

AFFIDAVIT OF PROFESSOR GLENN ALBRECHT
6 JULY 2012

COURT DETAILS

Court	Land and Environment Court of New South Wales
Division	Class 1
Registry	Sydney
Case number	10224 of 2012

TITLE OF PROCEEDINGS

Applicant	Bulga Milbrodale Progress Association Inc
First Respondent	Minister for Planning and Infrastructure
Second Respondent	Warkworth Mining Limited ACN 001385842

FILING DETAILS

Filed for	Bulga Milbrodale Progress Association Inc, applicant
Legal representative	Kirsty Ruddock, EDO NSW
Legal representative reference	1116690
Contact name and telephone	Kirsty Ruddock, Julia Green (02) 9262 6989

AFFIDAVIT

Name Professor Glenn Albrecht
Address Social Sciences Building, Murdoch University, 90 South Street, Murdoch
WA 6150
Occupation Professor of Sustainability, Director of the Institute of Sustainability and
Technology Policy, Murdoch University,
Date 6 July 2012

I say on ~~oath~~ affirm:

- 1 I am an environmental philosopher with both theoretical and applied interests in the relationship between ecosystem and human health. I have a PhD in philosophy and an undergraduate degree in social science. I am a senior academic working at professorial level at Murdoch University in Perth, Western Australia.
- 2 I have been asked by the Applicant to prepare an expert report that addresses the following issues:
 - a) *What is solastalgia? In the context of mining in the Hunter Valley describe the general triggers for solastalgia and how solastalgia manifests in individuals and within a community.*
 - b) *From your research, and with reference to any relevant objector submissions and any details obtained from the Bulga community, discuss the likelihood that Bulga residents are suffering solastalgia from existing open cut coal mining in the area.*
 - c) *If, in your opinion, Bulga residents are suffering from solastalgia, how will the Project impact on these individuals? Refer to any relevant objector submissions and any details obtained from the Bulga residents.*
 - d) *Describe the social impact of solastalgia both from the perspective of the Bulga community and the greater NSW community.*
- 3 In response to that request, I have prepared the report which is annexed to this affidavit and marked 'A'.
- 4 The views expressed in that report are my own and correctly state my opinion in relation to the matters set out in the report. I believe no further qualifications are



required as to the opinions set out in the report other than those expressed in the report.

- 5 Details of my qualifications as an expert on the subject matter of the report are provided in Attachment 1 to the report.
- 6 I have been provided with a copy of Division 2 of Part 31 of the *Uniform Civil Procedure Rules 2005* and the *Expert Witness Code of Conduct* in Schedule 7 of the *Uniform Civil Procedure Rules 2005*. I have read the expert witness code of conduct and agree to be bound by it. I believe that my report complies with the code.
- 7 I believe that the information set out in this affidavit is true and correct to my own knowledge.


SWORN/AFFIRMED at

Signature of deponent

Name of witness

Address of witness

Capacity of witness


STEPHEN JOSEPH KLOMP, J.P. (29356)
MURDOCH UNIVERSITY, MURDOCH WA 6150
[#Justice of the peace #Solicitor #Barrister #Commissioner
for affidavits #Notary public]

And as a witness, I certify the following matters concerning the person who made this affidavit (the deponent):

- 1 #I saw the face of the deponent. [OR, delete whichever option is inapplicable]
~~#I did not see the face of the deponent because the deponent was wearing a face covering, but I am satisfied that the deponent had a special justification for not removing the covering.*~~
- 2 ~~#I have known the deponent for at least 12 months. [OR, delete whichever option is inapplicable]~~
#I have confirmed the deponent's identity using the following identification document:


NSW DRIVERS LICENCE 2014/50949

Identification document relied on (may be original or certified copy)[†]

Signature of witness

Note: The deponent and witness must sign each page of the affidavit. See UCPR 35.7B.

Sign


Stephen Joseph Klomp
Justice of the Peace West. Aust.
No 29356

[* The only "special justification" for not removing a face covering is a legitimate medical reason (at April 2012).]

[†] "Identification documents" include current driver licence, proof of age card, Medicare card, credit card, Centrelink pension card, Veterans Affairs entitlement card, student identity card, citizenship certificate, birth certificate, passport or see Oaths Regulation 2011 or JP Ruling 003 - Confirming identity for NSW statutory declarations and affidavits, footnote 3.]

qwertyuiopasdfghjklzxcvbnmqwerty

THIS AND THE FOLLOWING... 24 PAGES IS THE

uiopasdfghjklzxcvbnmqwerty

ANNEXURE MARKED "A" REFERRED TO IN THE

fghjklzxcvbnmqwerty

APPEAL OF GLENN ALBRECHT

SWORN THIS 6 JULY

2012 BEFORE

cvbnmq

Expert Report

cvbnmq

wertyui

Bulga Millbrodale Progress Association v Minister for

wertyui

opasdfg

Plan [redacted] and Warkworth Mining Limited.

opasdfg

hijklzxcv

Signed Stephen Joseph Klomp
Justice of the Peace West. Aust. 6/7/2012
No 29356

hijklzxc

vbnmqw

Glenn Albrecht PhD: Professor of Sustainability,
Murdoch University.

vbnmq

wertyuiopasdfghjklzxcvbnmqwertyui

opasdfghjklzxcvbnmqwertyuiopasdfg

hijklzxcvbnmqwertyuiopasdfghjklzxc

vbnmqwertyuiopasdfghjklzxcvbnmq

wertyuiopasdfghjklzxcvbnmqwertyui

opasdfghjklzxcvbnmqwertyuiopasdfg

hijklzxcvbnmrtyuiopasdfghjklzxcvbn

mqwertyuiopasdfghjklzxcvbnmqwert

yuiopasdfghjklzxcvbnmqwertyuiopas

Contents:

Expert Brief

Expertise and qualifications

What is the psychoterratic?

What is solastalgia?

How has solastalgia been manifest in the Hunter Valley?

Are Bulga residents likely to be suffering from mining-related solastalgia?

Media Coverage of the Mine

Bulga Residents' responses to Albrecht 2012 research questions

How will the proposed project impact on those already affected by solastalgia?

What is the social impact of solastalgia in Bulga and Greater NSW community?

The Need to include the psychoterratic in Impact Assessment

References

Attachments:

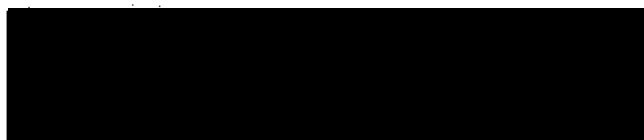
- | | |
|--------------|--|
| Attachment 1 | Curriculum vitae |
| Attachment 2 | Citations of Solastalgia in International Literature |
| Attachment 3 | 2012 Bulga residents research questions |
| Attachment 4 | Letter of instruction from EDO NSW dated 1 May 2012 |

Expert Brief:

By letter of 1 May 2012, I was briefed by EDO NSW to provide an expert report as follows. A copy of my letter of instruction is attached to my report as Attachment 4. The letter requested an Expert Report where:

We request that you address the following issues in your expert report:

1. *What is solastalgia? In the context of mining in the Hunter Valley describe the general triggers for solastalgia and how solastalgia manifests in individuals and within a community.*



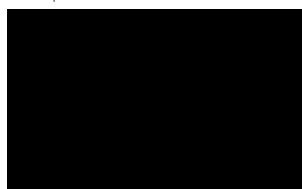
2. From your research, and with reference to any relevant objector submissions and any details obtained from the Bulga community, discuss the likelihood that Bulga residents are suffering solastalgia from existing open cut coal mining in the area.
3. If, in your opinion, Bulga residents are suffering from solastalgia, how will the Project impact on these individuals? Refer to any relevant objector submissions and any details obtained from the Bulga residents.
4. Describe the social impact of solastalgia both from the perspective of the Bulga community and the greater NSW community.

Expertise and qualifications:

1. My opinion on the issues that I have been asked to address are based on:
 - a. An expert knowledge of the history of public health and the importance of the state of the environment on the physical and mental health of people. My expertise in this area is demonstrated by the fact that I have contributed to an international encyclopaedia of public health in the domain of ecosystem health and human health (Albrecht et al 2008) and a co-authored book, *Health Social Science* (Higginbotham et al 2001).
 - b. The fact that I have pioneered the research domain of **psychoterratic** or earth-related mental health conditions, (Albrecht et al 2007, Albrecht, 2010, Albrecht 2011, Albrecht 2012 (in press)) and have published material related to this concept in international publications (Weissbecker, 2011; Pretty, J. and Pilgrim S, 2010) where it is now having international impacts.
 - c. An academic profile that has seen me research the lived experience of people in the Upper Hunter Valley of NSW under a competitively funded Australian Research Council Discovery Grant (Connor et al 2004, Albrecht 2005, Higginbotham 2006, Albrecht et al 2007) and now, specifically

evidence from this case in the form of lay evidence (EDO affidavit material) and qualitative data from Bulga residents who have voluntarily responded to a set of research questions generated by me and sent to them. The responses of residents of the Upper Hunter Valley, including Bulga is the basis for claims I make about the relationship between ecosystem health and human health, particularly mental health issues broadly defined. In all the qualitative research material that I have used in this report, I have assumed the testimony/evidence I have read is true.

2. My opinions on psychoterratic issues are based on my expertise in the academic area of place relationships. I have a PhD in philosophy and an undergraduate degree in social science. I am a senior academic working at professorial level at Murdoch University in Perth, Western Australia. I have book chapters and peer reviewed journal publications in this emergent area. Many other academics and those in public policy now use and apply my work to the issue of mental health (positive and negative) and the environment, including climate change (see attachment 2). My work has been also been featured in the international media with a clear indicator of its acceptance being the approximately 40,000 hits one gets, for example, for my concept of solastalgia (see below) when doing a Google search. I am regularly invited to be a keynote speaker at conferences and I was a speaker at TEDxSydney in 2010.
3. While my psychoterratic work potentially relates to medically diagnosable psychiatric conditions such as depression, my expertise in the field is as a social scientist. I have worked collaboratively with professional academic psychiatrists and psychologists. I see solastalgia as an existential and psychological form of distress, one not connected to biomedical diagnosis nor alleviated by biomedical treatment.
4. A copy of my curriculum vitae is provided as Attachment 1 to my report.
5. I have read the **Expert Witness Code of Conduct under the Uniform Civil Procedure Rules 2005** and I agree to be bound by it.



What Is the Psychoterratic?

6. The link between public health and the broad environment within which people live has been the subject of medical inquiry right from its formal outset. Hippocrates (c400BC) before proclaiming on the health of a population first examined the relationships between the climate and biophysical features of a region, cultural values and the occupations of its human inhabitants. He observed:

Whoever wishes to investigate medicine properly should proceed thus: in the first place to consider the seasons of the year ... then the winds ... the quality of the waters. In the same manner, when one comes into a city to which he is a stranger, he ought to consider its situation; how it lies to the winds and the rising of the sun ...

From these things he must proceed to investigate everything else. For if one knows all these things well ... he cannot miss knowing ... either the diseases peculiar to the place, or the particular nature of common diseases, so that he will be in no doubt as to the treatment of the diseases ..." (Lloyd, in Albrecht et al 2008).

7. Health was an important meta-concept in the ancient world and it still has the advantage of being widely used in public discourse to describe the wellbeing of individuals, families and communities. Health is therefore a concept that is easily understood in non-scientific circles when extended to systems at different levels, ranging from human organs, to society as a whole, ecosystems and even the planet earth itself. The relationship between the health of people and the state of the environment within which they live was considered important right from the very outset of the formal consideration of health and illness.
8. Despite the historical recognition of the importance of connections between environmental health and human health (physical and mental) we have very few concepts in the English language that address environmentally-induced mental distress and physical illness. In order to rectify that deficiency, I created two new

health categories: *psychoterratic* and *somaterratic* health and illness. These make the connection between the state of the earth (terra) and mental (psyche) and bodily (somatic) health (Albrecht *et al.*, 2007). Psychoterratic ill health arises from a negative relationship to our home environment, be it at local, regional or global scales. The negative relationship involves a loss of identity, loss of a sense of place and a decline in well being. Conversely, an enduring and positive relationship to a loved home environment delivers the benefits of a strong endemic sense of place and well-being. A psychoterratic concept now widely used in place-based health relationship research is ***solastalgia***.

What is solastalgia?

9. Solastalgia (Albrecht, 2005, 2006, 2010) has its etymological origins in the concepts of nostalgia, solace and desolation. Solace is derived from the Latin verb *solari* (noun *solacium* or *solatium*), with meanings connected to the alleviation or relief of distress or to the provision of comfort or consolation in the face of distressing events. Solace has connections to both psychological and physical contexts. One emphasis refers to the comfort one is given in difficult times (consolation) while another refers to that which gives comfort or strength. A person or a landscape might give solace, strength or support to other people. Special environments might provide solace in ways that other places cannot. If a person lacks solace then they are distressed and in need of consolation. If a person seeks solace or solitude in a much loved place that is being desolated, then they will suffer distress.
10. Desolation has its origins in the Latin *solus* (noun *desolare*) with meanings connected to devastation, deprivation of comfort, abandonment and loneliness. It too has meanings that relate to both psychological and physical contexts ... a personal feeling of abandonment (isolation) and to a landscape that has been devastated. In addition, the concept of solastalgia has been constructed such that it has a ghost reference or structural similarity to nostalgia thereby ensuring that a place reference is imbedded.

11. Hence, solastalgia has its origins in the New Latin word 'nostalgia' (and its Greek roots *nostos* and *algos*), however, it is based on two Latin roots, 'solace' and 'desolation', with a New Latin suffix, *algia* or pain, to complete its meaning.
12. I therefore describe solastalgia as the pain or sickness caused by the ongoing loss of solace and the sense of desolation connected to the present state of one's home and territory. It is the 'lived experience' of negative environmental change manifest as an attack on one's sense of place. It is characteristically a chronic condition tied to the gradual erosion of the sense of belonging (identity) to a particular place and a feeling of distress (psychological desolation) about its transformation (loss of well being). In direct contrast to the dislocated spatial and temporal dimensions of nostalgia, it is the homesickness you have when you are still located within your home environment.
13. The concept of solastalgia has had considerable international impact since its creation and has helped revive (transdisciplinary) interest in the relationships between humans and place at all scales. While the concept of solastalgia was independently created by me, Australian Research Council funded research with colleagues Linda Connor (Sydney University) and Nick Higginbotham (The University of Newcastle), has seen the concept and lived experience of solastalgia independently validated in collaborative qualitative and quantitative research on environmental transformation in the Hunter Valley of NSW (Connor et al 2004, Higginbotham et al 2006).
14. In response to the impact of changing home environments and my published work, other researchers in disciplines as diverse as psychology, psychiatry, geography, public health, sociology, anthropology and environmental science have incorporated the concept of solastalgia into their research and new competitively funded and peer reviewed research programs, especially those that relate to climate change and mental health (see attachment 2). Citations of my papers and book chapters are increasing each year from 2007 to the present. In total, 50-60 peer reviewed papers have been published that cite Albrecht et al 2007, in *Australasian Psychiatry*, the first peer reviewed paper to promote the

idea of psychoterratic health and its expression via solastalgia (see attachment 2).

15. As indicated by the variety of academic citations, the concept of solastalgia has now been applied to the study of environmental place change in many countries (for example; Canada, Ghana, Mali, Pakistan, China, USA [Alaska, Louisiana])

How has solastalgia been manifest in the Hunter Valley?

16. The research undertaken by my colleagues and me in the Upper Hunter region of NSW has revealed that solastalgia is an apt descriptive term for the combined environmentally-induced desolation and powerlessness that impacts on people in the zone of affectation of coal mines and power stations. In a series of publications (Albrecht 2005, Connor et al 2004, Higginbotham et al 2006), we have documented the personal accounts of the lived experience of how open cut coal mining affects personal and community well-being. One female grazer summed up what for me were the distinguishing features of what I had once vaguely defined as place-based distress. In an interview with the research team she describes the intense psychological and physical pain on her and her farm manager associated with the impacts on her and her rural grazing property from coal mining:

Well, I noticed when this business with [mine name], when I was really fighting here. And my manager would come to me and say he didn't sleep last night. The noise, because they're loading right near the road, he's just across the creek from the road. And you hear a drag line swinging around and dumping rocks into a truck. And then the truck would back away ... beep, beep, beep, beep, beep. And then the next one would roar in. He used to say to me "we just can't cope any longer" ... I lost a lot of weight. I'd wake up in the middle of the night with my stomach like that (note: clenched fist), and think, what am I going to do? We're losing money, they won't listen to me, what do I do? Do I go broke? I can't sell to anybody, nobody wants to buy it because it's right next to the mine. What do I do? And I was a real mess. ('Eve', as quoted in Connor et al., 2005)

17. Another resident of the Upper Hunter Valley reported in an interview that she found the destruction of her home landscape profoundly distressing and she went on to say,

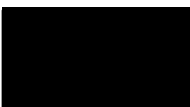
Originally they (the miners) said they were going to go underground but the DA (development application) ... is for open cut ... Now that is the danger. Species there, there is a very rare woodland banksia in all of that. And it's distressing. It almost reduces me to tears to think about it [mining]. When the coal is gone, the people of Singleton will be left with nothing but the final void. (Eve) (Connor et al., 2005).

18. An Indigenous man in the Upper Hunter Valley, reacting to the massive changes to his traditional lands, expressed his disgust at the mined landscape when he was being interviewed. He explained that he drives hundreds of unnecessary kilometres to avoid witnessing the desolation of 'his country':

It is very depressing, it brings you down ... Even (other indigenous) people that don't have the traditional ties to (this) area ... it still brings them down. It is pathetic just to drive along, they cannot stand that drive. We take different routes to travel down south just so we don't have to see all the holes, all the dirt ... because it makes you wild. (In Albrecht et al., 2007)

19. The impact of open-cut coal mining on whole communities was also evident with interviewees constantly pointing out that pressure is not just an individual issue:

It's a very stressful position to be in because these companies really put a lot of pressure on you and particularly for anyone who's been bought out by a mine. Like you're totally displaced and you're basically given the idea that you're going to be put out of your home whether you like it or not, you know? And I think there's a lot of people in the area who have been affected in that way, that have been basically pushed around by heavy industry. ('Phillipa', in Connor et al 2004)



20. In addition, many respondents pointed out that as mining takes over an area, income disparities emerge and prices for everything in the town shops go up. There is an increase in young, single, male workers and a change in the character of the town. This creates tension in the town with the syndrome known locally as "the golden handcuffs" preventing people from getting out of high income mining once they enter because of high levels of indebtedness. The net result of the socio-economic changes include a higher level of rental properties in areas planned to be mined in the future and degraded farms that were no longer run as viable businesses as their owners now worked in the mines. These negative changes to the built landscape are also a source of solastalgic distress for those who highly valued the former rural character of the place.
21. While I have no doubt that changes to the cultural fabric of a place and the heritage character of the built environment are very important to people, it is the alteration of the non-built environment that most concerned our respondents and their relationship to place.
22. We should not be surprised by this as the respondents in our study remained in an area that was their location of choice or part of their family heritage, but now they experience the destruction of nearly all aspects of life that once provided them with a sense of place, identity and solace tied to the distinctive qualities and features of life in rural Australia. Some of the very elements that make rural life highly attractive; clean air, fresh water; clear, silent, starry nights; scenic landscapes and endemic biodiversity were being negatively affected by the transformations and pollution inflicted by the coal-based industries. Take those elements away and people suffer from solastalgia, threaten them and they suffer a form of psychoterratic anxiety I call, eco-anxiety.
23. For those who do not live in rural areas it might be difficult to imagine what landscape and place-based solastalgia is all about. However, in city and urban contexts it would be like removing the very things that make city life attractive to residents. Yet even in city and urban locations we still highly value the protection of our quality of life and lifestyle. The local government regulations that protect people from noisy dogs, air conditioners, cockatoos and parties are enforced if



29356

complaints are made and the law infringed. However, in rural and remote areas affected by mining, noise impacts, for example, occur 24 hours a day, 7 days a week and all year.

Are Bulga residents likely to be suffering from mining-related solastalgia?

24. Given that the Bulga region has been in close proximity to existing open cut coal mines, it does not surprise me that in objector submissions to the proposal, media sources and recently administered community survey material, residents of the greater Bulga locale express serious reservations about the personal and social impacts of the proposed mine extension.

25. Their reservations about the environmental impacts of the mine are clearly expressed, but not so obvious are the emotional and psychological reactions to the combined impact of social and environmental degradation threatened by its expansion. We must look carefully at the language people use to get a degree of insight into their real feelings.

26. From one of the objector submissions we have the clear expression of outrage about what is happening at a landscape scale in the Bulga region:

The landscape between Bulga and Singleton is already hideous and will never be properly remediated. Now they want to destroy the Warkworth Sands Woodlands – an irreplaceable endangered ecology – and other areas designated non-disturbance areas IN PERPETUITY. We have already lost far too much of the environment for the sake of profits for overseas companies. It is time to value the environment over royalties. (Submission 77 Hand written statement from Rita Helling)

27. Expressions such as "hideous" indicate a deep, emotionally charged reaction to the existing mining-induced desolation being conducted on this part of the Hunter Valley. Those who love their landscape can be described as experiencing 'topophilia' or love of landscape (Tuan 1974), and only someone who has had this feeling can experience solastalgia or the distress at the loss of this love.

28. Another objector argued that "there are approximately 300 people living in the Bulga area, and their lifestyle will be unbearable if the Open Cut extension goes ahead" (Submission 29 Mr Peter Cooke). Again, the use of the term "unbearable", masks a deeply emotional response to the proposal.

29. The chronic change to the landscape produced by the mine produces chronic stress in the people who are in the zone of affectation. The Affidavit of Hubert Upward, (paragraph 24) reports:

About 12 months ago I have been able to see mining vehicles appearing on the spoil heaps at Mount Thorley Mine. From on or about December 2011, I have been able to see Warkworth mining vehicles above Saddle Ridge during the day and at night. Seeing the spoil heaps during the day and the mining lights in the evening is a constant reminder of the mines, and has taken away from the country rural night time aspect of Bulga. The once scenic views I enjoyed from my property have recently given way to ugly spoil heaps.

30. Other objectors refer to the sight of the spoil heaps and the "intolerable" mine noises as "a constant reminder" of the hugely negative changes that are occurring to their lives and lifestyle. I see such testimony as evidence that these people are suffering, among other distress/stress-related issues, solastalgia. The total impact on some people is desolating and solastalgia may in certain circumstances, be implicated in serious negative mental health issues.

Media Coverage of the Mine

31. In a commercial media context not noted for its empathy for environmental issues it has surprised me to see major national coverage of the proposed mine at Bulga that deals explicitly with the emotional aspects of the proposed expansion. In a feature article, 'What They're Saying Is that We Aren't Worth Anything', in *The Weekend Australian Magazine* May 26-27 2012 pp. 18-22, the author, Richard

Guilliatt, reports on the views of residents. One resident says *"It will kill the town ... It will become unliveable"* while others reported that the desolation of the town would have severe emotional consequences. The article ends with a statement from one town resident who plans to stay in Bulga. He states; *"I'd be in all sorts of trouble with my ancestors if I walked away ... They'd haunt me"*.

32. Local media coverage also gives clear expression to the frustration people have about the existing level of impacts and their deep distress and anxiety about having to experience even more with the proposed mine expansion. From the Singleton Argus this story captures the contemporary mood of some people:

Bulga women want out

Date: 15-Feb-12

Author: Singleton Argus

NOT everyone in Bulga wants to fight the \$600million Warkworth open-cut coalmine expansion. Three residents told The Argus yesterday, they wanted compensation now for "horrendous" impacts they've endured for years. Danielle Hanson, Nerida Lepisto and Toni Silk said coalmining had divided the Bulga community, some people wanted to get out immediately, some wanted to fight on and some accepted the situation. "We're sick of it, we've complained for more than two years about noise, dust and blasting vibrations from current operations and it just continues," said Mrs Hanson. "It's mainly Coal and Allied's Warkworth open-cut, but there's also Peabody's Wambo and Xstrata's Bulga mine. (<http://wage.org.au/news/display/7926>)

33. Residents in other parts of Australia confronting similar threats to their sense of place and well-being have openly given similar expression to their anxiety. In an article on the potential for solastalgia in coal mining areas in QLD, The Beaudesert Times (<http://www.beaudeserttimes.com.au/bt-news/bt-news-general/120-pair-fight-for-their-view>) featured the distress of two local women who were not as yet experiencing mining-induced change to their local environment, but were anxious about what they were about to be forced to confront.

Bulga Residents' responses to Albrecht 2012 survey

34. Given that the objector submissions focussed mainly on the key environmental issues identified in formal impact assessment, it was instructive to ask Bulga residents specifically about their relationship to place and the likely impacts of an expanded open cut mine at Bulga. In or about May 2012 a set of questions generated by me about the impact of large scale environmental change was circulated to members of the Bulga community. A copy of the questions comprises Attachment 3 of my report. These questions were exactly the same as those asked of residents in other parts of the Upper Hunter Valley affected by open-cut mining in previous research undertaken by Albrecht et al in the Upper Hunter Valley.
35. It is clear from a sample of the 17 individual responses received that Bulga respondents fear the threat of adverse impacts on their quality of life and physical and mental well-being. Their answers to the questions asked indicate a profound sense of desolation about what is happening to their loved home environment. I conclude that such responses are indications of solastalgia as I have defined it (above).
36. I have retained anonymity for the respondents as they have not entered into a research protocol covered by formal institutional ethics approval. They have, however, voluntarily returned their responses to EDO NSW for inclusion into this submission. The questions I have asked of them have previously been approved for research purposed by a properly constituted human ethics committee at The University of Newcastle, NSW. All quoted material has been cited by me and has been carefully transcribed into this document.
37. In answer to questions in the set sent to the community members (attachment 3) typical answers (including the emotional connections to place that I have highlighted in bold) included:



29356

When we first came here; the silence, at night, was deafening! City dwellers, who came to stay, found it quite 'strange' to be in such profound silence and darkness, and we loved it! The summer night sounds of frogs and crickets were wonderfully soothing and daytime noise of birdsong and agricultural machinery likewise. We live right at the end of The Inlet; there is no vehicular traffic except for that generated by the handful of houses here. Eighteen months ago all that began to change, where, formerly, we had been protected, by Saddle Ridge, from mine noise and lights, we saw the slag heaps and the attendant noise and lights go higher than Saddle Ridge. Now we have nights often punctuated by loud roaring noise from trucks accelerating to the top of the heap, followed by the metallic 'clang' as the load is dumped and the truck descends the heap to be followed by another. We have had to complain about bright lights shining directly toward the front of our house. We constantly (and accurately) monitor noise and make complaint to the mine and DoPI. Sometimes there is temporary relief but the same pattern, usually, is repeated on subsequent nights. (Respondent1)

Thoughts of losing our peaceful and beautiful way of life is **deeply distressing, extremely sad** and really unacceptable!

We are passionate about our home and the environment we chose. We belong here; we are part of the community of Bulga and proud to be so! We are **deeply distressed** that our lives count for so little in the face of short-term financial gain. It is **deeply distressing** to see Australia's landscape decimated by Companies that don't contribute to the overall welfare of citizens. We are **angry** to reflect that; when we are "mined-out" these people will go back to their countries of origin leaving nothing to show but a scarred and ugly landscape. It makes us **angry, stressed and disgusted** that the Governments that, supposedly, represent the citizens, pay no heed to anything but dollar signs! (Respondent 2)

We love where we live. It is a beautiful property. That is why we chose it! That is why we have invested significant funds and energy into it. Our back neighbour is the Wollemi National Park. We run the property organically and it

has responded to this manner of management. We run (breed) cattle that attract premium prices at sale and grow premium quality (variety) grapes that when made into wine that sells for (price) per 375mL bottle. This is how good the land is.

The **shame** that we have is what the miners have done to the land. I am **more than angry! I am pissed off at them.** The noise that emanates from Warkworth mine disturbs our sleep and the PAC has allowed them to move 2.5km closer after mining through Saddleback Ridge. **Bastards!** (Respondent 3)

Grazing land has given way to large overburden stockpiles.
 Scenic views have given way to Ugly Spoil heaps.
 Clean air has given way to continued dust haze.
 Quiet country nights have given way to the roar of mines.
 Proud of what we have but **distressed** because we are losing it
Anger at being betrayed by both Government and Warkworth Mine.
 (Respondent 4)

The ambience that we expected to enjoy in our retirement years has been **destroyed.** Instead of the natural rural background noise we hear only machinery drone. The atmosphere is hazy with a pall of dust hanging on the horizon. The deposition of coal dust on the roof and in our water tanks continues to increase. The coal dust is apparent on the fruit and leaves of the trees surrounding our house. (Respondent 5)

The current increase in noise and dust levels has had an impact on my family. We regularly have disagreements because of the differing views between us as to whether we should phone up when the noise is excessive etc. This causes **stress** between us and was not what we intended to have retiring to the Hunter Valley. It causes my wife particular stress as the increased noise levels appear to have more effect on her than me.

The way in which people show the concern about the current situation is **severe anxiety and stress**. This is brought about by the noise, blasting and dust levels and the potential loss of values of their land and the possibility of having to move away from the problem. I understand there are people in Bulga who are **suffering from depression** because of the mines activities.
(Respondent 6)

I love the Hunter Valley. It is a piece of a paradise on this Earth. It is so **distressing** to go on Google Earth and see the images of the industrial scares getting bigger and bigger month by month and year by year. What sort of people are we? Can we stop this madness? Or are we waiting for the resource companies to change the direction? This would take a very long time. Big corporations have only one plan: to do more of the same and to grow for ever like a cancer! (Respondent 7)

If the old houses are not knocked down or their once loved paddock is a hole in the ground or a complete wasteland or a paddock full of weeds with feral animals, mine noise, vibration and dust if the owners and current landholders had known what was going to happen to the area we may have fought harder to try to keep them out. If my deceased family could come back and see Bulga and surrounding areas how it is now **they would die all over again**.
(Respondent 8)

We love our home; it has a special feeling about it. When we first come here we lived in the machinery shed while we built our house which is a stone house, took a long time as we only did building when we had the money to employ the contractors with building we could not do ourselves, as we did not want to go into debt with loans. Twenty years ago we did not think about ever leaving but age makes the chores harder and the mines have encroached on our space. I think we feel all those things, **distress, anger and stress**.
(Respondent 9)

I must admit when I heard that the extension got approved I was angry, upset and sick in the guts thinking about what our future holds for us in Bulga. As

time went on I started to feel a little depressed and had lost interest in my garden which for me is something I pride myself in. But I have decided not to let the big boys win and fight with everything I have in me to stop them destroying our way of life. I have lost faith in any governing body to protect the people who have to suffer the effects of mining all they can see is dollar signs. We should not be punished for being good citizens, we have bought our land, pay our taxes and we need to be heard that we don't want to be pushed around and told what to do, when to do it and what to put up with.

WARKWORTH MINE IS PUTTING US OUT OF OUR LIFESTYLE SO THEY SHOULD BE DOING WHAT WE WANT THEM TO DO AND WHEN TO DO IT. (Respondent 10)

Comment and Summary

38. From my experience as a researcher of the psychoterratic (psyche-land relationships) what the above testimonies reveal to me is deep solastalgic distress about the damage that has already been done to their loved landscape and deep anxiety that this level of distress could get even worse as the mine expands towards the edge of the town. In order to more deeply understand the reaction of these people to the possibility that the mine will actually come even closer to the town, destroy high conservation land and more intensively threaten the quality of life for those who remain in Bulga, I further put the case for recognition of the reality of solastalgia by answering the following series of questions.

How will the proposed project impact on those already affected by solastalgia?

39. People in the Bulga region are already manifesting the signs of chronic solastalgia from the existing mine operations. They are also experiencing acute anxiety about the very possibility that their solastalgia could be made worse by an expanded Warkworth mine and the complete loss of their village. In my professional opinion, further expansion of the mine will push sensitive people to the edge of their coping ability. What is now an existential crisis will then, in my

SK 29356

(non-medical) opinion, become one with potentially serious consequences (for example, depression and worse). As one respondent put it, *"We are not suffering from depression yet, but depending on the future our mental and emotional health may be compromised"*. Another respondent commented:

The way in which people show the concern about the current situation is severe anxiety and stress. This is brought about by the noise, blasting and dust levels and the potential loss of values of their land and the possibility of having to move away from the problem. I understand there are people in Bulga who are suffering from depression because of the mines activities.

40. Many will leave the area because of compulsory acquisition or by frustration at the past and current levels of mine impact, but those who stay will be severely affected. The depth of feeling is palpable in the testimony of those who responded to the Albrecht questions. One respondent explains how the distress is manifest:

It is shown in the tears released by the men and women of the village when they talk of it's possible demise. This is distressing for others around and has had a flow on affect at times. This is also why I love this village and it's people. They feel for each other as do I.

41. Powerlessness is also a big factor here as the people affected cannot stop what is happening to them. Some thought they would be protected from the mine and that they could ride it all out ... but now the mine is proposed to be long-term and may even out live them! The fact that there was a deed (2003) that supposedly protected the people of Bulga from further mine extension only makes matters worse than they would have been otherwise. As one objector succinctly put it, *"I could not believe that the mine could just tear up the deed and mine the areas they had promised to protect"* (1020629 Hubert Upward Para 20).

42. With an expectation of formal protection, then its removal in the interests of a mine and its profit margin, many in Bulga have little or no respect for the planning and consent process in the state of NSW. As one respondent argued:

I have lost faith in any governing body to protect the people who have to suffer the effects of mining all they can see is dollar signs. We should not be punished for being good citizens, we have bought our land, pay our taxes and we need to be heard that we don't want to be pushed around and told what to do, when to do it and what to put up with.

43. And from another:

I have a total loss of trust in government and the officials in the bureaucracy. They sit in their offices administering the faulty rules that they have developed and have absolutely no concept of the impact that their decisions have on my mental and emotional state. What is more I really do not think that they care - clock and go home to another life and block out any concerns - bummer you Jack, I'm alright.

What is the social impact of solastalgia in Bulga and Greater NSW community?

44. As was the case with the academic research, the contemporary statements from respondents indicate that uncertainty about the future, feeling powerless to direct and be in control of their own affairs plus the lived experience of actual negative changes to their local and regional environment makes for a classic case of solastalgia as it has been defined by me in the published literature. From one respondent we have the claim that:

Since the application to extend the MTW mine the community has changed. No longer do people feel that they are in control of their lives. The burden of the expanding mine and the effect on their lives has started to break down the community's sense of harmony.

45. As revealed by the community reaction to open cut coal mining in Eastern Australia and the proposed underground coal mine near Margaret River in South West Western Australia, the objections to this Project are not an isolated phenomenon. Indeed, in WA, the region's peak bodies have combined to argue that all coal mining should be banned in the Margaret River Wine Region (MRWR). They stated in a letter to the WA government:

We submit that coal mining in the MRWR is not in the public interest due to the adverse effect it would have on local communities. This is particularly due to its undermining of the environment and the primary industries of viticulture, agriculture and tourism in the overall economy.

We submit that coal mining in the MRWR would have an adverse impact on local surface and ground water quality. Any impact of natural surface waterways is likely to negatively impact on a number of threatened fauna occurring within the MRWR, including, the Margaret River Burrowing Crayfish, the Margaret River Hairy Marron, Balston's Pygmy Perch, Mud Minnow and the Pouched Lamprey.

*We submit that it is not in the public interest to allow coal exploration or coal mining in a region which is heavily reliant on tourism. This is particularly pertinent in the MRWR where the principle attractions for tourism are founded on the wine industry, **sense of place** (nature and pristine environment) and lifestyle. (my emphasis)*

46. The Bulga case has similar implications for the State of NSW. In the Planning Assessment Commission Report for this development, it is admitted that in the case of coal mining, the social impact assessment has not been in accordance with the public interest of people in rural villages:

A number of rural communities have been faced with this situation in the past. In almost all cases the mines have been approved and the communities have either been radically altered in character or become non-viable. With the current price of coal this outcome is almost inevitable when the overall economic benefits of the mines are balanced against the local community



impacts. It appears that it is only if there are wider implications from the mining proposal that refusal becomes a possibility. If this is to change then NSW will need to develop a clear policy position that provides further guidance to decision-makers as to how social impacts on rural villages are to be balanced in the approval process for coal mines.

The Need to Include the Psychoterratic in Impact Assessment

47. The standard use of environmental impact assessment (EIA) in the evaluation of development proposals is to apply environmental science in the service of assessing the impact of, for example, a mine on the biophysical character of a given environment. Social impact assessment (SIA) has traditionally focussed on economic benefits and heritage considerations as applicable to a proposed development. Neither EIA nor SIA have systematically incorporated cumulative impact assessment into their approaches.

48. I argue that the positive (topophilia) and negative (solastalgia) psychoterratic aspects of individual and community wellbeing are vital parts of what is generally understood as the public interest. They are certainly part of what could be called the private interests of private property owners and their right to a decent quality of life. While not part of formal impact assessment processes as currently undertaken, they are nevertheless vital components of quality of life and lifestyle in rural and regional Australia and indeed, in all social contexts. Sense of place is a vital component of how we define ourselves. The expansion of mines and the creation of new mines in a region that is rural in character and which has a strong sense of place closely tied to viticulture, other forms of primary production and equine activities will create solastalgic distress. As was demonstrated with the case of the Margaret River region of WA, rural areas based on tourism and niche markets that have no history of large scale mining cannot be expected to have their valuable assets compromised by the impacts of mining. There is no mitigation possible that would enable co-existence with large scale open cut coal mining. The relationship to landscape based on topophilia is the opposite of one forcibly based on solastalgia.

49. In the case of the Bulga proposal, I can see no circumstances where mitigation of new impacts, given that the people in question are already experiencing extreme solastalgic distress from existing impacts, can successfully alleviate the solastalgia. However, in certain circumstances, especially where there are no prior impacts that have caused solastalgic responses, carefully negotiated mitigation of adverse impacts could enable co-existence of mining and agricultural primary production and tourism in a rural setting.

50. The SIA component of EIA clearly needs to incorporate the psychoterratic, including the key concept of solastalgia, into the full assessment of development in the public interest. This additional assessment, if applied, could enrich various forms of conventional impact assessment with the addition of the Environmental Distress Scale (EDS) (Higginbotham, et al 2006) which validated the concept of solastalgia empirically and qualitative research approaches that elicit the "lived experience" of positive and negative relationships to place.

51. It is my considered opinion that if such an expanded SIA was to be undertaken, the findings would be similar to those that have been presented in this report. I therefore conclude that the proposed extension to the Warkworth mine should be rejected. From the evidence before me, I conclude that citizens are already suffering from an intolerable burden of negative environmental change and to deliberately subject them to an even greater degree of psychoterratic distress in the form of solastalgia (and worse) is unjustified by any economic and instrumental value that might be tabled by the proponent on the mine expansion. As a respondent to the Albrecht questions states:

If we look at the country around us and look at the devastation that has been created what was once beautiful hills with trees and wildlife is one big ugly scar for hundreds of kilometers all the way up the valley. This is a sense of loss and sadness and depression.

52. It is this feeling that solastalgia defines and explains and it is a legitimate human expression of sense of place, well-being and identity. No development has the social licence to destroy such a basic human right.

References

- Albrecht, G.A. (2012) "Psychoterratic Conditions in a Scientific and Technological World." In Hasbach et al (Eds) *Ecopsychology: Science, Totems, and the Technological Species*. MIT Press (in press).
- Albrecht, G.A. (2011) Chronic Environmental Change: Emerging 'Psychoterratic' Syndromes, (in Weissbecker, I. (ed), (2011) *Climate Change and Human Well-Being: Global Challenges and Opportunities*, Springer SBM, In the International and Cultural Psychology Book Series (A. Marsella, series editor) pp. 43-56.
- Albrecht, G.A. (2010). Solastalgia and the Creation of New Ways of Living. In J. Pretty & S. Pilgrim (Eds.), *Biodiversity and Culture: Rebuilding Lost Connections* (pp. 217-234). London: Earthscan.
- Albrecht, G. (2006). Environmental Distress as Solastalgia, *Alternatives*, 32, (4/5) 34-35.
- Albrecht, G. (2005). Solastalgia: A New Concept in Human Health and Identity. *PAN (Philosophy, Activism, Nature)*, Issue 3, 41-55.
- Albrecht, G.A., Higginbotham, N., Connor, L. and Freeman, S. (2008) Social and Cultural Perspectives on Eco-Health. In K. Heggenhougen and S. Quah (Eds), *International Encyclopedia of Public Health*, (Vol. 6. pp. 57-63). San Diego: Academic Press.
- Albrecht, G., Sartore, G., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., Stain, H., Tonna, A. & Pollard, G. (2007) Solastalgia: The distress caused by environmental change, *Australasian Psychiatry*, 15, Special Supplement, 95-98.
- Connor, L., Albrecht, G., Higginbotham, N., Smith W., & Freeman, S. (2004). Environmental Change and Human Health in Upper Hunter Communities of New South Wales, Australia, *EcoHealth*, 1, Supplement 2, 47-58.



29356

Higginbotham, N., Connor, L., Albrecht, G., Freeman, S., & Agho, K. (2006). Validation of an Environmental Distress Scale (EDS). *EcoHealth*, 3, No. 4, 245-254.

Higginbotham, N., Albrecht, G. and Connor, L. (2001) *Health Social Science: A Transdisciplinary and Complexity Perspective*, South Melbourne, Oxford University Press.

Louv, R. (2008). *The Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Chapel Hill: Algonquin Books.

Pretty, J. and Pilgrim S, (eds) (2010) *Biodiversity and Culture: Rebuilding Lost Connections* (pp. 217-234). London: Earthscan.

Tuan, Yi-Fu. (1974). *Topophilia: A Study of Environmental Perceptions, Attitudes, and Values*. Englewood Cliffs, New Jersey: Prentice-Hall.

Weissbecker, I. (ed) (2011) *Climate Change and Human Well-Being: Global Challenges and Opportunities*, Springer SBM, In the International and Cultural Psychology Book Series (A. Marsella, series editor).

Attachment 1 Summary of Qualifications and Experience

Glenn Albrecht (PhD. Newcastle, BA. WAIT (Curtin University))

Professor of Sustainability, Murdoch University, 2009-present.

Brief Biography:

Glenn Albrecht is professor of sustainability at Murdoch University in Perth, Western Australia. He is an environmental philosopher with both theoretical and applied interests in the relationship between ecosystem and human health. He has pioneered the research domain of 'psychoterratic' or earth related mental health conditions with his concept of 'solastalgia' or the lived experience of negative environmental change. He also has publications in the field of animal ethics and has recently published on the ethics of relocating endangered species in the face of climate change pressures and the ethics of the thoroughbred horse industry worldwide. With Dr Phillip McManus (Sydney University) he has completed book which is about to be published by Routledge on the global thoroughbred industry.

He publishes in peer reviewed journals and has recently completed and published book chapters on his research interests. With colleagues, Nick Higginbotham (University of Newcastle) and Linda Connor (Sydney University) under Australian Research Council Discovery Project grants, he has researched the impact of mining in the Upper Hunter Region of NSW, Australia and the impact of climate change on communities, again in the Hunter Region. Glenn has also been involved as a Chief Investigator in an ARC Discovery Grant Project on the social and ethical aspects of the thoroughbred horse industry worldwide and as a partner investigator on ARC Linkage Grant funded research on the ethics of feral buffalo control in Arnhem Land.

Glenn Albrecht is a pioneer of transdisciplinary thinking in the social sciences and, with Higginbotham and Connor, produced a major book on this topic, *Health Social Science: A Transdisciplinary and Complexity Perspective* with Oxford University Press in 2001. His current major research interest, the positive and negative psychological, emotional and cultural relationships people have to place and its transformation is one that sees him having an international research profile in an



29356

emergent field of academic inquiry where he has been recognised as a global leader and pioneer.

Short CV Professor Glenn Albrecht (2005-2012).

Book

McManus, P., Albrecht, G. & Graham, R. (2012 forthcoming) *The Global Horseracing Industry: Social, Economic, Environmental and Ethical Perspectives*, Routledge, London. (in final publication process for release this year).

Book Chapters

Albrecht, G.A. (2012) "Psychoterratic Conditions in a Scientific and Technological World." In Hasbach et al (EDs) *Ecopsychology: Science, Totems, and the Technological Species*. MIT Press (in press).

McManus, P., **Albrecht, G.** & Graham, R. (2011) Constructing Thoroughbred Breeding Landscapes: Manufactured Idylls in the Upper Hunter Region of Australia, Chap. 73 in Stanley D. Brunn (Editor) *Engineering Earth: The Impacts of Mega-engineering Projects*, Springer Dordrecht, New York, pp.1323-1339.

Albrecht, G.A. (2011) Chronic Environmental Change and Mental Health, (in Weissbecker, I. (ed), *Climate Change and Human Well-Being: Global Challenges and Opportunities*, Springer SBM, In the International and Cultural Psychology Book Series (A. Marsella, series editor) pp. 43-56.

Albrecht, G.A. (2010) Solastalgia and the Creation of New Ways of Living, in Pretty, J. and Pilgrim S., (eds), *Nature and Culture: Rebuilding Lost Connections*, London, Earthscan.

Albrecht, G.A. (2008) Solastalgia, in Gage, H. *Ice: A Passage Through Time*, Alaska, Ampersand Press.



29356

Albrecht, G.A., Higginbotham, N., Connor, L. and Freeman, S. (2008) Social and Cultural Perspectives on Eco-Health. In K. Heggenhougen and S. Quah (Eds), *International Encyclopedia of Public Health*, (Vol. 6. pp. 57-63). San Diego: Academic Press.

National and International Edited and/or Refereed Journals

Albrecht, G.A., Connor, L., and Higginbotham, N. (2012-) Ethics and Climate Change: A Hunter Valley NSW Case Study, *Environmental Ethics*, (in final preparation).

McManus, P., & Albrecht, G. (2012) And quiet flows the Pages, *Geoforum*, (in review).

Albrecht, G., Brooke, C., Bennett, D & Garnett, S.T. (2012) The Ethics of Assisted Colonization in the Age of Anthropogenic Climate Change. *The Journal of Agricultural and Environmental Ethics* (accepted for publication May 10).

Montoya, D., McManus, P., & Albrecht, G (2012) Jumping to Conclusions? Media Coverage of Jumps Racing Debates in Australia, *Society & Animals* 20 DOI: 10.1163/156853012X627789.

Phelan, L, Taplin, R, Henderson Sellers, A, **Albrecht, G.** (2011) Ecological Viability or Liability? Insurance System Responses to Climate Risk, Environmental Policy and Governance, *Env. Pol. Gov.* (2011), Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/eet.565.

Higginbotham, N. Freeman, S. Connor, L and Albrecht, G (2010) Environmental Injustice and air pollution in coal affected communities, Hunter Valley, Australia. *Health and Place* 16 (2010) 259-266.

Albrecht, G., McMahon, C. Bowman, D., Bradshaw, C. (2009) Convergence of culture, ecology and ethics: management of feral swamp buffalo in northern Australia. *Journal of Agricultural and Environmental Ethics*, 22:361-378.

Sartore G.M, Kelly B, Stain H, Albrecht G, Higginbotham N. (2008) Control, uncertainty, and expectations for the future: A qualitative study of the impact of drought on a rural Australian community. *Rural and Remote Health* 8 (Article 950): 1-14.

Connor, L., Higginbotham, N., Freeman, S., and Albrecht, G. (2008) Watercourses and Discourses: Coalmining in the Upper Hunter Valley, New South Wales. *Oceania*, Vol. 78, No. 1, pp.76-90.

Albrecht, G, Sartore, G *et. al.* (2007) Solastalgia: The distress caused by environmental change, *Australasian Psychiatry*. Vol. 15, Special Supplement, pp. 95-98.

Higginbotham N, Connor L, Albrecht G, Freeman S, Agho K. (2006). Validation of an Environmental Distress Scale (EDS). *EcoHealth* Vol.3 No. 4, pp. 245-254.

Albrecht, G. (2006) The Ethics of Climate Chaos, *Journal of the Asia Pacific Centre for Environmental Accountability*, Vol. 12, No. 2, June 2006, pp. 19-21.

Albrecht, G. (2006) Environmental Distress as Solastalgia, *Alternatives*, 32 (4/5) pp. 34-35.

Albrecht, G. (2005) Organicism and the Organic University, *Concrescence: The Australasian Journal of Process Thought*, Vol. 6, pp. 43-60.

Sartore, G., Stain, H., Kelly, B., Higginbotham, N., Albrecht, G., and Toona, A. (2005) Health in a Rural New South Wales Community, *Australian and New Zealand Journal of Psychiatry*, 39:s1 A183.

Albrecht, G. (2005) Constructing our Future. *Journal of the Asia Pacific Centre for Environmental Accountability* 11(2), pp. 8-9.

Albrecht, G.A. (2005) Solastalgia: A New Concept in Human Health and Identity, in *PAN (Philosophy, Activism, Nature)* Issue. 3, 41-55.

Conference Publication

Benjamin, D and Albrecht, G. (2009) Prolegomena to the development of cultural concepts for climate change mitigation and adaptation: Cross cultural and diachronic perspectives, *Climate Change: Global Risks, Challenges and Decisions*, Copenhagen, Denmark. IOP Conf. Series. Earth and Environmental Science 6 (2009) 572018.

Major Refereed Report

Albrecht, G.A. (2010-11) Drought and Resilience in Two Inland Cities. National Climate Change Adaptation Research Facility (NCCARF):
http://www.nccarf.edu.au/sites/default/files/research_content_downloads/Case%20studies%20of%20extreme%20events%20Resilience%20and%20water%20security%20in%20two%20outback%20cities.pdf

Non-refereed Publications

Albrecht, G.A. (2012) Solastalgia, in, *Life in Your Hands: Art from Solastalgia*, Lake Macquarie City Art Gallery publication.

Albrecht, G.A. (2012) Thought for Food: Eat Your Greens, The Locavore Edition,
<http://www.locavored.com/thought-for-food-eat-your-greens/>

Albrecht, G.A. (2011) Nature, in, *in:genius Magazine*, Issue 1.
<http://www.magcloud.com/browse/issue/177777>

Albrecht, G.A. (2010) Solastalgia and Art. *Mammut Magazine*, Issue 4 Fall.
http://www.mammutmagazine.org/download/mammut_issue4_v10_print.pdf

Invited Presentations/Lectures at National and International Conferences/Venues



29356

Albrecht, G.A. (October 2012) *Psychoterratica and the Arts*, Regional Arts Australia National Conference, Goolwa, SA. (invited keynote speaker).

Albrecht, G.A. (April 2012) *A Psychoterratic Triumph: The Good, the True and the Healthy*, at "Transcending Borders Towards Global Health: Discovering Sustainable Pathways Local to Global". London, Ontario, Canada (Invited plenary speaker).

Albrecht, G.A. (March 2011) *Solastalgia and the Landscape of the Mind: Reuniting Language, Emotions and Place in the Twenty-first Century*, Louisiana Folklore Society's 55th Annual Meeting, Conference Theme: Solastalgia: Longing for Home Without Ever Leaving, The University of Louisiana, USA.

Albrecht, G.A. (2010) *Environmental Change and Psychoterratic Syndromes: The Bad, the Good and the Beautiful*, Public Lecture, Alexander von Humboldt Institute, Bogota, Colombia.

Albrecht, G.A. (2010) *What does it mean to be a Buffalo? Ethics, culture, biology and the Emergent Hybrid Culture in Arnhem Land, Australia*. Alexander von Humboldt Institute, Bogota, Colombia.

Albrecht, G.A. 2010 *Environmental Change and Psychoterratic Syndromes: The Bad, the Good and the Beautiful in Architecture and Design*, Faculty of Architecture and Design, Pontificia Universidad Javeriana. Bogota, Colombia.

Albrecht, G.A (18/06/2010) *A Conceptual Landscape Restoration Project*, for Greening Australia, Hobart, Tasmania

Albrecht, G.A. 2010 Sat 22 May **TEDxSydney**, *Tipping Points in the Mind: The Drama of Solastalgia and Soliphilia*, <http://www.youtube.com/watch?v=GUGW8rOpLY>



29356

Albrecht, G.A. (2009) Environmental Change and Psychoterratic Syndromes, The Resilient People + Climate Change Conference, Fostering Psychosocial Resilience Among Human Populations, Vancouver, Canada. (keynote address)

Albrecht, G.A., Allison, H. (July 2009) Cultural Pre-adaption to Climate Change, National Climate Change Adaptation Research Facility (NCCARF) Conference, Brisbane.

Albrecht, G and Allison, H. (2009) Drought and Two Inland Cities, NCCARF, Brisbane, November 2009.

Albrecht, G and Allison, H. (2009) Resilience and Water Security in Two Inland Cities, NCCARF, Murdoch University, December 2009.

Other Papers/Presentations 2011-12

Albrecht, G.A. (June 1 2012) Applying the Psychoterratic Typology, Invited guest lecture Masters in Screen Arts at Australian Film Television & Radio School, Sydney.

Albrecht, G.A. (May 27 2012) Populating WA: Losing Our Endemic Sense of Place, Talk for Sustainable Population Australia (WA), Subiaco, WA.

Albrecht, G.A. (April 2012) Exploring the Psychoterratic, Workshop, at Transcending Borders Conference, London, Ontario.

Albrecht, G.A. (April 1 2012) Solastalgia and Art, Lake Macquarie Gallery, NSW.

Albrecht, G.A. (2012) Drought in Two Inland Cities, NCCARF Workshop, Pinny Lakes Centre, Perth, Western Australia.

Albrecht, G.A. (October 28 2011) "Losing Our Endemic Sense of Place: Solastalgia in South West Western Australia." Seminar for Centre for Water Research, UWA.

Albrecht, G.A. (October 7 2011) "Soliphilia and Biophilia: Our Endemic Sense of Place: Solastalgia in South West Western Australia." Seminar, for the Psychology Department, UWA. Crawley, WA.

Albrecht, G.A. (1-2 September 2011) Positive Psychoterratic States in a Time of Environmental Crisis, OzGREEN, Creating a New Picture - Changing the Game, Bellingen NSW (invited webinar)

Albrecht, G.A. (August 2011) Retaining an Endemic Sense of Place, Mill Point Ladies Probus Club, South Perth. (invited)

Albrecht, G.A. (August 2011) The Sustainable Lifestyle, Science Week Presentation, Albany Regional Museum, Albany, WA. (invited)

Albrecht, G.A. (August 2011) The Emotions of Climate Change, ISTP Seminar, Murdoch University.

Albrecht, G.A. (2011) Solastalgia and the Landscape of the Mind, *Glide IN* Fremantle (invited).

Public Exhibitions and Seminar Events

Albrecht, G.A. (Convenor) (Jan 2012) Endemic Sense of Place: One day Seminar, Murdoch University, Perth, WA.

Albrecht, G.A. (March 2012) Solastalgia and Art, Life in Our Hands Exhibition: Art and Craft Respond to Solastalgia, Lake Macquarie Gallery, NSW (Invited Public Talk)

Funded Research Grants and Funded Community Development Projects 2006-

Year	Amount	Project	Recipients	My Contribution
2010	\$50,000	Vision of Australia Craft and Art Exhibition: Life In your hands: solastalgia, resilience and the value of contemporary art, craft and design.	Lake Macquarie Gallery, Glenn Albrecht and others.	Presenter and expert resource person
2010	\$80,000	NCCARF Cat.1 Grant: Inland Cities and Drought	G.Albrecht, H.Allison	CI
2009	\$25,000	Murdoch Strategic Grant: Resilient Regions	G. Albrecht, H. Allison, et al	CI
2007 - 11	\$422,000	ARC Discovery Project, Climate Change Place and Community.	L. Connor, G. Albrecht, N. Higginbotham	CI
2006 -09	\$264,000	ARC Linkage (Round 2) (CDU et al) Ecological – Epidemiological Models of Feral Swamp Buffalo Control in Northern Australia	C. Bradshaw et al	Associate Investigator in bio- ethicist role
2006 - 10	\$550,000	ARC Linkage (Round 2) Advancing the Ecological Footprint for Application to Policy Development	B. Lauck, G. Albrecht et al	CI
2006 -09	\$240,000	ARC Discovery Project: Thoroughbred Horse Industry: Animal Geographies-Bioethics	P. McManus and G. Albrecht	CI

Media Exposure 2009-2012 (selection)

- 2012 Albrecht's work regarding Lake Macquarie Gallery Exhibition featured in **The Newcastle Herald**, Newcastle NSW 14 April 2012
- 2012 6PR, Perth, Nightline: 13 January 2012 11:05PM Graham Mabury Interview with Glenn Albrecht, Professor of Sustainability at Murdoch University to discuss endemic sense of place.
- 2012 Albrecht's work featured in **New Scientist**: <http://www.newscientist.com/article/mg21328460.200-ecologists-should-learn-to-look-on-the-bright-side.html>
- 2011 YES! Magazine: <http://www.yesmagazine.org/planet/when-words-fail-does-a-warming-world-need-a-new-vocabulary>
- 2011 SBS Television, invited appearance on 'Insight' program on Meat Eating as expert on animal ethics. August 9, 2011.
- 2011 Article in Sierra Club Publication by Ray Grigg: Solastalgia: A Word For Our Time: <http://www.sierraclub.bc.ca/local-groups/Quadra-Island/publications/solastalgia-a-word-for-our-time>
- 2011 Radio interview on ABC PM re the Live Animal Trade Issues, also on-line ABC: <http://www.abc.net.au/pm/content/2011/s3240168.htm>
- 2011 Radio Interview Bush Telegraph on Solastalgia and the Art/Craft Exhibition (August 11) <http://www.abc.net.au/rural/telegraph/content/2011/s3291146.htm>
- 2011 Major article on ecosystem health in WA forests in *The West Australian* and mention in Editorial on same topic.
- 2011 Interview material on tree death in Perth Hills also on-line local ABC news: <http://www.abc.net.au/news/stories/2011/05/13/3216571.htm>
- 2011 Interview and subsequent article on solastalgia in mining areas in QLD. The Beaudesert Times: <http://www.beaudeserttimes.com.au/bt-news/bt-news-general/120-pair-fight-for-their-view>

- 2011 Contribution to an article on Rural and regional decline in *The West Australian*:
<http://au.news.yahoo.com/thewest/a/-/newshome/8668189/>
- 2010 Glenn Albrecht interviewed by Stateline WA about Denmark and limits to growth:
<http://www.abc.net.au/news/video/2010/11/19/3071811.htm?site=southcoast>
- 2010 Glenn Albrecht does numerous radio and television about his research for Colombla national radio and television
- 2010 NPR USA, Wisconsin Public Radio TT Book: Finding Home, Interview on Solastalgia <http://radiotime.com/WebTuner.aspx?ProgramId=498&TopicId=33116408&>
- 2010 March 2 NPR USA, Here on Earth, Solastalgia, http://wpr.org/HereOnEarth/archive_100302k.cfm
- 2010 ABC Radio National interviews
May 22: Saturday Extra: Interview on Solastalgia and Soliphilia <http://radiotime.com/WebTuner.aspx?ProgramId=52836&TopicId=32950569&>
- 2009 ABC Radio Interviews (numerous)
- 2009 CBC Radio Interview Feeling Homesick? On Definitely Not the Opera.
<http://www.cbc.ca/dnto/2009/12/whats-on-dnto-dec-19-feeling-homesick.html>

Attachment 2 Citations of Solastalgia in International Literature

[CITATION] The ethical imagination: Journeys of the human spirit

[PDF] from umanitoba.ca

M Somerville - 2008 - McGill Queens Univ Pr

Cited by 48 - Related articles - All 14 versions

Validation of an environmental distress scale

Find it@Murdoch

Dryland salinity and ecosystem distress syndrome: human health implications

A Jardine, P Speldewinde, S Carver... - EcoHealth, 2007 - Springer

Abstract Clearing of native vegetation for agriculture has left 1.047 million hectares of southwest Western Australia affected by dryland salinity, and this area may expand up to a further 1.7–3.4 million hectares if trends continue. Ecosystems in saline-affected regions ...

Cited by 27 - Related articles - BL Direct - All 6 versions

Environmental change and human health in Upper Hunter communities of New South Wales, Australia

Social networks and mental health among a farming population

Find it@Murdoch

HJ Stain, B Kelly, TJ Lewin, N Higginbotham... - Social psychiatry and ..., 2008 - Springer

Abstract Aims The study investigated the associations between mental health and measures of community support, social support networks, sense of place, adversity, and perceived problems in a rural Australian population. There was a specific focus on farming ...

Cited by 17 - Related articles - All 8 versions

Mines, wines and thoroughbreds: towards regional sustainability in the Upper Hunter, Australia

Find it@Murdoch

P Mcmanus - Regional Studies, 2008 - Taylor & Francis

McManus P. Mines, wines and thoroughbreds: towards regional sustainability in the Upper Hunter, Australia, Regional Studies. Sustainability promotes the perpetuation of environmental quality for present generations, future generations, and other species. ...

Cited by 15 - Related articles - All 6 versions

A relationship between environmental degradation and mental health in rural Western Australia

PC Speldewinde, A Cook, P Davies... - Health & Place, 2009 - Elsevier

Australia is currently experiencing a process of escalating ecosystem degradation. This landscape degradation is associated with many outcomes that may directly or indirectly impact on human health. This study used a Bayesian spatial method to examine the ...

Cited by 15 - Related articles - All 6 versions

Social and biophysical connectivity of river systems

M Hillman, G Brierley... - River futures: an integrative ..., 2008 - books.google.com
Successful integrative river management requires an understanding of the links between natural and cultural landscapes, ensuring that institutional and community values are meaningfully incorporated in the process of environmental repair (Harris 2006). Coherent ...

Cited by 9 - Related articles - All 5 versions

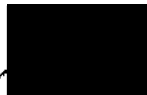
The dene way of life: Perspectives on health from Canada's north

B Parlee... - Journal of Canadian studies, 2007 - cat.inist.fr

Résumé/Abstract L'évaluation de la santé et du bien-être des peuples autochtones du Canada se fait souvent en des termes biomédicaux réducteurs sans tenir compte de la façon dont la santé est conceptualisée chez les communautés autochtones. Cette étude ...

Cited by 4 - Related articles - BL Direct - All 3 versions

[PDF] Transformation from "Carbon Valley" to a "Post-Carbon Society" in a Climate Change Hot Spot: the Coalfields of the Hunter Valley, New South Wales, Australia



29356

[PDF] from ecologyandsociety.org

GR Evans - Ecology and Society, 2008 - ecologyandsociety.org

ABSTRACT: This paper examines the possibilities for transformation of a climate-change hot spot—the coal-producing Hunter Region of New South Wales, Australia—using complex adaptive systems (CAS) theory. It uses CAS theory to understand the role of coal in the ...

Cited by 5 - Related articles - View as HTML - All 5 versions

[PDF] DEFRA Project 3b: Sustainable development and well-being: relationships, challenges and policy implications

[PDF] from europarchive.org

N Marks, S Thompson... - Report for Defra ..., 2006 - collection.europarchive.org

This document forms Project 3b of DEFRA's review of evidence for relationships between wellbeing and sustainable development, undertaken as part of the UK government's 2005 sustainable development strategy, Securing the Future. It was researched and written by ...

Cited by 2 - Related articles - View as HTML - All 2 versions

Solastalgia: Environmentally Induced Distress and Migration Among Africa's Poor Due to Climate Change

P Tschakert... - Environment, Forced Migration and Social ..., 2010 - books.google.com

Primarily due to a high dependence on agro-ecosystems and their vulnerability to environmental changes, Africa is one of the most vulnerable continents to climate change and variability (IPCC, 2007). Poor rural societies that are dependent on climate-sensitive ...

Cited by 2 - Related articles

[HTML] A review of the urban development and transport impacts on public health with particular reference to Australia: Trans-disciplinary research teams and some ...

[HTML] from mdpi.com

D Black... - International journal of environmental research and ..., 2009 - mdpi.com

Abstract: Urbanization and transport have a direct effect on public health. A transdisciplinary approach is proposed and illustrated to tackle the general problem

of these environmental stressors and public health. Processes driving urban development and environmental ...

Cited by 2 - Related articles - Cached - All 12 versions

A Review of the Elements of Human Well-Being with an Emphasis on the Contribution of Ecosystem Services

Find it@Murdoch

JK Summers, LM Smith, JL Case... - AMBIO: A Journal of the ..., 2012 - Springer
Abstract Natural ecosystems perform fundamental life-support services upon which human civilization depends. However, many people believe that nature provides these services for free and therefore, they are of little or no value. While we do not pay for them, we pay ...

Cited by 1

Scents of Place: The Displacement of a First Nations Community in Canada

DD Jackson - American Anthropologist, 2011 - Wiley Online Library

ABSTRACT Here I explore how the experience of place at a First Nations reserve in Ontario, located in the middle of Canada's "Chemical Valley," is disrupted by the extraordinary levels of pollution found there. In so doing, I give special attention to air pollution and residents' ...

Cited by 1 - Related articles - All 3 versions

Changing Food Systems and Implications for Sustainable Communities: Cyprus, Canada, and Brazil

[PDF] from environmentsjournal.ca

ML McAllister Kattides... - Environments: a journal ..., 2008 - environmentsjournal.ca
Abstract Food systems worldwide have changed as a result of the increasing industrialization in agriculture, consolidation in the food chain (production, processing and distribution), and shifting diets and food cultures. This development has increased access ...

Related articles - - All 7 versions

[BOOK] How to Think Seriously About the Planet: The Case for an Environmental Conservatism



29356

R Scruton - 2012 - books.google.com

The environment has long been the undisputed territory of the political Left, which casts international capitalism, consumerism, and the over-exploitation of natural resources as the principle threats to the planet, and sees top-down interventions as the most effective ...

[PDF] Learning to lose: Rurality, transience, and belonging (a companion to

[PDF] from psu.edu

UA Kelly - 2009 - cac.psu.edu

Memorial University of Newfoundland reminder of a shared global and planetary vulnerability, one which, while highlighting the intricacies and specificities of place, also transcends those specificities and shores up our interdependence, the manner in which ...

Related articles - View as HTML - All 6 versions

[PDF] Session: 57-Cultures, Values & World Perspectives as Factors in Responding to Climate Change Poster Presentations

[PDF] from fileburst.com

D Benjamin... - iopp.fileburst.com

The technical means for mitigation and adaptation to Global Climate Change have, since the 1990s, been the focus of research and development efforts within the academic, business, and policymaking communities. Recent papers in the fields of economics, accounting, and ...

Related articles - View as HTML - All 2 versions

A Jungian Alice in Social Media Land

S Heath - Jung Journal: Culture & Psyche, 2012 - JSTOR

The phenomenon of Facebook may be seen as evidence of a thrust by the collective unconscious to inseminate creatively the spirit of our time with the ageless truth that we live or die via interconnection. Scientists are exploring the neurological and social shifts ...

[CITATION] APPENDIX 4: PAPERS ARISING FROM THIS THESIS SO FAR

Find it@Murdoch

MDA Lindsay, A Jardine, CA Johansen, AE Wright... - EcoHealth, 2007

Related articles

Embodied experiences of environmental and climatic changes in landscapes of everyday life in Ghana

Find it@Murdoch

P Tschakert, R Tutu... - Emotion, Space and Society, 2011 - Elsevier

Abstract Science and policy attention to global environmental and climatic change has been growing substantially. Yet, the psychological and emotional distress and pain triggered by these transformations have been largely ignored, particularly among poor and ...

Cited by 1 - Related articles

ENVIRONMENT-ECOLOGY-NATURE-HABITAT-GAIA-PERMACULTURE

HAG Albrecht - environment.gen.tr

Solastalgia is a neologism coined by the Australian philosopher Glenn Albrecht in 2003 with the first article published on this concept in 2005.[2] It describes a form of psychic or existential distress caused by environmental change, such as mining or climate change.

Related articles - Cached

[PDF] United Nations mandated University for Peace Master of Arts Peace Education A call for a comprehensive inclusion of peace concepts in medical curricula: ...

[PDF] from uwo.ca

P Golesic - fmd.uwo.ca

Abstract Several researchers and international organizations recognize that physicians have relevant medical assets for peace work. However, researchers also highlight that these professionals lack necessary peace knowledge and skills that must be addressed through ...

Related articles - View as HTML - All 10 versions

Prolegomena to the development of cultural concepts for climate change mitigation and adaptation: Cross cultural and diachronic perspectives

D Benjamin... - IOP Conference Series: Earth and ..., 2009 - iopscience.iop.org



29356

This innovative new feature generates a list of articles' also read'by other users based on them reading the original article. Article abstracts citations and references are all considered and weighted accordingly. We hope that this will help you find relevant papers for your ...

Related articles - All 4 versions

URBAN ANNOYANCES AND MENTAL HEALTH IN THE CITY OF LAHORE,
PAKISTAN

NYAR KHAN, N GHAFOR... - Journal of Urban ..., 2011.- Wiley Online Library

ABSTRACT: Lahore has undergone rapid urbanization in recent decades.

Population growth has far exceeded carrying capacity of municipal infrastructure, causing stress. We conducted a survey to assess citizens' responses to urban annoyances and prevalence of ...

Related articles

[PDF] and the nature of urban green spaces

[PDF] from nacc.com.au

ME Carter - 2009 - nacc.com.au

Bush and trees, just bush land and sort of trees and birds and... that's my immediate thought, just bushland settings is what I immediately think of when you say nature....

I think of nature as just untouched bush land whereas I think of like the parks they set up in new ...

Related articles - View as HTML - All 4 versions

[DOC] Glenrock, Growth and Gaia—The significance of Newcastle's green spaces

[DOC] from merewetherlandcare.com.au

G Foley - merewetherlandcare.com.au

Glenrock is a small miracle. A 500ha nature reserve 10 minutes drive from the centre of a major industrial city. Formerly site of a copper smelter, a large coalmine, a farm, now it houses the city's sewage works. Ringed on three sides by suburban housing. Infested by ...

Related articles - View as HTML



29356

Once there was a lake: vulnerability to environmental changes in northern Mali

H Djoudi, M Brockhaus... - Regional Environmental Change - Springer

Abstract Vulnerability assessment is increasingly recognised as a starting point to identify climate adaptation needs and improve adaptive capacity. However, vulnerability assessments are challenging because of the complexity of multifaceted biophysical, ...

Related articles - Find it@Murdoch - All 2 versions

[PDF] Book review "Migration and education in a multicultural world

[PDF] from psu.edu

K Donehower - 2009 - cac.psu.edu

In each chapter Kelly delves into one aspect of cultural loss and identity. The first and second chapters focus on the psychological processes of grief and reconciliation, while the third reflects on the possibilities and limits of literacy in negotiating identity within these ...

Related articles - View as HTML - All 7 versions

[HTML] Ecological Footprint Analysis and Obesity

[HTML] from shapingtomorrowsworld.org

G Albrecht - shapingtomorrowsworld.org

Modern humans have rapidly changed the conditions that were prevalent during their emergence as a species some 200,000 years ago. For tens of thousands of years humans lived within the constraints of their bioregions and made adaptive adjustments to climatic ...

Related articles - Cached

Solastalgia and the Gendered Nature of Climate Change: An Example from Erub Island, Torres Strait

KE McNamara... - EcoHealth, 2012 - Springer

Abstract This communication focuses on respected older womens' ('Aunties') experiences of climate and other environmental change observed on Australia's Erub Island in the Torres Strait. By documenting these experiences, we explore the gendered nature of climate ...

Cited by 1 - Related articles - All 4 versions

[PDF] Disruption in place attachment: Insights of young Aboriginal adults on the social and cultural impacts of industrial development in northern Alberta

[PDF] from collectionscanada.gc.ca

TM Spyce - 2009 - collectionscanada.gc.ca

Abstract People living in the north have been and will continue to be affected by increasing exploration and exploitation of the region's natural resources. To understand the human impacts a qualitative approach and sense of place, place attachment, and disruption in ...

Related articles - All 3 versions

From the periphery: Experiencing being an academic newcomer

[PDF] from uow.edu.au

R Foskey - Current Narratives, 2010 - ro.uow.edu.au

Abstract We humans share our life stories, as Bauer, McAdams and Pals (2008: 84) have suggested, to try to derive some sense of unity and purpose out of what may otherwise appear to be an incomprehensible array of life events and experiences. Yet as ...

Related articles

Healing properties: connection to land and cancer survivorship

[PDF] from usq.edu.au

S Pearce - 2010 - eprints.usq.edu.au

[Abstract]: This doctoral research explored how 17 cancer survivors from rural Queensland describe their sense of connection to the land and how they report their survivorship journey in the context of their sense of connection to the land. The aim of this study was to gain a ...

Related articles

Climate Change Refugees

M Hollifield, MT Fullilove... - Climate Change and Human Well- ..., 2011 - Springer

While the definition of "refugee" varies by different international organizations, all include aspects of displacement (Williams & Westermeyer, 1986). However, because of the slower nature of the events, climate change will also create a new kind of refugee who will be ...



29356

Related articles - Find it@Murdoch - All 2 versions

[BOOK] Review of the Environmental Dimension of Children and Young People's Well-being

[PDF] from sd-commission.org.uk

N Steuer, S Thompson, N Marks... - 2006 - sd-commission.org.uk

This report was commissioned by the Sustainable Development Commission (SDC), as part of their project Every Child's Future Matters. It was researched and written by the centre for well-being, nef (the new economics foundation).

Related articles - View as HTML - All 3 versions

[DOC] Health Impacts of Mining on the Stratford Community

[DOC] from greens.org.au

S Robinson - nonewcoal.greens.org.au

Mining can damage health at each stage of exploration, production and rehabilitation. Stratford has been affected by an open cut coal mine for 13 years and now is also being affected by the exploration phase of a coal seam gas development. These combine to ...

Related articles - View as HTML - All 2 versions

[HTML] Control, uncertainty, and expectations for the future: a qualitative study of the impact of drought on a rural Australian community

[HTML] from rrh.org.au

Find it@Murdoch

GM Sartore, B Kelly, H Stain, G Albrecht... - Rural and Remote ..., 2008 - rrh.org.au

ABSTRACT Many rural Australian communities continue to endure a prolonged drought.

The mental health effects of short-term natural disaster are well known; those of a long-term and chronic natural disaster such as drought are less well understood.

However, in ...

Cited by 42 - Related articles - Cached - All 5 versions

Untangling the environmentalist's paradox: Why is human well-being increasing as ecosystem services degrade?

Find it@Murdoch

C Raudsepp-Heare, GD Peterson, M Tengö... - BioScience, 2010 - BioOne
 Environmentalists have argued that ecological degradation will lead to declines in the well-being of people dependent on ecosystem services. The Millennium Ecosystem Assessment paradoxically found that human well-being has increased despite large global declines in ...

Cited by 26 - Related articles - All 7 versions

The psychological impacts of global climate change.

[PDF] from apa.org

Find it@Murdoch

TJ Doherty... - American Psychologist, 2011 - psycnet.apa.org

Abstract 1. An appreciation of the psychological impacts of global climate change entails recognizing the complexity and multiple meanings associated with climate change; situating impacts within other social, technological, and ecological transitions; and recognizing ...

Cited by 25 - Related articles - All 5 versions

Combining high biodiversity with high yields in tropical agroforests

[HTML] from pnas.org

Y Clough, J Barkmann, J Juhrendt... - Proceedings of the ..., 2011 - National Acad Sciences

Abstract Local and landscape-scale agricultural intensification is a major driver of global biodiversity loss. Controversially discussed solutions include wildlife-friendly farming or combining high-intensity farming with land-sparing for nature. Here, we integrate ...

Cited by 16 - Related articles - All 25 versions

Drought, drying and climate change: emerging health issues for ageing Australians in rural areas

[PDF] from uni-hohenheim.de

Find it@Murdoch

G Horton, L Hanna... - Australasian journal on ageing, 2010 - Wiley Online Library



29356

Older Australians living in rural areas have long faced significant challenges in maintaining health. Their circumstances are shaped by the occupations, lifestyles, environments and remoteness which characterise the diversity of rural communities. Many rural regions face ...

Cited by 12 - Related articles - All 5 versions

Improving the mental health of drought-affected communities: an Australian model

Find it@Murdoch

A Tonna, B Kelly, J Crockett... - Rural ..., 2009 - pubs.e-contentmanagement.com

Abstract In recent years there has been increasing recognition of the social impact of drought on rural communities. This paper provides an overview of a major mental health program developed in response to persistent severe drought and longer-term social and ...

Cited by 8 - Related articles - All 6 versions

Environmental injustice and air pollution in coal affected communities, Hunter Valley, Australia

Find it@Murdoch

N Higginbotham, S Freeman, L Connor... - Health & Place, 2010 - Elsevier

The authors describe environmental injustice from air pollution in the Upper Hunter, Australia, and analyse the inaction of state authorities in addressing residents' health concerns. Obstacles blocking a public-requested health study and air monitoring include: ...

Cited by 6 - Related articles - All 3 versions

[BOOK] Space, place and mental health

S Curtis - 2010 - books.google.com

There is a strong case today for a specific focus on mental public health and its relation to social and physical environments. From a public health perspective, we now appreciate the enormous significance of mental distress and illness as causes of disability and ...

Cited by 8 - Related articles - All 4 versions

Climate change and Australian agriculture: a review of the threats facing rural communities and the health policy landscape

Find it@Murdoch

EG Hanna, E Bell, D King... - Asia-Pacific Journal of ..., 2011 - aph.sagepub.com

Abstract Population health is a function of social and environmental health determinants. Climate change is predicted to bring significant alterations to ecological systems on which human health and livelihoods depend; the air, water, plant, and animal health. Agricultural ...

Cited by 4 - Related articles - All 5 versions

'Radical hope' and rain: climate change and the mental health of Indigenous residents of northern Australia

E Hunter - Australasian Psychiatry, 2009 - informahealthcare.com

Objective: This paper considers the short, intermediate and longer term effects of climate change in relation to the mental health of Indigenous residents of northern Australia, and what these effects mean in terms of supporting adaptation and resilience. Conclusions: ...

Cited by 7 - Related articles - Find it@Murdoch - All 3 versions

What makes "a mental illness"? What makes "a new mental illness"? The cases of solastalgia and hubris syndrome.

[HTML] from cosmosandhistory.org

SP MacSuihbne - Cosmos and History: The Journal of ..., 2009 - cosmosandhistory.org

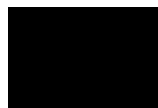
Abstract What is a "mental illness"? What is an "illness"? What does the description and classification of "mental illnesses" actually involve, and is the description of "new" mental illnesses description of actually existing entities, or the creation of them? "Solastalgia" is a ...

Cited by 4 - Related articles - Cached - All 3 versions

Watercourses and Discourses: Coalmining in the Upper Hunter Valley, New South Wales

[PDF] from bcag.com.au

Find it@Murdoch



29356

L Connor, N Higginbotham, S Freeman... - Oceania, 2008 - Oceania Publications
 Water is a resource that both unites and divides people in the Upper Hunter Valley of New South Wales, where many communities are facing the prospect of large-scale open-cut coalmining developments on productive mixed use land, or already live in proximity to ...

Cited by 4 - Related articles - BL Direct - All 6 versions

[HTML] Population health needs beyond ratifying the Kyoto Protocol: a look at occupational deprivation

[HTML] from rrh.org.au

RB Pereira... - Rural and Remote Health, 2008 - rrh.org.au

ABSTRACT The dramatic impact of climate change is physically and economically affecting the world, a consequence of neglecting scientific information known since the 1960s and 1970s. International discussion has focused on the needs of the physical environment and ...

Cited by 4 - Related articles - Cached - Find it@Murdoch - All 3 versions

[PDF] Climate change and mental health: uncertainty and vulnerability for Alaska natives

[PDF] from nau.edu

J Bell, M Brubaker, K Graves... - CCH Bulletin No, 2010 - nau.edu

Climate change is currently affecting the health of Alaska Natives, through impacts of: extreme weather, changes to the local environment, and alterations in plants and animal resources. The mental health effect of such impacts remains incompletely researched and ...

Cited by 2 - Related articles - View as HTML - All 7 versions

The threat of climate change: Psychological response, adaptation, and impacts

JP Reser, SA Morrissey... - Climate Change and Human Well- ..., 2011 - Springer

This chapter examines the existing social and health science literature addressing the psychological impacts of the threat of climate change. The exercise reflects a convergent environmental, social, and health psychology perspective, informed by those ...

Cited by 2 - Related articles - Find it@Murdoch - All 2 versions

[PDF] Picking up the pieces

[PDF] from aifs.gov.au

C Caruana - Family Matters, 2010 - aifs.gov.au

The devastating Victorian bushfires of February 2009, which caused unprecedented destruction and loss of life, brought forth stories of horror and suffering, triggering a collective outpouring both of grief and generosity. In the months that followed, extensive flooding ...

Cited by 3 - Related articles - View as HTML - Find it@Murdoch - All 5 versions

[PDF] An ecosystem health approach to assessing stormwater impacts on constructed urban lakes

[PDF] from gemsevents.com.au

C Walker, N Tindale, A Rolko... - ... from the National ..., 2010 - gemsevents.com.au

Abstract Concrete channels and non-functional landscapes are abundant in many older urban settings. They exist as a legacy to traditional, outdated water management strategies that had, as their principal objective, the rapid transit of stormwater through catchments out ...

Cited by 1 - Related articles - View as HTML

Changes in psychological distress in Australian adults between 1995 and 2011

AF Jorm... - Australian and New Zealand Journal of ..., 2012 - anp.sagepub.com

Objective: To monitor changes in psychological distress in Australia over a 16-year period during which the availability of mental health services was increasing.

Method: Data on psychological distress using the 4-NS scale were analysed from national surveys of adults ...

Cited by 4 - Related articles - Find it@Murdoch - All 2 versions

Does biodiversity improve mental health in urban settings?

J Dean, K Van Dooren... - Medical Hypotheses, 2011 - Elsevier

BACKGROUND: Globally, the human and economic burdens of mental illness are increasing. As the prevalence and costs associated with mental illness rise, we are progressively more aware that environmental issues such as climate change and ...

Cited by 2 - Related articles - Find It@Murdoch - All 5 versions



29356

The Paradox Persists: How to Resolve It?

C Raudsepp-Hearne, GD Peterson, M Tengö... - BioScience, 2011 - BioOne

The environmentalist's paradox refers to two apparently contra-dictory trends: declining supplies of ecosystem services and increasing human well-being. If humans are truly dependent on nature, then human well-being should deteriorate as ecosystem services ...

Cited by 1 - Related articles - All 3 versions

[PDF] Tamāngat Nunamit amma tātsumangat Nunamit'Silak asianguvallianinga.

NunaKannik, amma Inositsiaginnik

[PDF] from uoguelph.ca

C Nunatsiavummi - Lament for the Land: On the Impacts of ..., 2012 -

dspace.lib.uoguelph.ca

4.3 Methods The data explored in this article are part of a larger case study, situated in Rigolet, which examined the implications of climate change for health and well-being. This multiyear, community-based participatory research was directed by the Rigolet Inuit

View as HTML

[HTML] Family Matters No. 84, 2010

[HTML] from aifs.gov.au

SC Olesen, E Macdonald, B Raphael... - aifs.gov.au

The experience of trauma, loss and bereavement during childhood have both immediate and long-term consequences for health and general wellbeing. Children who have experienced the death of a parent or witnessed violent and/or traumatic events report ...

Related articles - Cached

Social work and the environment: An ecosocial approach

CL Norton - International Journal of Social Welfare - Wiley Online Library

This article draws on insights from social work, ecopsychology and ecofeminism to inform an ecosocial approach honouring humans' interconnectedness with nature. It re-examines social work's ecosystems perspective and redefines its central 'person-in-environment' ...



29356

Related articles - Find it@Murdoch

'Siding with the world': Reciprocal expressions of human and nature in an impending era of loneliness

Find it@Murdoch

B Seaton - Emotion, Space and Society, 2011 - Elsevier

Abstract This paper argues that our embodied and emotional attachments to the non-human world must be carried forward in an effort to comprehend nature in interdependent and agential terms. Such an understanding may allow a new ethical configuration in which the ...

Related articles

[PDF] Research Proposal for Doctor of Philosophy

[PDF] from ntu.edu.au

T Birds, G Ainsworth, H Aslin... - 2010 - ntu.edu.au

Of the approximately 1200 known bird species in Australia over 100 species and subspecies are currently identified as threatened and substantial funds are spent trying to keep them from becoming extinct. About \$28 million was dedicated to the conservation of 78 ...

Related articles - View as HTML - All 4 versions

[PDF] Improving farm clients' pathways to health care

[PDF] from nrha.org.au

P Begg... - nrha.org.au

Phoebe Begg is project leader of the farm client data mining project, and has worked as a social worker with Upper Hunter Community Health, based at Scone, NSW, since 1995. She has strong community links and extensive rural experience in health, local government, TAFE, ...

Related articles - View as HTML

[PDF] A place apart: The role of nostalgia in a detached community

[PDF] from ohiolink.edu

MO Zimmern - 2011 - etd.ohiolink.edu

Related articles - All 3 versions

[PDF] Silak Asianguvallianinga amma Isumatsiagittogasuannik: Kagitaujatigut Kimmiqutauninga Piguvaliajuk Avatiujuk

[PDF] from uoguelph.ca

KKP Avatiujuk - Lament for the Land: On the Impacts of ..., 2012 -

dspace.lib.uoguelph.ca

Changes and variability in weather and climate, and the subsequent environmental alterations, pose significant challenges to global public health (Costello et al., 2009; Myers and Patz, 2009), with climate change and variability linked to numerous physical health ...

Embodied experiences of environmental and climatic changes in landscapes of everyday life in Ghana

Find it@Murdoch

P Tschakert, R Tutu... - Emotion, Space and Society, 2011 - Elsevier

Abstract Science and policy attention to global environmental and climatic change has been growing substantially. Yet, the psychological and emotional distress and pain triggered by these transformations have been largely ignored, particularly among poor and ...

Cited by 1 - Related articles

Tackling solastalgia: improving pathways to care for farming families

P Begg... - Clinical Data Mining in an Allied Health ..., 2011 - books.google.com

The Farm Family Data Mining Project analysed electronic client data to report on the pattern and profile of farm family clients' uptake of health services in response to six discrete categories. The evidence gained in this research has challenged previous expectations ...

Related articles

[PDF] Silak Asianguvallianinga Isumakut Inositsiagittogasuannik: Tukisinattuk Kaujisannlusimajuk Nunatsiavut Inuit Piusinginnit

[PDF] from uoguelph.ca

TKNI Piusinginnit - Lament for the Land: On the Impacts of ..., 2012 -

dspace.lib.uoguelph.ca



29356

Climate change can be strongly linked to human health outcomes (McMichael, 2003; McMichael et al., 2003; Tong and Soskolne, 2007; St. Louis and Hess, 2008; Costello et al., 2009; Ford et al., 2010), with some scholars listing climate change as potentially the most ...

[View as HTML](#)

Social licences to operate: for better not for worse; for richer not for poorer? The impacts of unplanned mining closure for "fence line" residential communities

[Find it@Murdoch](#)

AL Browne, D Stehlik... - Local Environment, 2011 - Taylor & Francis

Establishing "social licences to operate" with communities has become a significant corporate social responsibility agenda. The complex dynamics of these relationships can compound the impacts for communities when these contracts are not upheld.

This article ...

[Related articles - All 4 versions](#)

[PDF] A Human Health Perspective On Climate Change

[\[PDF\] from asquifyde.es](#)

OC Change - 2010 - asquifyde.es

Environmental Health Perspectives (ISSN 0091-6765) is a publication of the Public Health Service, US Department of Health and Human Services. EHP is an open-access monthly journal of peer-reviewed research and news on the impact of the environment on human ...

[Related articles - View as HTML - All 56 versions](#)

AMD&ART: Performativity and Participation in Ecological Remediation

[\[PDF\] from lsu.edu](#)

TP Brisini - 2012 - etd.lsu.edu

Abstract In this study, I examine and theorize AMD&ART, an artwork devoted to treating polluted water in Vintondale, PA. AMD&ART is much more than simply a water treatment facility, however. Each chapter of this document examines AMD&ART through the lens of ...

[PDF] The mega-projects paradox and the politics of risk, hope and mistrust: Capturing localised impacts of the

[PDF] from curtin.edu.au

DRAL BROWNE, D STEHLIK... - 2009 - strongercommunities.curtin.edu.au

Dr Alison Browne is a Research Fellow with the Research Centre for Stronger Communities, and has a wide range of multidisciplinary social science interests in the areas of social and environmental sustainability, sustainable agriculture and urban water management.

Related articles - View as HTML - All 3 versions

[BOOK] Weathering the future: Climate change, children and young people, and decision making

[PDF] from aracy.org.au

L Strazdins, H Skeat... - 2011 - aracy.org.au

Executive summary Along with drugs and alcohol, crime, and body image, one of the issues which most concerns Australian children and young people is the environment (Mission Australia, 2010). But while considerable research is being undertaken on the likely health ...

Related articles - View as HTML - All 3 versions

'The land enriches the soul': On climatic and environmental change, affect, and emotional health and well-being in Rigolet, Nunatsiavut, Canada

Find it@Murdoch

A Cunsolo Willox, SL Harper, VL Edge... - Emotion, Space and ..., 2011 - Elsevier
Abstract For Canada's Inuit populations, the landscapes surrounding communities, and practices such as hunting, fishing, trapping, foraging, and travelling to cabins, contribute greatly to human health and well-being. Climatic and environmental change, however, are ...

Cited by 1 - Related articles

Liquid edges of place & pedagogy: Sense of Place and Community-based Youth Engagement in The Dalles, OR

[PDF] from umi.com

A Morehouse - 2012 - gradworks.umi.com

Abstract: The purpose of this study was to address three primary questions, (1) What role does the conceptualization of place play between cultures and generations within The Dalles, Oregon; (2) How has colonization, migration and interscalar relationships with ...

Related articles

[PDF] Disruption in place attachment: Insights of young Aboriginal adults on the social and cultural impacts of industrial development in northern Alberta

[PDF] from collectionscanada.gc.ca

TM Spyce - 2009 - collectionscanada.gc.ca

Abstract People living in the north have been and will continue to be affected by increasing exploration and exploitation of the region's natural resources. To understand the human impacts a qualitative approach and sense of place, place attachment, and disruption in ...

Related articles - All 3 versions

Climate Change Communication: A Provocative Inquiry Into Motives, Meanings, and Means

Find It@Murdoch

BB Johnson - Risk Analysis, 2011 - Wiley Online Library

The deliberately provocative theme of this article is that perceived difficulties in climate change communication (CCC)—eg, indifference about or denial of climate change's reality, negative consequences, anthropogenic causes, or need to mitigate or adapt to it—are ...

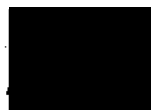
Related articles - All 3 versions

"From this place and of this place:" climate change, sense of place, and health in Nunatsiavut, Canada

Find It@Murdoch

AC Willox, SL Harper, JD Ford, K Landman... - Social Science & ..., 2012 - Elsevier

As climate change impacts are felt around the globe, people are increasingly exposed to changes in weather patterns, wildlife and vegetation, and water and food quality, access and availability in their local regions. These changes can impact human health and well-being ...



29356

Climate Change Refugees

M Hollifield, MT Fullilove... - Climate Change and Human Well- ..., 2011 - Springer

While the definition of "refugee" varies by different international organizations, all include aspects of displacement (Williams & Westermeyer, 1986). However, because of the slower nature of the events, climate change will also create a new kind of refugee who will be ...

Related articles - Find it@Murdoch - All 2 versions

Geographies of health and climate change

Find it@Murdoch

SE Curtis... - Progress in Human Geography, 2011 - phg.sagepub.com

Abstract Climate change presents significant challenges for human health and well-being and geography is contributing a growing field of knowledge relating to these processes. We outline here key dimensions of the debate, pointing to areas where human geographers ...

Related articles - All 2 versions

Communication about persistent environmental risks: problems of knowledge exchange and potential of participative techniques

S Fuller, K Bickerstaff, CNHS Trust... - Risk communication and ..., 2010 - books.google.com

This chapter reviews research on the potential for knowledge exchange and participative approaches in making risk communication more effective. We focus particularly on examples of communication concerning 'chronic', persistent risks associated with environments that ...

Related articles - All 3 versions

The psychological impact of chronic environmental adversity: Responding to prolonged drought in remote Australian communities

Find it@Murdoch

HJ Stain, B Kelly, VJ Carr, TJ Lewin... - Social Science & ..., 2011 - Elsevier

The health effects of chronic environmental adversity have received insufficient attention, particularly those associated with the psychological impact of drought.

Resilience or adaptive response to drought has received even less attention than vulnerability factors. ...

Cited by 1 - Related articles - All 3 versions

Tipos, modos de generación y gobernanza del conocimiento para la gestión de la biodiversidad.

[PDF] from javeriana.edu.co

GI Andrade Pérez... - Revista Ambiente y ..., 2011 - revistas.javeriana.edu.co

Resumen Se presentan elementos conceptuales de una reflexión sobre la interfaz Ciencia-Política en el manejo de la biodiversidad en Colombia. Se expone la evolución del concepto de diversidad biológica y temas inesperados que surgen en torno a su gestión ...

Related articles - All 4 versions

PDF] e e N O e l a N a O O U U a N U a O O a P O - U a U U O e O O O O O a

[PDF] from isralangsoc.org

R Berman-Aronson - e e O U e O isralangsoc.org

According to the Sapir-Whorf hypothesis of linguistic relativity, language shapes our thought processes and actual cognition. The crucial role that language plays in influencing our thinking about environmental protection and sustainability is integral to contemporary...

Related articles - View as HTML - All 3 versions

Semi-Structured Interview Guide
For Bulga community
 For Researcher Use Only

1) Residence Information

How long have you personally lived in this area? What about your extended family? When did your parents, grandparents or earlier generations first arrive in the Upper Hunter and where did they settle? Have you always lived in the same residence?

.....

.....

.....

2) Upper Hunter Changes

Broadly speaking, what changes have occurred in this area while you (or your ancestors) have been living here?

.....

.....

.....

3) Effects of Changes

What effects have these changes had?

Prompts: changes to the natural environment, built environment, social or cultural environment?

.....

.....

.....

How have these changes affected you, your family?

Prompts: Life-style, occupation, community activities, social ties

.....

.....

.....

4) Effects on Health and Well-Being

Have any of these changes had an impact on your or your family's health or wellbeing?

Prompt: In what ways?

.....

.....

.....

What are the good and bad aspects of these changes?

Jobs? Economy? Roads? Infrastructure? Community? Social Networks? Amenities?

.....

.....

.....

5) Reaction to Changes

What have you or your family thought about or done in response to these changes?

Joined community groups? Letters to officials or newspaper? Attended meetings or rallies? Moved away?

.....

.....

.....

What would you like to see done?

Prompt: by others, by self

.....

.....

.....

6) Sense of Place

How would you describe your feeling towards the place where you live?

Prompts: attachment, belonging, sense of pride, shame, distress, stress, anger, frustration.

.....

.....

.....

7) Expressions of Distress

Focusing for a moment on the negative impact of the changes you have described, in what ways do people show or voice their concerns and distress about some of these changes?

Prompt: Sense of loss? Sadness or depression? Loss of trust of officials?

.....

.....

.....

Attachment 4 Expert Brief

AGN: 72 002 880 884

62

Environmental Defender's Office Ltd

Our Ref: 1117020

5/283 Clarence Street
Sydney NSW 2000
Tel: (61 2) 9262 8889
Fax: (61 2) 9264 2414

1 May 2012

Office Level 1
71 Molesworth Street
PO Box 868
Lismore NSW 2480
Tel: 1300 369 791
Fax: (61 2) 6621 3355

Professor Glenn Albrecht
Social Sciences Building
Murdoch University
90 South Street
Murdock WA 6150

email: edonew@edo.org.au
web: www.nsw.edo.org.au

By email and post: G.Albrecht@murdoch.edu.au

Dear Glenn

**Bulga Milbrodale Progress Association v Minister for Planning and
Infrastructure and Warkworth Mining Limited
Land and Environment Court Proceedings No: 10224 of 2012 (Proceedings)**

We refer to the above Proceedings.

We act for Bulga Milbrodale Progress Association, a community group who seeks to protect the Bulga community and its environment. Our client has commenced Class 1 proceedings in the Land and Environment Court appealing against the determination of the Minister for Planning and Infrastructure's delegate (the Planning Assessment Commission of NSW (PAC)) to give approval for the carrying out of the open cut coal mining extension project, Warkworth Extension Project (MP Ref 09_0202) (Project), under section 75J of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act).

Our client is seeking a refusal of the Project. The Project provides for the westward extension of the existing Warkworth Mine, an open cut coal mine located approximately 6km east of Bulga in the Hunter Valley, New South Wales. Warkworth Mine currently operates under a 2003 development consent.

Expert Report

Our client wishes to engage you as an expert witness to assist the Court impartially on matters relevant to your area of expertise, and prepare a written report on your opinion for submission to the Court.

Duty to the Court

We note as a preliminary matter that your paramount duty in preparing your report is to assist the Court. You are not an advocate for our client. You are required to prepare an independent report that is clear and well-written. It must be rigorously based on best science to assist the Court to determine the issues in dispute in the Proceedings.



An independent public interest legal centre specialising in environmental law

29356

In undertaking your work, you must comply with the following requirements:

1. The expert witness code of conduct, which is contained in Schedule 7 of the *Uniform Civil Procedure Rules 2005* (UCPR); and
2. Division 2 of Part 31 of the UCPR.

Your expert report must contain an acknowledgment that you have read the Expert Witness Code of Conduct under the *Uniform Civil Procedure Rules 2005* and that you agree to be bound by it. Otherwise your report will be inadmissible as evidence.

Your brief

You are briefed to undertake the following work:

1. Prepare an expert report that addresses the issues identified below in accordance with Division 2 of Part 31 of the UCPR;
2. Review the Respondents' experts report(s) (if any);
3. Confer with the Respondents' experts at a joint conference and prepare a joint report, which sets out the matters agreed about, the matters disagreed about and the reasons for agreement and disagreement as a result of the joint conference; and
4. Appear as an expert witness at the hearing, as required.

We request that you address the following issues in your expert report:

1. What is solastalgia? In the context of mining in the Hunter Valley describe the general triggers for solastalgia and how solastalgia manifests in individuals and within a community.
2. From your research, and with reference to any relevant objector submissions and any details obtained from the Bulga community, discuss the likelihood that Bulga residents are suffering solastalgia from existing open cut coal mining in the area.
3. If, in your opinion, Bulga residents are suffering from solastalgia, how will the Project impact on these individuals? Refer to any relevant objector submissions and any details obtained from the Bulga residents.
4. Describe the social impact of solastalgia both from the perspective of the Bulga community and the greater NSW community.

Your expert report should annex any relevant documents to support your opinions.

We request that you provide us with a draft of your report for review before finalising it. The purpose of this is not to influence the conclusions or recommendations you make, but to ensure that the report is clear and addresses the issues adequately.



An independent public interest legal centre specialising in environmental law

WSolicitors2 CaseWork/Bulga Millbrooks PA-Warkworth mine/experts/social/120808 Expert brief Glenn Albrecht.docx

29356

Format of your report

Division 2, Part 31 of the UCPR sets out information that your report must contain, such as:

- your qualifications
- the facts, and assumptions of fact, on which the opinions in the report are based and your reasons for each opinion expressed
- if a particular issue falls outside your area of expertise, clear acknowledgement that it falls outside your field of expertise
- any literature or other materials utilised in support of the opinions
- details of any examinations, tests or other investigations on which you have relied, including details of the qualifications of the person who carried them out
- a brief summary of the report
- If you believe that the report may be incomplete or inaccurate without some qualification, the qualification must be stated in the report
- If you consider that your opinion is not a concluded opinion because of insufficient research or insufficient data or for any other reason, this must be stated when the opinion is expressed, and
- if you change your opinion on a material matter after providing an expert's report to us, you must provide us with a supplementary report to that effect.

Please format your report as follows:

- address your report to the Court
- sign and date your report
- include a summary of your qualifications and experience as an appendix to your report
- use 12 point type and at least 2cm page margins
- supply a PDF version of your report for printing and binding
- number each paragraph of your report
- number all pages, including attachments and annexes, continuously from the first page to the last page (excluding any coverpage to your report)
- annex this letter of instruction to your report

Timing

The parties will attend court for a directions hearing on Wednesday, 16 May 2012. On this date, we anticipate that a timetable for evidence and a date for the hearing will be confirmed. We will notify you of these date shortly. However, at this stage we anticipate that your draft report will be required end June 2012.

Documents

The following documents have been provided to you to assist in preparing your expert report.

1. The expert witness code of conduct, which is contained in Schedule 7 of the UCPR
2. Division 2 of Part 31 of the UCPR
3. Applicant's Statement of Facts and Contentions dated and filed on 23 April 2012.
4. The PAC Report dated 3 February 2012
5. Project Approval dated 3 February 2012



An independent public interest legal centre specialising in environmental law

\\WA01\litors\2 Casework\Bulge Mill\brodele PA-Warkworth mine\experts\social\120309 Expert brief Glenn Albrecht.docx

29356

6. Director-General's Requirements dated 4 March 2010
7. Environmental Assessment dated April 2010 (Executive summary, Introduction, Chapter 10 Noise and Vibration, Chapter 11 Air Quality, Chapter 12 Visual Amenity, Chapter 19 Social Assessment, Conclusion, Annexure G Noise and Vibration Study, Annexure H Air Quality Study, Annexure I Visual Study)
8. Letter from Renzo Tonin & Associates, dated 29 June 2010, commissioned by our client
9. Letter from Katestone Environmental, dated 23 June 2012, commissioned by our client
10. Deed of Agreement between Warkworth Mining Limited and the Minister for Planning and Infrastructure, dated on or about 2003
11. 2003 Development Consent
12. Objector submissions
13. Media articles.

We will also provide you with the Respondents' Statement of Facts and Contentions in Reply in due course.

Payment

Thank you for agreeing to provide your services at no cost. EDO relies on experts such as yourself to assist in matters pro bono. Our client will cover your costs incurred in participating in any necessary meetings, expert conferences and hearings. Please contact us and we will book any necessary flights, accommodation etc.

Duty of confidentiality

As this matter is the subject of litigation, please treat your work in confidence until your expert report is provided to other parties and the Court, unless authorised by us.

Please do not hesitate to contact me on (02) 9262 6989 if you have any further questions.

Thank you for accepting the brief and your assistance with this matter.

Yours sincerely

Environmental Defender's Office (NSW) Ltd


Solicitor



An independent public interest legal centre specialising in environmental law

W:\Solicitors\2 Case work\Bulga Millmoolale PA-Warkworth mine\expert\social\120609 Expert brief Glenn Abrecht.docx

29356

