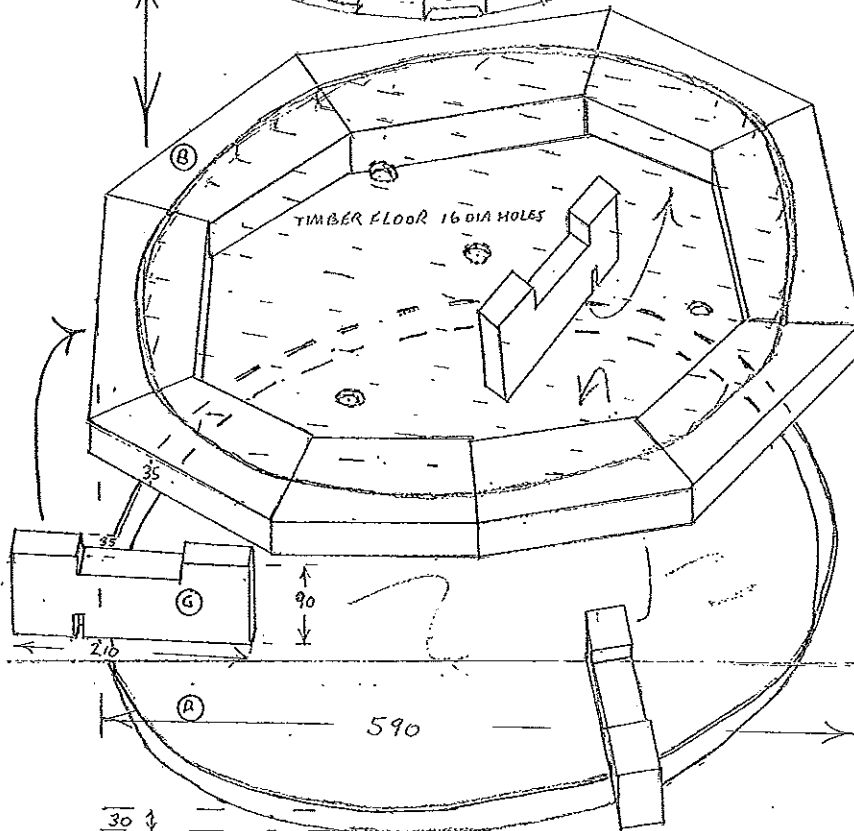


INTERNAL DIMENSIONS:-
500 DIAMETER X 350 DEPTH
EXTERNAL DIMENSIONS:-
640 DIAMETER X 460 DEPTH
MATERIALS:- MADE FROM
PIPE
RADIATA PINE
FIBREGLASS
PLASTIC

PLASTIC FOR
SURFACE ROOTS
SUPPLIED.
(CUT AS REQUIRED)

TRADE MARK

THE LEAF DIRECTIONAL,
VORTEX CONSERVATORY
FOR HIGH AIR FILTER
PLANTS



ALTERNATE USES
NOT EMPLOYED
AS THE
CITRUS HARMONISER

1. REMOVE COMPONENT (A)
-CLEAN-
PLACE SMALLER
PLANT "POT"
ON COMPONENT
(B) USE LEDGE FERNS

2. USE FOR:
WORMS
MUSHROOMS

CITRUS HARMONISER - (DWARF ROOT STOCK)

ORDERS FOR THE

CITRUS HARMONISER

FOR DWARF ROOT STOCK

1 - COST \$ 64.90

QUANTITY

NAME(S)

ADDRESS AND/OR PHONE No

QUANTITY

POST TO; -

NICHOLAS READ, PROPRIETOR
THE LEAF[®] DIRECTIONAL, VORTEX
CONSERVATORY FOR HIGH AIR FILTER
PLANTS
PO BOX 712, SOUTH PERTH 6951
WESTERN AUSTRALIA

THE C₄ PLANT HARMONISER ©

CAN BE USED FOR OTHER PLANTS.

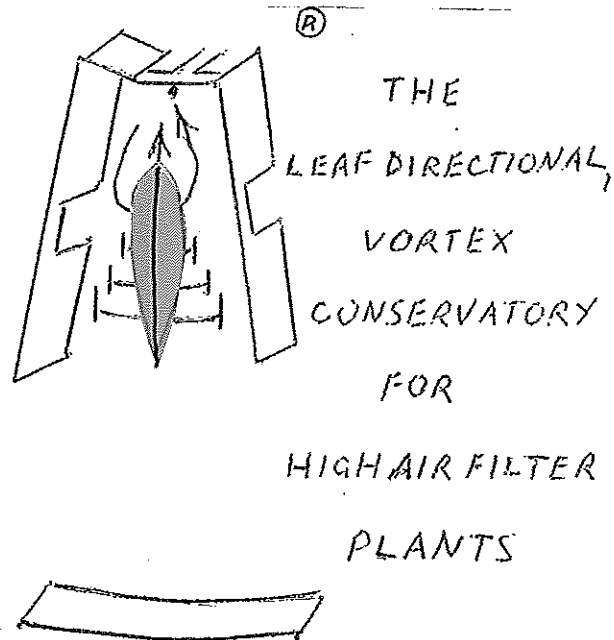
CONGRATULATIONS ON YOUR PURCHASE OF THE C₄ PLANT HARMONISER.

IT HAS DIMENSIONS THAT ARE COMPATIBLE FOR THE ROOT SYSTEMS OF MANY C₄ PLANTS EG CORN OR CABBAGE. THE CROSS SECTIONAL SHAPE OF THE C₄ PLANT HARMONISER IS COMPATIBLE FOR CORN AND CABBAGE AND OTHER C₄ PLANTS, EG CHRYSANTHEMUM AND DAISY, BEING THAT IT IS SHALLOW. TWO OR A NUMBER OF C₄ PLANT HARMONISERS NEED TO BE EMPLOYED IF USED FOR CORN AS FOR POLLINATION PURPOSES, CORN NEEDS TO BE PLANTED IN A BLOCK.

• THE ADVANTAGES OF THE C₄ PLANT HARMONISER ARE AS FOLLOWS;-

1. BEING MADE OF TIMBER (PINE) THE ROOTS ARE KEPT COOL.
2. IT IS RAISED, THIS ALLOWS GOOD AIR FLOW TO THE ROOTS.
3. EASILY TRANSPORTABLE – WITH A PERSON AT EITHER END AND EMPLOYING KINETIC LIFTING TECHNIQUES BY LIFTING FROM THE TOP OF COMPONENT (B), THE C₄ PLANT HARMONISER CAN BE MOVED TO A DIFFERENT LOCATION.
4. STABLE.
5. COMPONENT (B) IS MOVABLE ALONG COMPONENT (A)
6. TIMBER IS VARNISHED FOR PROTECTION.
7. IT IS COMPATIBLE AND CAN BE USED IN CONJUNCTION WITH THE LEAF DIRECTIONAL, VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS, WHEN A BALCONY OR VERANDA IS EMPLOYED IN FULL SUN ONLY.
 - (i) BY PLACING THE C₄ PLANT HARMONISER ON THE BALCONY OR VERANDA WITH C₄ PLANTS, LIGHT IS FILTERED TO THE CONSERVATORY, AS LESS LIGHT ADAPTIVE PLANTS REQUIRE LESS LIGHT AND ARE ADAPTED FOR THESE CONDITIONS IN THE LEAF DIRECTIONAL, VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS.

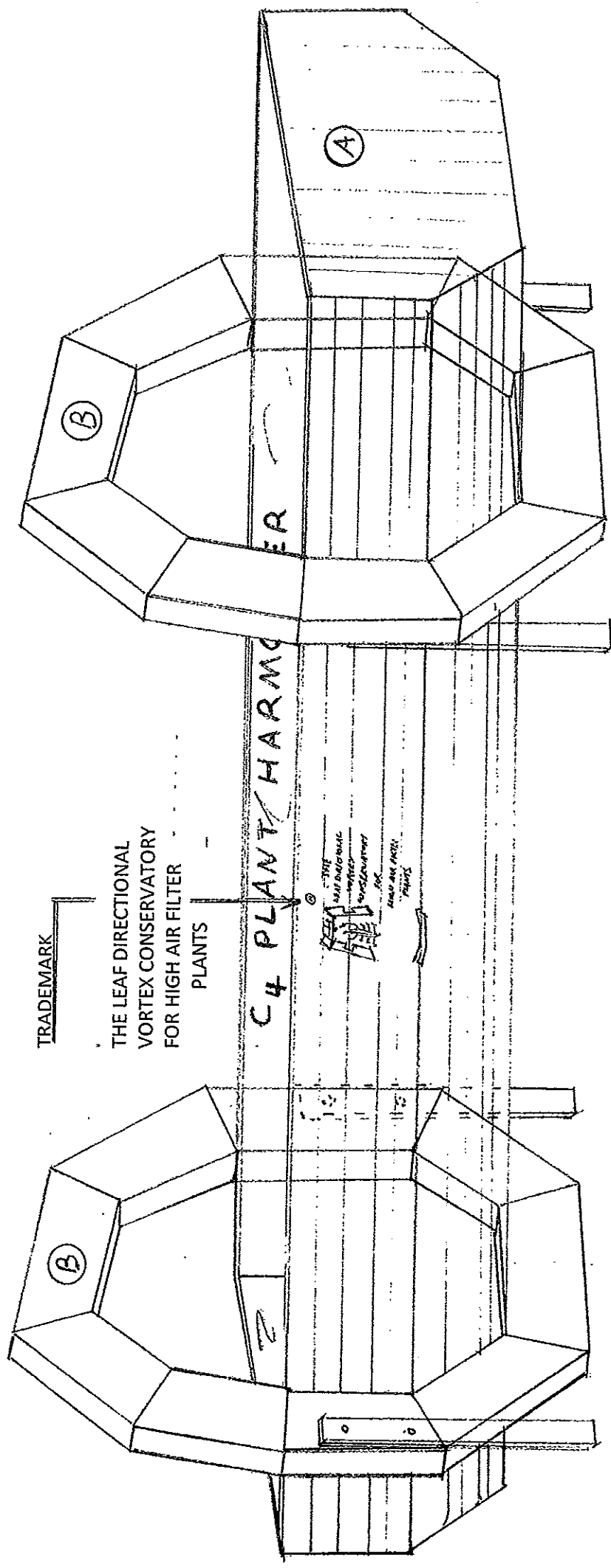
- (ii) IF THE RATIO OF BALCONY/VERANDA VOLUME (ENCLOSED) TO ACCOMMODATING STRUCTURE ARE SUCH, WITH A NUMBER OF C₄ PLANT HARMONISERS AND THE ADJOINING DOOR IS OPEN, THEN THE ACCOMMODATING STRUCTURE MAY BE DEPLETED OF CO₂ COMPLETELY VIA THE C₄ PLANTS. SEE TRADE MARK (SEE BELOW).



MORE INFORMATION ABOUT THE LEAF DIRECTIONAL, VORTEX CONSERVATORY FOR HIGH AIR FILTER PLANTS CAN BE OBTAINED BY CONTACTING:-

PROPRIETOR NICHOLAS READ
PO BOX 712
SOUTH PERTH WA 6951
AUSTRALIA.

C₄ PLANT HARMONISER



INTERNAL DIMENSIONS:
1582 X 391 X 241

EXTERNAL DIMENSIONS:
1600 X 590 X 590

MATERIALS: RADIATA PINE

C₄ PLANT HARMONISER

ORDERS FOR THE

C₄ PLANT HARMONISER

1 - COST \$ 97.90		QUANTITY
NAME(S)	ADDRESS AND/OR PHONE No	
	QUANTITY	

POST TO; -

NICHOLAS READ, PROPRIETOR
THE LEAF DIRECTIONAL, VORTEX
CONSERVATORY FOR HIGH AIR FILTER
PLANTS
PO BOX 712, SOUTH PERTH 6951
WESTERN AUSTRALIA

Our Ref: 1/2114 – D16/6355
Enquiries: Mr R Marlborough

29 February 2016

Mr Euan Ferguson AFSM
Waroona Bushfire Special Inquiry
Level 6, Dumas House
2 Havelock Street,
WEST PERTH WA 6005

*Thanks you email forwarded
9/3*

Ph: (08) 9531 7777
Fax: (08) 9531 1981
mailbag@murray.wa.gov.au
Postal Address: PO Box 21
Pinjarra WA 6208
ABN. 16 036 156 261

Dear Mr Ferguson

Submission - Waroona Bushfire Special Inquiry

I refer to your correspondence dated 9 February 2016 seeking submissions on the bushfire event that impacted both the Shire of Waroona and Harvey in January 2016.

Thank you for the opportunity to provide feedback. Comments are provided on the specifically relevant Terms of Reference points and other topical matters, as follows:

1.(g) (iii) Provision of welfare support

The Shire of Murray was requested by the Department of Child Protection and Family Support (CPFS) to open the Murray Leisure Centre in Pinjarra on Wednesday 6 January 2016 as an Evacuation Centre for persons displaced by the fire event. The Murray Leisure Centre is identified in the Shire of Murray Local Emergency Management Arrangements as the primary evacuation centre in the district. Notwithstanding that the fire was outside our local government area assistance was provided given the nature of the event and existing close working relationship with other Peel local governments.

The evacuation centre operated to assist displaced person from 6 January to 13 January 2016. During this time, according to data from the Red Cross and CPFS, up to 300 displaced persons were assisted. The following matters were identified as concerns that may need to be investigated:

- Limited provision of sufficient resources (staff) by CPFS to effectively operate the evacuation centre. Shire of Murray employees were required to staff the Centre on a 24 hour basis to meet the needs of the displaced persons. The total staff hours allocated were 742.25, of which 389.25 were within business hours and 353 were volunteered by staff outside of business hours. Analysis subsequent to the event supported the need for this level of staff.
- Limited initial supplies of physical resources in the first 24 hours by CPFS to support displaced person (e.g. bedding, food, clothing and basic personal hygiene and care items)

- Volunteering WA were not activated initially and lack of this service created difficulties for staff as they were expected to deal with queries without knowledge of best practise in the volunteering field or authority to coordinate volunteers.
- ADRA were not activated until day 4 - 5, delaying the appropriate placement of displaced persons into suitable housing options.
- A significant financial impact was realised by the Shire of Murray. While the event was 'declared', expenditure within normal business hours and also the loss of income is not eligible for reimbursement under the current guidelines. The Murray Leisure Centre employees were required to be paid, despite not being able to carry out their duties. The Centre also realised a significant loss of income. This appears to be a distinct disadvantage in providing such an excellent facility for the purposes of an evacuation point. If, for example, a hall was the nominated point, there would have been minimal if any, impact on Murray financially, however it would have been a far inferior option in terms of a community service level. Careful consideration will need to be given to future nominated evacuation facilities for events outside the district to ensure a balance between financial loss and community amenity is achieved unless a more equitable position can be reached in relation to financial impact.

1. (g) (iv) Management of people seeking to return to their properties

A major concern raised by residents in the Coolup and the adjacent rural areas of the Shire of Murray was access restrictions placed on the movement of residents to and from their respective properties well outside the area impacted by the fire event. The restrictions imposed prevented residents collecting essential supplies, undertaking normal activities and severely impacted rural business activities for the duration of the road closures.

Whilst it is understood that safety was the primary concern, effective management processes need to be put in place by the hazard management agencies to ensure minimal impact on the broader community in the future. It is suggested that DFES, DPAW and WA Police implement a resident's pass system for future emergency events where road closures occur. Local governments have substantial knowledge of their respective areas and consultation should occur as part of the road closure process to avoid unnecessary closures and the avoidance of road closures by residents with local knowledge.

1. (h) Livestock and companion animal management and welfare issues.

Shire of Murray/Waroona Rangers assisted with the care of companion animals. In the main, companion animal brought to the evacuation centre were either cared for at no cost at the Shire's Animal Management Facility or at other appropriate shelters of facilities in the district. Ranger Services were involved in regular meetings of the Incident Support Group (ISG) and this provided opportunities for direct liaison with the relevant Hazard Management Agencies.

As the fire event progressed Ranger Services assisted landowners with basic companion animals welfare needs on properties within the Waroona area, where direct requests were received from landowners. The management of stock welfare was coordinated by officers from the DAFWA and the RSPCA and the Shire had no direct involvement, however liaison occurred as part of the ISG.

As a general comment DFES approached local governments throughout WA in the past 18 months to seek feedback on relinquishing control of volunteer bush fire brigades. The Shire's concerns with this proposal is that response is not the only long term answer to fire control and management, more effort needs to be placed in prevention as the primary mitigation tool. It appears anecdotally that DFES is not committed to prevention and the Service is overly response focused.

The Shire are also aware of a survey circulated by DFES in the last 12 months to local governments and volunteers to gauge satisfaction levels with the organisation. To date no results of this survey have been made available and it would be pertinent as part of the inquiry to review the survey outcomes to establish relevant trends and views from those directly involved.

Further to the above the Shire of Murray Chief Fire Control Officer is preparing a separate combined submission on behalf of this district's Volunteer Bush Fire Brigades that attended and supported the Department of Fire and Emergency Service and the Department of Parks and Wildlife in direct firefighting and ancillary response activities.

If you wish to discuss these matters further please contact the Shire's Manager Governance on 9531 7718.

Yours sincerely



Dean Unsworth
Chief Executive Officer



Government of Western Australia
State Emergency Management Committee
Secretariat

Our Ref: 815/238
Enquiries: Mr Malcolm Cronstedt
Telephone: (08) 9482 1700

Euan Ferguson AFSM
Special Inquirer
Waroona Bushfire Special Inquiry
Level 6 Dumas House
2 Havelock Street
WEST PERTH WA 6005

Dear Mr Ferguson

Euan

Thank you for the opportunity to contribute to the Waroona Bushfire Special Inquiry. It should be noted that the following commentary represents the views of the State Emergency Management Committee (SEMC) Secretariat, and has not been endorsed by the SEMC, or its Chair.

The SEMC Secretariat is a sub department of the Department of Fire and Emergency Services (DFES). The SEMC Secretariat was created in 2012 through the restructuring of the former Fire and Emergency Services Authority (FESA) business unit known as Emergency Management Western Australia (EMWA). The restructuring of EMWA complemented reforms to the SEMC under which the SEMC relinquished its operational roles and responsibilities and three independent members were appointed, including an independent Chair and Deputy Chair.

The SEMC Secretariat's strategic objective is to develop and improve the State's emergency management arrangements through capacity building and the provision of advisory and support services. Its core functions are to:

- administer the *Emergency Management Act 2005*, including the development and maintenance of related regulations, policies, plans and procedures;
- provide executive and administrative support to the SEMC;
- provide whole-of-government representation on four SEMC subcommittees and two reference groups; and
- build local emergency management capacity by advising local governments, local emergency management committees and other regional stakeholders through a State-wide network of District Emergency Management Advisors (DAs), who also act as the Executive Officers of the State's eleven district emergency management committees.

Since the beginning of 2014 the SEMC Secretariat has also had a role in providing support to the State Recovery Coordinator.

The work of the SEMC Secretariat is guided by a Strategic Plan (attached) which rests on the three pillars of risk, capability and impact. These pillars represent our intention to understand risk and identify effective mitigation strategies; monitor, evaluate and advise on the development of the State's capability to manage emergency risk; understand and learn from the impact of emergency incidents on the State's core objectives.

A major initiative of the SEMC Secretariat is the State Risk Project, which seeks to gain a comprehensive understanding of the risks that Western Australia faces at the state, district and local level. The State Risk Project adopts an approach consistent with the AS/NZS ISO 31000:2009 methodology and is aligned with the national standard for risk assessments – the National Emergency Risk Assessment Guidelines. The preferred format for the work of the Project is the use of multi-stakeholder workshops.

Since 2012 the SEMC Secretariat has produced an annual Preparedness Report, which attempts to capture and report in a single document on the state of emergency preparedness of key government and non-government entities and the general community. This is done through an assessment of key indicators aligned to a state emergency management capability framework.

Unlike predecessor organisations, the SEMC Secretariat operates in a context where there is increasing recognition of the challenges posed by the disruption of established climate and weather patterns combined with significant social and cultural change. The latter include changes associated with urban expansion, an aging population and increasing diversity in the make-up of the Western Australian community. These and other demographic and cultural factors affect community preparedness and the capacity to address emergency risk.

The work of the State Risk Project also demonstrates that as these contemporary biophysical, cultural and social factors interact, the state's risk profile is increasing and the State's capacity to address or manage its risk is being overtaken. This work has led in particular to an increased awareness of the enhanced risk posed by very large incidents arising from natural hazards such as cyclone, bushfire and earthquake. Recent work undertaken by the Project shows that numbers of worst case scenarios are appearing within a 30 – 50 year timeframe.

There is a need for the state to reduce and progressively close the growing gap between risk and capability. This will entail reconsideration of both the resources available and the approach which needs to be taken across the state's emergency management agencies.

Context: machinery of government

Reforms introduced following the Inquiries conducted by Mr Mick Keelty APM AO in 2011 included the restructuring and refocussing of the SEMC and the establishment of SEMC Secretariat as a sub-department of DFES. Mr Keelty advocated a greater degree of separation and independence than has been achieved to date. For example, he recommended that EMWA (or an EMWA cognate) be established as an independent entity, separate from the principal emergency services agency. Alternatively, he suggested that it be located with another agency; both the Department of Premier and Cabinet (DPC) and the Department of the Attorney General (DoTAG) were nominated as possible hosts.

In the event, Cabinet decided that the SEMC Secretariat should be established as a sub-department of FESA (subsequently DFES) and given its own financial appropriation. Under sub-department arrangements, some powers of the Fire and Emergency Services Commissioner are devolved to the Executive Director of the SEMC Secretariat although the FES Commissioner remains the employing authority for the SEMC Secretariat staff.

Pursuant to the Cabinet decision, the SEMC Secretariat head office in West Leederville was established in a separate location from FESA/DFES; however its five regionally based staff members continue, as under EMWA, to be located in the DFES regional offices in Albany, Bunbury, Northam, Geraldton and Broome.

During the second half of 2015, there was agreement in government that the SEMC Secretariat ought to be more independent, though technical issues related to accommodation have delayed implementation.

Current issues

As Keelty indicated, and which has subsequently been agreed, the SEMC Secretariat needs to be able to stand apart from the main emergency management/ services agencies. This is particularly so in the realm of bushfire risk. In our view a similar issue exists in relation to the Office of Bushfire Risk (OBRM), which is responsible to develop standards, promote best practice and encourage effective and harmonious working relationships across agencies, volunteer groups and the community. OBRM is located within DFES although the office reports directly to the FES Commissioner.

As part of its role in analysing the impact of incidents, the SEMC Secretariat has led two strategic bushfire reviews (Parkerville Stoneville Mt Helena 2013 and O'Sullivan Lower Hotham 2015) and coordinated an extensive stocktake of the application of State Government resources to bushfire risk (Strategic Bushfire Stocktake 2016). In so doing, the SEMC Secretariat is inevitably required to report on the actions of its parent agency DFES or even on activities in which the SEMC Secretariat staff are directly involved, such as the functioning of Incident Support and Operational Area Support Groups.

The sub-department status, and the status of the SEMC Secretariat staff as DFES employees, currently makes it difficult to avoid some confusion or misunderstandings about roles and responsibilities. This particularly relates to regionally based staff, which can spill over into the public domain. This is the case especially in relation to the role of SEMC Secretariat staff during periods of emergency response.

The logical outcome of the objectives adopted in the Strategic Plan is for the SEMC Secretariat to develop and monitor compliance with risk assessment and mitigation standards on an all-hazard basis across the sector, drawing on the work undertaken by the State Risk Project and employing the skill sets of State Risk Project team members. This would complement and reinforce the work currently being undertaken by OBRM in the bushfire risk area. There may also be an opportunity to incorporate elements of OBRM in a realigned SEMC Secretariat, given the similarity of roles.

Alignment with or under the DPC has been seen as the most appropriate model under current circumstances, in that the State Recovery Coordinator is located within DPC and whole-of-government considerations are critical to both emergency preparedness and recovery (as evidenced by the Waroona fires recovery effort).

The approach undertaken by the State Risk Project sets apart the SEMC Secretariat from its predecessors and also provides a scientifically rigorous, objective basis for assessing risk, capability and impact. However, the State Risk Project has been developed opportunistically, using Commonwealth Natural Disaster Resilience Program (NDRP) funds, and is vulnerable to the loss of these resources. Given the value of the work to date, it is important to invest – largely utilising existing resource capacity across the SEMC Secretariat - in the re-engineering of the SEMC Secretariat in order to lock in this capability as a core function. Unless this is done, the state is likely to be increasingly challenged in being able to respond to the growing capability gap. There is a need to protect the resources in terms of risk, capability and impact intelligence that have already been accumulated, maintain the momentum of this work and reinforce our capacity to undertake our core functions.

Other matters

Two other matters are relevant to the Waroona Bushfire Inquiry because they represent opportunities to enhance the effectiveness of the SEMC Secretariat:

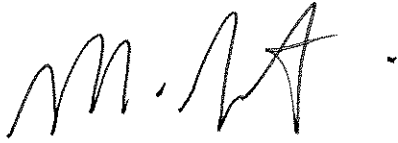
- opportunities to develop and expand the Preparedness Report; and
- mandating a performance review and reporting function such that a more effective and systematised assurance framework exists for emergency management.

The last four iterations of the Preparedness Report (the Report) collectively provide a foundation for the ongoing collection and analysis of data relating to the state's emergency readiness. With each iteration the Report has become more quantitative in its data collection methods and with the accumulation of data enabling better trend identification, more useful as a tool to assess performance and inform the allocation of resources in the emergency services sector. There is clear potential to incorporate some of the approaches pioneered by the State Risk Project through the use of stakeholder workshops to supplement the current Preparedness Report data collected by survey. However this is contingent to an extent on both greater independence and stability and predictability in the available resources. There is potential for the Report to be of much greater use to government for providing information on emergency management performance and to guide resource allocation priorities. However to do that there will be the need to have expertise and systems in place to provide consistent, reliable and robust data to inform the process.

Finally, although the separation of the SEMC Secretariat from operational roles and functions remains important, it is also important that the SEMC Secretariat is able to monitor the effectiveness of the policies, plans and standards produced under its auspices and to gain a better understanding of the course and consequences of significant incidents for the purposes of conducting strategic reviews. Therefore, the SEMC Secretariat should continue to build on its emerging performance assurance and reporting role.

If you have any further queries or require any clarification about any of the information in this letter, please do not hesitate to contact me on 9482 1701.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M. Cronstedt', with a small dot at the end.

Mal Cronstedt AFSM
EXECUTIVE DIRECTOR
STATE EMERGENCY MANAGEMENT COMMITTEE SECRETARIAT

11 / 3 / 2016

Att: Strategic Plan

Communications Support Unit

Phone: 08 9277 5438

(only available during training)

Facsimile : 08 9478 6430

91 Leake Street
BELMONT
Western Australia 6104

For operations phone:
0429 113 834

STATE EMERGENCY SERVICE




This Report is a collective report of the entire communications support unit and represents the views and opinions of those from the communications support unit that were involved and attended the Waroona Bush Fire.

In January 2016 the Communication Support Unit (CSU) was deployed to the Bushfire in Waroona in the South West. Over the period of time we as a unit were active (approximately a week 1/2- 2 weeks) there were a number of issues that were experienced by our members both out on the fire ground and at the Incident Control.

Issues have been raised in regards to the safety of our volunteers, the cooperation of DFES staff in providing adequate and sufficient information and coordinating with our members, a concern for welfare and fatigue and also training and equipment. It is vital to the ongoing improvement of our service and of the inter agency management system to improve on these issues and to highlight where changes can and should be made.

One of the issues highlighted in Waroona was that the assets provided by the communications support unit were and are often not utilised to their full capabilities. Often there is an issue with the speed of deployment and prior standby/warnings given to CSU of an ensuing deployment. Often at incidents we are not deployed for a number of days or are only called upon once the incident has been active for an extended period of time. It has also been suggested that we be considered as logistics rather than support in the future, to give a proper understanding of our role and full capabilities, as communications is essential at these incidents and our role is often down played.

There has also been an issue raised in regards to the knowledge of CSU being active at a fire, and in Waroona this was no exception. On a number of occasions there was a lack of



knowledge that we were present, which should have one been known through the use of our t cards that were submitted each time on arrival and informing of our departures, but also through a consistent level of communication through DFES, which often was not the case.

There were also occasions where information and assistance was required by CSU in speaking to DFES staff, and we were either ignored or directed back to someone else. At many stages it was felt that most of our assistance was provided by DPAW staff, notably Charlie Downs from DPAW (Collie). As we are a unit in the Department of Fire and Emergency Services, our assistance and information should be provided on arrival and throughout the course of our time at the incident by DFES.

This also highlighted the severe lack of communication throughout the incident at Waroona between the two authorities, being the Department of Fire and Emergency Services (DFES) and the Department of Parks and Wildlife (DPAW). On at least one occasion DFES and DPAW were operating on different communications plans and were often not communicating. It was highlighted that this presented some possible safety issues and potential risk of lack of knowledge on the fire ground.


A few times the command channel was also changed by the IC to ones that were not working as the repeaters power was damaged in the fire and was not running till power was restored. Power supply cables from the generator to the DFES ICV were not adequate and had melted which was later rectified after CSU offered assistance and were able to diagnose the issue with the help of DPAW spare parts, using a borrowed cable to restore power.

DPAW also assisted on a number of occasions in refuelling or in various areas of maintenance when fatigue management for our members was put in place.

An issue that arose for a number of our members and also throughout the maintenance of our repeater sites was the danger to our members being so close to active fire.

As a State Emergency Support Unit we are not equipped as a fire appliance and our vehicle leaves us with limited choices in protection if we were to find ourselves in a situation where in a burn over or impacted by fire.

In the first few days of the fire being active, one of our crews left to conduct a routine maintenance check and refuelling of a repeater located at Vinyard 28. The Incident Control Centre was informed of their departure and information was provided in regards to what needed to be conducted. This took our team a few hours and at no stage was there any communication or radio calls made in regards to the movement of the fire and its speed, in returning back to Waroona control. In that space of time the fire had moved a significant



distance and on returning to the Control centre in Waroona, the smoke cover had increased and decreased the visibility considerably. The fire had by that stage jumped the highway and the crew made the decision to attempt access to the Waroona township some 5-800m ahead of the fire front. Again there was no communication by the Control Point to inform or direct the crew in any way around the fire or to inform them that there was active fire in the area/ where they had travelled hours before, nor a concern for their welfare.

On attempting to return to the township the crew encountered two water vehicles parked by the side of the road, presumably a designated water refuelling station in an active flare up zone. The crew stopped to offer assistance and check the welfare of the drivers.


They informed the crew they had no means of communication (ie, radios) and no fire crews had stopped to collect water since 2pm that afternoon (by this time it was approximately 8-8:30). A request was called in to Waroona Control to escort the two water vehicles and their drivers back to the Control Point in order to ensure their safety.

It took four attempts by the crew to radio Waroona Control and there was a strong opinion that the calls were not taken seriously despite being in a flare up zone and there being a serious risk of injury or even a burn over. Given that we are not a fire appliance or that our vehicle does not equip us to defend ourselves in such a situation, this should have been avoided.

The lack of communication in regards to DFES communication with us as a unit but also within the management and planning appeared insufficient. In the future it was felt that it might be useful to have more planning and knowledge of management for our members through courses, or through AIIMS Awareness, following that ASAP AIIMS 4 (also possibly some training in DPAW Level 3). It could also be considered that there be a structure put in place to further coordinate and work with DPAW staff at these incidents, despite DFES information supply and coordination needing significant improvement.

A concern was raised that when the control point at Lake Clifton was moved to Preston Beach there was a lack of knowledge of the change in location and as a result a few calls were made in regards to its whereabouts. Again a flaw in the communication and passing of information between agencies and information provided to people on the fire ground.

As communication support mid way through the incident, we had almost exhausted all our resources in regards to repeaters and some were called in as a backup from other areas. In these instances there is a concern for a lack of equipment if all repeaters including generators and equipment required to maintain them, is being used. If there are fires in other areas, which



was experienced during the waroona fires with another fire located in Mount Cook, it becomes difficult to assist with communication elsewhere. In the future it should possibly be considered that more equipment be provided and looked into.

A safety concern that was brought up within our unit was that of the adequate fitting of our vehicle. There was a concern that on encountering rocky or unstable terrain, items were falling from the overhead compartments which lack any way of being closed. This was a danger to not only the front passenger, but also to the driver and can be considered as a serious risk if something fell and impacted the driver which operating the vehicle. There was also some concern for the manual handling and ability to reach equipment in the trucks by various members.

These adjustments need to be made to ensure that the vehicle is adequate for not only fire situations but also whilst conducting general operational duties.

A good point raised was also to provide some identification for CSU members to identify we are communications support so if communications is sought at the incident it is clear to identify who we are. (some ID or vests)


There is also a lack of equipment for our unit in regards to the ability to print maps and various documents to supply for communications purposes to various people at an incident.

Another issue was fatigue management as we had a number of crews doing overnight shifts and slept within the vehicle. There was instruction given that the oval was not to be camped on, but we also require more swags/tents and chairs and tables to do these things at incidents. As members that work long hours out in often tiring conditions, these things are important in providing support and controlling fatigue management.

The welfare at the control point was also of some concern. In the first few days there were issues with the lack of welfare supply and at one point the welfare truck was instructed to stop handing out food to us and supply it to the fire fighters, despite our crew not having eaten all day. There is also some concern for the time that the crews, notably fire crews are out in the fire ground without adequate welfare and relief.

There were a number of requests put forward from the control point in Harvey for food supply and water, etc that were ignored, eventually resulting in us chasing it down and bringing the supplies to Harvey from Waroona Control personally.

It is also important to consider the mental welfare and psychological effects on the members that were a part of crews sent to Waroona and there needs to be a follow up on the



people who were involved, whether it be through a social gathering at each unit or through various talks within units with their members.

An overall feeling was that the experience of our members was very good and that the way the communications support unit conducted itself and provided support was strong throughout, despite long shifts and fatigue. Experiencing the humour and support of various people was fantastic, through the help of crew from the eastern states, to various assistance offered by volunteers unknown to us at the control points. We as a unit continue to work towards highlighting the importance of good communications to ensure the safety of volunteers and members on the fire ground but also to strengthen and better the communications within the services.

State Emergency Services Communications Support Unit

29 February 2016

1. INTRODUCTION

Swiftworks does not view this submission as a marketing exercise, or part of a “hunt for the guilty”. Our submission is to highlight our experiences with the key emergency services providers in Western Australia which we consider relevant to the terms of the Bushfire Commission of Enquiry.

We believe that the well deserved focus on community awareness of emergency situations can only be achieved if the underlying systems for operational field command are actually in existence.

2. ABOUT US

Our small company have long ceased to be amazed by the sheer waste of “wheel reproduction” in information technology throughout Australia at all levels of government.

We have developed commercial software now re-engineered for:-

- a) Incident Management (SIIMS)
- b) Bushfire Risk Management (SIRMS)
- c) Volunteer Management (VM available as a integrated module in SIIMS)
- d) BIO Security Management (development completed December 2015)

Several local governments and brigades, groups and units located in Western Australia, use a range of Swiftworks products including risk, incident management modules and volunteer management.

All of these products are:-

- Available as Software as a Service (SAAS) on a monthly subscription basis)
- Integrated, cloud hosted , with mobile field options and
- supported by a nationally structured database (any association, or agency can subscribe)
- Contained within a 4 tier security structure acronym titled ARUG for Agency, Region, Unit, and Group.

3. DEVELOPMENT ORIGINS

SwiftWorks Integrated Incident Management System - SIIMS Development Origins

- *Recommendation 8.1 The Council of Australian Governments (COAG) 2 April 2004 report of the National Inquiry on Bushfire Mitigation and Management made several recommendations to support a fully integrated multi-agency incident management system based upon Australian Inter-service Incident Management System (AIIMS). Recommendation 8.1 from the report stated:*
- *“The Inquiry recommends that implementation of a single Incident Control System for the management of multi-agency emergency incidents be further examined by the Australian Emergency Management Committee, with a view to developing one nationally agreed system”*
- Source: http://www.dfes.wa.gov.au/publications/GeneralReports/FESA_Report-NationalInquiryonBushfireMitigationandManagement.pdf

SwiftWorks Integrated Risk Management System - SIRMS Development Origins

- Local governments in WA contracted Swiftworks to develop an integrated Risk Management Solution based on the International Standard [ISO31000 Risk Management](#) and the National Emergency [NERAG](#) Risk Assessment Guidelines.
- Bushfire Risk Management module FRM was developed from specifications based on ISO31000 Risk Management.
- Specifications were provided for the HYB (Hybrid) which was a combination of ISO31000 and SA3959 features. T, this process which was ultimately adopted as policy by DFES.
- Australian Standard (AS3959) Construction of Buildings in Bushfire prone areas was used for the BAL module.
- Additional modules were added for client management of property inspections (CNL) and mitigation management (HRM).

4. WA EMERGENCY BUSHFIRE RESPONSE AGENCIES – CONTACT HISTORY

- Due to our experiences, we believe that the internal ICT units charged with development and support responsibilities to the respective response agencies will unfortunately have no understanding of the need for accessibility to operational command systems for both professional staff and experienced volunteers.
- In hindsight as a small innovative and productive company able to respond quickly to requirements it was naive to think that these attributes would be appreciated by ICT bureaucracies who typically take years and millions to produce anything.if in fact they do at all!

DFES WA (Previously FESA) and DPAW WA (previously CALM)

- In 2010 as a result of the review conducted into [The Ability of CALM to Manage Major Bushfires](#) we proposed a joint agency without obligation trial of our software by then FESA and CALM as it was apparent from information that neither agency had an operational command system based on AIIIMS ICS concepts although both agencies conducted extensive training in the manual system details of which can be found at https://en.wikipedia.org/wiki/Australasian_Inter-Service_Incident_Management_System
- In 2012 SwiftWorks tried again with an obligation free trial in the lower South West region where, after a well received on line presentation we offered the joint agency concept to DPAW and DFES (the FESA), despite follow- up nothing eventuated.
- In November 2015 through contact with a current client, a DPAW Area Director has contact me for more information on our product as some three years later DPAW still do everything in a combination spreadsheets, word documents and manual cards!
- From a Bushfire Risk Management perspective the story is similar for the past two years we have been in correspondence with both WALGA and OBRM regarding the flawed approach to Risk Management.
- SwiftWorks highlighted their concerns to WALGA in December 2014 when the trial bushfire risk management (BRMP) foundered at the selected councils, we explained then that the solution was not to “throw more money” at the problem but rather deploy a system that properly assessed bushfire risk.
- **Perhaps the depth of the problem can be found in quotes from DFES representatives who attended our most recent 2015 presentation :-**

- *“It would be a least four years before DFES could consider a system such as this as too many of our existing systems would be made redundant”.*
- *“The idea that volunteer fire fighters could have on line access to an operational command system is not acceptable.”*

5. PUBLIC ENQUIRY RESPONSE

1. The response to the January 2016 Waroona Fire

(a) The effectiveness of pre-incident bushfire prevention and mitigation activities;

SwiftWorks Response

- Our detailed submission on the effectiveness prevention and mitigation activities and more specifically the process adopted can be found in the attached document

[SwiftWorksWABushfireInquiryReference1a.pdf](#)

Supporting Information

- SwiftWorks have registered an Innovation Patent No. 2015101820 on our ISO31000 SwiftWorks Risk Management System (SIRMS) which includes our Bushfire Risk Management module.
- Included in our patented solution is an implementation of both the BAL [AS3959 Construction of Buildings in Bushfire prone areas](#) the DFES recommended Bushfire Risk Management process which can be found [on the OBRM Website](#)
- SwiftWorks use these modules to clearly demonstrate the deficiencies of both of these methodologies when compared to the SwiftWorks ISO31000 based module.
- More information on the product including videos is available at <http://managerisk.com.au> In December 2015.
- SIRMS is in the process of being peer reviewed by Mr. Graeme Douglas [View CV](#) with a view to national application.

PUBLIC ENQUIRY RESPONSE

1. The response to the January 2016 Waroona Fire

(d) The effectiveness of incident management, including coordination of Agencies, volunteer fire and emergency services and interstate assistance; SwiftWorks Response

- Our detailed submission on the effectiveness of incident management including coordination of agencies, volunteers and interstate assistance is based on comparison with existing processes (or the lack thereof) compared with the processes available under a nationally available integrated incident management system.

SwiftWorksWABushfireInquiryReference1d.pdf

Supporting Information

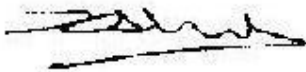
- While DFES have implemented a state level coordination system WebEOC there is no operational command system underpinning it hence no information is available in real time in what is a critical emergency situation.
- Experienced volunteers who are the mainstay of emergency response in WA do not have access to a mobile command environment and the IMT is completely card and paper based without features such as automated rostering and reporting.
- SwiftWorks are in process of registering an Innovation Patent on our SwiftWorks Integrated Incident Management System (SIIMS) which includes modules for both Command & Coordination, additionally; SIIMS can provide information electronically to WebEOC if required.
- More information on the SwiftWorks product and the integrated suite of modules including videos is available at <http://manageincident.com.au> and <http://volunteermanager.com.au/>
- SIIMS is in the process of being peer reviewed by Mr. Graeme Douglas [View CV](#) with a view to national application.

6. SUMMARY

- The core element of the policy (AS 3959:2009) is essentially written to assist in the construction of buildings being built near bushland. It is NOT written to inform actual bushfire risk **Inquiry Item 1a**
- In Western Australia there has been a focus on high level coordination systems at the expense of underlying operational command systems so essential to the emergency management of major incidents. **Inquiry Item 1d**
- The AIIMS ICS was a manual solution adopted in response to the 1983 Ash Wednesday Bushfires in Victoria. SwiftWorks have leveraged off this to produce an integrated 21st century web based system for emergency response. **Inquiry Item 1d**

Yours Truly,

Ken Mewha



Business Manager
SwiftWorks Pty Ltd.

Waroona Bushfire Special Inquiry



Telstra Corporation Limited

3 March 2016

Waroona Bushfire Special Inquiry

Telstra Corporation Limited's response to the invitation to make a submission

Overview

Telstra is Australia's largest telecommunications carrier and is proud of its record in supporting Emergency Service Organisations (ESOs) and the broader community throughout times of national disasters. Telstra appreciates the opportunity to provide this submission.

Telstra has well-defined and established processes in place for supporting both the community and our ESOs before, during and after natural disasters. Keeping customers connected and the safety of the community and our staff during these times are our top priorities so we plan well in advance for seasonal weather events to minimise the impacts. Unfortunately, no amount of planning or investment can fully protect us against natural disasters. In general terms, our Major Incident Management team (MIM) participates in state and municipal exercises that test communication, collaboration and processes between the organisations involved in emergency situations. This team also continually updates procedures to ensure the best support for impacted communities. Our Emergency Services Liaison Officers (ESLOs) also participate in state and regional exercises. Telstra also has a dedicated emergency response team to manage our restoration activities immediately after any event while our ESLOs also support the communications requirements of emergency agencies by co-ordinating requests, including:

- Identifying infrastructure at risk;
- Organising additional Telstra products and services as required; and
- Prioritising restoration activities for emergency services and critical infrastructure sites.

As part of its overall contribution to natural disasters, Telstra also brings in additional people if and as required from outside the impacted region to assist with repairing our infrastructure and restoring customer services. When appropriate, available temporary infrastructure is also deployed in order of priority need. This can include a Satellite Cell on Wheels (SAT CoW) or a Mobile Exchange on Wheels (MEoW) to provide interim network services. Depending on the impact of the event, we may also offer assistance packages to our customers – as we did following the Waroona fires. Telstra also has dedicated tactical response teams to attend sites that require urgent attention. These teams may, for example, provide generators or top up fuel – provided it is safe to do so in a natural disaster scenario. We have dedicated teams who regularly check our emergency power plants and battery back-ups to ensure they are all functioning correctly. Telstra has also been testing a range of innovative back-up power technologies, such as fuel cells, for our smaller exchange sites to boost the hours of run time that can be sustained during power disruptions. Fuel cell technology has already been deployed to 10 sites around Australia and there are plans to deploy more in disaster-prone areas over the coming months.

The Waroona fire

In response to the Waroona fire, Telstra actively worked with DFES and all ESOs, deploying an ESLO to advise and co-ordinate relevant activities with the Incident Controller at the State Operations Centre (SOC) in Cockburn Central. We also deployed representatives to the Incident Support Group (ISG) at Waroona to advise and help coordinate relevant activities. Our ESLO was requested to attend the SOC by DFES at 4.24am on Thursday, 7 January 2016. The ESLO was deployed to the SOC in about two hours at approximately 6.30am.

The ESLO presence was maintained at the SOC for all critical periods as requested – in this case between 8-10 hours each day until the following Thursday, 12 January 2016. The role of these staff is to report on the state of Telstra's network and assist with any service interruptions which may arise and to assist with coordination of access to restricted areas for technical staff and contractors in line with Department of Fire and Emergency Services (DFES) permissions. Natural disasters such as a bushfire may cause a loss of power to our exchange sites. Before the disaster season begins, Telstra checks its emergency power plants are functioning correctly and are refuelled. Telstra exchanges use batteries as a backup where power has been lost to the site and larger sites use both batteries and generators.

During the course of the Waroona fire Telstra can advise:

- The Yarloop exchange was undamaged - remarkably, given the extent of damage to nearby infrastructure.
- 18 mobile sites lost AC mains power.
- Some optic fibre serving the mobile sites was damaged. However, Telstra was able to restructure its services to avoid significant impact to customers.
- Telstra deployed 13 long-run generators to the above sites after five sites had mains power restored and before generators could be deployed. In all cases Telstra deployed generators as soon as possible after being allowed access to the site by emergency services.
- ESO restrictions did prevent some access but this was limited to Waroona, Lake Clifton and Yarloop.
- Where possible, Telstra deployed long-run generators to sites directly in the fire-front as a precautionary measure before any loss of AC mains.
- Telstra worked co-operatively with the Incident Controller throughout the fire.
- Telstra's ESLO supported the communications requirements of emergency agencies by co-ordinating requests, including:
 - Identifying infrastructure at risk;
 - Organising additional Telstra products and services as required; and
 - Prioritising restoration activities where needed for ESOs, hospitals and critical infrastructure sites.

Telstra's community response

Telstra's response to our customers and the broader community is managed through the relevant local Area General Manager (AGM), within the Telstra Country Wide (TCW) business unit. In this case, the AGM was on leave, however, his role was filled by the Acting AGM who contacted DFES and the Incident Controller in Waroona on Thursday 7 January 2016.

The Acting AGM was advised there were two evacuation centres at Pinjarra and Harvey. The Acting AGM attended the Pinjarra evacuation centre and met with the Incident Support Group (ISG). The Bunbury Operational Area Support Group (OASG) commenced on Saturday, 9 January 2016 as the fires moved south. During this time, Telstra's Global Operations Centre (GOC) in Melbourne provided information on Telstra's infrastructure to the Acting AGM and the Major Incident Management team, to consider the risk to Telstra infrastructure as well as the orderly deployment of generators and field teams in the affected areas. Representatives of TCW, including the AGM who returned from leave, attended the Pinjarra and Leschenault Evacuation centres from Saturday, 9 January 2016.

Telstra was attending at Leschenault in a recovery capacity until the middle of the following week. The AGM attended the community meetings held daily in Leschenault and updated the attendees on the status of Telstra infrastructure and provided detailed information around our assistance package (see below). The AGM was supported by a team available to assist with emerging issues. In addition to the public meetings, the AGM spoke to a number of media outlets including updates to GWN, ABC Radio, both local and in the Goldfields. Telstra also provided the community with a free Wifi network at the Leschenault evacuation centre and a mobile phone charging station.

Telstra's emergency relief package

On Saturday 9 January 2016, Telstra publicly announced an assistance package for its residential and small business customers who had lost property and telephone services as a result of the fires at Yarloop. Customers were advised to call Telstra on 13 2203 to register for the assistance package. Telstra's relief packages are determined by the nature and scale of the specific event and can include short-term and longer-term solutions (as attached below).

Conclusion

Telstra notes its mobile network is not immune from damage especially in emergency situations and cautions its customers that services may be compromised. However, Telstra acknowledges that communication in an emergency is extremely important and there are a few things we recommend to help ensure our customers stay connected, such as:

- Consider using a standard fixed line phone that may be more likely to continue to operate in situations of power outage.

- Always carry an alternate way to charge your phone in case you lose mains power. An in-car charger, solar power chargers and power bank chargers are all good options.
- Maintain a list of essential contact numbers close at hand, including local police, fire, SES and our fault line – 13 22 03.
- Although we monitor the network closely in times of emergency to try and minimise congestion, keep calls to a minimum during natural disasters to allow people to call emergency service organisations.
- Back-up important personal data, e.g. digital records and photos, and keep information safely stored. 'Cloud' technology is useful for this.

Despite loss of mains power to 18 mobile sites, Telstra's network throughout the Waroona fire performed well. This was largely due to effective forward planning and co-operation with Emergency Services and the engagement of Telstra's back-up systems.

Emergency Relief for Telstra Customers

Short-term measures (for Telstra customers who have a short-term impact – temporary evacuation of premises or temporary fault) include:

- Free use of Telstra public payphones in the affected areas;
- Free call diversion from an affected fixed home or business phone service to another fixed or mobile service of the customer's choice, regardless of the carrier;

Customers who use the free call diversion to divert their affected fixed home or business phone to their Telstra mobile service, can also make local and STD® calls on their mobile at fixed line rates, in accordance with their selected HomeLine® or BusinessLine® plan (limited to one designated Telstra mobile per affected household or business)

The above offers are applicable until network damage in the area due to the natural disaster is repaired, or while customers remain evacuated, for a maximum period of 3 months from the date of the natural disaster.

Affected Telstra mobile customers who do not have a Telstra home phone may receive a one-off credit to the value of \$100 inc. GST (limited to one mobile phone per Telstra mobile account).

Long-term measures (for Telstra customers who have suffered severe damage to or loss of their premises eg fire) may include:

Fixed Services

- Cancellation of a Telstra fixed phone service at the affected address, with number reservation for up to 12 months from the date of the natural disaster.

- Free call diversion from the customer's Telstra fixed phone service to another Australian fixed or mobile service of their choice, regardless of the carrier. This offer is applicable for a maximum period of 6 months from the date of the natural disaster.
- Customers who use the free call diversion service to divert their affected Telstra fixed phone service to their Telstra mobile service, can also make local and STD® calls from that mobile service at fixed line rates, in accordance with their selected HomeLine® or BusinessLine® plan (limited to one designated Telstra mobile diversion per affected Telstra fixed phone account).
- In addition, Telstra may apply a one off credit to the value of \$500 inc. GST to the customer's Telstra fixed phone account to help cover the costs of the following, if required:
 - connection of a Telstra fixed phone service at one temporary residence
 - re-connection of a Telstra fixed phone service at the customer's original permanent premises
 - number reservation
 - additional call charges

BigPond® Services

- For Telstra residential and small business customers who do not wish to retain their BigPond service at an affected address:
 - disconnection of the affected BigPond service without the requirement to pay any applicable early termination charges or fees, as well as an email address reservation for up to 12 months from the date of the natural disaster
 - connection of a BigPond service at an alternate residential or business address without any connection charges within a 12 month period beginning from the date of the natural disaster.
- For Telstra residential and small business customers who wish to retain their BigPond service at a temporary alternate address, Telstra will apply a one off credit to the value of \$110 inc. GST to the customer's account to help cover the costs of the following:
 - move of a BigPond service to a temporary alternate address
 - move of a BigPond service back to the customer's original address.
- For existing Telstra Mobile Broadband residential and small business customers – free replacement of the modem or USB device if required.

Mr. Euan Ferguson
Waroona Bushfire Inquiry
SEMC
West Leederville, WA

Dear Sir

Submission to the Inquiry into the Yarloop/Waroona Bushfire

The Bushfire Front is horrified by the impact of the Yarloop/Waroona bushfire and other recent bushfire calamities in Western Australia. However, our principal concern (and the focus of this submission) is not with the management of the fires themselves, but with the predisposing factors that led to the fires being unstoppable.

Bushfire management in WA has many problems and challenges. There is a policy vacuum; a lack of coordination; and valuable assets and forests are bushfire-exposed. On top of this, there is a grave lack of expertise and resources for rural fire management, especially fuel reduction. The number of bushfire-vulnerable communities throughout the southern half of the State continues to expand. We believe we are in the midst of a bushfire crisis.

Tinkering at the edges will not solve this crisis. WA needs significant policy, institutional and structural changes to the bushfire system.

We recommend:

1. The development of a State Bushfire Policy which will guide agencies and LGA, and set goals and measurable performance indicators;
2. The appointment of a State Bushfire Coordinator (with expertise in bushfire management) to provide leadership and priority-setting across the public sector and to report on actual performance compared with goals to Parliament and to the community;
3. The creation of a Rural Fire Service to oversee bushfire management in rural and semi-rural WA, based on the successful model involving the former Bush Fires Board and Local Government in an earlier era;
4. The adoption of a new investment strategy. This will focus resource investment *from* bushfire response *to* bushfire preparedness and damage mitigation, and will especially target the restitution of an effective fuel reduction burning program in south-west forests;
5. Restoration of capacity and opportunity for Volunteer Bushfire Brigades to carry out Fuel Reduction Burn programs on strategically located private lands and non-DPaW crown lands through a payment system funded by ESL and government land holders./
6. Legislation to make all government agencies, and LGA, responsible for bushfire hazard removal on lands under their control;
7. The development of a Centre for Excellence in Fuel Reduction Burning; and

8. A tougher approach to enforcement of the Bush Fires Act, thus making rural residential areas more bushfire-resilient.

Each of these issues is fleshed out in the Appendices to this submission. We also provide (Appendix 1) a list of the pertinent questions that we consider you need to investigate in relation to the Waroona/Yarloop fire itself, especially the events on Day One of the fire.

Several additional issues could be raised, but have been excluded from this submission in order to highlight the key requirements. These additional issues include bushfire warning systems; the cost/effectiveness of water bombers; access to experienced staff in the Forest Products Commission; and the integration of bushfire management with silviculture and catchment protection in WA forests.

We will be pleased to brief the Inquiry on any or all of these issues, as well as to enlarge on the essential systemic changes listed above, if invited to do so.

I hope you will continue to regard the Bushfire Front as a positive resource for your inquiry, and reiterate that we are here to help, in any way and at any time.

Yours sincerely



Roger Underwood
CHAIRMAN
March 3, 2016

Attachments:

- Appendix 1: Recommendations from the Bushfire Front against the Inquiry's Terms of Reference.
- Appendix 2: The fundamental concerns of the Bushfire Front about bushfire management in WA
- Appendix 3: The need for improved coordination and leadership at the highest level
- Appendix 4: The creation of a Rural Fire Service
- Appendix 5: A new investment strategy for bushfire management in WA
- Appendix 6: Restitution of the fuel reduction burning program in south-west forests
- Appendix 7: Management of fire hazards on crown lands
- Appendix 8: Fuel reduction burning by volunteer bushfire brigades
- Appendix 8: Development of a Centre of Excellence in Fuel Reduction Burning in W
- Appendix 9: Bushfire fighting strategy

APPENDIX 1: RECOMMENDATIONS FROM THE BFF AGAINST THE INQUIRY ToR

Although the focus of our submission is on fixing the policy, institutional and structural flaws in the State's bushfire management system, we take this opportunity to provide key questions that need to be answered under the main headings of the Inquiry's Terms of Reference.

ToR 1. The response to the January 2016 Waroona Fire

The BFF recommends that the Inquiry clarify these issues in relation to the areas in which the fire burned:

- In whose jurisdiction did the fire start (DPaW region and district)?
- What was the fuel age in the area where the fire started?
- What were the fuel ages in the areas into which the fire burned on the first day and night?
- What was the impact of Alcoa minepits and rehabilitation areas on fire behavior and difficulty of suppression?
- What is the tenure of the land in which the fire started and what does the current Management Plan for this land specify in terms of fuels management?
- What is the tenure of the land adjacent to Yarloop, and who is responsible for this land?
- What fire hazard reduction operations were undertaken in land adjacent to Yarloop over the last 10 years?
- What fire hazard reduction had taken place within Yarloop to prepare it in the expectation of a fire?

We also recommend that the inquiry clarifies these issues in relation to fire response, especially on the first day:

- At what time did the fire start (if known), or approximately?
- What was the elapsed time between ignition and detection for the initial fire;
- To whom was the fire initially reported?
- What was the time of initial dispatch?
- What was the elapsed time between detection and first attack in the field?
- How many crews were initially deployed and then later how were numbers built up?
- Where did the crews comprising first attack come from?
- What is the approximate distance by road from (i) Dwellingup and (ii) Harvey of the initial fire?
- When were heavy bulldozers introduced to the fire?
- What contribution did Alcoa make to fire suppression?

ToR 2. Lessons learned from previous bushfire emergencies

The BFF recommends that the Inquiry look carefully into the reports of inquiries by SEMC (Morgan Review) and DFES (NOUS review) into the February 2015 O'Sullivan and Lower Hotham bushfires. These contain pertinent information on the inability of DFES to manage Level 3 bushfires..

ToR 3. The need for further reform

The BFF recommends the following reforms:

- The development of a State Bushfire Policy which will guide the policy and priorities of all government agencies and LGA;
- The appointment of a State Bushfire Coordinator to oversee bushfire management in this State;
- The creation of a Rural Fire Service;
- Development of a new investment strategy that will refocus expenditure from bushfire response to bushfire preparedness and damage mitigation;

- The restitution of an effective fuel reduction burning program in south-west forests, including all bushland within and adjacent to residential communities and other high value areas;
- Development of a system that encourages and funds fuel reduction burning by volunteer bushfire brigades.
- The creation of a Centre for Excellence in Fuel Reduction Burning; and
- Institution of a tougher and more effective approach to making rural residential areas bushfire-resilient.

APPENDIX 2: OUR BASIC CONCERN: THE SYSTEM IS FLAWED

Recommendation

We recommend the development of a new bushfire system in WA. Until these changes are made, WA will continue to experience destructive bushfires.

Background

The fundamental concern of the Bushfire Front (BFF) is that the current model for bushfire management in WA is flawed and does not protect lives, assets and the environment from high intensity bushfires.

This is demonstrated by the inability of the most modern and best equipped force of firefighters the State has ever had being completely unable to prevent the damage caused by unstoppable bushfires.

More lives have been lost and more homes and other assets destroyed in bushfires in WA during the last 5 years than was the case in the previous 45 years.

WA is the only State on mainland Australia where rural bushfire management is basically in the hands of a metropolitan fire service (DFES), or overseen on State forests and national parks by an agency whose priorities are visitor services and wildlife conservation (DPaW).

The current system has no quantifiable goals, no performance indicators, no set of measures against which actual performance and progress can be measured and reported against, (with one exception, the DPaW annual burning target).. Without goals and benchmarks, there is no way of quantifying the value of the work or expenditure in bushfire management, and no way of measuring progress.

New priorities

The priorities for remedial action have been brought to the attention of the WA government by the BFF on many occasions over the years. While some minor changes have resulted, the necessary systemic and institutional changes have been resisted, or are opposed. This new priorities are:

- (i) Provision of leadership and effective coordination and priority setting at the highest level.
- (ii) Development of an over-arching bushfire policy in WA that will provide the goals, performance indicators and clarify the mission and priorities for all government agencies and Local Government Authorities (LGA) in relation to bushfire management.
- (iii) Development of an investment strategy and statement of priorities to guide expenditure on bushfire related work into what will be most effective in minimising bushfire damage ... as opposed to investing predominantly into fighting fires after they start.
- (iv) A new focus on protecting lives, assets and the environment ... as opposed to focusing only on saving lives ... together with a reporting mechanism that will make public actual performance and progress towards goals..

- (v) Restitution of an effective fuel reduction burning program in State forests and national parks, and introduction of an effective fuel reduction regime on other crown lands and privately owned bushland.
- (vi) An effective program of Education and Enforcement at Local Government level so as to minimise bushfire hazards on all crown, Shire and private lands within a LGA jurisdiction.
- (vii) Development of a practically-oriented training program to lift standards, capacity and confidence in fuel reduction burning.
- (viii) Upgrading the management of volunteer firefighters, including building their capability and resources to enable them to undertake fuel reduction burning.

APPENDIX 3: THE NEED FOR COORDINATION AND NEW LEADERSHIP

Recommendation

We recommend the appointment of a State Bushfire Coordinator to provide policy and operational guidance to agencies and Local Government, and coordination of policy and priorities for investment across the public sector.

Background

WA has no single bushfire policy and no unified bushfire leadership. Fire and Emergency Services Commissioner (Wayne Gregson) has no jurisdiction over DPaW or other land-owning agencies, and chooses not to insist that LGA do the fire management job required of them. He maintains that his role in emergency response, and that he has no role in fuel reduction.

What is needed

We recommend the appointment of a senior officer within the Department of Premier and Cabinet, who will provide leadership in bushfire management. This person will be responsible for:

- Development of an over-arching State Bushfire Policy, with which all government departments and LGA must comply;
- Development of bushfire related goals and performance indicators for government agencies and LGA in relation to bushfire management.
- Establishment of a Rural Fire Service;
- Development of an investment strategy to guide the allocation of the State's (and Federal) funds to bushfire management for adoption by the State Treasury and departments (discussed below) and which emphasises the importance of effective investment in preparedness and damage mitigation;
- Establishment, and management of collaborative/cooperative arrangements between all State agencies;
- Oversight of bushfire planning and standards of prevention and preparedness;
- Reporting annually to the Premier and to Parliament on the state of bushfire preparedness, on actual bushfire outcomes compared with goals and standards, and on priorities for the year ahead.
- Updating, as required, bushfire legislation and regulations.

The State Bushfire Coordinator will subsume the bushfire related roles of the State Emergency Management Committee, which is regarded as ineffective in its current structure and institutional arrangement, but will convene a State Bushfire Management Committee, comprising the CEOs of the RFS, DFES, DPaW, Department of Planning, Department of Local Government, Treasury and Police.

The State Bushfire Coordinator will be a civilian, i.e. will not wear a uniform or badges of rank.

Proviso: It is critical that this person understands and promotes bushfire prevention, preparedness and damage mitigation in parallel with emergency response. If the appointee is just another firefighter who puts all the eggs in the suppression basket, the State will be no better off.

APPENDIX 4: CREATION OF A RURAL FIRE SERVICE

1. Recommendation:

We recommend that a Rural Fire Service be created from the subdivision of DFES into:

- (a) An independent rural fire service, to be established from existing staff within DFES and new recruits, to be responsible for bushfire management (including preparedness and damage mitigation) in rural areas and within the rural/urban interface.
- (b) An urban fire service, comprising the career firemen. The UFS will be responsible for fire fighting in the towns in which they are located. The UFS may be called upon to assist with fighting bushfires in rural areas, but in this situation will fall under the control of the Rural Fire Service (RFS).

2. Background

There are two main causes of the bushfire crisis in WA: (i) failure to prepare the community and the bush in the expectation of fire, especially the lack of fuel reduction in bushland; and (ii) flawed institutional arrangements and priorities.

Why did we have so few bushfires during the 40 years after 1961? Three reasons:

- The former Forests Department' first priority was the prevention of bushfire damage. There was an effective fuel reduction program, and a professional, decentralised fire fighting force, supplemented by resources from the timber industry.
- The former Bush Fires Board, and local government authorities placed great importance on hazard reduction on private lands, and used the Bush Fires Act to enforce this approach. The Board was also able to ensure that land-owning Government agencies complied with the Act.
- There was a strong, and independent force of volunteer fire brigades who operated under the umbrella of local government in an effective and decentralised manner, and who carried out fuel reduction.

Under this institutional model, WA enjoyed relative freedom from bushfire disasters from 1961 until about 2000.

3. What has happened since?

- The Forests Department no longer exists, having been amalgamated with other agencies to form CALM, later DEC and now DPaW. During these processes, forest management resources were diverted elsewhere, stripping the southwest of professional leadership and personnel.
- State forests and national parks came under the jurisdiction of agencies in which bushfire management was no longer the first priority. In addition, a combination of factors (including reduction in the burning window due to drought; expansion of mining rehabilitation and regeneration; Green groups opposition to burning and community concerns about smoke) led to a decline in the fuel reduction program in the southwest regions For many years this level has been too low to preventing large, high intensity bushfires
- The hardwood timber industry was drastically cut back, resulting in the loss of a cadre of bushfire-savvy people and equipment who could assist in fire suppression operations.

- The Bush Fires Board was dissolved and its role was taken over by FESA, now DFES. This placed rural fire management in the hands of an agency with little experience or expertise in dealing with bushfires or rural communities. The emphasis became emergency response, rather than fire prevention, preparedness or damage mitigation.
- The advent of DFES has led to strained relations between government and volunteer brigades.
- DFES is extremely well-resourced, with an assured income from the Emergency Service Levy. However, this is used to fund investments in infrastructure, suppression equipment and water bombers. DFES does not accept that fuel reduction is one of its responsibilities and does not encourage fuel reduction burning.
- We are informed that DFES was granted \$4million in 2015 to undertake hazard reduction work, but the work was never done. Commissioner Gregson has claimed publicly that "fuel reduction is not his responsibility".
- DFES officers wear uniforms and badges of rank. This emphasises an autocratic, top-down culture which is inimical to developing good relations with rural people and staff of other government departments.
- Some local governments are opting out of actively enforcing the Bush Fires Act or undertaking fire hazard reduction and are being encouraged by DFES to do so.

These factors add up to a failed and failing bushfire model. The emphasis in rural areas must change from emergency response to bushfire management. By "bushfire management" is meant responsible investment in prevention, preparedness, damage mitigation, education, training and law enforcement, as well as in firefighting.

The failure of the system has been made worse by the prolonged drought affecting the south-west.

4. What is needed

WA needs a bushfire management model that promotes self reliance by decentralizing fire management to local people who know their own area, have a stake in making the model work, and who will work through LGA. Local people must be provided with administrative, professional, technical and training support from an agency that is dedicated to preventing bushfire disasters, and is trusted by local government and rural people.

In short, WA needs a Rural Fire Service.

5. The role of the Rural Fire Service

The Rural Fire Service will report to the State Bushfire Coordinator. It will

- Manage day-to-day collaboration between DFES, DPaW and LGA in all matters relating to bushfire policy, management and funding for rural areas and the rural/urban interface.
- Incorporate the Office of Bushfire Risk Management and staff who work on bushfire issues within the Dept of Planning.
- Ensure that an effective fuel reduction program, particularly in forest areas, is funded and enhanced.
- Assume responsibility for bushfire planning, fire threat analysis, Bushfire Management Plans, township and key infrastructure protection plans, provision of equipment and aircraft, preparedness, mitigation, fire response and recovery in the rural/urban interface and in country areas.
- Set the required standard for bushfire management on all lands not currently serviced by an urban fire service and where necessary insist that these standards are enforced
- Establish a Head Office in Bunbury, with regional offices in the main regional centres and recruit a cadre of professional and field staff experienced in bushfire management.
- Be supported by a Board, comprising representatives from the Volunteer Bushfire Brigades, LGA, Police, Farmers Federation, and others as decided by the State Bushfire Coordinator
- Operate under specific legislation to provide them with the necessary statutory powers.
- Provide the necessary leadership to establish a Centre of Excellence in Fuel Reduction Burning in WA

The Rural Fire Service will not take over DPaW fire management operations and research. DPaW fire management personnel will continue to function as a separate entity, but in close collaboration with the Rural Fire Service where applicable.

Staff of the Rural Fire Service will not wear uniforms, rank badges or medals.

Volunteer bush fire brigades will continue to operate under the jurisdiction of LGA. However, the Rural Fire Service will oversee training and equipment, and will develop a mechanism for provide brigade members with recompense for work on fuel and hazard reduction.

APPENDIX 5: A NEW INVESTMENT STRATEGY

Recommendation

We recommend that the Government reviews the fiscal arrangements for all current bushfire-related activities in WA so as to understand (i) the extent of public funds currently available from all sources (including Federal) and (ii) current priorities for expenditure. In other words the State needs to know where is the money coming from and where is it going. This information is not currently known.

This understanding will provide the basis for a new investment strategy.

Worldwide experience in fields including public health, crime, and disaster management can be adapted to bushfire management. Investment in prevention, preparedness, damage mitigation, enforcement of hazard reduction, education and training should AT LEAST equal investment in emergency response after a fire has started.

Currently in WA the bulk of bushfire related expenditure goes to the "back end of the curve" - i.e., to fighting fires, not to preventing fire damage or making fires easier and safer to suppress. This is 180 degrees wrong-headed.

Bushfire money is also clearly being wasted. There needs to be (i) a full and independent cost/effectiveness review of aerial water bombing in WA. This cost/benefit analysis must be undertaken by independent analysts, not by officers of DFES; and (ii) a detailed examination of the waste of funds in firefighting, including inefficient use of contractors or constraints on contractors.

What is needed is a comprehensive audit of the fiscal arrangements relating to bushfire management in WA, and the development of a new investment strategy which emphasis on fire damage prevention and increasing the ease and safety of bushfire suppression, while reducing its cost.

APPENDIX 6: RESTITUTION OF THE FUEL REDUCTION PROGRAM IN SOUTH-WEST FORESTS

Recommendation

A fuel reduction burning program of at least 250,000 ha annually must be carried out in south-west forests.

Background

Approximately 70% of the south-west forest estate is today carrying fuel loads well in excess of 8 tonnes per hectare. This compares with the situation in the mid-1990s where approximately 80% carried fuel loads of 8 tonnes or less.

The prescribed burning program in south-west forests fell away after about 1995 as a result of many factors, the most important being changed priorities, lack of funds/resources, the imposition of constraints and lack of burning days due to dry fuels. Although warned, the government did not foresee the consequences of this situation.

Fires are more intense, and therefore harder to control when burning in heavy fuels. If the fire is burning in heavy fuels and the fuels are dry, and the fire occurs during severe weather, it rapidly becomes a crown fire and is unstoppable. These are the fires that do all the damage.

Opposition to fuel reduction burning by a small number of environmental activists and academics has no credibility. Their reasoning is specious, or mischievous. They provide no effective alternative. In addition, the department has become highly risk-averse in the wake of the burn escapes at Margaret River. The planning, prescribing and control systems it now imposes on fire staff are so heavy that burning is discouraged. The concern is that a "risk management" approach to individual burns basically ignores the greater risk of wildfire damage in southwest communities and forests. This system needs to be massively refined.

Failure by DFES to promote and encourage fuel reduction burning is indicative of their suppression-oriented culture.

This inquiry MUST come out with a strong statement supporting a return to the proven approach to fuel reduction burning in State forests and national parks in the south-west, including:

- Unequivocal support from the highest levels in government;
- A direction from government that bushfire management must become DPaW's first priority.
- Reduction or removal of un-necessary constraints (especially bureaucratic);
- Re-institution of independent DPaW district HQs at Dwellingup, Nannup and Manjimup, with professional leadership and field staff and employees to undertake burning;
- A permanent increase in funding for the annual burning program;
- Advice to DFES on the importance of their encouraging and facilitating fuel reduction burning by brigades, Shires and land owners.

The Inquiry must make it clear that there is no alternative strategy that has ever been shown to work.

BFF has produced a paper setting out the principal constraints to fuel reduction burning in south-west forests. This can be made available to the Inquiry if requested.

APPENDIX 7: FIRE HAZARD MANAGEMENT ON CROWN LANDS

Recommendation

All land-owning or land-managing government agencies/instrumentalities and all LGA must be made responsible for fire hazard removal on lands under their control.

The problem

The Bush Fires Act does not bind the crown. This allows government agencies and LGA to ignore fire hazards such as heavy fuel accumulation on crown land. The only government agency which attempts responsible fuels

management is DPaW. Other departments such as Water Corp, Main Roads, Department of Water, Department of Planning all own or manage crown land, and undertake virtually no bushfire management on them. Few LGA take steps to reduce fuel accumulations on road reserves, or bushland reserves vested in the Shire.

There are also extensive areas of Vacant (or "unallocated") Crown Land, the bushfire management for which is, in theory, provided by DPaW. But since is not given the resources to do the work, the result is that the land is basically unmanaged. .

Thus, while the government urges private land owners to "be bushfire ready" and in some cases prosecutes them for not being so, it takes no steps to do so on much of its own land.

It is understood that crown land adjacent to Yarloop, in which no bushfire hazard reduction had occurred for over 20 years, was a major contributor to the intensity of the fire that destroyed Yarloop.

The solution is to modify the Bush Fires Act so that it binds the crown, and thus requires land-owning or land-managing agencies and LGA to manage their lands responsibly. This could be phased in, starting with lands adjacent to assets or high-value areas.

APPENDIX 8: FUEL REDUCTION BURNING BY VOLUNTEER BUSH FIRE BRIGADES

Recommendation

We recommend that bushfire brigades are encouraged to undertake fuel reduction burning on crown lands such as road or shire reserves and on private land in arrangement with the land owner. They must be properly trained, and paid to do this work.

The problem

Most Shires and landowners do not have the training or capacity to do fuel reduction burning. Bush Fire Brigades could do this work, and not only would fuels be reduced, but they would gain confidence in working with fire.

However, DFES discourages burning by volunteer brigades, mostly by making the process of prescription and approval so complicated that brigades do not want to go through with it.

In addition brigades comprise people with jobs and are available only on weekends, and members must be prepared to work for nothing. Some LGA will not permit burning-off on weekends.

We propose

A complete overhaul of this system is required, based on the concept of a fuel reduction burning program by each LGA covering the bushland under its jurisdiction, and payment to volunteers to do burning. In addition:

- Funds must be provided to LGA from the ESL which are specifically ear-marked for fuel reduction burning by brigades;
- DFES must be taken right out of the equation, with approvals for burning given locally, and undertaken according to a plan prepared by LGA and the Rural Fire Service.

APPENDIX 9: DEVELOPMENT OF A CENTRE OF EXCELLENCE IN FUEL REDUCTION BURNING

Recommendation

We recommend that the WA government establishes a professional training program aimed at building the capacity and confidence of public sector staff and landowners to carry out fuel reduction burns safely and effectively.

Background

It is not enough to provide more resources for fuel reduction burning. It is also essential that the burning is done professionally. Skills must be learned from experienced instructors and then honed in the field under the influence of experienced mentors.

There is a dearth of expertise and confidence in government agencies, Local Government and many brigades. This is not just in WA, but extends across Australia, so the proposed Centre of Excellence could become a national asset, with Federal funding.

Institutions of this nature already exist in the USA, and can provide a model for WA.

Detail

The proposed Centre of Excellence in Fuel Reduction burning will provide trainees with

- An introduction to bushfire history;
- A basic understanding of bushfire science, fire behaviour, and fire ecology;
- The rationale for fuel reduction burning;
- Case studies on the success of fuel reduction in the control of bushfires;
- Planning and conducting a safe and effective fuel reduction burn.

Classroom lectures will be followed by field experience. The course will be run on a pay-as-you-come basis, and be open to government officers, Local Government staff, bushfire brigades and landowners.

APPENDIX 10: BUSHFIRE FIGHTING STRATEGY

The Bushfire Front is critical of the current approach to management of bushfire events. This appears to be to give priority to saving life, while being prepared to sacrifice assets and the environment, and is typified by the following approach:

- A fire is reported;
- If residential areas are likely to be threatened they are evacuated;
- Firefighters fall back to the threatened asset, leaving the fire to burn unopposed;
- There is heavy reliance on water bombers, rather than on ground firefighting.

Because this approach allows a fire to build up "a head of steam", asset protection becomes almost impossible. An allied concern is that evacuation is proceeding these days along roads that have not been prepared as safe conduits under extreme conditions.

We recommend a return to the following approach: (i) firefighters go to the fire and work on it, if necessary pinching in the headfire from the flanks, using bulldozers; (ii) assets are prepared well in advance of a fire, so as to minimise the threat of being taken out by an intense fire; and (iii) communities are trained to be self-reliant and responsive to a bushfire threat, rather than sitting back waiting for someone to look after them or tell them what to do.

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Submission to Waroona Fire Inquiry – March 2016

Forward

The Western Australian Volunteer Fire and Rescue Services Association (WAVFRSA, or 'Association') was formed in April 1898 to provide a single voice on behalf of the State's Volunteer Fire and Rescue Service (VFRS) Brigades and volunteers. The Association currently represents 97 Brigades involving more than 2500 VFRS Volunteers.

To achieve effective representation, the Association has designed and managed a hierarchy that stipulates 2 representatives from each of 7 Zones across the State; meeting at least 4 times per year. Leadership is from an elected President (Paul du Boulay from Northam VFRS), and 2 Vice Presidents. An Executive Officer and Office Administrator are paid employees providing extra representation and support on a number of fronts enabling the Association to provide a broad based grass roots support

The WAVFRSA is recognised in State legislation as the "prescribed Association representing the interests of the members of the Volunteer Fire and Rescue Service" for the purpose of the Volunteer Advisory Committee for VFRS.

Duties of a VFRS Brigade

We also note the versatility of VFRS Brigades that should be considered in any proposed restructure (if any):

- Structural Firefighting
- Grass and Scrub fire suppression
- State-wide fire deployment for major incidents
- Road Crash Rescue
- Well, tank and enclosed space rescue
- Hazardous chemical abatement response
- Public Education (at schools, indigenous communities etc)
- Fire safety, prevention and risk management (including prescribed burning)

They form an integral part of their communities.

Submission

The Association regularly consults its members on a range of issues and this was the case in preparing submissions to the Waroona Fires. The Inquiry was discussed at Executive level for some time during the February Association meeting. There has been frequent email and other communication on many items as well. There is general agreement on what should be raised.

Association representatives also met with Mr Euan Ferguson AFSM on Wednesday, 24th February and we now provide the following submission to the inquiry based on the terms of reference, in addition to comments made at that meeting.

It should be noted that our submission will only deal with points upon which we can make comment with specific examples or where the outcomes of the inquiry can or will affect our members.

Please note the following acronyms will be used throughout this submission:

"VFRS" will be used where an issue relates solely to the Volunteer Fire and Rescue Service

"CFRS" will be used where an issue relates solely to the Career Fire and Rescue Service

"FRS" will be used where an issue relates to the entire Fire and Rescue Service

DPaW Department of Parks and Wildlife

1. *The response to the January 2016 Waroona Fire*

More than 40 VFRS Brigades attended the Waroona/Yarloop incident either as full crews or part of regional task forces; making up a significant portion of the firefighters on the ground. All Brigades were invited to make their concerns via the Association.

(a) The effectiveness of pre-incident bushfire prevention and mitigation activities;

A number of volunteers have commented on their belief that little or no preparation, clearing, preventative measures had been undertaken around dwellings in Yarloop

- No clearing around houses
- Flammable vegetation and rubbish around and against houses
- Piles of leaves in and above gutters
- Very little or no Community understanding of what to do in a bushfire situation and what the capabilities of Emergency Services were.
- No Community understanding of how fast a fire can travel.
- Community seemed to expect to have a knock at the door to tell them when to evacuate and expected a fire truck to protect their home or farm.
- Community did not seem to understand that the 2 days of seeing a lot of smoke indicated a fire threat was at hand or the potential impact of the fuel loading of their surroundings.
- Preventative burns: particularly DPaW – so much preparation and lead in time is required to conduct a preventative burn that by the time the burn-day arrives, often conditions have changed and the burn is cancelled. The planning is usually too little, too late. A more aggressive fuel-load management strategy is required to prevent such large, unmanageable and disastrous fires.
- Fire breaks were inadequate, quite a few breaks had unburnt trees pushed into the burnt area, dozers were also pushing trees over onto bitumen roads blocking access to areas and driving up roads instead of on the side of the road.

In addition, a water point crews were advised would be available at Armstrong Hills Road was not operational and no replacement source was identified.

Most deployed firefighters were reasonably happy with their management, feeding and conditions – their greatest concern was over Community lack of preparedness and awareness of how to look after their own safety as well as their perception of what firefighting forces are capable of doing. They consider a Community Fire Education Program is essential to minimize the impact of such a fire event again.

There appears to be an urgent need to educate local Communities on;

- Changing circumstances now means many Communities can be threatened or destroyed by an out of control fire.
- How to prepare their homes and properties for fire seasons
- What Emergency Services can and cannot do for them
- How to be self-aware of what is going on during a fire and when to self-evacuate
- To promote Bushfire Ready Groups in the region.
- How to make a plan to utilise the entire resources of a Community an effective combined fire attack force. (Pre-planning)

(b) The effectiveness of emergency management plans and procedures;

- Firefighters consider that an immediate or much timelier escalation of firefighting incident management level would have greatly reduced the impact and spread of the fire. Preparations should begin for a Level 3 Fire possible escalation while it is still at Level 2.
- Local Governments need to recognize when to hand-over control to DFES and DFES needs to have better processes in place to identify what will be required once a fire has been handed over.
- DPaW left Yarloop before the fire got to Yarloop abandoning the residents on the oval, they had done a management pre-plan a week or two earlier and didn't follow the plan. During this time they also failed to secure a water source in town, there were a few bores with generators like at the bowls club (required a 2 inch cam lock fitting), potentially could have boosted mains for hydrants in town as there is a set up at Yarloop fire station.

(c) The effectiveness of the suppression strategies and tactics used during the fire;

- There were mixed reports on the effectiveness of CFRS, with some reports indicating that they were not assisting with mop up; whilst others worked well and were willing to operate under a volunteer sector commander
- A vast majority of VFRS Brigades are equipped with an HSR. Whilst this appliance is four wheel drive, it was not designed to be a bushfire fighting appliance as it only carries 1500 litres of water and also has important safety equipment (such as RCR and BA) that should not be subjected to off road conditions. It is an example of a "one size fits all" approach to firefighting appliances instead of ensuring each Brigade/Community has appliances appropriate to where a fire is.
- DFES do not have any bulk water tankers in the FRS system, instead relying on a number of Local Governments that operate tankers (via ESL funding). There are a number of inherent problems with this process (often politically motivated), and water supply contractors are sometimes used to fill in the gaps.
- Automatic Vehicle Locators / Tracking capabilities have been under discussion for a number of years and would be an excellent tool to allow IMTs to be able to task their appliances with far more accuracy than relying on T-Cards. This would also mitigate the issues of T-Cards not being handed in at the appropriate place. When the Waroona incident expanded into Lake Clifton, the IC was under the impression that the area had more firefighting capability on hand than was actually the case.
- DPaW were in charge of the incident, with DPaW trucks left to defend Yarloop (which they had done a pre plan for) with the assistance of one BFS. They failed to set up water supplies or engage in any fire suppression of what was essentially a grass fire as it approached the town with an ember attack. The people in Yarloop were very lucky to have a number of VFRS (and one BFS) Brigade assist with the fire or the remainder of the town would be lost - and a lot more lives.

(d) The effectiveness of incident management, including coordination of agencies, volunteer fire and emergency services and interstate assistance;

- Incident Management teams need to ensure feedback from people on the ground is appropriately considered and utilise local crews who have substantial knowledge of the area as a priority. A number of local crews were not mobilised in the initial stages of the incident, whilst out of district crews were in attendance.
- Newly deployed crews were not expected by ICT and waited around for a number of hours to be deployed on their first day. This pattern continued for many crews on each day of attendance; which was a waste of good resource.
- Incoming NSW, QLD, SA fire management teams were very experienced (especially in their use of technology, fire behaviour analysis (with dedicated analysts) and they got straight into the management team, very efficient and professional.
- There is a lack of knowledge on the operational capabilities of the FRS fleet; which only has a

few off-road capable firefighting appliances. There were a number of incidents during which volunteers received abuse and hostility from the community and BFS members because they were not seen to being proactive.

- Our firefighters noticed on several occasions that a significant number of DPaW trucks were parked up and not being used during firefighting activities
- Briefings provided by crews in the ICV were sometimes inadequate; however this depended on the experience and capability of the individuals concerned. There were issues with the quality and information on maps, including a lack of air intelligence on where the fire fronts and dangerous hot spots were.
- No information was supplied to FRS RUI crews regarding the location and capabilities of residents who stayed to defend. RUI deployments that were completed were not always advised to follow up crews.
- *Operational supplies* - Each control point should have access to both diesel and unleaded fuel and an air compressor (if sectors are in sand). There was a lack of unleaded fuel available for light tankers at some points. Even vehicle cleaning equipment would have been advantageous from a safety point of view.
- *Traffic control* - Traffic was well managed.
- *Distrust of volunteer crews* – a small number of VFRS Brigades have advised this attitude was demonstrated by various agencies and personnel throughout the incident.
- *Fatigue Management* - a number of crews reported this has not been well managed in the past and has re-occurred during this situation. Time on the fire ground was well managed from the Waroona Control Point in the latter stages.

Sector Commanders/Divisional Commanders

- In the initial stages, sector commanders were under resourced. They require a vehicle with an appropriate resource kit (which could include Battle board, list units, comms plan, phone numbers, pencil case, time in, time out, welfare times, clip area for map, fridges and multiple radios).
- Sector commanders regularly didn't have an ops officer or scribe to assist them, this meant they were too busy focussing on the right now answering the radio, rather than gaining vital intel and planning ahead. It would be of great benefit for the assistant to have local knowledge.
- Some sectors were too big. This lead to significant problems with communications and an area outside of span of control. Current radios have a limited range.
- Sector Commanders, Div Comm and F/F were changing at similar times, meaning long delays for those still on the ground. Shift changeovers should be staggered for different roles to ensure appropriate handovers and minimal disruption to those on the ground.
- No plans for incoming crews and incoming sector commanders; lucky to get more than a few scribbles on an a4 black and white map.
- Maps need to be marked up A3 coloured maps, denoting special assets and safety info (ie bridges out), we struggled to get accurate maps with sectors marked on it, there was considerable confusion regarding sector boundaries.
- Incorrect address information was consistently provided and the original meeting point address provided was wrong. For example, one Brigade was tasked with locating a burns victim, and given the wrong street details.
- Lack of foresight and planning, causing most actions to be reactive and limiting the available and effectiveness of resources, particularly on the first 3 days of the fire. Even on the later days of the fire, it was clear most sectors did not have a strategy and plan for how to combat the fire, with many rookie Sector Commanders adding to the complications and causing many resources to lack direction.

Communications

- No answer from sector commanders was common.
- Lack of briefings once in the sector.
- Lack of contact and care from some sector commanders.
- LIVE powerlines laying on the ground and fire affected poles need to be plotted and communicated to crews in the area concerned. This is a safety issue.
- Improvement in radio channel management – there were no communications plans and channels were changed frequently without some user's knowledge.
- No real updates are provided to crews either during a shift or whilst travelling to the incident control point. For example, crews travelling to Waroona from the south who didn't know about the bridge burning out may not have known of alternative routes.
- Breakdown of communication of instructions to crews between the ICV and sector commanders.
- Mobile phones and handheld radios were an issue to charge. The provision of a truck mounted charging station to keep handheld radios fully charged to allow oncoming crews to bring fresh radios and off going crews to return the used ones for charging back at the station.
- Heavy radio traffic (much of it was irrelevant), resulted in jammed communications lines
- DFES need to develop an app for fire ground use that has regular updates for crews with fire maps, known hazards, roads available for crews to use, sectors and comms channels

Catering

The catering provided at Brunswick Junction (by members of the Brunswick VFRS and Brunswick Football Club) was outstanding and the football club also made available their full facilities (including physiotherapists etc) for firefighters' use. However, catering resources at Waroona (particularly in the first 24 hours of a crew's shift) were poor.

Many crews had no idea where it was located; however the catering for subsequent shifts was much improved. A number of crews who were moved from Brunswick to Harvey have also advised of a lack of facilities there – including the provision of only one table with 6 chairs to cover all firefighters requiring food and drinks.

A formal catering process is desperately required to ensure future incidents are better prepared and provided for.

Maintenance / Appliance Breakdowns

- The number of technicians available was limited and they were servicing the whole fire ground - each incident control point should have a mechanic / tech both stationed there and one that can travel out to those sectors to assist with break downs. Trucks should be 100% in working condition as this is an OHS risk not just for the crews but also those working with them.
- A review of vehicle maintenance/repair process/reporting is required to ensure appliances are back on the fireground in as timely a manner as possible.

(e) Protection of essential services infrastructure and access to essential services (power, transport, water, communications) by emergency services organisations and the community;

Local Community were not prepared for loss of power due to the fire or aware that water supply would be compromised. Contingency plans are not being made by Communities prior to a major incident.

(f) The effectiveness of public messaging including the adequacy and timeliness of emergency warnings issued to residents and visitors;

Our members consider it absurd that the Yarloop Community said they were not warned when they could clearly see a great deal of smoke for several days. It is apparent that the Communities did not understand the level of danger and the need for self-management of their safety and evacuation. A great deal of preparedness education is required.

(g) Effectiveness of assistance to and management of those affected by the fire:

(i) Evacuation procedures

External assistance with the door knock in Yarloop Friday morning (Mandurah VFRS were instructed to knock on doors to find people in the morning and have advise that, if it wasn't hard enough already, then having some people yell at you, some break down in tears and others having a blank stare looking suicidal) is difficult to undertake at the end of a firefighting shift. Suggest a process is put in place to ensure appropriate resourcing is made available to tackle this issue.

(ii) Communications with the community over the course of the fire

No comment

(iii) Provision of welfare support

DFES Chaplain attended to Emergency Services Personnel, but some residents said they were unhappy that his services were not available to them.

Whilst we are not supportive of the DFES Chaplain assisting the general public – especially at an incident of this size where a large number of DFES staff and volunteers were already in attendance, it would be of great benefit for a process to be put in place for provision of welfare support services at evacuation centres or a “trauma support service” via telephone.

Crews noted that they were “disturbed” by the frequency of dead or dying animals. There is no knowledge of incident follow-up.

(iv) Management of people seeking to return to their properties, and

No comment

(h) Livestock and companion animal management and welfare issues.

- Some fire crews were distressed to see burned cattle that were not being attended to.
- Not enough was being done to protect stock-feed sheds from fire (this is farmers livelihood) a number of crews helped farmers anyway.)
- Not enough preventative measures in place by farmers around hay sheds – community preparedness & education.
- Some problems caused by absentee landholders or those who had left and stock not managed – some firefighters moved cattle out of fire-path.

2. Lessons learned from previous bushfire emergencies

(a) The extent to which the findings and recommendations of the following Western Australian bushfire reviews undertaken since 2011 have been implemented:

- (i) A Shared Responsibility – Report of the Perth Hills Bushfire February 2011 Review (Keelty, 2011);
- (ii) Appreciating the Risk – Report of the Special Inquiry into the November 2011 Margaret River Bushfire (Keelty, 2012);
- (iii) Post-Incident Analysis of the 2011 Margaret River and Nannup bushfires (Noetic Solutions, 2012);
- (iv) Parkerville Stoneville Mt Helena Bushfire Review (State Emergency Management Committee (SEMC, 2014);
- (v) O’Sullivan and Lower Hotham Bushfires Review (SEMC, 2016); and
- (vi) The Western Australian State Emergency Management Committee Preparedness reports.

- (b) The effectiveness of reforms implemented by the State since 2011 on the State’s ability to prevent, mitigate and respond to major bushfires and the community’s understanding of and preparedness for bushfire risk.

Whilst our Association has seen a number of positive outcomes as a result of previous enquiries, there is still a great deal of work to be done. Improvements include:

- Improved crew protection for firefighting in appliances;
- Enhanced firefighting capability in the South West region of WA (Capes Enhancement Project);
- Improved handover procedures (DFES to DFES), however more work is required for incidents transferring from Local Government to DFES or DPaW to DFES;
- Improvement in incident management due to the pre-formed IMT and increased number of ICV available around the state;
- Inter-agency co-operability at large incidents has been strengthened by the establishment of the State Operations Centre (as well as regional and metropolitan operations points);
- The new training pathways for volunteer firefighters will ensure future members are better trained and more appropriately trained; and
- Improved personal and protective clothing

3. The need for further reform

Any legislative, policy or functional reforms relating to bushfire risk management, emergency management and processes for review of major incidents to strengthen the State's capability to efficiently and effectively manage bushfire-related risk

1. Incident Level Escalation

- Firefighters consider that an immediate or timelier escalation of firefighting forces would have greatly reduced the impact and spread of the fire.
- Provisions that there *might be* an escalation should be started earlier. Many available and willing outside brigades were not deployed until a number of days later. There is the suggestion that a "Level 2.5" (or similar) be introduced to recognise a possible escalation and as a trigger to make contingencies for extra resources.

2. Incident Management

- Increased availability of experienced staff in leadership/management positions at fires.
- Incident Management capability to be increased by exposing key incident managers to more of these situations (eg inter-State, desk top and Community discussion)
- New DO's were put as Divisional Commanders without someone there to mentor them, leaving large gaps in the leadership, this was magnified with a large number of inexperienced sector commanders/task force leaders who also hadn't been trained or experienced. This caused us to be ineffective for long periods of time and some leadership made very poor decisions as they didn't have someone to assist/bounce ideas off. For example when heading too Yarloop initially the task force leader went to a wrong address (in Waroona instead of Yarloop), then travelled down the wrong roads, then headed to a semi-rural area on the northern side of Yarloop, failed to send crews for intel (instead held them doing nothing for long periods of time checking each house one by one), eventually we had to stop him and request him to allow us to check the town (where there is the highest likelihood of people).

3. Legislation

- A legislative requirement for DFES to be in control of all Level 3 incidents that involves property or life. We believe DPaW personnel do not have the appropriate knowledge or training in urban fire, which led to FRS not being called into Yarloop until after the fire hit Yarloop. A similar incident occurred at a recent fire approaching Collie, where a metropolitan Brigade in Mandurah (approximately 90 minutes from Collie) we were put on standby after being advised the fire may hit Collie in 90 minutes; so they were not going to arrive until well after the fire was destroying the town if the containment line failed.
- Legislation that enables the commandeering and deployment of *any* suitable appliances and other necessary resources at Level 3.

4. Resource to Risk

- "Resource to Risk" models prepared by DFES that identifies the firefighting requirements of a particular community do exist, but generally they are not agreed upon as they are not recognising current needs and perceived situations – rather they are based on past history. Without one, it is difficult to ensure communities are appropriately protected and there is limited knowledge on what is available outside the DFES, DPaW and BFS system and what impediments there are in its deployment.
- Expansion within the Volunteer Fire and Rescue Service of bushfire fighting capabilities needs to be seriously reviewed as part of that process given the current resourcing is restricted to a "structural truck" – such as an HSR, a light tanker and in some cases a rescue trailer. It is highly recommended that selected VFRS Brigades are given purpose

bush firefighting appliances that are available, crewed and can be deployed anywhere at little notice.

- There is general understanding that many of the local resources not owned by DFES, privately owned and otherwise were not – event refused – to be used. (eg farm based fire appliances, water trucks etc) Methodologies on how to itemise and be able to deploy such resources should be investigated prior to the fire high season.

5. Command Structure at a Major Incident

- A lack of “command and control” structure within the BFS creates a number of issues on firegrounds in major incidents as they often do their own thing, occasionally do not follow T-Card procedures (meaning incident controllers are not aware they are even on the fireground) and are unwilling to undertake tasks given to them by CFRS staff. There is no formal control over CBFCO’s at incidents.
- This Association believes that the best model for major fire attack is a well-managed and proactive incident control. This situation will most likely be needs to be addressed by changes in Legislation. VFRS Firefighters are well versed in this approach and will accept a command and control incident management.

6. Rural Fire Service

The WAVFRSA acknowledges a push for a Rural Fire Service by several organisations as a solution for the shortfalls in the current operations systems with respect to wildfire.

However this Association has grave reservations concerning the formation of a Rural Fire Service for the following reasons:

- It would result in a duplication of bureaucratic services in human resources and other administrative processes, firefighter training, command, supervision etc – there would be little value for money for taxpayers and the Association cannot see how the extra revenue to achieve this will be raised;
- There are already silos within the current firefighting landscape – such as DFES, DPaw and Local Government (BFS). This would not be improved and in fact would likely be significantly worse.
- The current issue with Local Government CBFCO’s not having to release firefighting resources when requested would be exacerbated by a separate service;
- We do not believe that a RFS would improve the firefighting capabilities or mitigation capabilities for regional communities;
- There will still be the issue of firefighting on the urban-rural interface; namely who is in charge and what resources do they have access to.
- It will create issues within the Career FRS division (eg career path, transfer and promotion) that will negatively impact VFRS.

The WAVFRSA believes there is adequate scope within DFES to strengthen firefighting capabilities in regional areas via expansion of the Country Operations section within the Department; especially if the Head Office is located outside the metropolitan area. Addressing the shortfalls in the current system, including an “enhanced capability” VFRS model will provide a faster and more cost effective overall solution.

It is our preference that there be one operational firefighting organisation in Western Australia – not necessarily one fire service. DPaw firefighting and Bush Fire Service operations should be brought under DFES.

APPENDIX 1

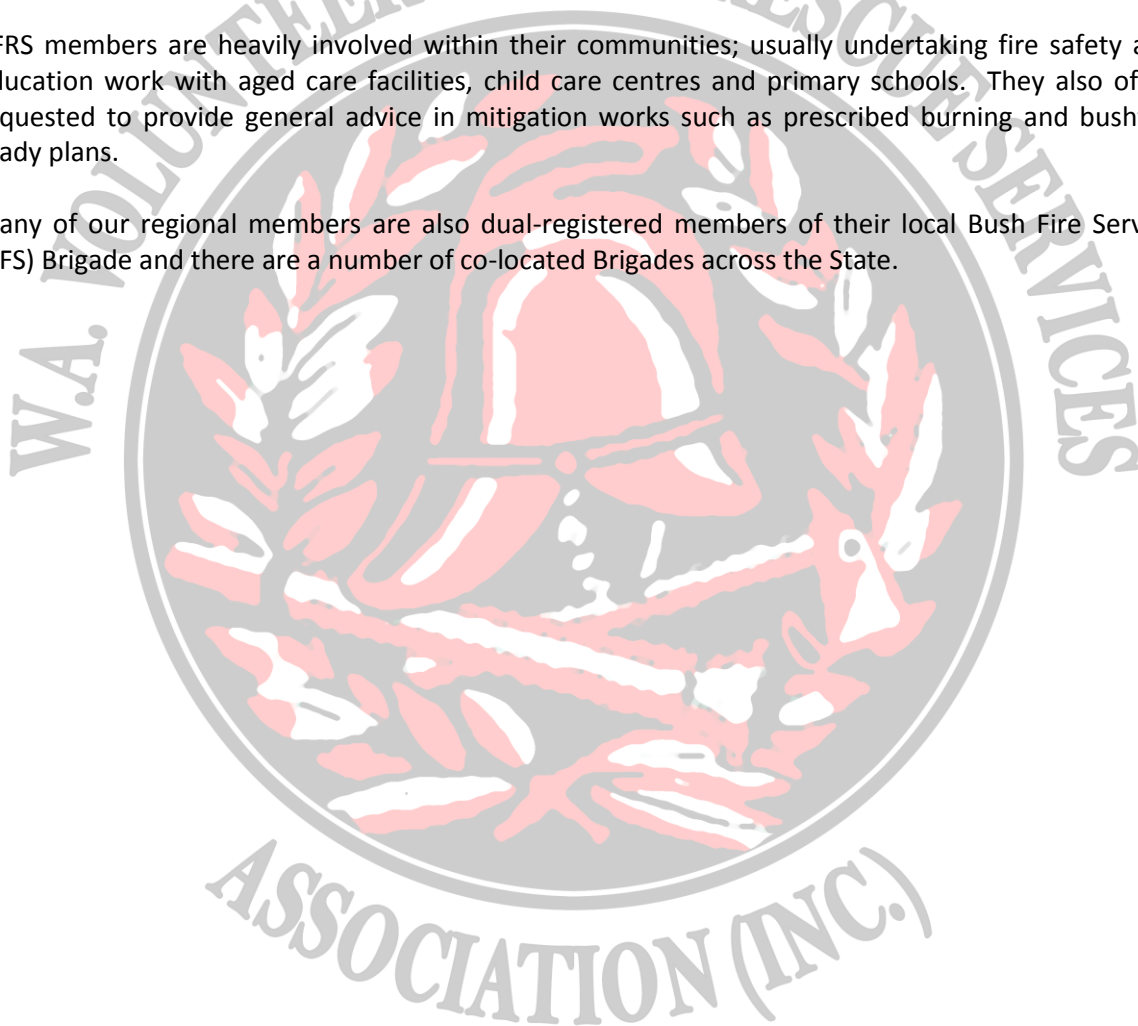
History of the Fire and Rescue Service

The first official fire brigade in Western Australia was established at Fremantle on the 20th October 1885; (Perth had approved a volunteer fire brigade in 1884, but were slow to progress). These brigades were manned by volunteers because then, as now, the Government of the day could not afford to employ people as firefighters throughout the State.

By 1920, there were 24 VFRS Brigades across WA, whilst there were only 5 Career Fire and Rescue Service (CFRS) stations. The largest expansion of FRS Brigades (Volunteer and Career) occurred during the 50's, 60's and 70's when a total of 57 VFRS Brigades were formed, along with a doubling of CFRS to 10 stations.

VFRS members are heavily involved within their communities; usually undertaking fire safety and education work with aged care facilities, child care centres and primary schools. They also often requested to provide general advice in mitigation works such as prescribed burning and bushfire ready plans.

Many of our regional members are also dual-registered members of their local Bush Fire Service (BFS) Brigade and there are a number of co-located Brigades across the State.





Submission to:

Public Inquiry into January 2016 Waroona Fire

4 March 2016

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1. The response to the January 2016 Waroona Fire.

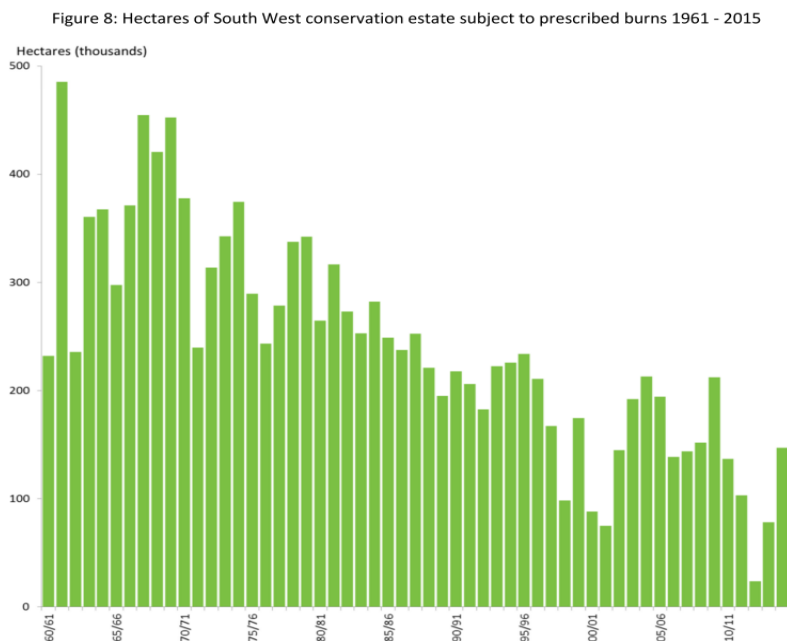
a. The effectiveness of pre-incident bushfire prevention and mitigation activities.

The South West of Western Australia is one of the most fire prone regions in the world due to a combination of a Mediterranean-type climate, which consists of hot dry summers and decreasing rainfall throughout moderate winters. These climatic conditions lead to increased fuel loads and, combined with the forestry and native vegetation in the region, create a real need for regular fire mitigation procedures to be implemented.

As a result of devastating fires in the South West in 1961, a Royal Commission was held and the Western Australian Government adopted a policy of prescribed burning of state forests and bushland. From 1962 to 1985, the severity of fires was significantly lessened as a result of prescribed burning. It is important to note that fires sparked by dry storms of Cyclone Alby in 1978 created some 65 wildfires which were pushed with strong winds. Despite weather conditions being unfavourable for firefighting, the fires were manageable due to prescribed burning, leading to fuel load reduction. This is a proven testament that thorough and regular prescribed burning has a role in protecting our communities, but also assisting our firefighters during a fire.

The Department of Parks and Wildlife (DPaW) have a target to burn 200,000 hectares of forest and bushland each financial year. At present, Western Australia is failing to meet this target, with only 20 per cent completed this year so far (approximately 42,000 hectares burned, 32,000 of those in the Perth Hills). The previous financial year only saw 39 per cent of the prescribed burns completed in that particular reporting period.

The Department of Parks and Wildlife's inability to meet its own targets creates unrealistic and unachievable amounts of fuel to be burned off for the following year. It also creates a dangerous environment for future prescribed burning to occur, and presents high fuel loads that could lead to catastrophic fire conditions. It is fair to assume that the intensity experienced in the Waroona fires can be attributed an increased build-up of fuel loading as a result of declining back-burning. This, in conjunction with DPaW's focus on metropolitan-based burns and neglect of regional centres, has led to an environment that is vulnerable to catastrophic bushfires. The graph below demonstrates the declining prescribed burns achieved in the South West.



Source:
Major Incident
Review of the
Lower Hotham and
O'Sullivan fires,
DFES 2015, p.17

It has also been suggested that fire mitigation through back burning does not last as long as it had previously. When back burning was conducted in an area it would typically be some eight to 10 years until it would need to be re-addressed. In current times, we are seeing the same back burning practices lasting only four to six years. With current fuel loads being estimated to be 30 tonnes per hectare (forest and bushland) and farmland consisting of four tonne crops with eight tonnes of matter, fires can be expected to be hotter and larger. It is imperative fire mitigation is completed properly and, for it to remain effective, prescribed burning will have to be undertaken more regularly and much more extensively than the current status quo.

b. The effectiveness of emergency management plans and procedures.

A farmer, resident or business owner knows the lay of the land and residence better than any visiting fire brigade. For an emergency management plan to be effective, the landowner must be present to implement all appropriate strategies. The first issue that arises is roadblocks and access to property during a fire emergency.

There appears to be a lack of common sense and consultation when Western Australian Police and the Department of Fire and Emergency Services (DFES) install roadblocks. When primary producers have been agisting livestock when under threat from fire, there have been instances where the trucks have not been allowed back onto the property despite there being further stock or humans on the property.

There have also been instances where farmers have been required to enter their properties to milk their dairy herd, or feed livestock. A cattle producer from Preston Beach has 6,000 cattle on his property that require regular feeding; however, the carting of feed was hindered due to the roadblocks surrounding his property. After extensive negotiation, the landowner was eventually permitted to cart two truckloads of feed into the property. However, on the Friday morning, he was again refused access. Primary producers are faced with a situation where they are forced to make a decision between going around roadblocks against the advice of emergency services, or ignoring the obligations associated with owning livestock and face consequences under the Welfare Act. WAFarmers cannot allow its members and other primary producers be in such a position, and reaffirms the position that there needs to be provisions around roadblocks that allow farmers to freely enter their properties to feed livestock and perform other essential work when it is safe to do so.

Further examples have been experienced by the dairy sector in the fire affected areas. Many dairy farmers required access to their properties with fuel and diesel to ensure that generators powering refrigeration facilities were operational. Without generators, the milk cannot be kept at the agreed refrigeration rate, leading to the milk spoiling and having to be discarded. This has serious repercussions for the business as it is a loss of income, but also for processors as they have commercial contracts that must be fulfilled.

The dairy industry's reliance on power generation extends further than refrigeration, with the milking rotary parlours, pumps and storage all requiring power to operate. This is essential to the operation of the dairy itself, but extends as far as being an animal welfare issue. A dairy cow is a highly productive animal, requiring milking twice a day. If the animal is not milked it can lead to the udder bursting, which is painful for the animal and will likely lead to the cow having to be euthanised.

The importance of allowing a landowner to their property was evident during the Margaret River fires in 2011. The building manager of Walcliffe House was unable to pass the roadblock to turn on the building's fire reticulation. The procedures and processes surrounding roadblocks appear to be black and white, and if there was provision for leniency within this framework there is a possibility the heritage listed building would still be in situ.

The alternative to roadblocks is the use of traffic management and detours. Moving traffic safely around or through the fire ground is more efficient for commuters, emergency workers and landowners. Due to the unpredictable nature of fires, the current procedure of closing roads and having traffic backed up leaves them vulnerable in the event of the fire front shifting directions.

c. The effectiveness of the suppression strategies and tactics used during the fire.

The report into the Lower Hotham and O'Sullivan Fires, handed down in December 2015, measured the performance of the Incident Management Team (IMT) against the Australasian Inter-Service Incident Management System (AIIMS). Within AIIMS there were specific functions that the IMT must fulfil to manage a fire emergency, such as: control, planning, intelligence, operations, investigations, logistics, finance and public information.

The report has anecdotal evidence that DFES and IMT are regularly under-resourced with state assets, and that decisions made are inconsistent with the KPI's outlined in the AIIMS framework. An emergency situation requires quick thinking and prompt decision making. DFES has developed a culture where they have become risk averse, and this has stemmed from a fear of facing repercussions after a fire. This culture needs to be stamped out as fire management and prompt decision making is essential in any unified firefighting effort.

d. The effectiveness of the incident management, including coordination of the agencies, volunteer fire and emergency services and interstate assistance.

The coordination of the Waroona fire has drawn criticism from many stakeholders, and these issues appear to stem from the apparent divide between career firefighters, volunteer firefighters, DFES and DPaW. Further, there were assets ready and available to assist the firefighting efforts by way of farming firefighting equipment. An example of assets not taken advantage of was the assistance offered by the forestry industry. These additional resources could have been instrumental in assisting the firefighting efforts in Waroona and Yarloop.

Farmers attend bushfires to extinguish them, not for any other reason. Farmers, landowners and volunteers possess vast knowledge in firefighting practises, but also hold invaluable local knowledge of the landscape itself as well as contacts for people within the locality. Capturing this local knowledge and expertise can prove essential in combating fires.

In the case of the Waroona fires, the local expertise offered to assist the firefighting efforts was refused by DFES. WAFarmers recognises a fire ground can be a dangerous environment; as a result, every precaution should be taken to keep humans safe from harm. However, if farmers are arriving with personal protection equipment and additional machinery and firefighting equipment, those assets should be harnessed, not turned away.

The advantage of utilising farmers is they have the ability to patrol their own properties and neighbouring areas to control ember attacks and spot fires. This is a highly efficient way of preventing the fire spreading and creating a larger fire front for firefighters to tackle. Utilising

local knowledge has a much broader scope to impact fire efforts than simply utilising DFES career and volunteer firefighters. Allowing farmers access to the fire ground would significantly bolster the assets at the Fire Control Officer's disposal, which could lead to reducing the loss of crops, native bushland, livestock, properties and human life.

e. Protection of essential services infrastructure and access to essential services (power, transport, water, communications) by emergency services organisations and community.

During the fire emergency, there were reports that there were difficulties in accessing water. Some residents suffered reduced water pressure and, in some instances, the water was cut altogether. This restricted water access seriously impacted residents' ability to prepare for the imminent fire. Those residents who wished to stay and defend their properties were left vulnerable by the lack of water infrastructure. This particular scenario would have resulted in the loss of property, as any effort to stay and defend property would have been rendered ineffective. Further, leaving residents without access to water could have led to a loss of life.

With uncertain water resources in the fire affected areas, there have been suggestions that fire tankers had to leave the fire zone and refill at an area that had sufficient water and flow rates to fill the tankers. They then had to travel back to the fire ground to resume firefighting efforts. Tankers having to commute to refill leaves people and property vulnerable to fire, but also results in key firefighting assets sitting idle, leaving or rendered ineffective which is simply unacceptable in a fire emergency, especially an emergency of the scale Yarloop reached.

There needs to be contingencies put in place when it comes to power and water during a fire emergency. Water for combating fires must be trucked in if there is no access to reliable scheme water with sufficient pressure, or access to dams or catchment areas. Furthermore, all firefighting pumps are powered by diesel motors and generators, so emergency services will need to ensure they have access to reliable fuels rather than relying on existing power sources or local fuel and diesel suppliers. Having a broad range of reliable firefighting assets will create a stronger effort in combating bushfires with minimal interruptions, particularly those that were experienced in this fire.

f. The effectiveness of public messaging including the adequacy and timeliness of emergency warnings issued to residents and visitors.

The bushfire emergency gained significant radio and television attention to help residents in the area make the best judgement as to whether to evacuate or stay and defend property and livestock. There were updates hourly, although the information that was broadcast was usually unaltered. This led to the public service announcements becoming somewhat redundant. Furthermore, there were issues with the relay of information via the DFES text messaging service.

The Department of Fire and Emergency Services issued the first warning on Wednesday 6 January. This particular warning included Waroona and the Shire of Harvey, which does include Yarloop, but the message did not specifically mention the town, which may have hindered the implementation of fire management plans for some businesses and residents.

The township of Yarloop was named in an alert distributed at 7.35pm, Thursday 7 January. The fire front arrived at the town of Yarloop at 8.00pm that evening, giving residents just 25 minutes to prepare for the fire emergency. The lack of notice could have attributed to the serious damage sustained by the town, including the loss of two lives. The town was destroyed in approximately seven minutes, so preparation was paramount and 25 minutes is nowhere near adequate.

The Department of Fire and Emergency Commissioner responded to media questions surrounding the details included in text messages at the time of the fire, during which he defended them by saying it was obvious there was a fire in the immediate vicinity of Yarloop. However, fires are unpredictable in nature so it is imperative that entire, accurate and regular information is relayed to the community; there is no room for misinformation and second-guessing. DFES should have erred on the side of caution and included Yarloop in all emergency announcements, especially when there was a real threat to lives and property.

WAFarmers recognises that the text messaging service is simply one of many options available to residents and should be used to supplement other sources of information, so there is some expectation that residents use other information streams. However, the text messaging service is a powerful tool as it contacts residents directly. Further to this, texts provide a real opportunity to get facts to people promptly in a form that is easy to read and understand, and it does not require the person actively go and seek the information.

The Department of Fire and Emergency Service not including a particular location, in this instance Yarloop, in the text messaging service has proven to be an oversight. If Yarloop was included in the initial text message on the Wednesday, there would have been a day for the town to prepare for the imminent fires. This available time could have been utilised to prepare the town for the fire or, if deemed necessary, evacuate entirely. Having full details disclosed via text messages could have significantly altered the events experienced by Yarloop in this particular disaster.

2. The need for further reform

The Waroona fire has often been referred to as “the fire of missed opportunity”. This reference can be attributed to the refusal of assistance from primary producers and other bodies. To counter this attitude, WAFarmers encourages the State Government to adopt a similar policy to what currently exists and works well in South Australia.

The Farm Fire Unit program allows farmers who are involved in assisting neighbours and the Country Fire Service (CFS) in fighting fires. Each sticker is valid for a 24-month period, and must be placed in the farm vehicle possessing the firefighting unit. An example of the sticker is below.



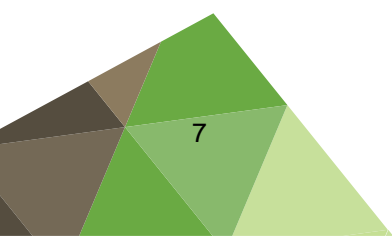
Source: South Australia Country Fire Service: Farm Unit Guidelines

The CFS hold a community event where primary producers can come together to meet each other as well as CFS firefighters. During these events, the farmer's firefighting units (tank and pump) are inspected and certified to be in working condition, and are then provided with one sticker per firefighting unit. It is the responsibility of the vehicle owner to ensure that the vehicle is serviced and in reliable order.

The meetings of CFS firefighters and primary producers also serve to strengthen the culture between the groups and unify them as a firefighting unit. A system such as this would prove beneficial in Western Australia as there is an apparent divide between volunteer and career firefighters.

During a fire emergency, the sticker would allow a farmer with his/her firefighting unit to pass roadblocks and assist in extinguishing the fire. It is the responsibility of the vehicle owner to ensure they have the necessary personal protection equipment on hand, and the knowledge of how to operate their firefighting unit along with appropriate firefighting skills. There are training courses available should a primary producer want to further enhance their skills.

WAFarmers proposes that a register be kept of people with certified firefighting units; this will allow the Incident Control Manager to see what local assets are available in the immediate area. The benefit of this is that the fire front will be able to be extinguished from a far greater range of target points, leading to the containment of the fire in a shorter timeframe.



Time for new thinking on fire management in WA

Submission to Waroona Bushfire Special Inquiry
The Wilderness Society and the WA Forest Alliance March 2016

Introduction

Recent south west WA fires have seen a tragic loss of lives, homes, wildlife and bushland. It would only compound that tragedy if we ignored scientific research and resorted to outdated fire protection strategies that will make matters worse - for people and nature.

The impacts we have had on the environment, locally and globally, are making us more susceptible to wildfires. In the south west we have turned a healthy, intact, diverse, moisture-retaining natural environment into one that is fragmented, dried-out and warming up - or replaced it altogether with weeds and other fire-prone vegetation. The huge numbers of native animals that used to help break down and recycle "fuel" have been virtually wiped out.

To respond to the damaging changes we have caused by conducting more large-scale frequent prescribed burning (aiming to meet some dubious "target") in remote, over-burned and stressed forest, bushland, wetlands and heathlands is no solution. Such burning is:

- Clumsy
- Risky
- Harmful
- Ineffective (it cannot be relied upon to help on days of extreme fire weather, when you most need it)
- Counterproductive
- Unsustainable (it depletes biodiversity and homogenises our landscape, turning it all into a uniformly fire-prone and fire-supporting environment);
- Not cost effective, relative to options such as early detection and suppression; better planning and design and carefully targeted "fuel reduction" near to assets needing protection;
- Outdated.

We need to focus on rapid detection and suppression of fires before they become large wildfires. We need to locate and design our homes and communities to be much less vulnerable to fire. And we need to restore our natural environment to one that is less fire-prone.

Everything has changed about the SW of WA in the past 200 years except our colonial mindset that logging and burning are still two of our most important settler activities in the forests.

1. The response to the January 2016 Waroona Fire

- (a) The effectiveness of pre-incident bushfire prevention and mitigation activities;
Latest science: Effectiveness and impacts of frequent prescribed burning: See Attachment 1
Area burnt: See Attachment 2
Facts about Dwellingup: See Attachment 3
Obsession with "fuel load": See Attachment 4
Questions that need to be answered: See Attachment 5

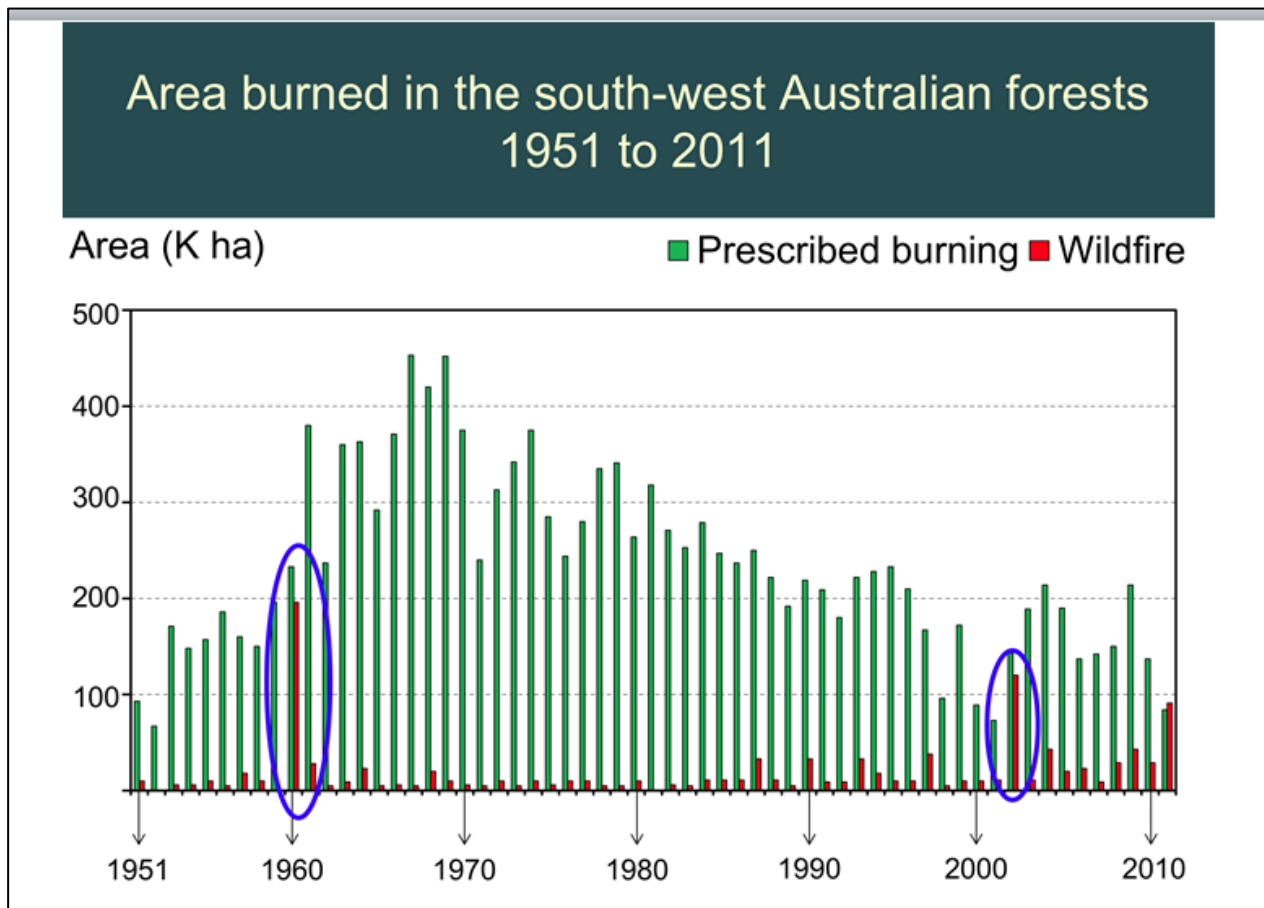
2. Lessons learned from previous bushfire emergencies

Mismanagement of recent fires – Margaret River; Northcliffe; Mt Cooke; Esperance;
Recent large escapes from prescribed burns – the untold cost to communities and the environment

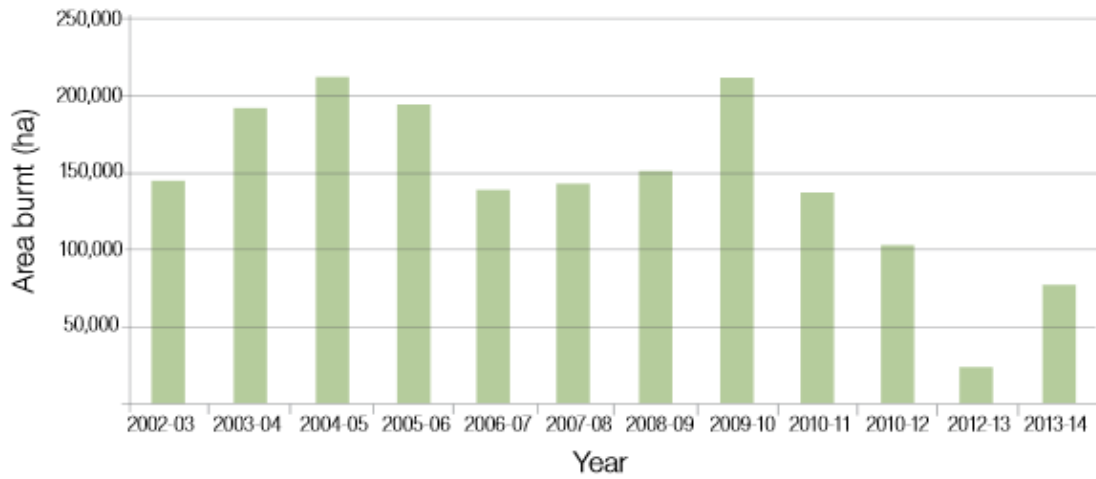
3. The need for further reform

WA Forest Alliance's 16-point strategy for wildfire preparedness and response in Western Australia: See Attachment 6.

Recommendation: There should be a full, comprehensive public inquiry into prescribed burning, its effectiveness, its impacts on biodiversity, Greenhouse gas emissions and public health, and more cost-effective and environmentally responsible alternatives to it for bushfire mitigation



**Figure 3: Prescribed burning in the south-west forest regions,
2002-03 to 2013-14**



In 2013–14, the combined total area of prescribed burning undertaken throughout the State was 3,470,284ha.

Lesmurdie controlled burn. Photo – Peter Nicholas/Parks and Wildlife



The application of prescribed fire by Parks and Wildlife has increased markedly since July 2003, when the Department became responsible for bushfire risk prevention and bushfire preparedness over large areas of unallocated Crown land and unmanaged reserves. Significant progress has been made in the Pilbara, Kimberley and Goldfields regions in applying prescribed fire across the landscape to achieve biodiversity conservation outcomes and to minimise the potential extent of damaging bushfires. Figure 5 shows the area prescribed burnt in all Parks and Wildlife regions since 1978–79.

Figure 4: Years since fire last occurred in the south-west forest regions that was prescribed burnt in 2013–14

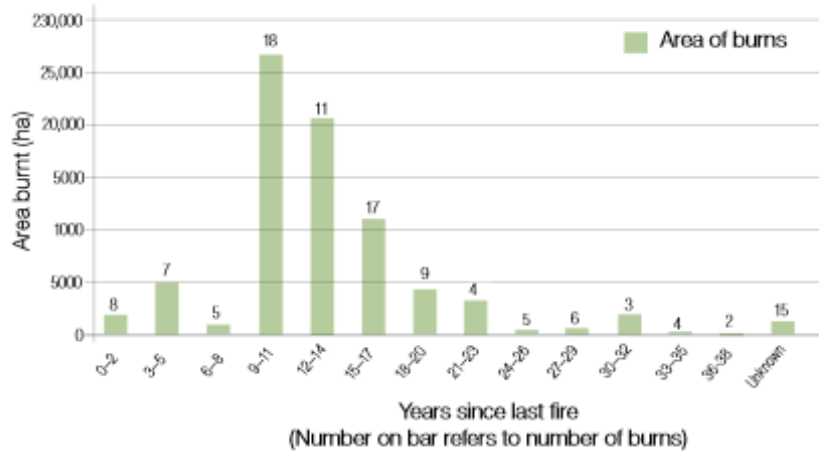
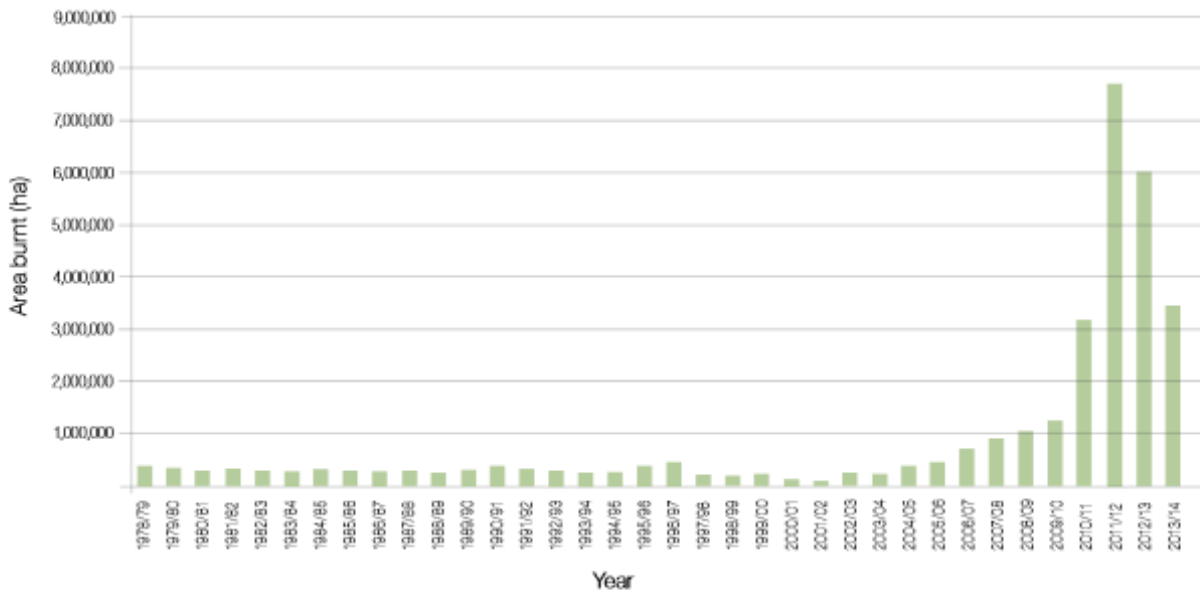


Figure 5: Prescribed burning in all regions from 1978–79 to 2013–14





**Submission to: Mr Euan Ferguson AFSM, Special Inquirer
Waroona Bushfire Special Inquiry**
waroonainquiry@semc.wa.gov.au

Date: 16 February 2016

About Transafe WA

Transafe WA is a not-for-profit industry initiative with the vision of aiding the delivery of safer transport industry workplaces and roads by fostering and promoting safer practices. Formed in 2012 by a passionate volunteer committee, to-date Transafe WA has delivered eight Road Transport Industry Safety Forums throughout WA, and represented industry's needs and risks to the state's decision makers.

"Transafe WA is committed to a safe, professional and sustainable road transport industry that protects its employees and the broader community."

Introduction

The Committee of Management of Transafe WA make this submission to the Inquiry. In doing so Transafe WA particularly represents the assessment of its members from the South-West of Western Australia who were directly impacted by this major incident.

These members include:

South-West Express

A supplier of transport solutions using refrigerated trucks, South-West Express has grown to become one of the region's premier transport companies with a fleet of 40+ trucks. Hauling refrigerated goods for a number of major customers in the south-western corner of WA, the company handles all of Woolworths secondary freight needs including BWS stores in the area. Director Mark Mazza has been involved in road transport in the region for over 30 years.

Busselton Freight Services (BFS)

Leading WA transport and logistics company BFS holds the Metcash IGA contract. On any given day BFS's 70+ strong driver fleet delivers dry, chilled and frozen foods and general merchandise to IGA stores between Geraldton and Busselton utilising both rigid and articulated combination heavy vehicles. Directors Allan and Denis Price have been involved in road transport in the region for over 30 years.

WA Pilot Vehicle Drivers Association (WAPVDA)

Observations and recommendations

Observation 1: Safety of all diverted vehicles

Transafe WA members were concerned that drivers were largely unmanaged from the diversion points.

Thousands of trucks, light vehicles, and caravanners familiar with the Forrest Highway and widened South-West Highway were forced to share and negotiate unfamiliar roads.

Several accidents of varying degrees occurred during the diversions though very fortunately there were no fatalities. Transafe WA member fleets noted caravan rollovers, head-on collisions with trucks, and driver fatigue incidents/vehicles leaving the road during the period.

Recommendations:

- Reduced speed limiting – (given speed was a factor in 38.5% of crashes in 2015, *Road Safety Commission*)
- Greater police presence
- Better signage preparing drivers for diversion points
- Better safety signage reminding drivers of key safety messages around overtaking, fatigue and speed
- Dedicated safety channel on radio with broadcasts around traffic flow and key safety messages around overtaking, fatigue, rest and refuelling opportunities, and speed specific to the diversion route.

“I believe that not only should consideration be given to the safety of people directly affected in the fire risk areas but equally to the safety of people due to consequences of the situation, in the broader context.” **Mark Mazza, South-West Express**

Observation 2: Maintaining freight services

It was essential for the road transport industry to maintain services in and out of the south-west in order to process produce, and deliver much needed groceries, fuel and other essential goods. The Waroona fire occurred during peak holiday time in the south-west, when population increases by in excess of 500,000 people. Truck drivers needed to maintain schedules within fatigue management regulations but this was very difficult due to nil separation of light and heavy vehicles.

The WAPVDA cancelled all oversize load movements during the period due to unsuitable safe options for the movement of oversize freight.

Recommendations:

A plan to separate essential traffic, like emergency vehicles and freight from the general public was required.

In this situation in order to maintain the principles of transport related fatigue the shortest route should have been reserved for service vehicles. This should have been the Collie route with light vehicles directed via a slightly longer route through Boyup Brook. Separating freight and emergency vehicles from the general public would have lessened the impact on both drivers and the roads, and the probability of incidents.

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