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## GENIUS LOCI AND VICTORIA'S McHARG RANGES

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**The beckoning silence is what is enjoyed. The Aboriginal belief is that life is part of one vast unchanging network of relationships that can be traced to the Great Spirit Ancestors of the Dreamtime.**

The aboriginal traditional myths and legends give an explanation of the formation of the landscape and the creation of many outstanding geographical features.

### Tooborac Township and District a History 1836 – 1936

In September 1912, the "McIvor Times" Tooborac correspondent penned the following paragraph titled "The Heath Hills of Tooborac".

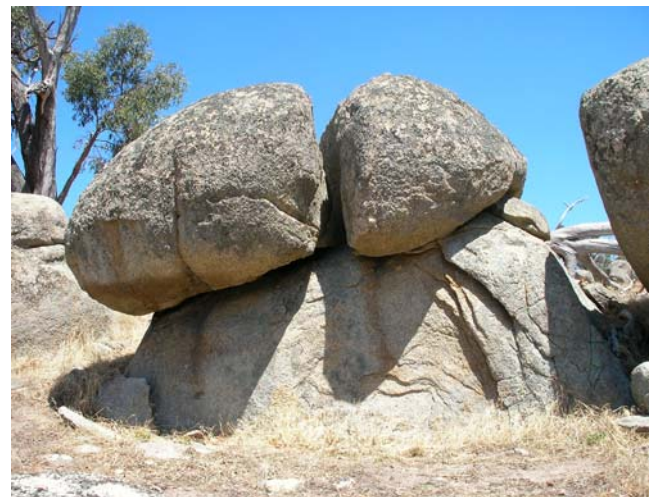
"Situated about 7 miles from Heathcote in a south-easterly direction, is a spot, the scenic beauties of which, at this time of the year stand above all other in a class of their own. Here nature has decked in floods of pink and white, in wonderful yet orderly confusion, the family hills of Tooborac. She has contrasted the product of her mightiest powers – those rugged and stupendous emenences of the Tooborac Range – with her most delicately fashioned artistic handiwork.

Work, which as we gaze upon fills us brimful with feelings of reverence for that Great Soul that lives and works in all things. How many, and how great are the joys of those who happily know this spot and visit it. Let it be made known outside our own locality, this beauty spot, so that others too may visit and enjoy the scenic beauties of the spot which has pleased the Great Creator to make beautiful for our sake."

### Shaping by External Forces

The McHarg Ranges through erosion over millions of years causing decomposition of the rock insitu and creating a visual and dramatic example of a feature termed spheroidal or onion weathering. **The results are spectacular natural rock sculptures and highly erosive and unstable granite soils.**

### Examples of weathering



McHarg Ranges

## THE McHARG RANGES A Unique Visual Statement

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**George Seddon – Centre for Environmental Studies, University of Melbourne writing in Landscape Australia 1979.**

'There is a latter day proverb that anything Xeroxed begins to lose its value. This is the Age of easy copying. I have a similar maxim of my own, that any place that you can get to by jet is unlikely to be very different from the place you just left.' One hundred wind towers on the range, reaching heights of one hundred and ten metres with blades of forty five metres radius would reduce this unique visual landscape by their overwhelming size to just another wind farm that can be seen anywhere in the world.

George Seddon says the geology of an area should be shown 'respect' and 'structures that are out of scale or character should be avoided.'

'Study the landform, and build in sympathy with it.'

Robin Boyd one of Australia's great architects and commentators on the environment expressed his dismay and sadness in his book the Australian ugliness 'Tram, telephone, and electric poles (he would have included wind towers) and the spiders web of overhead wires which are strung to them, are more in evidence in Australia than anywhere. They form a ubiquitous veil across the civic scene, but like the sides of one's nose they never register on the retina. **In the darkness of the cultivated blind spots some of the most painful damage is done to Australia in all innocence as when, with the simple lookouts, and beauty spots.....the blind spot contribution to the Australian Ugliness occurs'.**



Tooborac Baynton Road



Tooborac Lancefield Road



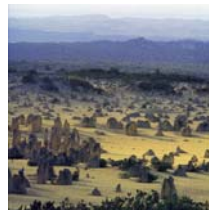
## ROCKS SPACE AND VOLUME 'The modus operandi of nature'

The great sculptor Henry Moore was of the opinion 'that the origins of sculpture go back to the moment when man first beheld the spectacle of gigantic stones rising out of the landscape like solitary totems.' The importance to him was of the harsh landscape of Yorkshire with its rocks and moors. Much of Australia's wonderment is the monolithic character of its ancient rock formation whether it is Uluru in central Australia or the Kimberley. The McHarg Ranges are equally spectacular through its various and precarious natural forms and should be compared to the Devil's Marbles (a declared sacred site) in the Northern Territory.

Many artists and photographers are drawn to the McHarg Ranges for inspiration and the source of wonderment would be lost if the landscape was industrialised with wind towers and their accompanying infrastructure. Many cultures like the Japanese or the early Egyptians used stone to reflect tranquility or carved it to give permanence to those they revered or to give monumental character to their beliefs like Stonehenge. The fact that there is a busy road nearby Stonehenge and buildings close to the Great Pyramids illustrates how bad planning can take away some of the spirituality of a man made totem. **The scale of towers dominating the landscape of the ranges would diminish its uniqueness of nature's totems.**



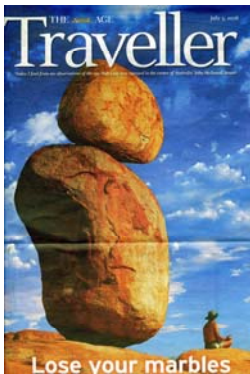
Devil's Marbles NT Age 2008



Nambung Nat Park WA



Northern Australia



Devil's Marbles NT



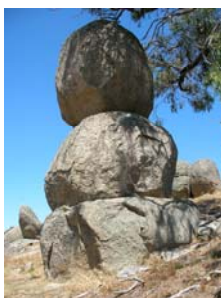
North Australia



Chillagoe Cape York



Katatjuta The Olgas NT



Mc Harg Ranges Tooborac Victoria



Mc Harg Ranges Tooborac Baynton Road Victoria



## ARTISTS – Sculptors – Photographers – and Architects

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Painting by Drew Gregory of Tooborac Rocks 2002

Tooborac Rocks  
Drew Gregory 2002



Deborah Wright in front of her painting of Tooborac Rocks



Sentinel sculptor Les Kossatz 1991



Oil Painting of Tooborac Rocks by Peter Russell-Clarke



Peter Russell-Clarke in his Tooborac studio  
2009

## ARTISTS – Sculptors – Photographers– and Architects

The McHarg Ranges attracts many artists to paint or photograph the landscape in all its seasons and changing beauty.

Melbourne Sculptor Les Kossatz internationally represented, mounted one of his sheep sculptures using the rocks of the McHarg Ranges as a base to effect the relationship of the work with the natural beauty of the granite. He currently has a Retrospective at Heide Gallery Bulleen.

Sculptor David Maughan (Author) has used the granite rocks as a base for his ballet and wombat sculptures.

Melbourne artist Drew Gregory nationally represented, has produced a series of realistic paintings of the rocks and landscape of the area.

Melbourne artist Ted May nationally represented and also a past lecturer at RMIT, has his students regularly come to the area over the last ten years to paint and draw.

Within the vicinity of the McHarg Ranges there are numerous architects, artists and writers who have come into the area to live and who have been drawn to it in a similar way to past creative minds that were instrumental in founding the Heidelberg School, Montsalvat at Eltham, and Dunmoochin at Cottlesbridge. **Artists tend to have a unique insight into the value of the Australian landscape.**



Les Kossatz 'Sentinel' 1991 at Tooborac Victoria



David Maughan Helen 'Facing the Southerlies' 1994



David Maughan 'La Belle Helene' 1 1997

David Maughan 'Jane' completed 1999 and filmed by SBS on site at Tooborac.



David Maughan La Belle Helene 2



Mt Koala Tooborac Max Meldrum



## WIND TOWERS – A Blessing or a Curse



Car Park for Tourists in Western Australia 2007

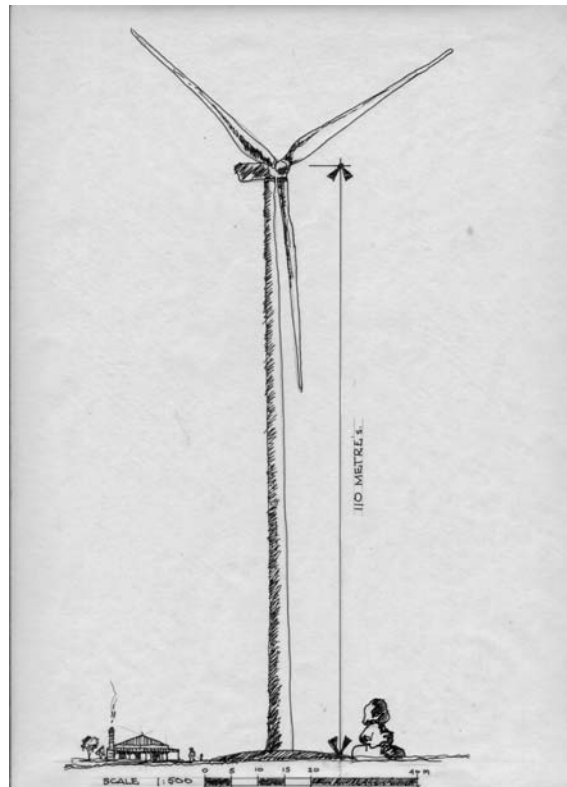


Crane repairing damaged turbine in Western Australia 2007.



Wind farm in a remote farming area in an acceptable landscape affecting few farms or people.

This structure is out of scale with the character of the McHarg Ranges.



Scale comparison between existing buildings, rocks and tower height.

One hundred wind towers over the rugged McHarg Ranges would overwhelm the natural rock formation and dwarf existing rural buildings and dwellings. Compare this with open undulating rural land with no natural features as in the Western Australian photos.

## **WIND TOWERS – A Blessing or a Curse**

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Truth, confusion, doubts and obfuscations are descriptive words that surround the wind tower debate. Some see the towers as a “blessing” others a “curse”.

The scope of this report is not to canvas the philosophy behind the incorporation of wind towers in the renewable energy debate.

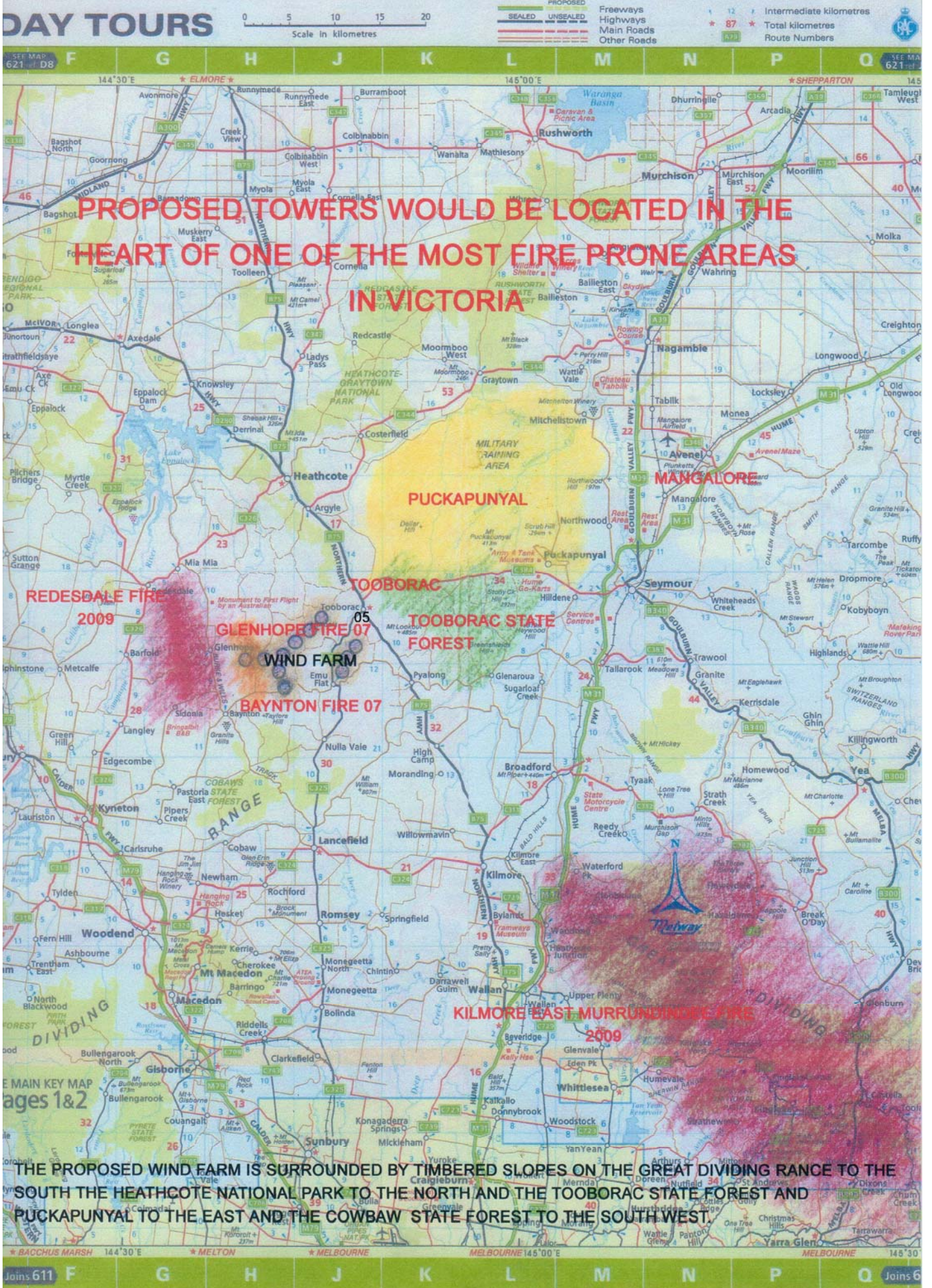
Wind farm developers and authorities see their inclusion in the renewable energy system as a blessing, residents disadvantaged for whatever reason, see them as a curse. What is clear neither Stanwell the original proponent nor Transfield have properly addressed local residents' doubts and confusions. A meeting held by Roaring 40's at Kyneton to promote the Sidonia Wind Farm gave unsatisfactory responses on many issues raised by concerned residents. For example bird kill by wind towers was described as negligible compared to the road kill, the endangered wedge tail eagle is recognised as being vulnerable to wind towers, their destruction by vehicles is not recorded. If it was not for the “feel good” solution to green house gases that wind towers proponents give, one endangered species such as the wedge tail eagle most environmentalists and concerned citizens would see this killing as outrageous. The Roaring 40's meeting produced videos, maps, and photographic montages including a show bag of objects for each visitor to illustrate the benign nature of constructing these towers on the landscape. This is the blessing side of the debate. On the other hand a well presented argument and in “Quadrant March 2009” by Ray Evans who worked as an engineer in the 1960's in the production planning section of the State Electricity Commission of Victoria, and Tom Quirk who was Deputy Chairman of the Victorian Energy Network Corporation give a very plausible explanation why wind farms are “entirely superfluous to the electrical system” which is the other side of the debate. Two well credentialed and informed men argue persuasively why wind farms do not do what they are supposed to. If that is the case wind towers built on the McHarg Ranges is a form of visual pollution if not vandalism and must be considered a curse.

The developer generally engages a team of environmental and technical specialists to prepare detailed studies to “support” the planning application. Such reports that are paid for by the applicant are not at arms length and must be considered tainted by the very nature of the transaction. Residents with similar resources could equally engage specialists to prepare studies with opposing views. This procedure in the planning process is open to criticism, which in turn, reinforces the apprehension of the community in the process which in substance is *au fait accompli*.

The confusion, doubts, obfuscation, and lack of transparency with the knowledge that granting of a planning permit seems a foregone conclusion (as researched from other applications) have sown the seeds of resistance in the community generating a passion that has led to confrontation for example, which, was experienced at Smeaton in 2007 when a resident protested against the proposed wind farm in the district, was allegedly assaulted by those for the project. (Ballarat Courier).

It would not be an understatement to suggest a similar passion is simmering below the surface of the Tooborac Community.





**PROPOSED TOWERS WOULD BE LOCATED IN THE HEART OF ONE OF THE MOST FIRE PRONE AREAS IN VICTORIA**

THE PROPOSED WIND FARM IS SURROUNDED BY TIMBERED SLOPES ON THE GREAT DIVIDING RANGE TO THE SOUTH THE HEATHCOTE NATIONAL PARK TO THE NORTH AND THE TOOBORAC STATE FOREST AND PUCKAPUNYAL TO THE EAST AND THE COWBAW STATE FOREST TO THE SOUTH WEST.



## **FIRE - The McHarg Ranges has a bushfire overlay in place (Amended 2006)**

Fires close and adjacent to the McHarg Ranges are as recent as 2009, 2007 and 2005 in the Glenhope, Baynton district.

Wind towers should not be built in areas that have been identified by Authorities as high risk requiring a fire overlay. The Mitchell Shire has placed a wildfire Management Overlay on the McHarg Ranges and must be therefore considered high risk.

Scientists are predicting that Victoria will become more prone to days experienced on February 7<sup>th</sup> 2009 (Black Saturday). It would be unwise if not foolish to allow the building of machinery that has the potential to fail. Wind towers have had turbines catch fire, however their proponents state the risk is miniscule, any risk no matter how small is a risk too big to take on the McHarg Ranges. The CFA in their Emergency Management Guidelines for Wind Farms Version 3 April 2007, have identified four opportunities in each turbine and a further opportunity in transmission to cause a fire. They are as follows malfunctioning turbine bearings, inadequate crankcase lubrications, cable damage during rotation, and arcing occurring during transmission.

This district with its rugged and inaccessible rocky granite ranges, valley's, bush, commercial tree plantations and other native plantings, the latter encouraged and funded by Landcare, if ignited by whatever means, has the potential to cause unstoppable explosive forces that may quickly engulf the whole area in a fire ball. This image is so raw in all Australian's minds at present that the passing of time should not allow the lessons learnt to be forgotten.

The question to be asked.- if one spark or match can cause such destruction as recently witnessed in the Victorian bushfires, consider what 100 turbines with a possibility of 400 possible failures (identified by the CFA Report) could do in the fire prone McHarg Ranges.

The Prime Minister Kevin Rudd in his speech at the Memorial Service for victims of "Black Saturday" stated – "Governments have failed, let us resolve that we do not fail those in the future".

Do not sentence those living in the Baynton, Tooborac, Glenhope, Heathcote, and Pyalong districts to an enduring nightmare. If for no other reason, the fire overlay should preclude wind towers being built on the McHarg Ranges. The original fire overlay should be reinstated.

**Black Saturday 7<sup>th</sup> February 2009, should necessitate the review of the CFA Management Guidelines and ask the question whether areas of high bushfire risk should be burdened with any further fire risk.**



## **FIRE – 2<sup>nd</sup> February 2009 Turbine catches alight in South Australia**

Roaring 40's news on their website has had a turbine catch on fire at their Cathedral Rocks project on the 2<sup>nd</sup> February 2009. This wind farm is in a very remote South Australian location near Port Lincoln on private farming land and covers an area of twenty nine square kilometers. Huge fuel loads on steep and difficult country such as on the McHarg Ranges and densely populated compared with Cathedral Rocks would be a catastrophe waiting to happen if a turbine caught fire. This fire outlined in the Roaring Forties news release, occurred five days before the 7<sup>th</sup> February 2009 "Black Saturday".

Turbines catching alight brings into question liability. After the 2009 fires, insurers' will re assess risk! Wind farms in fire prone areas or those with fire overlays add to this risk, and those living in or close to the McHarg Ranges could be unduly penalized by the increase in premiums. Local CFA volunteers some who are against wind turbines in the McHarg Ranges may be asked to put their lives at risk to extinguish a fire started by faulty turbines.



### **MEDIA STATEMENT**

**Tuesday 3 February 2009**

#### **Cathedral Rocks Wind Farm Pty Ltd reports fire incident**

Cathedral Rocks Wind Farm Pty Ltd can confirm that there was an incident overnight involving fire at its Cathedral Rocks Wind Farm in South Australia.

The fire, which occurred in one of the wind turbine generators, was contained and is no longer burning. Cathedral Rocks Wind Farm Pty Ltd would like to thank the local Country Fire Service for their prompt response in containing the fire.

No Cathedral Rocks personnel or contractors were injured during the incident.

The matter is currently being investigated by Cathedral Rocks Wind Farm Pty Ltd and the relevant fire safety authorities.

The Cathedral Rocks Wind Farm will continue to operate while the incident is investigated.

Cathedral Rocks Wind Farm Pty Ltd is a joint-venture between Acciona Energy and Roaring 40s.

**Ends**

For further comment:

**Josh Bradshaw - 0437145862**



## HEALTH – Radon Gas

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Granites contain material that can produce measurable amounts of Radon Gas. In the USA there is considerable concern as to the levels of Radon Gas omitted from Granites.

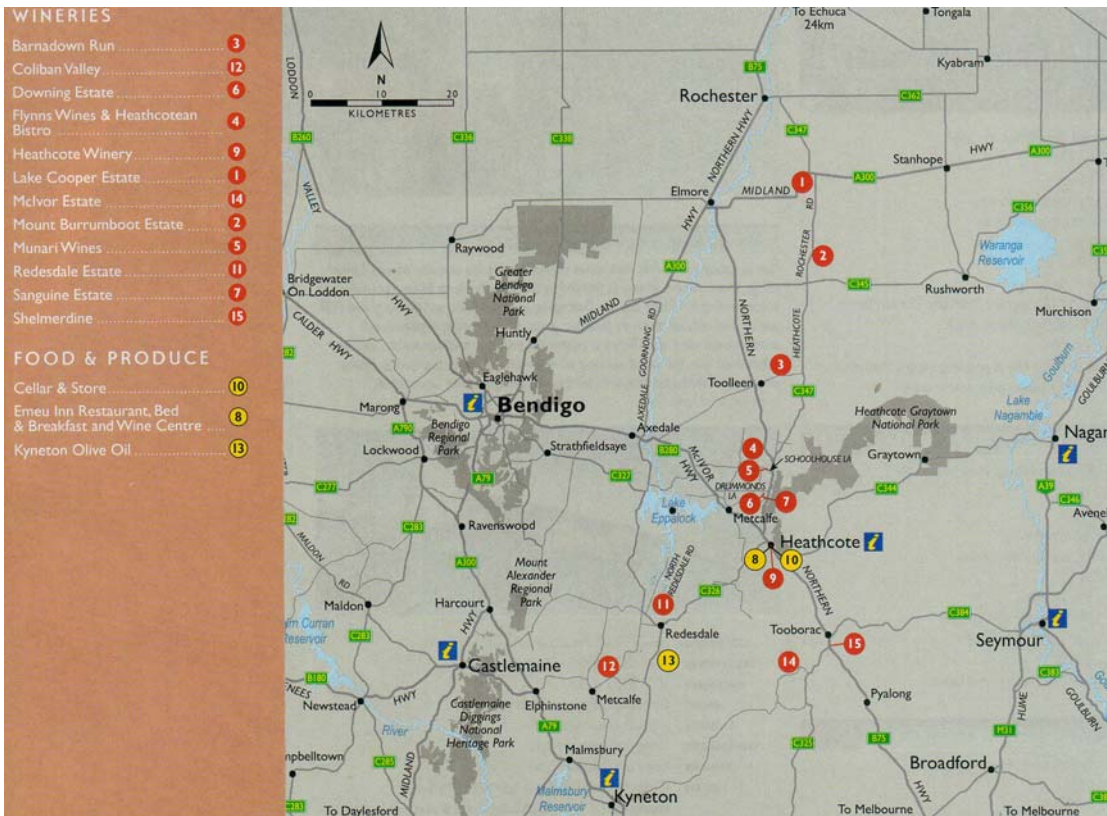
A Paper headed Radon Update and Facts Concerning Environmental Radon prepared by the SNM Committee on Radiobiological Effects of Ionizing radiation members of the committee including A B Brill, D V Becker, D R Brill, K Donohue, B Greenspan, S Goldsmith, H Royal Silverstein, and E Webster K. Kase, Stanford Linear Accelerator Center provide valuable advice and assistance in the preparation of the document.

This update is intended to provide information to help understand issues of the relevant facts to those individuals interested in the potential health effects of environmental radon. "Radon gas can penetrate houses from many sources in many fashions". It is not possible to Radon proof a house, the most important contributor to Radon being released from granite rocks and soil is the disturbance of such rocks and soil during construction which in the case of wind towers will require considerable blasting, jack hammering, and earth moving machinery. The Report states "The radiation dose to the bronchial mucosa from these high LET radiations depends on radionuclide deposition and residence time. Particle deposition depends on three mechanisms: impaction, sedimentation and diffusion. Deposition and residence time depend on whether the radioactivity is attached to air borne dust particles, or is unattached (following inhalation unattached daughters are able to deposit deeper in the lung than dust particle-attached Radon daughters). Respiratory factors (breathing rate and depth, mucociliary clearance, and site of impaction in the bronchial tree) influence depth of penetration into the lung with deeper particles intrapulmonary residence time is short with respect to its half-life. The high absorbed dose is from the decay of radon daughters attached to the TBE'.

The Report implies that these deposits may cause respiratory diseases such as lung cancer.

There is reason for the residents of Tooborac and contractors on the site to be most concerned. **Before the Proprietor carry's out any further feasibility studies, assurances should be given by independent and qualified persons and or bodies (such as the EPA) to monitor and record whether the Radon Gas that would be released by construction will have any harmful effects.** This investigation should have been done prior to the start of the pre feasibility stage.

As dust particles from blasting and the incidence of high winds will cause the particles to be deposited on roofs of residences and public buildings including the local school and hotel, they will find their way into the water supplies collected from the roofs from every building in the district, and into the natural waterways and dams. No person or animal will be exempt or immune.



**TOOBORAC – VINEYARDS OLIVE GROVES AND WINERIES**





## TOURISM – Wineries, Vineyards, Bed and Breakfast, Olive Groves

Like the Yarra Valley and other places in Victoria that have seen tourism flourish through the development of boutique vineyards and wineries with the accompanying cafés and bed and breakfasts, the Tooborac district is witnessing this development. There are many in the area and several other large projects planned which have been put on hold until the proprietors ascertain whether the wind farm is to proceed, if that is the case these large tourist developments will not go ahead.

The Victorian Wine Industry Association, supported by the State Government of Victoria, identifies the Heathcote area as one of the important wine regions in Victoria, Tooborac being part of it. The magazine in their 'Must Do's' encourages tourists to 'visit Shelmerdine Vineyard, café and cellar door at Tooborac, South of Heathcote, for country style cuisine'. Further on in the Tooborac Baynton Road, is McIvor Estate. The label on their bottles exclaims, 'The vines nestle in the sought-after granite soil amongst dramatic scenery of large granite boulders, majestic rolling hills and imposing gullies that are framed by the Great Dividing Range'. Rowanston on the Track Winery recently hosted a theatre performance of A Midsummer Nights Dream on the 31<sup>st</sup> January 2009 which was a fully catered and licensed event, this is a small sample of the type of activities which are taking place in the area. These wineries will be dominated by the proposed one hundred turbines that will be less than two kilometers from them and several towers could be as close as five hundred metres. Wind towers have some curiosity attraction, but on the McHarg Ranges they detract from the tranquility of the area and spoil the ambience so eloquently expressed on the wine label. The flickering of the blades, the continual 'wooshing' noise and the red lights atop the towers at night cannot be considered an added attraction to these businesses.

The McHarg Ranges' close proximity to Melbourne with its budding cottage industries will encourage many tourists both local and overseas to the area, the wind farm as assessed by many of these local businesses has been considered a detraction.



Mimosa Glen B & B



Merindoc B & B



Shelmerdine Winery



McIvor Winery



## COMMUNITY – Divided

The State of Victoria’s guidelines for wind farms emphasise the importance for developers to engage the local community. What has happened in the Tooborac Baynton project is the opposite. Approaches have been made to owners of properties whose topography suits the erection of towers, neighbors who have not been approached have been given little information. Owners of properties who have agreed to the development have had caveats placed on their titles and are bound by confidentiality agreements. The approach and manner first by Stanwell and now Transfield through their lack of communication and their reluctance to be open about the project has caused considerable apprehension and seriously divided the community. Neighbors who have known each other all their lives and who went to school together and fought side by side in the CFA no longer speak with each other. This division has even happened within families.

At a time when the Government are praising communities for their collective spirit and joining together to help rebuild their lives after the recent bushfires, the community of Tooborac has been most successfully divided by the proposed building of one hundred or more wind towers.

This serious development of community division that such a proposal has generated in the district has not been properly addressed by either the developers or the Government and must be taken into consideration.



Anonymous signs were taped to road signs with abuse aimed at Residents Against Turbines. (R.A.T.S)



## RESIDENCES – Owners, occupiers and Townships

Out of the one hundred and nine residencies and the additional many families in Tooborac and Pyalong, **only sixteen identified owners of properties with caveats upon them** have taken up the offer by Transfield to host towers on their land. Anecdotally some of these owners are starting to have reservations about hosting towers as their land has been tied up for the past five years. Many in the area rejected Transfield's proposal for reasons already advanced.

Within the area of five kilometers of the towers, there have been identified one hundred and nine homes, (see large map 1-25000) not including those in the townships of Tooborac and Pyalong, the majority, publically or privately have expressed their opposition. This is important as wind farms have generally been located in sparsely populated areas in farmland whose owners have been allowed by choice for the towers to be built on their land.

There are many of the owners of property in the area who for reasons best known to themselves, perhaps through intimidation, do not want the turbines, but feel helpless under the pressure that is being felt throughout the Community. Perhaps they feel that they will lose friends and neighbors or local business. It is sad to think that this has occurred in such a small close knit Community of Tooborac.

Children playing on Tooborac rocks



Earth covered house built into the hill at Tooborac in 1985 not only for aesthetic reasons but for the practical consideration that it was in a bush fire prone area.



Tooborac State School



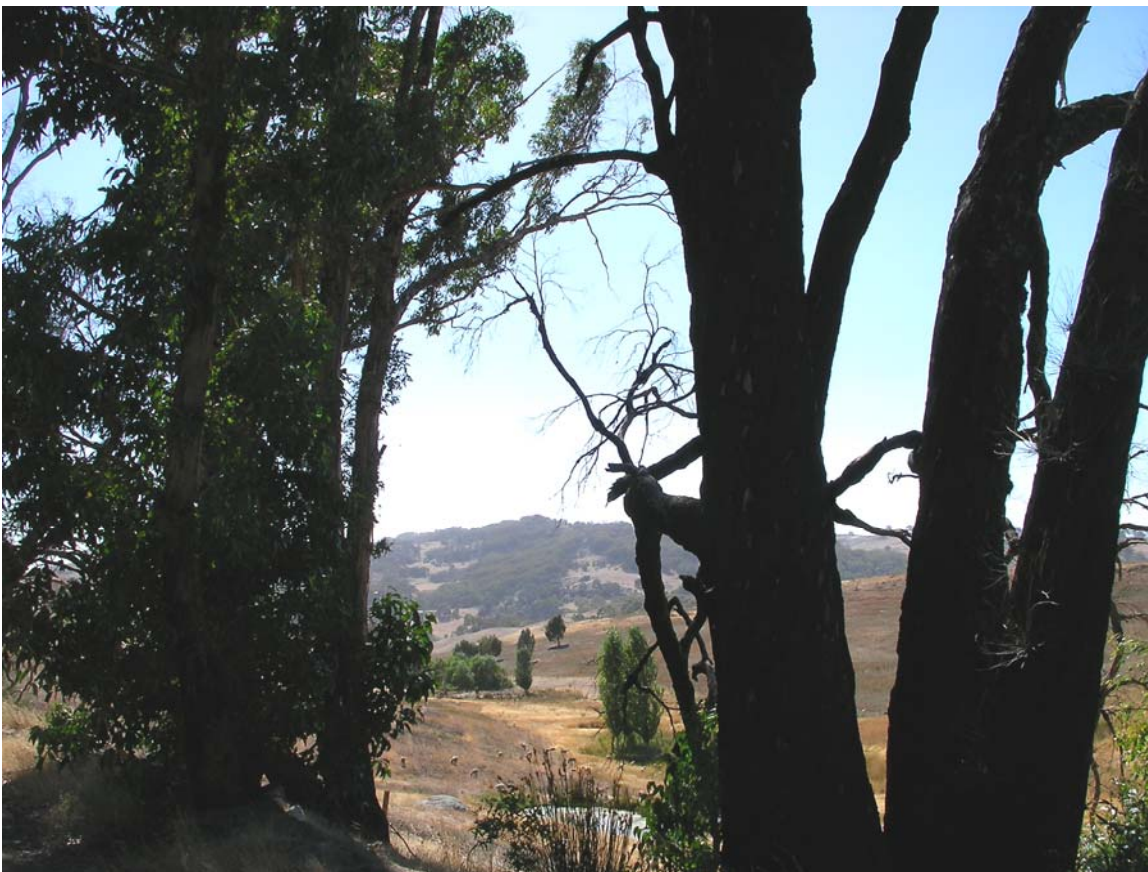
Tooborac Fire Station





The Wind Towers would dominate the ridges in the background and alter the visual impact and scale of the landscape

## **THE RIDGES OF TOOBORAC - McHARG RANGES**



The trees in the foreground were burnt out in the 2007 Baynton fires, the background was saved.



## TOWERS – Footings, blasting, concrete, steel, and runoff

Each tower will require a footing that will be at least fifteen meters square by 1.7 meters deep. The area for each footing needs to be cleared of trees and boulders, some up to four meters in diameter. To do this, bulldozers and blasting will be required. Blasting on this scale will have enormous impact on the Community as well as the possibility of dislodging natural precarious rock sculptures that may cause serious damage to everything in their path until they reach repose. The aggregate dimensions of the proposed one hundred tower footings is in total length 1.5 kilometers of solid concrete, fifteen meters wide. The runoff after rainfall on 22,500 square meters of flat impenetrable reinforced concrete will cause erosion due to the soil type. To capture the water to its natural flow to the valley floors will need to be addressed, for open swales and gutters on this steep country with very fragile granite soils would be inadequate.

Australian Concrete Construction – August 2008 in an article on footings for wind towers states that ‘wind tower construction sites.....are frequently the subject of intense environmental scrutiny’. This is a matter of deep concern to the residents of Tooborac. Concrete depending on the mix but in general, is about 2.4 tonnes per cubic metre which amounts to 92000 tonnes of concrete to be either mixed on site or brought in by truck. The latter would require an estimated 6375 truck loads carrying 6 cubic metres each. The traffic this would create in the area on small narrow gravel roads in most cases is obvious but by the very nature of the operation added to this is the importing of approximately 15.5 tonnes of loose reinforcing steel that amounts to a total steel tonnage of one thousand five hundred and fifty tonnes. **This type of construction is in essence on an industrial scale and not compatible with the way Tooborac is developing as an amenity area.**

The Victorian State Government through its local Landcare Groups has spent considerable funds, and the landholders concerned, considerable effort, to re-afforest the hill tops in the McHarg Ranges and Tooborac area. These works are to prevent erosion on the hill sides and salting further down the Goulburn and Campaspe Catchments with the salting being a terrible problem for all Victorians. That is why there is a salinity overlay on the McHarg Ranges.



The foreground was burnt out in the 2007 fires, the wooded ridges would need to be cleared for the towers

The footing for the towers will be a minimum of 15metres x 15 metres x 1.7 metres deep which is a very big Excavation in unstable granite country and it will require the removal of rock, boulders up to 4-5 metres in diameter.



## UNMADE ROADS & RECHARGE VEGETATION – Removal & modification

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Narrow gravel road typical of all those in the area with natural bio diversity and vegetation on verges.



Re-vegetation of the hillsides is an example of what many landholders have obtained grants from the Government to achieve to prevent salting further down the catchment.

Blasting and excavation for the footings and roadworks to the top of the ridges will alter the natural water course and affect the absorption of runoff and rainwater in the recharge areas. It will increase salinity further down the catchment and make landholders present efforts to control salinity by re-afforestation obsolete.



## INFRASTRUCTURE – Roads, tracks, bridges, clearing of trees on the ridges

Access to the steep ridges of the McHarg Ranges will require excavation of the hills on the contours by the cut and fill method. The batter on the top side by necessity will be too steep to plant out leaving the face open to erosion. The granite soils are susceptible to erosion by water and wind and by the very scale of their matrix. Trucks carrying materials and the bodies of the towers, by nature of their size, will require widening and upgrading of the quiet meandering country gravel roads. Bridges likewise will need to be widened and strengthened. This disturbance of the natural corridors that native animals access, by itself is a very good reason that this proposed wind farm should not obtain planning approval. It seems incongruous that Landcare has spent much money and voluntary time in creating wildlife access paths to link areas of bush in the district, to have the natural corridors with existing trees and understory, destroyed thus disconnecting the links.

Who will pay for the upgrading of the infrastructure and its ongoing maintenance - the developer or the ratepayers?



Narrow road and bridge one of only two access roads



Award winning work 2000-2006 done by Landcare and local landholders



The removal of roadside trees and vegetation would need to be achieved to allow for truck and machinery access.



Re vegetation



CAMPASPE CATCHMENT

3 Waterway condition

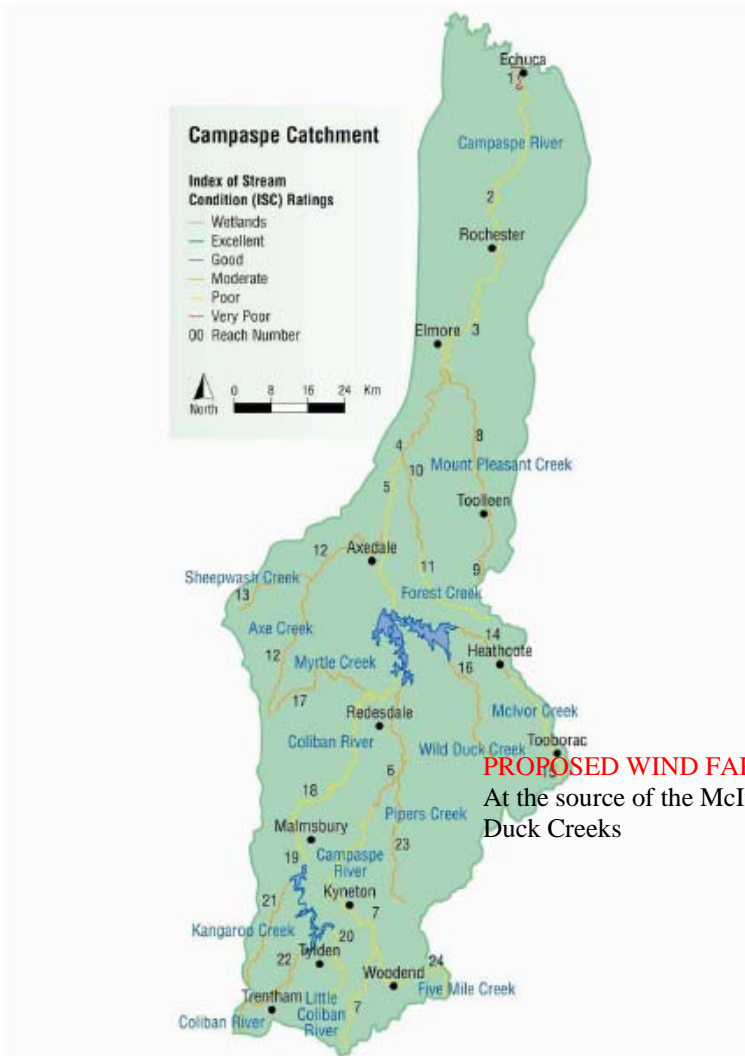


Figure 6 Waterway condition in the Campaspe River catchment (and ISC reach numbers)

The condition of waterways is represented in the following Figure 7.

## SALINITY – Mclvor Creek – Wild Duck Creek

The Mitchell Planning Scheme has a salinity overlay on much of the area affected by the proposed wind farm development.

The McHarg Ranges form part of the Catchment of the Wild Duck Creek and Mclvor Creek which run into Lake Eppaloch and then from there into the Campaspe River that flows into the Murray River at Echuca. This system is known as 'The Campaspe River Catchment'.

There have been studies and reports over many years on this 'Catchment' one of the main concerns being salinity. The North Central Catchment Management Authority in a report "The Waterways of the North Central Region Catchment and Waterway Descriptions" August 2006 have identified Wild Duck Creek and Mclvor Creek as being in "Very Poor" to "Poor" condition according to the Index of Stream Condition (ISC) rating. The Environment Protection Authority June 2000, notes that "extensive clearing of trees and their replacement with shallow rooted pasture and crop plants is the main cause of increased stream salinities". Salinity has been recognised as a major problem in these creeks, and encouragement to landholders by authorities including Land Care to replant recharge areas on the ridges of the McHarg Ranges is ongoing. Native trees and vegetation areas that assist in reducing salinity to the recharge areas will need to be cleared for the infrastructure installations, not including existing Government roads and tracks, for one hundred towers, is estimated to be 39 hectares (97 acres) on the ridges recognised as the most sensitive part of the Ranges.

The 39 hectares was calculated by assuming a track of 6 metres wide with verges of 2 metres each side for drains, gutters, swales, pits and overhanging vegetation. Towers were spaced for the purpose of this calculation, those facing the prevailing wind of 300 metres apart the balance 500 metres apart. The footings which measured 15 metres by 15 metres were calculated on those engineered for other towers with less rock and boulders than the McHarg Ranges.

**To exacerbate the salinity by further development in an area of great sensitivity would appear misguided.** As with the "bird-kill" and "fire risk" being expressed as either "negligible" or "miniscule" in previous reports and applications to worsen the salinity in the Campaspe Catchment as opposed to assisting landholders in re vegetation must be a concern to the State and Federal Governments when the Murray Darling is in crisis.



The amount of area to be cleared for access will need to be extensive.

## DEFENCE – Puckapunyal – and Tooborac State Forests 1 & 2

Within two kilometers of Tooborac, Puckapunyal is on one side of the Tooborac/Seymour Road and the Tooborac State Forest on the other and is the start of their boundaries. A fire reaching either of these areas would be catastrophic, and serious consideration should be given to the potential risk of a fire starting on the McHarg Ranges because with a South East or Westerly wind it would reach this "tinder box area" so quickly that it could be a repeat of what happened on 7<sup>th</sup> February 2009 in the Kilmore East and Wandong fires which were not that far away. (30km). The Prime Minister's advice that not to repeat mistakes of the past would have gone unheeded.

The Department of Defence in reply to an enquiry states, 'Defence.....conducts aircraft operations in the vicinity of the Puckapunyal Military Area from the Puckapunyal airfield and from other bases around Australia. Tall structures such as wind turbines have the potential to affect Defence aviation'. The letter from Defence further states, 'Matters considered by Defence may include aircraft flying operations (including low-flying training) potential for impact on radar and communications, assessment against height controls and an assessment of the visibility of the turbines to low flying aircraft'. The Defence Department would recommend night lighting if they considered 'the wind farm posed a risk to night time operations'. It would appear that the Civil Aviation Safety Authority and the Department of Defence would require the towers to be lit. This adds to the community's concern that not only do their fears of flickering, noise, and the visual damage to the area but a further burden of 100 lights flickering at night can only add to their concerns.

One hundred lights on top of wind towers all in a line acts as an indicator, and being adjacent to a major Defence location, must be of grave concern to the Department of Defence and all Australian citizens.



Hornet FA 18 which regularly flies over the hills and valleys of the McHarg Ranges, sometimes so low that the residents can see the pilot's face when they do a sharp turn.



Tooborac State Forest



## BIODIVERSITY – Swift Parrot, Wedge Tail Eagles, Kites, Falcons, Bats

The rate of bird mortality at the Codrington, Woolnorth and King Island wind farms is between 0.23 and 2.7 birds per turbine per year (Auswind). This statistic extrapolated to the McHarg Ranges with a proposed one hundred wind towers, **gives a possible kill of between 23 birds and 270 birds per year**. “The incidence of birdstrike is higher at Woolnorth than anticipated and is quite controversial in Tasmania”. (Hobart Mercury and ABC AM transcript 3<sup>rd</sup> January 2008).

The Swift Parrot’s migratory path over the McHarg Ranges to their destination in the Heathcote Box-Ironbark Forests and Woodlands would become part of these statistics. **There are fewer than 1300 breeding pairs** and is thought to be decreasing every year through colliding with various structures on their migratory paths. The Wedge Tail Eagle is the most likely target as there are only four known eyrie’s in the McHarg Ranges, this small and endangered species would, on these figures, be eliminated in one year. This must be a statistic that precludes building the turbines on the McHarg Ranges. Other birds and raptors such as kites and falcons and night time animals such as owls and bats would be placed in harms way.

The McHarg Ranges is not open country and is home to many lizards, echidnas, frogs, scorpions, snakes, wallabies, kangaroos and wombats who find refuge and home in between the boulders and in the cracks of the rocks. The road kill of these animals at present is terrible, add a construction site to the area and the outcome is obvious.

Swift Parrot



## ROAD KILL – Marsupials and other Animals

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Bronze sculpture of dragon lizard Tooborac 2008 David Maughan



## ROAD KILL - Marsupials – and other Animals

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The pictures of the dead wombat, kangaroo, echidna, and red bellied black snake were all taken within half an hour's drive of Tooborac on the roads around the McHarg Ranges. Recent pictures after Black Saturday of the plight of similar animals including the heart felt image of the koala being fed water from a drink bottle by a caring fire fighter, was heartwarming and has caught the attention of people around the World. Yet in just a short drive around Tooborac similar dead or dying animals can be seen everyday of the week and most go unnoticed let alone catch Authorities or Government's attention, they are victims of the increased road traffic.

The number of construction vehicles to be brought into the district while towers are being built will run into the hundreds, and the many trips into thousands as stated previously, with the number required to bring either ready mix concrete or the raw materials to mix insitu. This traffic is a major concern.

Flora and fauna specialists engaged by the developer will assess and make reports as to this hazard. On narrow roads which native animals use as corridors and for later summer feeding, other than to clear the roads of all vegetation it would be expected that there will be a dramatic increase in road kill during the construction phase. When Access Economics concludes that this wind farm is not an economical proposition do we have the right to increase the already terrible road kill of these native animals in this unique area, for where else in the world could you see such diversity within 100km of a major city? We are becoming desensitized if not immune to these terrible and disgusting sights on our roads.

Bronze sculptures of road-kill by David Maughan





## VISUAL AMENITY – Environmental Effects Statement

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The Victorian Minister for Planning can request a developer for an Environmental Effects Statement. The statement publicly released for other wind farms have a similar pattern of assessment and other than Public Parks or the proposed development near the Great Ocean Road it would appear they are generally in favour of the development with perhaps provision to alter locations where they may become hazardous for traffic or for other such localized reasons, however the visual amenity is so subjective that heated arguments appear for and against.

Environmental assessment of the landscape should take into account the 'Zone of Visual Influence'. Generally when land is cleared with infrastructure including roads it is deemed 'highly modified landscape'. The McHarg Ranges does have land used for farming however the boulders or natural totems can never be modified unless they are removed by heavy machinery and blasting. This is the reason that this landscape still remains unique. **The use of the term 'Modified Landscape' instills in the mind that it is degraded. This term applied to the McHarg Ranges is inappropriate for it still reflects its original rugged and tortured natural sculptured form.**

The real problem would appear to be that the advice to developers is not at arms length and must be considered prejudiced when they are the Client. It is not unreasonable to expect a similar assessment based on the present guidelines which does not take into account the area geologically and the interesting forms which can be seen in the McHarg Ranges.

Landscape Architects are not immune from Robin Boyd's observation that when there is an overwhelming desire to put right one problem, the blind spot contribution kicks in to add to the "Australian Ugliness" (utilities and infrastructure projects are over represented) by creating another quandary which most likely will be seen as an eyesore by future generations when these structures after twenty years have passed their use by date and have either been de commissioned or renewed.

The question must be asked when this occurs who demolishes the towers, who removes the 92000 tonnes of reinforced concrete and reinstates the natural landform including replanting of trees and understory?

### Vandalism on the McHarg Ranges



## CONCLUSION

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The passion the Tooborac Community has shown to preserve the landscape gave the impetus to put time, effort and expense to sensibly argue a case against wind towers being placed on the McHarg Ranges.

On the evidence and facts submitted the Federal and State Governments should not give Transfield or any other developer planning approval, to erect a wind farm on these beautiful hills.

The Report by Access Economics "An Economic Assessment of the proposed McHarg Ranges Wind Farm" found eight key findings and one of these says it all.

**"A 200MW McHarg Ranges wind farm does not represent a cost effective approach to greenhouse gas abatement in the long term. To that extent, it fails against a key Government objective of wind power in Victoria".**

For the reasons outlined and except for those that will receive income from the towers being built on their properties, the majority of residents do not want a wind farm.

Public housing after the World War Two was one of the Victorian Government's top priorities. What is now regarded as treasured heritage assets, Victorian terrace houses were torn down in Carlton, Flemington, Prahran, Kensington, South Melbourne, Brunswick and Fitzroy to make way for high rise flats. At the time it seemed a brilliant idea, architects and authorities believed this would end the slums in Melbourne, how wrong they were. One architect the late George Tibbitts set about opposing this ill conceived development for he could foresee the disaster it would become, eventually through organisations such as the Carlton Association and others interested in the heritage of Melbourne pressured the Government to cease the development. This whole exercise today is looked upon as a social disaster.

A wind farm in the McHarg Ranges could be equated with this well meaning decision taken in the 40's and 50's for public housing which is now looked upon as a huge mistake. A similar decision although well meaning would be a tragic mistake for Victoria.



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Ballet sculptures in a Tooborac Garden – Sculptor David Maughan

Report was compiled by David Maughan a retired architect, a Member of the Royal Institute of Architects, and a Graduate of Melbourne University, who has worked in the area since 1983 and lived in the area of the McHarg Ranges since 1993. He has worked overseas, and for Romberg and Boyd Architects, and was engaged by the Victoria Racing Club over a period of twenty years in its re development. The Master Plan recently completed, was conceived and implemented by David Maughan between the years 2000 and 2007 when he then retired. The re development of Flemington Racecourse has been a remarkable success making it one of the best racecourses in the world and has enabled the Spring Carnival, culminating in the Melbourne Cup, becoming one of Melbourne's major annual events and a great contributor to the Victorian Economy. It is his hope that the Tooborac district will also become a major tourist attraction and contribute to Victoria's economy.