

Attachment G – Fire Access Roads

The following Fire Access Roads listing has been taken from the Municipal Fire Prevention Plan (MFPP). The roads listed below are the current Latrobe Fire Access Roads and are to be reviewed as part of the Gippsland RSF MPC Risk Management Strategy 7 - Critical roads and related infrastructure identified across Gippsland and appropriate treatments identified in FMP's. Strategy 7 recognises that Gippsland's roads are valuable in the prevention, suppression of, and recovery from bushfires. Roads will be classified from "municipal" through to "National" in line with consideration to their value and objective.

Strategy 7 is linked to the 2009 Victorian Bushfires Royal Commission recommended that VicRoads implement a systematic Statewide program of bushfire risk assessment for all roads for which it is responsible to ensure that they are meeting their obligations under Section 43 of the CFA Act.

Area	Access Road Name	Access for	Maintained
Callignee	Whitelaws Track	Access & egress	Council Rd Mngt Plan
Churchill	Rickards Drive	Access & egress	Annually
Glengarry	Black Tank Road, western end	Access & egress	Annually
Glengarry West	Guide Camp Road	Access & egress	Annually
Hazelwood Nth	Rules Road and Government Road.	Access, egress, firefighting	Council Rd Mngt Plan (DEPI – Govt Rd)
Tanjil Sth	Lakeview Place, down to Becks Bridge Road	Access & egress	Annually
Toongabbie	Harris's Lane	Firefighting	Council Rd Mngt Plan
Yallourn North	McColls Road	Firefighting	Annually

Fire access roads/ tracks are constructed and/or Maintained expressly for fire management purposes to ensure:

- Provide safe and secure access for authorised vehicles.
- Provide access to high fire risk areas.
- Provide a link between established routes to reduce travel times for fire fighting vehicles.
- Provide a safe and adequate means of escape or alternative means of escape for persons residing in the area.

Fire access roads facilitate a rapid and concentrated response to areas where it will be critical to enable the early containment of an outbreak of fire, and where Road access is limited and off Road operation of two wheel drive fire fighting vehicles would be difficult.

Where fire access roads are identified for construction or Maintenance, the FMPC shall adopt a priority listing and applications made for accordingly by the MFPO. The Fire Access Rd Subsidy Scheme (FARSS) is administered by CFA and is a State Government funded subsidy scheme. Subsidies are available for Municipalities for the construction and Maintenance of fire access roads or construction of Static water supplies. Funding is provided annually.

Maintain removable bollards or gates with a standard key locking system and suitable signage at the entrance to all fire access tracks.

Page Intentionally Blank



Attachment H – Static Water Supplies

Static water supplies (water tanks) have been provided at various sites for the purposes of water supply for fires. It will be the responsibility of the MFPO and the local CFA brigades to ensure annually that each site is in working condition and the tanks are full of water. The sites currently with static water supplies are detailed in the table below.

It will be the responsibility of the MFPC and local brigades to identify any short comings in the adequate supply of water to any location.

Area	Water Supply Size (Lt)	Location	CFA Fitting Yes/No
Callignee	20,000	Callignee Hall	Yes
Churchill	20,000	Rickards Drive	Yes

Adequate water supply for the purpose of fire fighting is integral to planning for fire suppression. Static water supply for fire fighting purposes is also available from:

- water supply from nearby town supplies;
- hydrants on water mains from storage reservoirs to town reticulation;
- permanent rivers or streams;
- farm dams or reserved fire fighting dams;
- static water supplies (stand pipes);
- reservoirs

Each CFA brigade has developed a plan of the sites available for strategic rural water supply; these have been selected by the brigades as being permanent, accessible, reliable and adequate sites from which to obtain water for fire fighting purposes.

Page Intentionally Blank



Attachment I – Fuel Management Breaks

The following Firebreak listing has been taken from the Municipal Fire Prevention Plan (MFPP). The roads listed below are the current Latrobe Fire Breaks and will be reviewed as one of the “Plan Outcomes”, listed on Page 21, to “Develop a list and map identifying fuel break systems and fire access road networks to aid in the mitigation of bushfire.”

See also Map 2 – Strategic Fuel Breaks, Latrobe City at Attachment E

1. STRATEGIC FIREBREAKS - PRIMARY AND SECONDARY:

Strategic firebreaks are established where sites are identified because of their ability to be used as a firebreak and a major traffic corridor. There are primary and secondary breaks. All strategic firebreaks are the highest priority for both fire prevention works and road surface maintenance.

(i) Primary Firebreaks: Breaks designed to provide protection to the municipality as a whole and are usually along the declared highways and main (arterial) road system or rail system. The primary firebreaks identified are:

Road	Location	Conservation Category
• Princes Highway	full length (within municipality)	
• Princes Freeway	“ “ “ “ “ “	
• Strzelecki Highway	“ “ “ “ “ “	
• Hyland Highway	“ “ “ “ “ “	
• Monash Way	Morwell to Boolarra “ “	
• Hazelwood Road	Traralgon to Thomsons Road	L, M & H
• Boldings Road	Thomsons Road to Tramway Rd	L
• Tramway Road	Boldings Road to Monash Way	L
• Airfield Road	full length	L
• Scrubby Lane	“ “	
• Traralgon - Maffra Road	“ “	L, M & H
• Traralgon - Tyers Road	Traralgon to Moe-Glengarry Rd	L & M
• Tyers-Walhalla Road (also known as Tyers - Thomson Valley Road)	Tyers to city boundary	L, M & H
• Moe - Glengarry Road (Includes Latrobe River Rd, Third Street & John Field Drive)	T'gon-Maffra Rd to Princes Hwy	L, M & H
• Purvis Road	Walhalla Rd to Moe-G'garry Rd	L, M & H
• Walhalla Road	full length	L, M & H

Conservation values are: L= low, M= medium and H= high.



(ii) Secondary Firebreaks; additional breaks designed by the MFPC and local brigades to provide protection at a local level and strategically dividing the municipality. The secondary firebreaks identified are:

Road	Location	Conservation Category
• Old Sale Road	Thompsons Rd to Walhalla Rd	L & M
• Thompsons Road V.R.	Old Sale Road to Sullivans Rd	L & M
• Becks Bridge Road	Old Sale Road to Purvis Road	L, M & H
• Haunted Hills Road	De Campo Drive to Princes Fwy	M & H
• De Campo Drive V.R.	Haunted Hills Rd to John Field Dve	L
• Moe South Road	full length (within municipality)	L, M & H
• Pearces Track	McDonalds Track to Two Mile Rd	L & M
• Two Mile Road	Pearces Track to Frys Track	L & M
• Frys Track	Two Mile Road to Princes Fwy	M
• McDonalds Track	Princes Fwy to Sayers Rd	L
• Morwell Thorpdale Road V.R.	full length (within municipality)	L & H
• Yinnar - Driffield Road	Strzelecki Hwy to Yinnar Road	L & M
• Yinnar Road	Brooribb Road to Monash Way	L, M & H
• Morwell-Mirboo Road V.R.	Boolarra to city boundary	L & M
• Boolarra Forest Road V.R.	Boolarra to Grand Ridge Road	L & H
• Grand Ridge Road V.R.	Boolarra Forest Rd to city body	L
• Middle Creek Road	Monash Way to Healys Road	L
• Brooribb Road Half V.R.	Full Length	L
• Glendonald Road	" "	L & H
• Thomson's Road	Hazelwood Rd to Glendonald Rd	M & H
• Jeeralang North Road	Hazelwood Rd to Sagars Rd	M
• Sargeant Drive	Cnr. Linders Rd to Sand Pit	L
• Firmins Lane V.R.	Monash Way to Hazelwood Rd	L
• Tramway Road	Boldings Road to Firmins Ln	L
• Sanders Road V.R.	full length	L
• Mattingley Hill Road V.R.	" "	L & M
• Traralgon Creek Road V.R.	Hyland Hwy to fire access track (Red Hill Rd to Traralgon Creek Rd)	L & H
• Traralgon-Balook Road	Traralgon Creek Rd to Sunday Rd	L, M & H
• Sunday Road	Traralgon Balook Rd to Old Callignee Rd	M & H
• Old Callignee Road	full length	H
• Callignee South Road	Old C'gnee Rd to T'gon C'k Rd	L, M & H
• Bartons Lane V.R.	full length	
• Minnedale Road South	" "	L
• Minnedale Road	" "	L
• Melrossa Road	" "	
• Flynns Creek Road	" "	M
• Barrs Lane	" "	L, M & H
• Cowwarr-Walhalla Road	Toongabbie to Sheila Crt.	L & H
• Rifle Range Road	T'gon-Maffra Rd to Riggalls Rd	L & H
• Old Melbourne Road	Latrobe Rd to Traralgon	L & H
• Traralgon West Road V.R.	T'gon-Tyers Rd to Old Melb. Rd	
• Alexander's Road V.R.	Princes Hwy to Old Me'brne Rd	L
• Maryvale Road V.R.	Old Me'brne Rd to Tanjil East Rd	L
• Tanjil East Road V.R.	M'vale Road to Moe-G'garry Rd	L
• Latrobe Road V.R.	Princes Hwy to Tanjil East Rd	L

Conservation values are: L= low, M= medium and H= high.

2. FIREBREAKS:

Firebreaks by definition are a minimum 10 metre strip of land (includes road surface where applicable) or suitable area, or at the discretion of the MFPO, in consultation with the relevant authorities, upon which the fuel load, particularly fine fuels, have been greatly reduced. Within the municipality there are no formal firebreaks other than the road strategic system that require construction or maintenance by the City or Vic Roads.

There are extensive firebreaks on DEPI managed land and in the numerous plantations. It is paramount that these firebreaks are maintained by DEPI and the plantation owners. The works shall be carried out in accordance with the Fire Protection Plans developed by DEPI and the plantation industries.



Page Intentionally Blank



Attachment J – Stakeholder Distribution List

FMP Membership and Municipal Stakeholders	Generic Representative Position	Generic Email Address
Ambulance Victoria		
Australian Red Cross		
Central Gippsland Essential Industries Group		
CFA		
DEEDC		
Destination Gippsland		
DHS		
DEPI		
Gippsland Water		
HVP Plantations		
Latrobe Business Groups		
Latrobe City		
Latrobe Communities		
Latrobe Regional Health		
Monash University		
Parks Victoria		
Service Groups (Lions, Rotary, etc.)		
Southern Rural Water		
SP AusNet		
State Government local members		
VicRoads		
VICSES		
Victoria Police		
VLine		



Page Intentionally Blank



Attachment K – Glossary of Bushfire and Structure Fire Terms

Term	Description
Acceptable risk	The level of potential losses that a society or community considers acceptable, given existing social, economic, political, cultural, technical and environmental conditions.
Assets and values³⁸	Recognised features of the built, natural and cultural environments. Built assets may include buildings, Roads and bridges; Structures managed by utility and service providers; or recognised features of private land, such as houses, property, Stock and crops and associated buildings and equipment. Natural assets may include forest produce, forest regeneration, conservation values including vegetation types, fauna, air and water catchments*. Cultural values may include recreational, Indigenous, historical, archaeological and landscape values.
Assumption	A conclusion that is reached based on the information available at the time.
Bushfire	A general term used to describe a fire in vegetation.
Community	A group of people with a commonality of association and generally defined by location, shared experience or function.
Combustible gas	A gas that will burn when it is within its flammability range.
Combustible liquid	A liquid that has a flash point above 61° C.
Combustion	Rapid oxidation of fuels producing heat, and often light.
Community based disaster risk management	A process that seeks to develop and implement Strategies and activities for disaster preparedness (and often risk reduction) that is locally appropriate and locally 'owned'.
Consequence	Outcome or impact of an event.
Control Line	See Fireline
Critical infrastructure	<p>Critical infrastructure includes those services, physical facilities, supply chains, information technologies and communication networks that, if destroyed, degraded or rendered unavailable for an extended period, would significantly impact on the social or economic well-being of the community.</p> <p>Includes:</p> <ul style="list-style-type: none"> • Telecommunications • Electrical power systems • Gas and oil Storage and transportation • Banking and finance • Transportation • Water supply systems (and sewerage). <p>Adapted from Critical Infrastructure Advisory Council (CIAC).</p>

³⁸ Code of Practice for Emergency Management on Public Land



Term	Description
Detection system	A system of fixed apparatus, normally part of an automatic fire alarm system, in which fire detectors, control equipment and indicating equipment are employed for automatically detecting fire and initiating other action as arranged.
Detector (fire)	A device which gives a signal in response to a change in the ambient conditions in the vicinity or within the range of a detector, due to a fire.
Elements at risk	The population, buildings and civil engineering works, economic activities, public services and infrastructure etc. exposed to sources of risk.
Emergency	An event, actual, or imminent that endangers or threatens to endanger life, property or the environment, and that requires a significant and coordinated response.
Essential service (Essential Services Commission Act 2001)	A service (including the supply of goods) provided by: <ul style="list-style-type: none"> • The electricity industry • The gas industry • The ports industry • The grain handling industry • The rail industry • The water industry • (g) Any other industry prescribed for the purpose of this definition.
Event	Occurrence of a particular set of circumstances. An incident or situation that occurs in a particular place during a particular interval of time.
Frequency	A measure of the number of occurrences per unit of time.
Fire	Comes under the definition of an Emergency. The Emergency Management Act 1986 defines 'emergency' as: "... the actual or imminent occurrence of an event which in any way endangers or threatens to endanger the safety or health of any person in Victoria or which destroys or damages, or threatens to destroy or damage, any property in Victoria or in any way endangers or threatens to endanger the environment or an element of the environment in Victoria, including, without limiting the generality of the foregoing and specific to integrated fire management and therefore includes: <ul style="list-style-type: none"> • A fire; and • An explosion, • A Rd accident or any other accident, • A disruption
Fire Access Track	A track constructed and/or maintained expressly for fire management purposes.
Fireline	A natural or constructed barrier, or treated fire edge, used in fire suppression and prescribed burning to limit the spread of fire.
Fuel Management	Modification of fuels by prescribed burning, or other means. (AFAC)
Hazard	A source of potential harm or situation with a potential to cause loss. A potentially damaging physical event that may cause loss of life or injury, property damage, social and economic disruption or environmental degradation. ³⁹
Impact	See consequence.
Impact	See consequence.

³⁹ ISDR, 2008. Climate Resilient Cities

Term	Description
Leadership group	A subgroup of the broader committee comprising the risk category, technical knowledge and experience.
Likelihood	Used as a general description of probability or frequency – can be expressed qualitatively or quantitatively.
Loss	Any negative consequence or adverse effect – financial or otherwise.
Mitigation	Measures taken in advance of a disaster, aimed at decreasing or eliminating its impact on society and environment.
Monitor	To check, supervise, critically observe or measure the progress of an activity, action or system on a regular basis in order to identify change from the performance level required or expected.
Organisation	Group of people and facilities with an arrangement of responsibilities, authorities and relationships.
Practicable⁴⁰	What is realistic to achieve in the context of: <ul style="list-style-type: none"> ▪ the severity of the hazard or risk in question ▪ the State of knowledge about that hazard or risk and any ways of ▪ removing or mitigating that hazard or risk ▪ the availability and suitability of ways to remove or mitigate that hazard or risk ▪ the cost of removing or mitigating that hazard or risk.
Preparedness	Arrangements to ensure that in the event of an emergency all those resources and services that are needed to cope with the effects can be efficiently mobilised and deployed.
Prevention	Regulatory and physical measures to ensure that emergencies are prevented, or their effects mitigated.
Probability	A measure of the chance of occurrence expressed as a number between 0 and 1. 'Frequency' or 'likelihood' rather than 'probability' may be used in describing risk. The likelihood of a specific outcome, as measured by the ratio of specific outcomes to the total number of possible outcomes. Probability is expressed as a number between zero and unity – zero indicating an impossible outcome and unity indicating an outcome that is certain. Probabilities are commonly expressed in terms of percentage e.g. the probability of throwing a six on a single roll of a die is 1 in 6, or 0.167, or 16.7 per cent.
Recovery	The coordinated process of supporting emergency affected communities in the reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical wellbeing.
Residual risk	Risk remaining after implementation of risk treatment.
Resilience	The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and Maintain an acceptable level of functioning and Structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures ⁴¹

⁴⁰ Dangerous Goods (Storage and Handling) Regulations 2000
S.R. No. 127/2000

⁴¹ UN/ISDR, Geneva 2004

Term	Description
Response	Actions taken in anticipation of, during and immediately after an emergency, to ensure its effects are minimised and that people affected are given immediate relief and support.
Risk	The chance of something happening that will have an impact on objectives. The probability of harmful consequences resulting from interaction between natural or human-induced hazards and vulnerable conditions ⁶ .
Risk analysis	Systematic process to understand the nature of, and deduce, the level of risk.
Risk assessment	The overall process of risk identification, analysis and evaluation
Risk criteria	Terms of reference by which the significance of risk is assessed.
Risk evaluation	Process of comparing the level of risk against risk criteria.
Risk identification	The process of determining what, where, when, why and how something could happen.
Risk management	The culture, process and Structures that are directed towards realising potential opportunities whilst managing adverse effects.
Risk management process	The systematic application of management of policies, procedures and practices to the tasks of communicating, establishing the context, identifying, analysing, evaluating, treating, monitoring and reviewing risk.
Risk reduction	Actions taken to lessen the likelihood, negative consequences, or both, associated with a risk.
Risk register	A listing of risk Statements describing sources of risk and elements at risk, with assigned consequences, likelihoods and levels of risk.
Risk treatment	Process of selection and implementation of measures to modify risk. The term 'risk treatment' is sometimes used for the measures themselves.
Smoke alarm	A device which is activated by the presence of smoke and sounds an alarm.
Smoke Detector	A device which is sensitive to the presence of smoke
Source of risk	Source of potential harm.
Stakeholders	Those people and organisations who may affect, be affected by, or perceive themselves to be affected by a decision, activity or risk.
Structures	Any building, industrial plant, erection, edifice, wall, chimney, fence, bridge, dam, reservoir, wharf, jetty, earth works, reclamation, ship, floating structure, or tunneling works.
Susceptibility	The potential to be affected by loss.
Tolerable Risk	A risk within a range that society can live with so as to secure certain net benefits. It is the range of risk regarded as non-negligible and needing to be kept under review and reduced further if possible.
Treatment	An existing process, policy, device, practice or other action that acts to minimise negative risk or enhance positive opportunities. The word control may also be applied to a process designed to provide reasonable assurance regarding the achievement of objectives.

Term	Description
Treatment (adequacy) assessment	Systematic review of processes to ensure that controls are Still effective and appropriate.
Vulnerability	The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards. ⁴²
Vulnerable people (DHS definition)	Those living in high bushfire risk areas and who are unable to make an independent decision, including due to cognitive impairment; physically dependant and totally reliant on in home personal care and support; and people who live alone and are geographically and socially isolated with no co-resident carer or family.

A full Bushfire glossary can be viewed via following the Link: [Bushfire Glossary, AFAC Knowledge Web](#)

A full Urban (Structure Fire) glossary can be viewed via following the Link: [Urban Glossary, AFAC Knowledge Web](#)

⁴² UN/ISDR, Geneva 2004

Page Intentionally Blank



Attachment L – Acronyms

Acronyms	Definition
ABS	Australian Bureau of Statistics
AFAC	Australian Fire and Emergency Service Council
AR	Alpine Resort
AV	Ambulance Victoria
BCA	Building Code of Australia
BMO	Bushfire Management Overlay
BPA	Bushfire Prone Areas
CFA	Country Fire Authority
CIG	Community Information Guide (formerly named Township Protection Plan)
CMA	Catchment Management Authority
COAG	Council of Australian Governments
DAFF	Department of Agriculture, Fisheries and Forestry
DEECD	Department of Education and Early Child Development
DHS	Department of Human Services
DoD	Department of Defence
DEPI	Department of Environment and Primary Industry (previously DSE and DPI)
EHO	Environmental Health Officer
EMP	Emergency Management Plan
EPA	Environment Protection Agency
ESO	Emergency Services Organisation
FOP	Fire Operations Plan
FSC	Fire Services Commissioner
GLGN	Gippsland Local Government Network
GRP	Gippsland Regional Plan
GW	Gippsland Water
HVP	Hancock Victorian Plantations
IFMP	Integrated Fire Management Planning
LC	Latrobe City
LGA	Local Government Area

Acronyms	Definition
LUP	Land Use Planning
MAV	Municipal Association Victoria
MEMP	Municipal Emergency Management Plan
MEMPC	Municipal Emergency Management Planning Committee
MERC	Municipal Emergency Response Coordinator
MFMP (FMP)	Municipal Fire Management Plan (Fire Management Plan)
MFMP (FMPC)	Municipal Fire Management Planning Committee (Fire Management Planning Committee)
MFPO	Municipal Fire Prevention Officer
MFPP	Municipal Fire Prevention Plan
MOU	Memorandum of Understanding
MSV	Marine Safety Victoria
NSP - PLR	Neighbourhood Safer Place – Place of Last Resort
PIP	Pre Incident Plan
PPRR	Prevention Preparedness Response Recovery
PV	Parks Victoria
RAMSAR	Ramsar Convention (formally entitled "The Convention on Wetlands of International Importance, especially as Waterfowl Habitat")
RSFMP	Regional Strategic Fire Management Plan
RSFMPC	Regional Strategic Fire Management Planning Committee
SFMP	State Fire Management Planning Committee
SRW	Southern Rural Water
TPP	Township Protection Plan – now named Community Information Guide
VEAC	Victorian Environmental Assessment Council
VFF	Victorian Farmers Federation
VFRR	Victorian Fire Risk Register
VicPol	Victoria Police
VICSES	Victoria State Emergency Service
VRQA	Victorian Registration and Qualifications Authority

Attachment M – References

Document Originator	Reference Title
Australian Bureau of Statistics	Australian Bureau of Statistics – Census Data 2006, 2011
State Government	Building Act 1993
COAG	Building Code of Australia (BCA) 1990, Building Regulations 1994
Fire Services Commissioner Victoria	Building New Foundations
State Government	Building Regulations 2006
Fire Services Commissioner Victoria	Bushfire Safety Policy 2010
Fire Services Commissioner Victoria	Bushfire Safety Policy Framework 2010
CFA	Caravan Park Fire Safety 2012
VicRoads	Code of Practice for Fire Prevention on Declared Roads
DEPI	Code of Practise for Bushfire Management on Public Land 2012
Fire Services Commissioner Victoria	Community Refuge Policy
State Government	Country Fire Authority Act 1958, CFA Regulations 1992
State Government	Dangerous Goods Regulations 2000
State Government	Electrical Safety Act 1998
State Government	Emergency Management Act 1986
State Government	Emergency Management Manual Victoria
Building Commissioner	Essential Services Measures Maintenance Manual
State Government	Fire Services Commissioner Act 2010
State Government	Flora and Fauna Act 1988
State Government	Forests Act 1958
State Government	Health & Safety Act 2008
SF MPC	Integrated Fire Management Planning Framework
SF MPC	Integrated Fire Management Planning Guide 2010
AS/NZS	ISO 31000 : 2009
State Government	Living with fire - Victoria's Bushfire Strategy
CFA	Making Victoria Fire ready (Implementing Governments response to 2009 VBRC)
Latrobe City Council	Municipal Emergency Management Plan
Latrobe City Council	Municipal Fire Prevention Plan 2011
State Government	National Parks Act 1975
State Government	Planning and Environment Act 1987
Fire Services Commissioner Victoria	Reform Action Plan 2011
State Government	Road Management Act 2004
CFA	Roadside Fire Management Guidelines (2005)
State Government	State Conservation Strategy 1987
SF MPC	State Fire Management Strategy 2009
SP AusNet	VEM Hazard Tree and 56M Assessment Procedure
CFA	VFRR Exports, Reports & Handouts
VicRoads	VicRoads 1085 Code of Practice

Page Intentionally Blank



Notes from discussion with Councillors and EPA Victoria, 8 April 2013

At the invitation of the Latrobe City Mayor, EPA Victoria CEO and officers met with Latrobe City Councillors to discuss air quality monitoring in the Latrobe Valley.

Present:

John Merritt, CEO EPA Vic

Paul Torre, EPA Vic.

Annie Volkering, EPA Vic

Dieter Meltzer, Gippsland Regional Manager EPA Vic.

Cr Christine Sindt, LCC

Cr Graeme Middlemiss, LCC

Cr Peter Gibbon, LCC

Cr Darrel White, LCC

Deirdre Griepsma, Manager Natural Environment Sustainability LCC.

Discussion notes:

- o Council through the development of its Council Plan has a role of advocacy for its community on air quality and other environmental issues. Topics tabled for discussion included air monitoring and quality, odour issues and the buffer around APM, and the increasing cost to Council regarding landfill construction, operation, rehabilitation and aftercare.

Air Quality & Monitoring

- o Councillors would like a review of the air monitoring stations and air quality in Latrobe City and the Latrobe Valley. This includes understanding the adequacy of the current base data and regulatory requirements.
- o EPA Vic sees a role in supporting Councils priority of air quality improvement.
- o The Latrobe Valley Air Monitoring Network (LVAMN) was established under the SECV and was well resourced. Councillor expressed the view that this network and source monitoring has not been as well resourced and maintained post privatisation, and requires improvement as the coal resource and industry grows and changes. Dust suppression activities (water sprinklers) and data collection do not appear to be performed by private operators.

A commitment was made by EPA Vic CEO to conduct regular forums with Councillors to discuss issues.

- o A key concern of Councillors is community health, particularly particulate matter (PM10) in the air caused by coal dust.
- o EPA explained that there is two types of air monitoring that occurs; monitoring for general health and air quality (e.g. Traralgon station); and monitoring for base data collection and quality campaigns for specific projects (e.g. HRL Duel Gas proposal). Air monitoring statutory requirements are in the National Environmental Protection Measures (NEPM) Ambient Air Quality document.
- o The air monitoring station installed at Hourigan Rd, Morwell was installed for a campaign and has not been removed at this point in time. The station has remained to collect air quality data during fuel reduction burns across the summer and autumn conducted by DSE. The air quality monitoring data associated with the HRL proposal was compared to international standards; SOx and NOx were not identified as an issue.
- o EPA commented that the Latrobe Valley has had lots of monitoring over the years. Wal Delaney (EPA) has viewed the data over years from approx 30

- sites, including stationary sources and air dispersion models. The Latrobe Valley air shed has been well studied.
- o In 2008 another review of the LV area air quality was undertaken. The National Environmental Protection Measures (NEPM) provides guidelines for the number of quality monitoring station based on a ratio of population. The Latrobe Valley is dealt with as a regional population base as any one town alone does not meet the required population base to trigger air quality monitoring. There have been no air quality parameter levels recorded that exceed the NEPM standards.
 - o The Latrobe Valley air quality issues are particulate matter; PM₁₀ and PM_{2.5} associated with extreme events such as bushfires, dust storms, controlled burns that are dictated by climate.
 - o There may be a need to expand monitoring of PM₁₀ in Traralgon. Councillors requested information on what modelling of larger particles was undertaken as there is a perception by residents that Morwell is a dirty town due to the brown coal dust from the open cut mines and briquette dust.
 - o Power station emission licencing is based on source emissions. Councillors acknowledged that emissions and air quality has improved; better than the past due to improvements in technology.
 - o Councillors expressed that the number of air quality monitoring stations in the Latrobe Valley area should not be based on the same criteria (i.e. population density) as other rural regional cities (Bendigo & Ballarat) as the industry base profile is not the same (i.e. coal industry). EPA commented acknowledging that the Latrobe Valley is a specific case, over and above the general profile.
 - o Councillors would like the Morwell Hourigan Road air quality monitoring station to continue to gain 'proper' scientific data; short term monitoring is not adequate. EPA commented that the Morwell Hourigan Road station was to model and look at anomaly in the area for PM_{2.5}.
 - o New baseline data will need to be established as new open cuts and technologies are installed. Companies proposing new power stations/activities are required to undertake 12 months background modelling prior to building and after establishment.
 - o EPA has performed predictive air quality modelling to 2030, considering population growth.
 - o The EPA does not have a presence regarding air quality monitoring in the Latrobe Valley. If there was a good network of monitoring stations in the Latrobe Valley, and access to the data, then the community would have information.
 - o Councillors feel the EPA communication with the community is not good, example of the Morwell River collapse into the Yallourn mine and subsequent water pumping into the Morwell/Latrobe River. Proponents give the community very little information, stated information was confidential. The proponents need to be held accountable by the EPA to the community. EPA acknowledged that the communication with the community could have been better.

EPA committed to return and present to Councillors on air quality PM₁₀ data once it has been tabulated and verified and data modelling of future projections (2030).

EPA will review the number of air quality monitoring stations in the Latrobe Valley in recognition that the area has a unique industry profile.

Time did not permit other topics (landfill, odour buffer) to be discussed.

Notes from discussion with Councillors and EPA Victoria, 2 September 2013

Present:

John Merritt, CEO EPA Vic

Paul Torre, EPA Vic.

Dieter Meltzer, Gippsland Regional Manager EPA Vic.

Cr Christine Sindt, LCC

Cr Sharon Gibson, LCC

Cr Peter Gibbon, LCC

Cr Darrel White, LCC

Paul Buckley, CEO LCC

Deirdre Griepsma, Manager Natural Environment Sustainability LCC.

In April 2013, at the invitation of the Latrobe City Mayor, EPA Victoria CEO and officers met with Latrobe City Councillors to discuss air quality monitoring in the Latrobe Valley. This meeting has followed up on the outstanding issues and actions from the April 2013 meeting;

- *EPA committed to return and present to Councillors on air quality PM₁₀ data once it has been tabulated and verified and data modelling of future projections (2030).*
- *EPA will review the number of air quality monitoring stations in the Latrobe Valley in recognition that the area has a unique industry profile.*

Discussion notes:

- o General discussion commenced regarding issues in regional and rural areas; landfill requirements and responsibilities and ongoing community concerns and perceptions regarding air quality.
- o EPA discussed their recent restructure and resourcing with all officers undergoing internal training and competency assessment against their requirements as authorised officers; knowledge of legislation, industry technical information, investigations, notices and inspection reports. EPA officers generally have a higher education qualification in their field (e.g. science or environmental engineering degree). EPA authorised officer training is specialised.

Air Quality & Monitoring

- o EPA presented data from the Morwell East air quality monitoring station. The presentation will be distributed to Councillors with these notes. The report with this information will be available to the public on the EPA website today.
- o There was a delay in releasing the data as there was some anomalies in the SO_x and PM_{2.5} data that required verification.
- o Since 1975, there have been 27 air monitoring sites in the Latrobe Valley.
- o NO_x and SO_x are the names given to predominantly NO₂ and SO₂ air pollutants. NO_x are usually caused from combustion sources in the urban environment (cars, heaters etc.). SO_x are usually found from coal industry activity. Latrobe Valley brown coal is not high in SO_x. These are a problem in Europe and have been well studied in the UK & Europe with air movement and weather patterns.

- o The ERC's for the coal power stations that Councillor and officer representatives participate on provide data on SO_x and NO_x as major pollutants.
- o The cost for an air quality monitoring station is \$100K – \$200K to monitor for SO_x, NO_x, ozone, PM₁₀ and PM_{2.5}.
- o CO₂ is not considered a pollutant and is not monitored by EPA; it is calculated from industry production generation. The CSIRO does some general atmospheric monitoring for CO₂ but this is not specific, more global.
- o Power stations report CO₂ emissions as part of their NPI data.
- o EPA operate a network of air monitoring stations in the Latrobe Valley at Traralgon, Rosedale South, Jeeralang Hill and the temporary station at Morwell East. The Morwell East station was commissioned as part of the HRL duel gas preliminary works approval due diligence work.
- o A previous air quality monitoring station in Moe gave the same data as the Traralgon air quality monitoring station. The only exception was the particulate data which was due to controlled burning in the area.
- o The data collected in Traralgon when compared across the Latrobe Valley is representative of the area. Prevailing winds may effect dispersion of pollutants.
- o Large sources (industry) have EPA emissions licences; the EPA monitoring supports the licence reporting data.
- o Across 421 days of monitoring, Feb 2012 – May 2013, SO₂ results were between 0 – 10 ppb compared to the standard (80 ppb). SO₂ is a marker pollutant for power stations.
- o Air quality monitoring is continuous and recorded by electronic telemetry.
- o Currently the time of the day where data may spike is not reported, although this is possible. Weather impacts are significant, such as sessional inversion, vertical and horizontal dispersion. Modelling is used to assist in understanding the impact of these weather effects.
- o EPA will come and speak with Council before setting up another temporary air quality monitoring station to work together with the community.
- o NO₂ are urban air pollutants (cars, heaters etc.) and levels in the Latrobe Valley are less than those in Melbourne.
- o Across 421 days of monitoring, Feb 2012 – May 2013, NO₂ results were between 0 – 30 ppb compared to the standard (80 ppb).
- o PM₁₀ is a particle size of 0.01mm (dust). PM_{2.5} is a health concern (smoke). Spikes above 50mg/m³ in the monitoring data (Feb 2012 – May 2013) are directly due to bushfires and planned burns.
- o The NO_x and PM₁₀ wind rose is the same, showing the same pattern of dispersion, indicating the cause is urban pollution rather than industrial activity. In recent years air quality results in Latrobe Valley have not exceeded the standard. This is assisted by wetter (high rainfall) years, hence less dust.
- o PM_{2.5} monitoring is not currently occurring at the Traralgon air quality monitoring station. This is proposed to commence in the near future; next year. There is a national agreement coming regarding the monitoring of PM_{2.5}. The PM_{2.5} levels at the Traralgon air monitoring station were calculated by correlation with the Morwell East monitoring station PM_{2.5} levels. The same data spikes were seen in both data sets for the PM_{2.5} and PM₁₀ data. These were due to bushfires and planned burns.
- o The wind rose patterns for PM_{2.5}, NO_x and PM₁₀ were very similar, almost the same.
- o DEPI are considering conducting health impacts and social surveys with the timing of planned burns in Moe and Traralgon to improve management practises. Research using Smart-meters in major Gippsland towns. It is

unknown at this stage how this will work and how useful it will be; its research.

- o Air quality monitoring in areas with coal dust are difficult to monitor as the particulate matter is not just coal dust. Practical analysis of dust is very complex analysis and required hundreds of samples.
- o The cost of an air quality monitoring station is \$100K - \$200K each and one station placed correctly informs of the air quality in an entire area; more stations do not mean new information. The Traralgon air quality monitoring station is representative of the Latrobe Valley area.
- o EPA modelling will need to occur with population growth in the area.
- o The air quality monitoring station at Powerworks is not operational. There was discussion and disagreement regarding how representative the Traralgon air quality station is for the Latrobe Valley. The temporary Morwell East air monitoring station did not provide any new data compared to the Traralgon station. Concerns regarding health impacts and clusters studies were discussed. Cluster studies have not confirmed health concerns of the community (e.g. telsta building).
- o Future industries, such as coal drying, will require a management plan and trigger the protocol for an Environment Management Plan (EMP). Monitoring will need to take place as part of a licence application and works approval process for combustion technology. Non combustion technologies are PEM issued by DEPI.
- o Within a works approval application, section 20B requires community consultation. EPA would request this be done with Council for good relationship management and joint responsibility with the community.
- o The report for the air monitoring at Morwell East is being released today and EPA have put out a media release.
- o EPA do not see the necessity to install any other air monitoring stations at this stage in the Latrobe Valley, they consider Traralgon to be representative of the area.

Follow up actions:

- ***EPA to email information regarding Latrobe Valley air quality compared to Melbourne.***
- ***A link is to be placed on the Latrobe City Council website to the EPA air quality report.***
- ***Next meeting to be held in approximately 6 months and will cover community perceptions of Latrobe Valley air quality, community engagement, a joint community forum/open house and odour issues from industry (e.g. APM, Gippsland Water Factory).***

