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Subject: REPRESENTATION ON THE MRF FYSHWICK, Number 2017 00053
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REPRESENTATION ON THE MRF FYSHWICK
NUMBER 2017 00053

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Introduction

I object to this development in its present form for the reasons discussed below. The matters that were not addressed in the Draft EIS or addressed with insufficient clarity or detail should be given close attention before any approval is given.

There are too many issues of social, economic and environmental concern that are either not addressed at all in the Draft EIS in spite of the Scoping Document Requirements or that are inadequate in detail to allow sufficient scrutiny.

It is an extremely complex proposal involving scientific and technological details. It occurs to us that it requires assessment by suitably qualified scientists and engineers and that those experts are not employed by ACT Planning. For that reason we request that a Planning Panel be constituted to examine the serious social, economic, health and environmental concerns aroused.

Such a panel would provide assurance to the general public that the proposal was being assessed on its merits and that all potential adverse impacts had been identified. The fact that the proposal originally included an incinerator, called WtE, and that this was not acknowledged anywhere in this EIS is deeply concerning. As stage 2 of a much larger development the WtE component was required by the Scoping Document 5.1 (i) to have been considered. How the cumulative impact on air, health, traffic etc. of both stage 1 and 2 is to be assessed is not clear and we would hope that an Independent Panel would allay any concerns we might have that a comprehensive assessment will be undertaken.

Waste Disposal at Fyshwick is an issue

Locating such a large waste transfer station in a central location in Fyshwick is ill-considered. Fyshwick is in reality a major employment base, services hub and retail centre for Central Canberra. Consequently, placing Canberra's principal waste handling facility in a location which obliges high volumes of heavy vehicles to transit through the heart of Fyshwick unnecessarily introduces significant traffic impacts as well as odour and other potential environmental problems.

It is preferable to avoid routing traffic through already heavy traffic areas because traffic generated by transfer stations contributes to congestion; increased risk to pedestrians; increased diesel air emissions, noise, and wear on roads; and might contribute to litter problems.

The EIS has not as required by law considered alternative sites. There is vacant Territory owned land on the eastern periphery of Fyshwick which adjoins the railway line and is appropriately zoned. The Hume industrial area offers a number of appropriately zoned sites which also adjoin a railway alignment. As Hume is in close proximity to the existing Mugga Lane municipal waste facility it can reasonably be assumed that the existing movements of municipal waste collection trucks would be little disrupted. Any objective planning assessment should identify this as a preferable site for a waste transfer facility. Indeed, the ACT Government has itself developed a waste recycling estate in this location which suggests that its own planning regime has identified this a much preferable location for such uses.

A Fyshwick MRF with transport of municipal containerised waste across border to Woodlawn does not make any sense. It undermines the ACT strategy for establishing a recycling park at Mugga Lane and undermines development of waste reduction alternatives like anaerobic digestion and composting of kitchen and green waste.

At the national level, there are several methods which can be employed to reduce the production of waste.

These include redesign of packaging, increasing consumer awareness of waste reduction issues; and the promotion of producer responsibility for post-consumer wastes. The EIS should have assessed all alternatives to another landfilling solution. Exploring these options and others better serves the ACT community than moving all of its waste to the south of Fyshwick and locking its residents into that solution for the next 40 years so that future alternatives cannot be explored.

It also creates a risk of security of service by handing waste disposals over to a single company. The EIS does not explore these issues adequately or explain what would happen if CRS ceases to operate. Indeed the issue of decommissioning was not discussed as it must be according to the Scoping Document. Time frames for this development including stage 2 the incinerator as revealed in the November 2017 Scoping Application were not considered at all. This must be addressed.

Traffic Considerations

This development should be rejected on traffic grounds alone. Bringing extra trucks into an already busy (with trucks) commercial area is a poor planning decision. Vehicles turning right from Newcastle street into Ipswich street already have to wait for the lights to turn green more than once to be able to turn. This will get worst at peak periods for waste truck arrivals which does not necessarily coincide with morning and evening peak traffic periods. Modelling for impacts at different times of the day should have been done. The 12 to 1pm peak period on the Canberra Avenue service road should have been further investigated.

Ipswich street as a consequence of this proposal will become congested and a traffic hazard because of the large number of daily truck movements turning into or out of that street when it is already a main thoroughfare for all vehicles wanting to access the Monaro highway from Canberra Ave and vice versa. The rise in the street is potentially dangerous for southbound traffic suddenly coming upon queuing trucks waiting to enter the site via a left hand turn.

There is the additional problem of the public who need to access Wiluna street after doing business in Ipswich or Barrier street by turning left. This wide and accessible intersection would be rendered hazardous by the unquantified number of trucks needing to access the rail hub at the top end of Lithgow St turning into Wiluna from both the Canberra Ave and Monaro Highway direction.

There should be easy access for waste transport vehicles to enter from major roads, and access and transport routes should avoid local residential road networks. There will probably be an increase in the amount of traffic in the vicinity of the depot. An assessment should be made of the need to upgrade existing roads, and of the economical and technical viability of doing this. Who would bear this cost and the cost of the new set of traffic lights at 16 Ipswich street is not made clear in the EIS.

The increased traffic is described as “negligible”. This is nonsense. The figures used for the assessment were averaged figures over a 16 hour time frame. The arrival time for garbage trucks will more likely be between 7am and 4 pm - 9 hours not 16. This averages one truck every 2 not 4 minutes. The reality of the arrival of the garbage deliveries will be different from the concluded one truck every 4 minutes. Peak trucks delivery times and hold ups at depots, on the road due to road works or traffic incidents will mean that on occasion trucks will arrive in a convoy. This will disrupt the orderly reception of waste at the weigh bridge and in the shed; mean that trucks will have to queue and further disrupt traffic flow in the three local streets impacted. The potential of this and its consequences should have been addressed using different averaging data.

There should have been an intersection study for both exits and entrances to the Monaro Highway for southbound and northbound traffic. This was a serious omission in the EIS as was any consideration of potential truck/vehicle traffic accidents. Additional congestion and impatient drivers would make this more likely. The potential for increased traffic accidents involving trucks is unacceptable. The assessment should demonstrate that the risks of traffic accident by this proposal can be controlled to a level that is not significant. The EIS has failed to do this.

Site Selection.

Notwithstanding the traffic implications the waste facility is inappropriately sited. It is unacceptable that the community was not given a say in choosing the site for the ACT's alternative waste disposal. This is contrary to the Government's stated aim to have extensive pre-DA community consultation.

The suitability of sites for transfer stations varies significantly, depending on the volume of waste to be

transferred, rates at which waste will be delivered, the functions to be carried out at the site, The public was not involved in assessing any of these issues. To mitigate impact on the surrounding community, a transfer station should be located in an area that provides separation from sensitive adjoining land uses such as residences. Ipswich street does not provide any suitable buffer. Rather its location so close to so many other developments reveals it to be enclosed and unsuitable for modification to create a best practice waste transfer depot particularly taking into account any future needs for expansion.

When selecting a site, consideration should be given to the potential for subsequent increase in the daily tonnage of waste the facility will be required to manage, or added processing capabilities for recycling and diversion. Allowance for future expansion is an important factor when considering the land area required. This may mean allowing for an increase in waste to be received (due to increased population or economic activity) or may include allowing for additional resource recovery facilities to be implemented in the future. In either case, planning for future expansion is a key factor in choosing a site. Having sufficient area available can increase operating efficiency and result in significant future cost savings due to not needing to relocate the facility and being able to increase the throughput at the site if required. Although the shed at over 7000 square meters is large enough for expansion its location on the site with the other necessary facilities renders the site difficult for increased volumes of on-site vehicle movements. This is particularly important if the freight component of this proposal needs to expand. The EIS failed to address this issue.

On this site there are ongoing environmental monitoring issues. It is necessary to determine whether there is any land contamination from a previous land use as a bulk fuel depot, and the potential impacts this contamination might have on human health and the environment. The proponent must obtain a report to show that the concentration of hydrocarbons in excess of levels normally found is not in excess of levels suitable for the future use of the land as waste transfer station and railway terminal. Precise risks and hazards must be identified and evaluated as they impact on site workers and the general population. The exact composition and level of the chemicals of concern are not detailed or described. How the development is planned to occur when so much soil is required to be moved and what the health implications of this for the construction workers, neighbouring businesses and the general population was not addressed in any of the reports supporting this EIS. Indeed the extent of the cut and fill and site configuration was not mentioned at all.

The health Risk Assessment was particularly inadequate and should be done again. Not only did it ignore the health impacts of the significant hydrocarbon pollution of the soil and water for construction workers it ignored the fact that these volatile chemicals contain known carcinogens and have the potential to enter any buildings constructed on the site. Dust and pathogens are another concern. The Ventilation System is not described in detail to give assurance that the shed will be a healthy place to work. Indeed the proponent's consultant advised that the air vent and shaft would not be filtered. This raises the additional concern of the chemical composition of the vent plume and its dispersion fate. The indoor air of the shed for the workers should have been assessed as well as the air quality impacts on the ambient air.

It is unacceptable that the Air Ventilation system will not be filtered. The plume exiting the shaft consequently has not been characterised for its composition. Its dispersion pathways also is unclear. For the residents of the new East Lake Urban Renewal project especially those in high rise buildings could find themselves in the direct path of some very dirty and harmful air. The potential for the plume to impact the future residents and commercial operations of the new Molonglo Group Dairy Road development has been ignored. This needs further investigation.

Increased diesel emissions in the ambient air and inside the shed was also ignored for its health impacts. There is ample information of the health impacts of increased fine particulate emissions. The ambient air of Fyshwick should have been measured for its ability to take extra load of diesel particulates. There was no Air Quality Assessment of this and other air quality issues as required by the Scoping Document and that must be addressed.

Odour Control

Odour modelling is required to confirm there are no unacceptable impacts on adjacent land uses. The facility should be designed and operated so that odorous emissions and dust do not cause a nuisance or an offence, and airborne impurities do not pose a risk to human health. The EIS fails to convince that there will be no or minimal odour impacts.

Given the proximity to the retail activities in Barrier, Lithgow and Wiluna Streets all ameliorate techniques need to be validated for site specific efficiency.

The frequent opening and closing of doors makes it more rather than less likely that fugitive odours will escape. This conclusion is reinforced when one considers the plan of the building and notes the number of large openings on the north and north eastern sides of the building.

The doors do not incorporate a double entry to entrap escaping odours from the main space. The development should use odour vestibules on truck entrances and exits. Odour vestibules are 2-door systems in which the outer door closes before inner door opens to prevent odours from escaping. Alternatively the proponent could install plastic curtains on entrances and exits to contain odours when doors are opened to allow vehicles to enter or exit.

No explanation is offered for the air ventilation system not containing filters. Bio-filters which pass malodorous air through organic matter, such as wood chips, mulch, or soil – to capture odour molecules to consume or neutralize them can be employed but first must be scientifically tested and validated for their efficacy in the Fyshwick areas taking into account topographical weather and meteorological conditions.

The air vent plume must be modelled for its dispersion characteristics and for the likely receptors in all wind, weather conditions and in all seasons. Necessary seasonal adjustments must be investigated and incorporated into the mitigation techniques to control odours. All waste must be removed by the end of each operating day. No waste should be allowed to remain on site overnight. Assurances must be given. The tipping floor must be washed down frequently. Plant vegetative barriers, such as the onsite trees should remain to help absorb and disperse odours.

The EPA Draft Separation Distance Guidelines

Separation Distance Guidelines must be applied to ensure incompatible land uses such as waste transfer stations are located in a way that minimises the impacts of odour and polluting air emissions when applied in the assessment of new development proposals.

The use of separation distances is an aid to locating industry and sensitive land uses to minimise the impacts of odour, polluting air emissions, waste water or noise that may result from accident, power failure, equipment failure, unusual meteorological conditions or human error, as well as normal operation.

The siting of a huge waste transfer station with a 300,000t capacity per year does not satisfy the intention of these guidelines. There are three day care centres in close proximity. Thousands of Canberrans shop there each day. A caravan park is immediately across Canberra Avenue about 260m distant. There are several large developments planned in close proximity to the area; two of which contain residential development. Best Practice would locate a Waste Transfer Station away from this type of area especially when there is no immediate pressing need for it. The Mugga Lane landfill has planning consent for another 30 years ample time for the ACT Government to find a more suitable location along the railway line if that solution is absolutely necessary.

Applying sound planning principles and separation distances to potentially offensive industries should be the foremost priority.

Pests and Insects

Waste transfer stations attract vermin and pests. The EIS has not adequately demonstrated how this will be controlled. Constant opening and closing of doors for 16 hours daily will permit ingress of pests. The EIS does not confirm all screen openings that allow rodents and insect to enter the building, such as door and window frames, vents and masonry cracks will be properly sealed.

Regular checks and inspections by professional licensed pest control companies with expertise and experience in controlling specific vector populations must be undertaken.

Insect breeding areas must be identified, treated and eliminated as much as possible and all practices that create new breeding areas must be similarly eliminated.

The likelihood of attracting vectors must also be eliminated by implementing practices such as daily removal of all waste and the installation of a perimeter fence to prevent windblown litter from leaving the site.

Dust from the site

Given the contaminated condition of the soil on the site dust is a more serious issue than with other comparable

facilities. Either the site must be fully remediated with the contamination removed or the tightest management procedures followed. Fine particulate emissions from construction work and general operation has the potential to enter the Fyshwick air shed and adversely impact human health. The fine particulates would carry the Volatile organics and aromatic hydrocarbons and be breathed in by residents, workers and shoppers.

All roads on site must be paved and cleaned frequently with street sweeping equipment. All building should be aligned to place openings against the prevailing winds. Plastic curtains over these openings must be installed. Station doors must be closed during operating hours except when trucks are entering or exiting. Misting systems over tipping areas in the shed to settle dust particles must be used and adjusted seasonally or as the dryness of the waste dictates. The presence of pathogens in the air should also be measured and the issue addressed in a new HIA.

The operator of the MRF must take all necessary precautions concerning the delivery and reception of waste in order to prevent or to limit as far as practicable negative effects on the environment, in particular the pollution of air, soil, surface water and groundwater as well as odours and noise, and direct risks to human health.

Delivery and Reception of the waste - Hazardous Wastes and Materials

The EIS is vague about the precise nature and volumes of each kind of waste to be received on site. This is not good enough. The population needs to be assured of the source of all types of waste. The operator should describe the mass of each category of waste prior to accepting the waste at the MRF or waste transfer station and have a procedure in place for recording and reporting the volume of each kind of waste.

While MSW is generally nonhazardous, some potentially hazardous materials such as pesticides, bleach, and solvents could be delivered to a transfer station. Facility operators should ensure that employees are properly trained to identify and handle such materials. Special designated areas for each kind of unwanted waste should be provided and the storage and handling procedures described. The EIS was vague on these matters and does not make it clear if these wastes will be stored on site or transported off-site nor how often this might occur. This is unsatisfactory. There are too many implicit dangers in handling and storing hazardous wastes even for a short time.

If hazardous waste is detected in the waste source if possible its origin should be determined; it should be segregated and samples taken to determine the nature of the waste before handling or further transporting. The operator must have plans in place for the handling of hazardous waste that may appear in the waste stream and need specialised handling and disposal. It is unacceptable that they be held on site as the proponent did not specify the length of time this might entail. The EIS must explain more precisely how they will be sorted, stored, removed and disposed of.

Litter control

There is always litter around waste recycling and processing facilities in spite of the protestations of the developers that there will not be. Litter prevention and cleaning is not a priority once the approval is granted and the operation in full swing. Litter should be minimised by ensuring full containment at the depot. A litter collection program should be established to control wind-blown litter at the depot at least once a day, more frequently if it becomes unsightly or a nuisance. All bins and containers must be covered at all time. There must be no gap between the hardstand and transfer building. Litter traps to protect the storage drainage system must be included. There should be natural wind breaks in the site design and landscaping where possible. Litter screens or fences should be around the site perimeter. There should be a full time daily cleaner on site.

A dirty, litter-strewn Waste Transfer Station in Central ACT is an unsightly addition to the Parliamentary precinct and would not be a good look for visitors.

Rail freight

With the oversized shed the site is too small for safe manoeuvring of vehicles. The site also has no space for on-site warehousing which would increase the efficiency of the freight service offered and therefore increase the attractiveness of the terminal and its potential to get more freight onto the rail network.

There was inadequate planning to ensure that an intermodal terminal allocated sufficient associated land, zoned for freight and logistics, adequate to facilitate co location of high volume users and minimise the impact of freight activities on the community by providing appropriate noise separation around the transport areas. Acquiring or preserving adequate space in the corridor reserve is important to ensure that suitable set-back

distances to receivers can be achieved and that, if necessary, bunds and barriers and noise attenuation measures can be constructed close to either the source or receiver but preferably closer to the source.

There is inadequate segregation of noise sensitive users from a major transport corridor and freight handling facility for screening for noise where necessary. A freight handling facility within 300 m of a noise sensitive area is unacceptable.

I submit that the site Block 9 and 11 is inadequate in size for all that the developer proposes to do there. There is insufficient land suitable for warehousing and freight forwarding purposes in the vicinity of the rail hardstand to make it viable and a quality centre. It may satisfy the interests of the proponent in transporting his recycled metal to Port Botany but it will not satisfy the long term needs of the ACT Community and is not consistent with its Freight Strategy policy.

A small intermodal terminus at Belfield in Sydney is situated on a 20000 square meter site of which 10500 Square meters is paved hardstand. This site acts as a distribution centre with no warehousing or other supply chain management facilities. 950m is open space for safe working conditions. Block 11 Fyshwick will almost entirely be taken up with a hardstand and access road. In addition the Ipswich Lithgow Road site is not big enough for this type of development with a MRF there.

Should such a facility be feasible in the ACT, a number of sites next to the rail line could potentially accommodate such a development, at Beard and Hume as indicated in the ACT Rail Freight Strategy. This must be considered further in assessing the justification and alternatives in conjunction with freight policies for the ACT and the Government's land release program.

It is a failure of the EIS not to have considered alternatives for rail freight for the ACT.

Noise

Noise arises from many different types of sources and activities such as rail loading activity, train shunting and breaking, traffic movements on and off site, machinery operation. The facility should be designed to ensure that it protects the amenity of that locality. Noise problems generally arise from processing equipment, traffic (both within and going to and from the site) and other operations. The cumulative impact off noise sources should have been assessed.

The proponent should have avoided siting the facility near residential or other sensitive or non-compatible areas, and where possible located noisy activities to minimise the nuisance. The site location makes it impossible to ameliorate the nuisance from the nearest residential and commercial receptors. There is insufficient buffer area and because of the rail corridor difficulty in constructing any acoustic barrier on the north boundary. Nuisance impacts will be noticed at businesses in Wiluna and Lithgow Streets, the Caravan Park, Narrabundah and the future East Lakes development.

The simple definition of noise is that it is unwanted sound, and as such, may have both direct physical and psychological effects on people if it is intense or persistent enough; causing sleep disturbance, interfering with normal conversations, or annoyance and stress. Evidence is accumulating that noise has real health effects on people. The World Health Organization lists seven health hazards associated with noise pollution from industry; hearing impairment, sleep disturbances, disturbances in mental health, cardiovascular disturbances, interference with spoken communication, impaired task performance, negative social behaviour and annoyance reactions. This was not addressed.

Air Safety Issues

Australian civil aviation safety legislation includes provisions to meet Australia's international obligations. Part 139 of the Civil Aviation Safety Regulations 1998 administered by CASA imposes an obligation on airports to reduce the risks of wildlife strikes. Under the Regulations, CASA can address the risk of waste foodstuffs being dumped near airports that may pose a risk to aviation safety by attracting wildlife. There is a need to strengthen arrangements to address the risk of wildlife hazards that occur off airport and ensure Australia is in step with its local and international obligations. The determining authority must take action to eliminate or to prevent the establishment of garbage disposal dumps or any source which attracts wildlife to the aerodrome, or its vicinity.

It is a serious omission that an appropriate wildlife assessment was not done to indicate that the development is unlikely to create conditions conducive to a wildlife hazard problem. An airport's location adjacent to wetlands with its associated bird activity can increase the potential for aircraft bird strike incidents - a potentially serious safety issue.

The risk of a strike off airport relates mostly to wildlife activity in areas surrounding the airport. The International Civil Aviation Organisation (ICAO) has developed specific advice on land uses with the potential to become high risk wildlife attractants. These include food garbage disposal which is classified as High Risk and Incompatible within 3 km from airports. Even within 8km of airports there must be mitigation strategies and within 13 km of the airport property be regularly monitored and action plans created to mitigate any unacceptable increase in the risk of bird strike.

The EIS has failed to address both the compatibility with airports and any mitigation measures.

There appears to be a bias in favour of this development that it was required to address Air safety Regulations regarding its air ventilation but not Air Safety Regulation C Bird Strike or to provide any evidence that even though the shed is fully enclosed the total of activities on the site will not attract scavenging birds.

Leachate Management

Leachate is a liquid which has percolated through and/or drained from waste material and which contains soluble or suspended components of the waste, including products of decomposition. It should be directed to a leachate pond for treatment and appropriately treated, or collected and disposed of offsite. It is not to enter the stormwater system.

Leachate forms quickly in waste bins, in the pick up trucks and on the floor of the facility. Storage and processing areas should be fully bunded, and any liquid collected in these areas is to be treated as leachate. The EIS does not indicate any bunding for the container area of the building and yet it suggests that the leachate collected from the tipping areas will be reinjected into the containers. This must be addressed because of the high risk of spillage during the re-injection operation. Human error is a factor that must be taken into account.

In addition there is no mention of wheel wash facilities on the larger doors to the north and north east of the building. Forklifts will be likely to come into contact with any leachate spilled during the containerisation and must not be allowed to carry it outside of the building where it could enter the environment through creeks and stormwater runoff. Wheelwash at these locations must also be addressed

More details must be provided about the storage and handling of the leachate. The EIS is vague as to what is to happen, the exact size of the bund and where any tanks would be located. Best practice suggests a leachate collection system must be installed, appropriately located and designed with a clay or synthetic liner or other impervious material assessed fit for this purpose and have demonstrated efficacy. It should be properly maintained throughout the life of the operation. From there leachate should be stored in tanks with sufficient capacity before removal to a licensed liquid waste facility. The EIS fails to describe in detail the leachate collection and disposal system. It is vague about important matters for example how the collected leachate from the tipping areas will be conveyed to the other end of the building to the compaction area for the proposed reinjection. Without these details no informed environmental assessment of this development is possible. This is another thing that was not adequately addressed and must be.

Stormwater management

Lack of appropriate stormwater and drainage controls presents a major environmental risk on site which can lead to contamination of soil and water, both on and off site and may pose a human health risk. Contamination from waste left on the floor has the potential to be transported, especially during and following rainfall events, into waterways or the groundwater through leaching into soil or being washed into street gutters and then stormwater drains. Not only is this a concern for the environment but human health can also be affected.

The depot should not allow polluted water to be discharged into the stormwater system. The disposal of solid waste, leachate or liquid waste into surface water or groundwater is not permitted and the way it is to be prevented has not been adequately demonstrated.

All stormwater runoff from car parking, driveways and hard paved areas should be diverted into a stormwater treatment system capable of removing litter, sediments and oil products. Stormwater from rooftops should be either collected for on-site use or discharged directly to a council stormwater system.

Any contaminated water must be disposed of off-site to a licensed liquid waste disposal facility. Non domestic liquid waste must not be discharged into the sewerage. No rain water runoff should also enter the sewer. The wheel wash must also be contained. The whole site should be solid and impervious and graded towards the water catchment bunds.

A detailed Waste Water Management Plan must be devised at the outset of the development which will set out his methods for containment and monitoring for each of the MRF, freight terminal and metals recycling on block 13 considered as a whole. The proponent must provide the waste water volume and quality, internal wastewater collection and drainage methods including the wheel wash, the rate of discharge, including the average per day and maximum per day. The proponent must also provide details of any proposed pre-treatment facilities, process and location; and a site plan for waste water management.

Hazards and Risk

A number of potential hazards to the environment and/or public health can be identified in relation to the operation of the Proposal; including the potential for spills, fires, disruption of operations, receipt of non-conforming waste, and electrical or equipment failure.

[1] Fire Risk. Waste fires in Australia are numerous and poorly understood. There is limited information on the risks associated with waste fires including their cause. Emerging risks e.g. fires caused by incorrectly disposed lithium batteries have been identified. The source of combustible material also varies greatly and includes tyres, used oils, green waste, wood waste, solvents, batteries, municipal solid waste and so on. Fires have the potential to cause significant harm to people and the environment through the release of hazardous chemicals to the atmosphere and ground water supplies.

Very little is understood about their impact on society, the environment and the economy. However the scale and profile of major fires in the waste management and recycling industries has certainly increased for a number of years. In recent years some serious fires have taken place at waste transfer stations including those owned by Benedict Industries. In Newcastle In December last year a huge fire broke out in a station being operated by Benedict Industries, one of the proponents in this development.

Fires at waste transfer stations have the potential to be very serious events, posing risk to life and presenting hazards to the local community and the environment. They can also be very costly. In the ACT recent examples of this have occurred at Mitchell and Pialligo. A fire at Fyshwick similar to those in recent years at Mitchell and Pialligo would have serious consequences to the near neighbours, rail services and road movements in the area. Its impact would be high and consequences serious.

The UTS Institute for Sustainable Futures report prepared for the Hazardous Waste section of the Commonwealth Department of the Environment 2016 titled *Waste Fires in Australia Cause for Concern?* reveals some alarming facts about the incidence of waste fires, their causes and costs to the economy and community. Interestingly it uses the Pialligo Fire in 2015 as one of its case studies. The numbers of fires in recycling waste facilities as revealed in this report confirms that the Waste Transfer Station at Fyshwick is unnecessary to meet the needs of the ACT and merely adds another potentially dangerous industry to a precinct which should not have to and cannot sustain it.

In addition the Annual Report Hearing Brief of the ACT Fire Brigade Mitchell Fire 31/10/11 also revealed the particular dangers to the community of locating waste depots and facilities in too close a proximity to residential and commercial districts. The Minister in this Briefing acknowledge that "*the incident raised a number of questions in the community over planning policies and regulations as they relate to the location of hazardous industries in relatively close proximity to residential areas*". Yet there is still no policy in the ACT regarding the siting criterion for those industries or specifically for Waste Transfer Stations. Since the Government is committed to providing a safe and secure environment for the people of the territory we believe that in this case the most stringent planning approach needs to be adopted. In view of the expense incurred, the dangers to the fire fighters and other personnel involved, the disruption and the health and safety risks highlighted by both those incidents, on-site fire risk needs a more thorough assessment.

The access to any fire for firefighting services was not addressed in the EIS. Nor were the potential and likely consequences of a large waste fire on the Ipswich street site assessed for its potential to close roads and disrupt businesses and to create a health risk for the daily population of Fyshwick. Fumes from waste fires are toxic. This must be addressed.

Nor was the need to contain any firefighting water on site addressed. From a Fire fighting point of view the fire at Mitchell required the erection of an emergency temporary bund which then needed to be disposed of safely. A properly engineered system is necessary from the beginning in a development as large, complex and high risk as this one will be. The proximity of Jerrabomberra Creek and the Jerrabomberra wetlands is another strong argument in favour of bunding the whole site at the construction stage.

The economic costs of waste fires can be significant. The direct economic costs incurred by waste fires include: property damage, fire-fighting personnel time, fire-fighting consumables and equipment, waste facility downtime, environmental clean-up costs contaminated water supplies and long-term health effects. Indirect costs include traffic delays, public transport disruption, disruption to daily working schedules and lower real-estate values. Waste fires can burn for extended periods, sometimes days and weeks, and can take significant resources to extinguish. Firefighting personnel who are engaged in extinguishing these fires are not available to respond to fire emergencies occurring elsewhere. This has the effect of increasing response times and increasing fire risks elsewhere in the region. Fires remain a dangerous threat to people, the environment and society.

[2] Operational Risk and Hazards. Unsecured/ unstable/ overloaded Truck unloading of waste onto floor of designated area can result in falling objects, loss of control, vehicle accident; impact on other vehicles, plant or workers. A Vehicle accident by way of impact on other vehicles, plant or pedestrians; Impact with another container, container handler or train or truck has the potential to damage container seals and release leachate. Impact with equipment; containers or pedestrians can cause injury. Impact with other containers during operation, impact with equipment has the potential to cause fire.

Accidents can occur during the stacking of containers, the movement of containers from terminal building to container storage areas or to the hardstand. They can be caused by operator error, unstable container loads or container handler failure. Lower containers misaligned are also a risk faced in this operation.

Vehicle impact with storage tanks has the potential to cause fire, storage tank failure or spills. Spills from non-conforming or hazardous waste can lead to exposure to hazardous substances.

Dust generated from operating equipment, vehicle movements and bulk material handling also has the risk of respiratory health impacts (e.g. asthma), eye and skin irritation. Vehicle exhaust generated from movement of trucks and front end loader in the enclosed terminal building has similar respiratory health impacts.

Decomposition of putrescible waste involves the formation of moulds and other microbial spores that can become airborne when disturbed. Microbial contaminants including pollen and microbial spores are a common trigger of asthma.

Gases/ odours due to the decomposition of putrescible wastes generate gases such as carbon monoxide, hydrogen sulphide and methane able to cause respiratory health impacts. It is a serious omission in the EIS that a comprehensive Health Risk Assessment was not done considering these and other relevant issues. This must be addressed.

[3] Health risks from the Existing Contamination on the site. This is a highly contaminated site because of its previous use as a Bulk fuel depot since 1953. For the proposed use to change a comprehensive site assessment and audit must be done. To date the site assessment in the EIS is deficient in assessing the geophysical conditions underling and surrounding the site relying on the dated information gathered in 2008 and 2009 by AECOM for Shell. There is no evidence of recent testing and monitoring. The Site Audit Report submitted in Appendix H for this EIS is not the original work of the independent Auditor as required by the EPA and only applies to the site as it is not to its proposed changed purpose.

The claimed low risk of the contamination cannot be relied upon given the results are based on data collected nine to ten years ago and the samples were not necessarily representative of the in situ possible origins of the contaminants. Additional testing and monitoring was necessary.

Because much of the site is underlain by high permeability sediments and high water tables construction on the site will pose unacceptable risks to the general environment and human health. Disturbing the soils and shallow aquifers will release toxic hydrocarbon chemicals into the atmosphere and interfere with shallow (in places a mere half a metre) underground polluted water which will have to be dealt with by removing to a licensed facility. Normal construction practices cannot apply. The EIS should have dealt with these issues.

Workers' health is another issue if this site is to be reconfigured for a waste transfer station over 7000 square metres in size. Construction and demolition workers must be informed of the risks and take suitable precautions. Long term workers in the shed will also have to be warned and measures taken to prevent the entry of the harmful chemicals. A vapour barrier is proposed to be placed under the shed but no details are provided so it is impossible to do an environmental assessment of its performance and durability. This must be addressed. It is unclear where or how this membrane will be located. Will it be under the car park for example

to prevent toxic BTEX vapours entering parked vehicles?

An Environmental Impact Statement EIS, where the planners or community or entities cannot undertake a satisfactory environmental assessment must be sent back to be rewritten.

