It’s Not Easy Being Orange: Exploring NSW State Emergency Service Volunteer attitudes and practices towards nature

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Abstract
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The literatures of natural hazards and contemporary nature including more-than-human geographies and the social construction of nature have been drawn upon. The fieldwork undertaken suggests most volunteers’ associate nature with pristine flora and fauna, an idea which has been perpetuated through the environmental guidance given to volunteers in the service. Discourse analysis of SES documents also found that nature has been positioned as threatening other. Kaika’s (2004) ideas of the commodification of ‘good’ and ‘bad’ nature are prevalent throughout the service as volunteers are called in when so-called ‘good’ nature goes feral and becomes threatening. Within the organization no volunteers were able to identify any official policy towards nature, instead practices nature are informally passed on between members. The researchers own ethnographic experience in the SES, proposes that there needs to be more clearly written guidelines on nature. As there is a tendency for volunteers to become over-enthusiastic with chainsaws.

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“It’s Not Easy Being Orange: Exploring NSW State Emergency Service Volunteer attitudes and practices towards nature

Photo Source – M. Rossiter 2011

By Jacqueline McKinnon

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"The information in this thesis is entirely the result of investigations conducted by the author, unless otherwise acknowledged, and has not been submitted in part, or otherwise, for any other degree or qualification."

Signed - J. L. McKinnon  Date- 09/11/11
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Abstract

The State Emergency Service prides itself on the motto “The worst in nature, the best in us” but does the worst in nature bring out the best, in the organisation’s environmental management. This thesis asks what are the practices and attitudes of SES members towards nature. The research draws on discourse analysis of SES documents, survey and interviews with SES volunteers, and ethnographic fieldwork. The literatures of natural hazards and contemporary nature including more-than-human geographies and the social construction of nature have been drawn upon. The fieldwork undertaken suggests most volunteers’ associate nature with pristine flora and fauna, an idea which has been perpetuated through the environmental guidance given to volunteers in the service. Discourse analysis of SES documents also found that nature has been positioned as a threatening other. Kaika’s (2004) ideas of the commodification of ‘good’ and ‘bad’ nature are prevalent throughout the service as volunteers are called in when so-called ‘good’ nature goes feral and becomes threatening. Within the organization no volunteers were able to identify any official policy towards nature, instead practices nature are informally passed on between members. The researchers own ethnographic experience in the SES, proposes that there needs to be more clearly written guidelines on nature. As there is a tendency for volunteers to become over-enthusiastic with chainsaws.
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Introduction

Source: J.McKinnon 2011
The State Emergency Service prides itself on the motto “The worst in nature, the best in us” but does the worst in nature bring out the best, in the organisation’s environmental management? This thesis investigates the practices and attitudes of SES members towards nature and natural hazards. The following research has been inspired by personal experiences in the SES where an absence of a clearly defined environmental policy has led to some environmentally questionable behaviour. After watching these behaviours, I wanted to find out how SES members think about and treat nature. My thesis explores how the SES as an organisation frames and positions nature. Interviews, ethnographic research and surveys have been used to discover individual volunteer practices and conceptualisations towards nature. Discourse analysis has been utilised to analyse the position and limitations of the SES in regards to nature.

A range of methods have been utilised to investigate the attitudes and behaviours of volunteers. The discourse within official policy and training documentation is analysed in accordance with Foucauldian methods. Surveys undertaken by volunteers illustrate the range of practices evident within the service. Interviews and ethnographic fieldwork have been used to gain a more in depth insight into the attitudes and practices that occur.

1.1 Aims of the research

The overarching aim of this research is to explore NSW SES volunteer attitudes and practices towards nature. This aim encompasses several questions that will need to be answered. In addition to how the volunteers feel and act towards nature, the way in which the SES frames nature is an important aspect of the research. The organisation’s approach towards nature undoubtedly influences volunteer actions and attitudes. To further investigate volunteer attitudes to nature, the following questions will be examined:

- How do Volunteers define nature?
- What academic literature helps conceptualise the SES’s position towards nature?
• Has joining the SES changed people’s attitudes towards nature?
• Do volunteers believe the SES has a responsibility for the environment?
• Do volunteers have different attitudes towards urban and rural nature?

Practices of SES volunteers will be explored through researching the following questions:
• Do volunteers treat urban nature differently to rural nature?
• How do volunteers believe they interact with nature?
• What practices are being shown by volunteers in the ethnographic fieldwork?

Further aims of the research include trialling which methods work best to research the SES especially in a dynamic field environment. The current literature on nature, natural hazards and the State Emergency Service will also be reviewed as the research may help explain influences on volunteer attitudes and practices.

1.2 The State Emergency Service

The State Emergency Service (SES) is an emergency organisation that predominantly responds to natural hazards and their aftermath. In the last summer storm season (October 2010 – March 2011) over 30,000 volunteer hours (SES 2011) were recorded in the response to natural hazards. It is then surprising to see the lack of academic knowledge on the SES and its relationship with nature. This thesis therefore provides research on the SES, whose members are permanent disaster volunteers, an area of research that has been neglected (Britton 1991).

The New South Wales State Emergency Service is a versatile emergency organisation that is recognised by the State Emergency Service Act 1989 (1989). It is the emergency organisation agency that has the responsibility for storms, flood damage, tsunami and flood rescue (SES 2009). The agency also provides a support role for other emergency services by participation in land searches, evacuations in fire storms and any other assistance needed by other agencies. Rural SES units have heavier burden of responsibilities that include road crash rescue, alpine rescue, and vertical rescue (rescue
from heights). In remote areas they are also first responders to medical and other emergencies.

The State Emergency Service was born out of the tragic 1955 floods where there was widespread damage and loss of life throughout New South Wales (SES 2005). The service initially had a dual purpose of both an emergency service and a civil defence organisation, due to Cold War fears of nuclear war. The modern SES however is primarily an emergency service organisation. The NSW SES has been involved in many high profile disasters including the Newcastle Earthquake 1989, the Thredbo Landslide 1997 and the April 1999 hailstorms in Sydney and surrounds (SES, 2005). Volunteers with the service have also been deployed to inter-state disasters such as flood events in both Victoria and Queensland.

The SES is organised into 17 regions and 230 units within the regions. The regions are loosely based on river systems within NSW, whilst the individual SES units are based on Local Government Areas (SES, 2009). An SES unit is where the majority of SES members participate in training and is the mechanism through which SES work is distributed. The state headquarters of the organisation is based in Wollongong, where the majority of the paid staff are located. Currently the SES is funded by both the State and Local Government. However this arrangement is changing with the State government taking total control of funding in the near future (SES 2010).

Unit structure is split between the rescue section and the operations section. Operations organise the logistics and administration of SES work whilst the rescue section completes and trains for the physical tasks of SES jobs. Typically senior management of a unit has had experience in both sectors. The SES is a Registered Training Organisation and there are several mandatory courses that volunteers must complete before being allowed to work unsupervised. These courses, such as the General Rescue Course and the Storm and Water Damage Course, have been analysed in this thesis to illustrate what underlying assumptions are presented (or omitted) about nature and the environment.
1.3 My Position in relation to the research

My position to the research is an important part of this thesis. As of the submission date I have been a member of the SES for four years and I continued active duties with the service throughout the research period. This background in the service allowed me to use my own experiences in the service to add to the fieldwork. Insights I gained from my role as a team leader in an urban SES unit were used to help inform questioning of participants. As is discussed in the methods section this closeness to the research material has both positive and negative impacts on the research.

1.4 The structure of this thesis

The introductory chapter of this thesis identifies the key research questions addressed in this research and provides a background on the SES and the structure of this thesis.

The second chapter is the literature review, which details the literature that the research draws upon; on the social construction of nature, ‘post-constructionist’ geographies of nature, disaster literatures and the body of literature on the SES. The social construction literature of Castree, Braun, DeMeritt and others is used to argue how nature within the SES is a social construction. The more contemporary, more-than-human geographies of Whatmore, Lorimer and Hinchliffe further this argument and illustrate how bodily experiences create greater understandings of the research subject. The natural hazards literature explores the social and political aspects of disaster, which influences the place and people that need SES assistance. The literature on the commodification of nature really illustrates how nature is considered ‘good’ and ‘bad’ (Kaika 2004) depending on the benefits for humans. The ‘good’ and ‘bad’ nature theme is apparent throughout SES literature and is further explored in chapter four.

The third chapter examines the methodology used for the project and provides justification for the use of discourse analysis, surveys and interviews. The methods chapter identifies the challenges in the research and also details the reflexivity and positionality of the researcher.
The fourth chapter, “When nature goes feral”, examines how the SES frames nature, how the SES frames itself, and the limitations on the organisation’s ability to interact with nature. The analysis of SES documents including training guides, legislation, brochures and annual reports is presented in this chapter.

The fifth chapter investigates volunteer attitudes towards nature and investigates how various subgroups within the service have differing attitudes. Volunteer ideas on urban nature, SES responsibility to nature and official policy are discussed in this chapter. Chapter six provides some recommendations for the SES, suggested areas for future research and a conclusion of the key findings.
Chapter Two – Literature Review

Source – J McKinnon, 2011
This chapter aims to explore the bodies of literature that inform the research question. Important and relevant literature on the topic is discussed and gaps in the literature are identified. The literature on various conceptualizations of nature and wilderness is investigated as it influences volunteer understandings of nature. As the theories on nature have developed significantly in the last 20 years, the most influential and relevant is discussed including; the social construction of nature, actor-network theory and non-representational theories. The literature on natural disasters is also investigated, as the SES volunteer often encounters nature as a natural disaster. Early critiques of the social construction of disaster are reviewed in addition to literature on political ecology. Finally the eclectic group of literature that exists on the State Emergency Service is examined, to show what research has been established and where more work is needed.

2.1 Embeddedness of place

The theory of embeddedness of place is essential in modern geographical thought, and underpins theoretical assumptions when examining and analysing people’s attitudes to place and space. It is imperative to recognise that humans give places; values, belief systems, constructs and opinions towards place (Massey 1994). This thinking is crucial to the research question as people have different values, beliefs, motivations and meanings that embed or are attached to place and nature. The projected values onto space are variable and fluid due to the constant evolution and fluidity of the interactions between space, time and place (Massey 1994). The attitudes and practices towards nature and hazards are dynamic through time and context.

The embeddedness of place is vital to the social construction of nature, as the concept espouses that it is impossible to have a place that is completely separate from human interaction and values (Cronon 1996) Even the most remote areas, reputedly untouched by humans, have values and political meanings attached to place (Cronon 1996).
2.2. What is Nature?

Nature is a contested term in modern geography and its definition is dependent on how the society/nature relationship is viewed. The Macquarie Dictionary (1992) describes nature as “*the world around us made up of earth, sky and sea, especially when untouched by human beings*” (1992, pg. 350). This view of nature as being an ‘other’ to society is illustrative of the common understanding of nature that considers nature as everything that is not man-made. As described in further detail in this literature review, nature has many contested views that are dependent on the relationship between society and nature. The research aims to uncover SES members’ understandings and definitions of nature and how this is shown through their work.

2.3 Approaches to the Nature/Society Relationship

Castree (2001) suggests there are three current approaches to the society/nature relationship; people and environmental perspective, eco-centric approach and the social approach. According to Castree (2001) the most dominant view of the society/nature relationship concentrates on humanity’s effects on nature and the ensuing problems and opportunities. This view is criticised as politically biased, as superficial fixes are supplied and root causes of problems ignored. An eco-centric view towards the nature/society relationship desires a return to nature that was not tarnished by humans. This approach looks to dismantle the western system of production and consumption and discounts any positive human impact on the environment (Castree and Braun 2001). The third approach to the society/nature relationship is social, and can be explained by the social construction of nature.

2.3.1 Social Construction of Nature

Social Construction is an important theoretical basis. The social construction of nature allows the idea of nature to be influenced by human agendas, thoughts and political motives (Castree and Braun 2001). The theory informs what attitudes and practices
people have towards nature and the reasons for these beliefs and practices. Social constructionism is a recent conceptual understanding into the relationship between society and nature. Castree and Braun (2001, p10) considers “that ideas of nature as either external, intrinsic or universal are themselves social constructions, specific to western social formations”. There has been a large body of work on the social construction of nature, with many classic texts originating in the early to mid-nineties. The term social constructionism is invoked as an ontological tool in a vast range of academic disciplines, including sociology, psychology, philosophy, ecology and geography. There has been considerable work done in the social construction of nature that focuses on a wide range of issues including race, gender and post-colonialism.

The ways in which society and nature are looked at varies widely and has changed over time. In both human and physical geographies it has been recognised that there has been a dualism between society and nature, where people and nature are separate from each other (Cronon 1996; Castree and Braun 2001; Massey 2006; Hinchliffe 2007). This dualism has been challenged by the theory of the social construction of nature. Traditionally nature and society have been thought of as separate entities (Castree and Braun 2001). There has been extensive work on analysing the history of this relationship with both Cronon (1996) and Nash (2001), illustrating that until recently the untamed nature of wilderness was considered to be associated with the devil, while cities were centre of cultivated godliness. It was not until the event of the Industrial Revolution that nature outside the city was seen as a purifying factor from the urban decay associated with the industrial towns of the time (Nash 2001). Commentators on the issue such as White (1996) have raised the idea that use of nature as environment for pleasure has led to an idealisation of nature that is not evident in people who work with nature, such as loggers. This is evident in many of the participants in this research who discuss the potential for danger in nature rather than just the positive aspects of nature.

These theories disprove the idea that nature and the environment are an external resource against which humanity is defined (Castree 2005). Instead according to Castree (2005) the norms and truths that are learnt about nature, heavily influence our own understandings and views of nature. The type of social constructionism advocated by Castree and Braun (2001) is identified by Demeritt (2002) to be ‘social construction as a
refutation’ as it challenges taken for granted beliefs. Within the social constructionist approach there is a criticism towards the traditionalist environmentalist attitudes and actions towards nature. Latour (2004), Dempsey (2011) and Castree and Braun (2001) believe the environmentalist groups still work within nature/society ontology where society is intrinsically bad for nature. (Dempsey 2011). These different interpretations are interesting when looking at a research problem that involves the State Emergency Service, as the agency interacts with nature in a unique way. The SES is usually involved with nature when nature impinges upon society and is threatening human life or property. Much of the work carried out concerns the so called “natural” remnants of an urbanised area.

Social constructionists such as Castree (2001 & 2005) and Massey (1994; 2006) focus on a Marxist interpretation of nature’s construction, concentrating on how power and class is perpetuated through the understandings and uses of nature (Castree, 2005). The use of nature and its interpretations as a tool for discrimination is a focus for post-colonial and race geographers such as Braun (2002), Head (2000), Braun and Wainwright (2001) and Anderson (2001). It should be recognised that the social construction of nature targets Western Ideas of nature and does not address the understandings of nature developed in Eastern and Indigenous societies. There has been work on indigenous understandings of nature around the world, but most predominantly in North America and Australia. Whilst investigating indigenous SES volunteers’ understandings of nature would be extremely interesting it is beyond the scope of this honours project. Moeckli and Braun (2001) have investigated the use of nature in gender relations, looking at ideas of how “what is natural” affects gender and the enactment of this upon spaces. All these views of nature affect the way in which SES members view each other and the nature they encounter.

The conceptual base of social constructionism relies on human agendas, thoughts and political motives (Castree and Braun, 2001) shaping ideas of what nature is. The social construction of nature can then only be examined through looking at the discursive practices that create ideas of nature (Dingler 2005). Discursive views of nature are a growing field in both geographical and sociological studies. Wolf and Klein (2007) identify that “Analysis of discourse has been shown to be an effective tool for understanding
processes of social construction of environment and environmental risks” (2007, pg 989). The academic arguments regarding social constructionism are also in regards to Foucauldian Discourse Analysis, which identifies the actions, perceptions and attitudes resulting from the discourse around a subject (Waitt 2005). This approach further identifies that discursive analysis “determines what can be said, what is worthy of study and what is regarded to be factual” (Waitt 2005, p165). Therefore discourse analysis is a useful tool in understanding the social construction of nature within the SES as an organisation.

2.3.2 Objections to social constructionism

There is criticism towards the social constructionist movement with some geographers, ecologists and environmental sociologists such as Kidner (2000) and Benton (2001) critiquing the idea that a physical object could be socially constructed. Some geographers such as Gandy (2006) and Proctor (1998) object to social constructionism as they perceive it to be politically dangerous (Demeritt 2002). They believe if there is denial over the reality of the environment, polluters will use this philosophy to down play the damage they have caused (Demeritt 2002). Deep ecologists criticise social construction as being too anthropocentric, as nature has been objectified rather than its independence acknowledged (Demeritt 2002).

Realist thinkers also have critiqued the idea that nature could not exist without discourses or social constructionism (Benton 2001). Session (1996) believes the theory denies the real world as nothing can exist outside of discourse. Whilst Idealist thinkers have also objected to the social construction of nature, they do not doubt that nature is a discursive product, they however believe the theory is incoherent (Dingler, 2005). Proponents of realism believe that a discursive view of nature ignores the materiality of nature existing. While many of the realist critiques are valid arguments against radical constructionist interpretations, the majority of the work on the social construction of nature acknowledges the existence of physical objects without discourse (Cronon 1996, Castree and Braun 2001, Dingler 2005). There is however a combination of the Realist and Constructionist approaches, according to Roberts and Murphy (2004) called realist
constructionism, that aims to combine the approaches, taking in account the reciprocal relationship of nature acting on humans and humans acting on nature. Hinchliffe (2007) is also a advocate in the belief that nature has its own agency as well as being a social construction. Dingler believes that this combination is a result of the sophistication of discursive analysis of nature, rather than a new theoretical branch of the social construction of nature (2005). Social constructionism is an important theoretical approach for understanding nature, as it illustrates how ideas, attitudes and practices towards nature have been projected by people. The theory also has a variety of interpretations that are contested as shown above.

2.4 More-than-human geographies

There has been a flurry of research in the past 5 to 10 years on the materiality of nature. This comes, in large part, in response to a perceived excess of attention on social construction. Hinchliffe (2007) is part of this movement, focusing on the agency of nature. Hinchliffe (2007) argues that nature doesn’t have distinct non-urban locations; it shows up in a variety of places including those, that had been thought of to have little or lesser nature. Hinchliffe’s argument according to Castree (2009) is ‘that while we people manifestly affect non-humans we nonetheless do not call all the shots’ (Castree 2009, pg 292)This outlook is important as it allows a range of natures to be studied rather than just the nature found in wilderness areas. More-than-human geographies will be used in this thesis as it encompasses a wide range of natures encountered by the SES and it is not an anthropocentric view of nature. Hinchliffe (2005) and others including Whatmore (2004; 2005), Kearns(2005) and Degan(2005) have also explored urban nature and how a more-than-human approach allows better exploration of the urban wild.

2.4.1 Different more-than-human geographies

Castree (2005) has identified that geography is an active producer of societal understandings of nature. These understandings and perspectives have changed over time leading to debate and disagreement over what nature should be studied (Nellis
Since the rise of constructionist geographies in the nineties, there have been several different understandings of nature that have risen to prominence within geography. These understandings can be broadly characterised as critical post humanism, as the ideas raised are past a time and culture in which there was an apparent nature/culture divide (Castree, Nash et al. 2004). Rather, these theories use relational thinking where phenomena don’t have properties in and out of themselves but by virtue of their relationships with other phenomena (Castree, 2005). Critical post-humanist ideas include non-representational theory, actor network theory, new dialectics and new ecology. Non-representational-theory and Actor network theory are the more influential theories in human geography and will be described below. It is also important to realise in the geographical study of nature that “the nature geographers described should not be confused with the things that term describes” (Castree in Nellis, 2007).

2.4.2 Actor-Network Theory

The Actor network theory (ANT) came out of science and technology studies in the 1980’s. The theory itself can be defined as “An analytical approach that takes the world to be composed of associations of heterogeneous elements that its task it is to trace.” (Johnston, Gregory et al. 2000). Scholars who helped develop the Actor network theory including Latour, Callon and Law (Johnston, Gregory et al. 2000). Scholars have used the actor network theory to analyse the place of trees in society (Jones and Cloke 2002) and examining people’s relationships with private gardens (Hitchings 2003). This work acknowledges the various cultural positions that trees achieve at the same time. This approach is useful in the present study, as the multiplicity in cultural value helps explain why there are various positions towards trees within the SES due to the variety in membership and experiences.

The Actor network theory acknowledges the agency of non-humans; a point which distinguishes it from the social construction of nature. Trees are able to act upon as well as being acted upon (Jones and Cloke 2002). While the theory doesn’t give trees the same agency as humans, it acknowledges the agency non-humans have. ANT, according
to Demeritt (1994), has allowed nature to be framed as both a material actor and a socially constructed object. Within the ANT framework Whatmore (2002) has been significant in theorising hybrid geographies where “agency is viewed as being spun between different actors rather than manifested as solitary or unitary intent, and it is decoupled from subject-object distinctions.” (Cloke and Johnson, 2005, pg 53) Some criticisms of ANT include Thrift’s (1996) criticism that there is an overemphasis on the relational agency of artefacts and technology (Jones and Cloke, 2002). This is an interesting critique when looking at nature from an SES framework as the technology, such as chainsaw, has an important agency in relation to the surrounding nature and the agency of the human operating it. In ANT’s early incantations it was criticised for giving limited agency to non-humans especially the non-animals (Castree, 2005).

2.5 Non-representational theories

Non-representational-theories (NRT) reject the idea of representations of nature, as representations implies visual senses, rather than the tacit way that humans interact with nature using all of their senses (Castree, 2005). Instead, NRT looks at how everyday routine and encounters builds understandings and influences our experiences of both place and space (Lorimer 2005). NRT is continually shifting and provides a way to answer questions using embodied practices (Johnston, Gregory et al. 2000). Nigel Thrift is the geographer most closely associated with this theory, with others such as Lorimer (2003; 2005; 2007; 2008), Laurier and Philo (2007) and Hitchings (2003; 2009) exploring this theory in a variety of areas from reindeer herding to lawn cultivation. In this research I use the principles of NRT as I encounter understandings of nature through the prism of SES. The experience of SES work brings a materiality to the research that would not be achieved if only interviews and surveys were used. Through undertaking SES activities I was able to realise the role of fear in SES, a realisation possible through utilising NRT.
2.6 Commoditisation of nature

Kaika (2003; 2004), Gandy (2006) and Swyngedouw (2006; Swyngedouw 2007) have examined the commoditisation of water and other aspects of nature. They argue that human interaction with nature is a politicised process, in which values are laden on to nature. Kaika’s (2003) examination of Athens’s water crisis in the early 90’s, illustrates the values humans have given to nature and how these change due to context and time. Kaika (2004) also illustrates how the modern home has been built through the commoditisation and exclusion of nature. Values of ‘good’ are laden on nature that has been changed for human purposes, whereas ‘bad’ nature is unchanged nature, considered to be threatening to humans (Kaika, 2003). When there is a crisis in the modern home, the householder is forced to confront their alienation of nature (Kaika, 2003, 2004). The values of good and bad nature are extremely relevant to the SES as interaction with nature often occurs when ‘bad’ nature has upset the sanctity of the modern home. These ideas in relation to the SES are further explored in chapter 4.

2.5 The Wilderness as an exemplifier

Wilderness has been used as an exemplifier in arguments regarding the social construction of nature. Wilderness emphasises that nature that is “untouched” has been constructed to be seen this way. Cronon (1996), Castree and Braun (2001) and Hinchliffe (2007) all reiterate that people use nature and it’s so called naturalness as a mask, to disguise things that are not particularly natural. The forests of the Pacific Northwest have been used to typify the idea of wilderness and the various actors involved in the wilderness debate. Braun (2002) has written several works on the conflicts involving logging in Clayquot Sound. His research shows how various interest groups constructed nature and wilderness for their own agendas. Further geographers that have written on the forests include Proctor (in Cronon, 1996), Dempsey (2010; 2011) and Rossiter (2008). These forest debates also have continued to Australia where these been heated debates over Tasmania’s old growth forests and native rivers (Dearden, Sewell et al. 1989; Kellow 1989; Head 2008). Furthermore, wilderness has played a role in both academic and
public debates about indigenous people’s ownership and relationships with the land. Geographers such as Prout and Howitt (2008), Gill, Lancashire (2011) and Langton (1999) have explored this issue. Within the SES perceptions of nature draw upon values projected onto wilderness areas, volunteers and the SES itself associate wilderness and nature with danger and an untamed quality (Cronon 1996; Nash 2001) The little environmental advice provided by the SES is more prudent to wilderness areas than the suburban nature usually encountered on SES jobs. In the minds of many SES members nature is still synonymous with wilderness

There is however no specific social constructionist literature, to my knowledge, that focuses on the perception of nature by emergency services personnel and how the event of a disaster might change the values and underlying assumptions about nature. This research project will look into this gap in the literature.

2.6 Natural Hazard/Disaster Literature

Kofi Annan, Former UN Secretary General, identified “Natural hazards are a part of life. But hazards only become disasters when people’s lives and livelihoods are swept away” (2003). A Natural Disaster is defined as the suffering visited upon human populations by such extreme geophysical phenomena as floods, earthquakes and hurricanes (Johnston, Gregory et al. 2000) There is a large body of literature on Natural Disasters and Natural Hazards that in the last 30 years has started to embrace social aspects of disaster as a legitimate field (eg. Hewitt (1983), Sen(1981), Enarson(1998), Beck (1992) and Blaikie (1994)).

Identifying the literature on natural hazards and disasters is essential for the research question. Within the State Emergency Service the most common nature to be experienced is a natural hazard or natural disaster. All of SES training is geared towards natural hazards, hence it is reasonable that constant exposure to natural hazards affects ones attitudes towards nature and natural hazards. The exploration of the social aspects
and social construction of disaster allows for an insight into how the volunteers perceive and interact with this particular form of nature.

The range of approaches to natural disasters and hazards are discussed below. There is a broad range of literature that covers disaster management and the Emergency Services. Much of this literature addresses the practical nature of Emergency Services and looks at engineering solutions to alter hazards from affecting property and people (Blaikie 1994). Most of the literature produced by the SES falls into this category.

In this physicalist paradigm of Natural Disasters attention is drawn to individual behaviours and the focus is on scientific and engineering solutions to reduce the harm to individuals and the community (Blaikie 1994; Cronon 1996; Pelling 2001). This approach downplays the human dimensions of the disaster and overemphasises the inevitability or naturalness of the disaster. According to Steinberg (2006), the belief of natural hazards as an inevitability or as an ‘act of god’ has been perpetrated by various groups (Steinberg 2006) for their own commercial and political interests. This concept has allowed for a concentration of research on loss reduction and engineering and technical solutions to manage hazard processes. According to Hewitt (1983) it has only been since the 1960s that hazards and disaster research became interdisciplinary and the only explanation of disasters being acts of God was no longer a valid explanation.

Pelling (2001) and other geographers such as Blaikie (1994), Hewitt (1983) and Sen (1981) have illustrated that there is a human dimension to ‘natural’ disasters rather than purely physical dimensions. Hewitt (1983) and Blaikie (1994) discuss the ways in which technological advances in managing ‘natural’ disasters have made people more vulnerable to their effects, due to a false sense of security on the efficiency of the technology. An example of this can be shown in Hurricane Katrina where the levee banks that were supposed to keep people safe were broken (Mooney 2007). A critique of the traditional scientific approach to hazards identified by Pelling and Hewitt (1983), is the lack of transparency in the decision making process. The actions of the scientists and engineers are not open for public discussion and there is a long history of class discrimination in the benefits of these schemes (Steinberg, 2006 and Hewitt, 1983).
Early critical approaches towards natural disasters were pioneered by Hewitt and Sen, each of whom analysed the problem differently. Sen (1981) was famous for his entitlements approach in which the unequal share of market resources and purchasing power (entitlements) was blamed for vulnerability to famine. Sen did not blame nature or the environment for the famine, he further believed that vulnerability could be reduced by altering the mechanisms in society that regulated food dispersal such as stockpiling in surplus years (Sen 1981).

Hewitt has a more Marxist approach that also debuted in the early eighties, concentrating on the socio-economic structures in society. Disasters exemplified how class inequality guides the interactions between environment and social vulnerability to natural hazards (Hewitt, 1983). Later approaches to disaster include Beck (1992) and Giddens (1998) who theorise on manufactured risk and how humanity has gone from naturally caused disasters to those in which humans have had contributing causes. Manufactured risk may affect volunteer perceptions of nature, especially in light of current climate change debate. This is also prudent to many SES jobs where man made hazards such as electricity are more dangerous than the natural hazards.

There have also been discussions around gender and natural disasters, with the initial focus of this research on the added vulnerabilities of women in disasters (Byrne and Baden 1995; Bolin, Jackson et al. 1998; Hyndman 1998) The focus of the research has changed according to Cupples (2007), with researchers looking at practical agendas to change vulnerabilities (Enarson 1998; Bradshaw 2002; Reed and Mitchell 2003) and ways that disasters reproduce gender identities. This research has become prevalent in Australia, with researchers examining gender and fire. McLennan (2005) researched gender issues within recruitment for the Rural Fire Service and Eriksen and Gill (2010) look at the gendered existence in the rural-urban interface of Australia’s southeast. This work is important for the present research as the Rural Fire Service is similar in many ways to the SES, as they are both predominantly volunteer emergency services that deal with natural hazards (Wallace and Baxter-Tomkins 2006).
2.6.1 The Political Ecology of Disasters

The exploration of the human dimension of disasters has led to the examination of political ecology of disasters. This branch of literature examines the underlying political structures that effect disaster response, perception and vulnerability. This type of research has intensified since Hurricane Katrina in 2005. This approach builds on Hewitt and Sen’s work in the early eighties, by concentrating on how those with lower socio-economic status are disproportionately affected in disaster situations. It is widely acknowledged by a large group of disaster researchers including Blaikie et al., (1994), Lewis (2005), Morrow and Laska (1999; 2006), Oliver-Smith (1996) and Sarewitz et. al. (2003) that those who are the most socio-economically marginalised feel the effects of these disasters disproportionately. This vulnerability to disaster is amplified through increasing urban densities and unauthorised housing typified in the developing world (Morrow, 1999). Political ecologists have been investigating the vulnerability of different social groups to disasters and natural hazards. Ho and others (Ho, Shaw et al. 2008) recognise that in the disaster prone areas of Taiwan, gender plays a substantial role in the perception of risk. Females are more likely to experience a higher perception of risk and a higher impact from a disaster. This is believed to be affected by the lower socioeconomic position of women in Taiwanese society. Steinberg (2006) identifies a history of discriminatory policies surrounding natural disasters in American society. This discrimination based on both race and wealth includes the exclusion of African Americans in the recorded death toll up until the early 1900’s, the substandard building codes for mobile homes due to lobby groups and the positioning of levees to protect the wealthy and flood the poor (Steinberg 2006; Mooney 2007).

Social vulnerability in disasters is another area in this field. Cutter (1996) identifies social vulnerability as “the susceptibility of social groups or society at large to potential losses (structural and non-structural) from hazard events and disasters” (Cutter, 1996, pg. 530). However Cutter acknowledges even after 10 years of geographic research there is still a range of different definitions. The vulnerability research can be generalised into the vulnerability of a place, vulnerability as exposure to risk/hazard and vulnerability as a social response (Cutter, 1996). The SES research focuses on vulnerability as an exposure
to a hazard and the vulnerability of place, by looking at the risk of specific floodplains and areas, in addition to the State’s risk as a whole.

There is large amount of literature that examines the vulnerability of places to natural hazards and criteria. Birkman (2007) has released conceptual frameworks for vulnerability, sustainability and common definitions for vulnerability. These works are linked closely to the development of Geographic Information Systems and create great opportunities for further disaster reduction. The identification of social vulnerability however does not affect the average SES volunteer in their interactions with the environment. The literature however informs volunteers on who needs their help the most.

This strand of geography and sociology additionally analyses people’s attitudes to natural hazards in disasters. This research has been focused in areas that are most vulnerable to natural disasters such as the South American cities of Peru (Degg and Chester 2005), the earthquake prone city of Istanbul (Green 2008) and in New Orleans where the devastation of Hurricane Katrina initiated intense investigation into this area(Dyson 2006; Myers, Slack et al. 2008; Parker, Stern et al. 2009). The attitudes most commonly explored are those that concern risk perception and how vulnerable people are to further risk from a natural disaster. Whilst my research is not assessing the feelings of vulnerability within SES members, it highlights how different social groups have different social, economic and cultural determinants on their attitudes and practices towards nature and its hazards.

The political ecology of disaster looks at why certain people and places are more vulnerable and what processes have enabled these particular vulnerabilities. This body of research is useful in analysing the SES as it gives a background to what political influences may be influencing their environmental policy. The research also highlights the people who are most likely to need help from the SES due to the geographies of disaster vulnerability. The underlying views towards nature in the official SES and government policy shape what type of natural hazard the SES faces and who is most likely to be affected.
2.7 Literature on the State Emergency Service

There is a scarcity of academic literature that focuses on the State Emergency Service both nationally and regionally. A majority of the literature on the service has been based on historic reflections from members, detailing storm events and the resources available to combat them. The SES has focused on research that addresses the mechanics of responding to flood and storm damage. The State Emergency Service lists 93 research papers written by or associated with the organisation as of May 2011, as shown in Table 2.1. The main themes in these papers are; flood and storm response, planning for flood and dam failure, community engagement, and the training and retention of volunteers.

<table>
<thead>
<tr>
<th>Theme of Research</th>
<th>Number of Papers</th>
<th>Percentage of overall Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flooding</td>
<td>41</td>
<td>47%</td>
</tr>
<tr>
<td>Storms</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Hazards/Emergencies/Disasters</td>
<td>6</td>
<td>6%</td>
</tr>
<tr>
<td>Planning/Preparing</td>
<td>16</td>
<td>17%</td>
</tr>
<tr>
<td>Nature/Natural hazard</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Community/public awareness</td>
<td>9</td>
<td>10%</td>
</tr>
<tr>
<td>SES Volunteers – training and retention</td>
<td>3</td>
<td>3%</td>
</tr>
</tbody>
</table>

Table 2.1: Analysis of research papers on and by the SES. *(Note: Some research has multiple themes.)* Source: NSW SES

There is however signs that cultural examinations within the NSW SES are taking place. In 2006 research was begun on SES Controller’s attitudes to cultural heritage (Beck 1992). This study acknowledged that Controllers have a limited knowledge of cultural heritage matters due to a lack of training and time constraints inherent in their voluntary positions (Beck 1992). This study may be reflective on the cultural understanding of SES managers on the whole; however there is not enough research in place to conclusively assume it’s applicable for the whole service.
The lack of research conducted on the ‘permanent disaster volunteer’ whom are long term disaster volunteers such as members of the Rural Fire Service (RFS) and the SES, has been noted by Britton (1991). Britton investigated the role of permanent disaster volunteers and their position within the disaster management framework. The tension between volunteer workers and their paid counterparts was discussed by Britton (1991), where volunteer workers have felt trivialised. This tension was illustrated by interviews with SES volunteers in the early eighties, as it became apparent that other agencies views of SES duties were clouded by its status as a volunteer organisation (Britton, 1991). These research results however reflect a different time in emergency management. The professionalism and training in volunteer agencies has risen considerably in the last 25 years.

The retention of volunteers and the estimation of their value is another area of literature. Wallace and Baxter-Tomkins (2006) and Ganewatta and Hander (2009) valued the work of the NSW SES at approximately fifty-two million dollars a year. The studies conducted on volunteer retention demonstrates that the problems in the volunteer agencies are due to changing demographics and a reluctance to recruit women and people from culturally and linguistically diverse backgrounds (McLennan 2005; Wallace and Baxter-Tomkins 2006; Eriksen, Gill et al. 2010). These demographic features of the State Emergency Service may impact upon the attitudes and practices towards nature of the volunteers. Some of the studies have been undertaken on the Rural Fire Service whose geographic position in rural/semi-rural areas leads to a somewhat different demographic profile than the SES (Wallace and Baxter-Tomkins 2006). These studies also acknowledge the scarcity of literature on disaster volunteers (Britton 1991; Wallace and Baxter-Tomkins 2006).

The research conducted on the SES shows that while the organisation has researched its own actions and responsibilities, there is a large information gap in terms of external and academic analysis of the agency’s role and actions. There is no research that has been conducted on the environmental impacts of the work the SES completes. This lack of information may be related to the legislative responsibilities of the SES (1989), which requires the agency to protect property and life from storm and flood. The Act also
requires the SES to undertake damage control from storms but there is no indication whether or not this includes damage to the environment. This research aims to start further academic investigation into the SES and its environmental aspects.

2.8 Conclusion

This literature review has identified that the research question involves several different bodies of literature on nature, natural disasters and the SES. The literature on social construction illustrates how the SES may represent nature to both the public and its members, while the more-than-human geographies literature utilizes the materiality of experience to gain further understanding about nature and the SES. The natural hazard literature illustrates how the hazards that SES members encounter have been analysed from a physicalist and a social perspective. The limited work on the SES itself shows there is a significant gap in the literature involving volunteers and how the service interacts with nature.
Methodology – Chapter 3

Source: J. McKinnon 2010
This chapter aims to describe what research methods were used, why these methods were utilised and how my own position as an ‘insider’ to the SES affected the research methods. The challenges in the research are also discussed, which included a lengthy delay in ethics approval and an extremely busy storm season. Section 3.9 also details the rigour in the research and how Lincoln and Guba’s (1985) framework for evaluating qualitative research applies to the methods.

The aim of the research methods was to discover: how nature is framed in the SES; what attitudes and practices volunteers have towards nature; and what influences these attitudes. To best achieve these aims several different methods were used including discourse analysis, semi-structured interviews, surveys and ethnographic fieldwork.

This chapter will first, describe my positionality to the SES and how it changed through the fieldwork. The challenges in the research are then discussed in the ethics section. The different methods used are then described and justified. The chapter finishes with a discussion of rigour and how dependability, reliability, confirmability and transferability apply to the research.

3.1 Reflexivity and Research

According to Rosaldo (1993), the researcher should be thinking about where, what and how the researcher does things and how this affects the research participants. Mosselson (2010) identifies that taking a reflexive position in research allows for a deeper understanding of existing complexities, leading to a better quality of research. Through examining one’s own experiences, generalisations can made through personal insights generated (Powell 1997). Holloway and Biley (2007) identify that researchers can’t exclude themselves from the research process.

As an active SES member it is imperative that my own position towards the research be monitored and analysed. To track my changing positionality in relation to the project I kept a research diary. The research diary shows that discussing nature with other volunteers changed my own views about the SES. The change in my position towards the research subject is discussed in my positionality statement (Section 3.1.1).
It was through analysing my own positionality that I was able to try to control some of the power dynamics in the interviews. There were several steps I completed to reduce obvious power dynamics in the semi-structured interviews. I did not mention my own rank within the organisation to any of the fieldwork participants. Talking about rank puts an obvious power dynamic in the interview as the participants may be lower or higher in positions of power. Furthermore, when I interviewed people I wore ‘civilian’ clothing to avoid influencing their opinion. The SES uniform conveys many ideas about the volunteer such as rank, which unit they come from and how often they perform rescue work. Therefore wearing the uniform may create judgments before the interview has even started. I created a rapport with participants through discussing experiences in the SES, to break the ice and show my legitimacy as a volunteer. These shared stories meant that the participants could gain a sense that I was an ‘authentic’ member and I understood and appreciated their experiences.

3.1.1 Positionality Statement

I have been an active member of the Kogarah SES Unit for four years. I am a team leader and a trainer in general rescue and storm and water damage courses. My position towards the SES and towards nature has changed in the duration of the research. When first starting the research I felt that the SES had a bad attitude towards the environment. I had seen a few activities that were unfriendly towards nature and I had just finished chainsaw training. Witnessing these activities I felt that exploring the relationship between the SES and nature was important, as the organisation would have to reassess its behaviours to adjust to global climate concerns and eco-consciousness. My position as an environmentally aware person meant that I saw the lack of environmental acknowledgement as a negative that needed changing.

My initial research confirmed these thoughts as the discourse analysis of documents showed a large silence in the organisation towards nature. The long delay in ethics approval from the SES also made me look negatively at the organisation, as I felt there was automatic suspicion of anything to do with nature or the environment. It seemed odd
to me that so many of the people I had worked with could have such attitudes different to my own.

Whilst conducting ethnographic fieldwork up in the Blue Mountains, I realised the way fear could influence volunteer attitudes towards nature. After seeing the destruction I wondered myself, why people would live so close to such dangerous trees. This reinforced the respect and fear SES volunteers have for nature. At the same time I saw volunteers mesmerised by the view they were seeing around Blackheath and I started to see how vistas of wilderness are valued in the SES. Once I started conducting surveys and interviews I became aware that there was more than a ‘chainsaw happy’ view of nature in the SES. The volunteers believed in the value of nature and identified practices that I had overlooked, such as the mentioning of “leave nothing but footprints”. This made me realise that the volunteers and the organisation believe that members would not deliberately harm the environment.

Throughout the research I had to state my position on nature, to several members who were suspicious of my motives in studying nature. Once I had assured participants that I was not out to start a witch hunt on the SES, I gained much more positive responses. One interviewee (interviewee four) stated that his family thought I would be a hippie, but he didn’t believe they existed in the SES. My position as a young female also affects the research; I believe I was seen as less threatening by participants than if I had been an older male. This less threatening position also helped overcome any “greenie” suspicion.

My promotion to team leader in July also changed the research process, especially in ethnographic fieldwork as I had more responsibility to keep others safe. This meant that I was concentrating more on the task at hand than about nature. It occurred to me that this was the case for a large number of SES volunteers as the environment was simply lower on their radar than getting the job done safely.

While participating in a young leader’s course I realised the position of power that a team leader has whilst out on SES jobs. Through listening to volunteer complaints about other team leaders, I realised the views of the team leader affect the actions of the whole team.
This made me think of the informal knowledge transfer that occurs in SES and how this could affect practices and attitudes towards nature. This course also helped me realise how my own position in the organisation can influence other people’s opinions. To reduce this position of power I avoided mentioning my own rank and did not wear my uniform during interviews (as the SES uniform displays the rank of the member).

The SES uniform is also used to judge the wearer; it is sometimes used to see how long the member has been in the organisation (a new version of the uniform has been released in the last 12-18 months) and whether the member has completed a lot of jobs (dirty stained uniform compared to bright orange uniform). A dirty uniform implies that the member has been on a lot of jobs and has a wealth of experience; furthermore older versions of the uniform show a length of service which gains respect from other members.

These above aspects of my positionality with the SES, have informed my research methods and findings. If a non-SES member was to try the same research I believe they would encounter more resistance from the organization and they would achieve somewhat different results.

3.2 Ethics

This project conforms to UOW Human Research Ethics Committee (HREC) procedure. The time taken to fulfil the formal requirements of the ethics committee was lengthy, as prior permission was required from SES State Headquarters. The ethics application was first submitted on the 6th April 2011. The HREC response letter required a confirmation letter from the SES stating they understood the research and agreed to its conduct. After negotiations with the SES formal ethics approval was given on the 4th August 2011 (Appendix one).

The delay in ethics approval lead to limitations in the amount of fieldwork conducted as there was a small timeframe for fieldwork (two months). To add to the project without requiring ethics consideration, the ethnographic component of the project –my own experience - was utilised to help examine volunteer attitudes and practices that I had
experienced. The SES knowledge gained from my experience helped me hone in on areas of research richness. Another challenge in gaining ethics approval and conducting fieldwork was the abnormally busy storm season in early-to-mid 2011. The heavy operational workload on both volunteers and SES staff lengthened the approval time as responding to my emails was a very low priority for SES officials. The volunteers were also busier and this project was another SES-related issue that was taking them away from precious family time.

The design of the project ensures that the identity of participants does not become public, to ensure the privacy of research participants. This is essential to allow the participants the freedom to express their opinions without retribution from within the SES, whether real or imagined. The surveys were designed to be completely anonymous and did not ask for personal details such as age or educational status. The interview and participant observation stage was confidential, as only the interviewer knew the participant’s identity. Pseudonyms were used to protect the identity of the participants and the storage of audio recordings and field notes refers to the participants through pseudonyms. Furthermore the only access to these recordings and notes is through the researchers and the manager of data storage in the School of Earth and Environmental Sciences at the University of Wollongong. Participants were made aware that they have the right to withdraw at any stage of the project.

Participants all received Information Sheets (Appendix two) for each stage of the fieldwork. For the interviews and participant observation a consent form was signed by the participants (Appendix three). As the surveys are truly anonymous their completion was considered consent to guarantee anonymity. All information sheets and consent forms were approved by the Human Research Ethics Committee at the University of Wollongong.
3.3 Recruitment

Various recruitment strategies were used to obtain research subjects. The main recruitment strategy was an email sent out from the NSW SES Volunteer’s Association inviting volunteers to participate. This email reached approximately 10,000 NSW SES members. Of the 10,000 emails sent only 25 responses were received back with a response rate of 0.0025%. This is a low response rate, though Nicholls (2010) and Converse (2010) found that response rates were much lower using electronic methods in comparison to mailed survey responses. In this study the content of the answers matters more to the research question than the quantity of answers. The email sent to volunteers is shown in Appendix four.

Recruitment of participants also occurred through attending SES events such as weekly training or rescue competitions. I talked to SES members during these activities and gained several members through snowballing of key informants. Hay (2005) identifies that snowballing can skew data. This can be seen in the geographic distribution of participants, in which a higher percentage of interview participants come from the Sydney Southern Region. While this does give the interview data an urban skew, almost all the interview participants, bar one, had completed SES work in rural areas as well. To encourage further participation in the project a form was attached to the surveys, stating that if people were interested in interviews they could leave their contact details. This method was quite successful with 40% of applicants leaving contact details for interviews.

3.4 Discourse analysis

Discourse analysis helps determine and identify what regulatory frameworks, assumptions, internal mechanisms and structures (Waitt 2005) exist in the SES towards nature. In this project SES policy, documents, promotional brochures and training guides have been analysed. Several additional training guides were added after the completion of the fieldwork, as participants identified these courses/activities as interaction with nature. The texts analysed are shown in figure 3.1.
## Figure 3.1: List of SES documentation titles analysed

The process of discourse analysis follows the method advised by Rose (2001), which involves: becoming extremely familiar with texts; coding the texts to reveal key themes; investigating texts for effects of truth; and looking for inconsistencies and silences within the texts being analysed. Discourse analysis has been identified as an effective method for finding underlying truth in environmental politics (Hajer and Versteeg 2005). Sharp and Richardson (2001) identify that discourse analysis allows researchers to appreciate the messy tangle of interactions that is involved in environmental issues. This method has been chosen to identify the different entwined meanings of ‘nature’ within SES work. This analysis illustrates what constructions of nature are being portrayed by SES documents and policies, and furthermore uncovered the ideas driving these constructions.
3.5 Surveys

A small scale survey of volunteer members was undertaken between the 17th of August and the 21st September, 2011. The surveys were sent out electronically due to speed of delivery and financial constraints, as mailing the surveys would have cost in excess of $5,000. The survey can be seen in Appendix five. Whilst mailing the surveys or using a mixed methods approach is likely to have returned a higher response rate (Cupples 2007; Abrahamsson, Hassel et al. 2010) it was impractical within the constraints of an Honours budget.

The surveys were utilised to gauge a range of opinions, attitudes and practices that occur towards nature. The survey process also allowed for further recruiting for interviews. The use of surveys allows for wider scale trends to be identified from the responses (Flowerdew 1997; Hay 2005). The surveys are relatively short and require a shorter time commitments than the interviews, encouraging greater participant responses. The surveys were intended to be anonymous, but the emailed survey lead to people responding with their own email addresses. To try to keep the surveys as close to anonymous as possible, the survey was printed and saved with an ID, and any correspondence with identification of participants was deleted.

The analysis of the surveys was conducted by grouping all the answers to a specific question together and looking for trends in the responses. The surveys were also split apart by their location (rural or urban) and rank (team members, deputy team leaders/team leaders and officers). Gender was not analysed as there was a very noticeable gender imbalance in the returned surveys, 23 of the 25 surveys were completed by males. Throughout the responses there was a near equal distribution of volunteers from rural and urban areas and near equal distribution of ranking groups within the service.
3.6 Semi-Structured Interviews

Semi-structured interviews have been used in this research project as they allow for a range of views and opinions to be heard and analysed (Valentine 2006). The use of a number of interviews allows patterns and trends of opinions to become apparent through repetition (Hay, 2005). Interviewing is an important methodology for this project as the aim of fieldwork is to get an idea of the range of attitudes and practices that exist in the SES. The information gathered from the interviews is not the one truth of all SES members; rather it reflects the different ideas and practices that exist among volunteers. The interviews also allow for the exploration of nature and whether it is a pondered subject among SES members.

Criticisms of in-depth interviewing include: the use of small sample sizes; asymmetrical power relations; and the anecdotal stories produced (Baxter and Eyles 1999). This research is exploring what attitudes and practices exist, rather than a representative view for all volunteers in the SES. Hence the sample size does not need to be statistically significant. Kvale (2006) and Burman (1997) also criticise the asymmetrical power that is existent in the interview process. The ways in which asymmetrical power is acknowledged and mitigated is discussed in section 3.2. Baxter and Eyles (1999) also mention that the production of anecdotal stories has been levelled as a criticism towards interviewing. I feel for this research, the production of anecdotal stories has been a strength of the interviewing process. The anecdotal stories that have come out of the interviews very clearly illustrate the participant attitudes and practices towards nature. The stories generated by participants have also guided further investigation into areas such as the suburban backyard.

Semi-structured interviews have been used as they allow deep immersion in the social and personal matters (DiCicco-Bloom and Crabtree 2006). An interview schedule was formulated before the interviews commenced to ensure consistency of questioning through all interviews (Appendix six). However, when an interesting point was raised, the semi-structured interview format allowed for further exploration in that area. The interview schedule also uses funnelling technique, where general questions about the
unit of the member and their role are asked to get the participant conversational and comfortable before asking more personal questions on views of nature.

DiCicco-Bloom and Crabtree (2006) identify that researchers working the dual role as an insider-researcher, can compromise objectivity. However they also argue that this reduced objectivity allows for greater trust and information exchange between researcher and subject. This was accurate for this research, as my position as an SES member did not allow for an objective approach, but created an instant rapport with research participants.

To avoid the undue influence of other participants’ opinions, the interview was completed in a one-on-one format (Dowling 2005). The one-on-one interview is being used as it allows for participants to speak more openly and honestly about their thoughts than if other people were present, especially if there was pre-existing power dynamics within a group (DiCicco-Bloom and Crabtree, 2006). The disadvantage of this method is that the power dynamics and group decision making about nature won’t be explored. Although some academics argue that conflicting opinions can create more insightful research work (Tanggaard 2007) in this case it is better for an interview where there is mutual respect and understanding between participants, as the answers from participants will be more truthful.

3.6.1 Interviews undertaken

Between the time period of 7th August 2011 and 13th September 2011, eight semi-structured interviews were undertaken. Seven of these interviews were undertaken face to face and one interview was recorded on the phone due to distance (the participant was in Armidale). These interviews were recorded with two audio recorders to avoid recorder failure. All participants read the participant information sheet and signed the informed consent form before the interview commenced. The interviews were held in a variety of locations including SES units and the homes of participants. If the interviews were held at SES units it was during times when other SES volunteers weren’t around to
affect the interview findings. The interviews were later transcribed and coded for further interpretation and analysis.

In the interviews two photos were used to help extrapolate volunteer ideas about nature. The first photo shows an idyllic mountain panorama taken at Mt Kosciusko (Appendix seven), whilst the second photo shows an SES job I attended in May 2010 where a tree and powerlines had fallen over a house in Narooma (Appendix seven). The use of these photos was implemented after a pilot interview with a volunteer, who suggested it may help with encouraging answers about nature. It has to be acknowledged that using photographs “is a highly selective filter” (Teymur 1993, pg 6) that may influence volunteer thoughts on nature. To ensure the photos weren’t influencing interpretations of nature, they were not shown until after the definition of nature question.

3.7 Ethnography

Actions of the researcher have been long identified as influencing the outcomes of the research (Longhurst, Ho et al. 2008). Ethnographical research relies on researchers having a relationship with the research subjects. My position as an SES member (volunteer) made this method particularly promising as the relationships with people and the organisation itself were already in existence. Not only could I observe other SES members enacting their duties but I could also reflect on my own practices towards nature as an SES member. Mullings (1999) identifies that ethnographic techniques such as participant observation are used to gain an in-depth understanding of social groups. Therefore ethnography will be used to gain in-depth understanding of SES volunteer practices and attitudes towards nature. The ethnographic fieldwork consisted of my participation in approximately 25 SES jobs in the time period of the research, (February to March 2011). I also attended weekly SES training sessions. To record this experience I wrote field notes about the jobs I attended and any relevant information to come out of training sessions.
Troman et al. (2007) recognise that there are three dimensions that affect ethnographical relationships. These include personal, political and professional aspects. Personal beliefs and motivations form and shape reasons for conducting research and also influence bodily responses to observed actions. Longhurst et al. (2008) use the example of revulsion at the mixture of sweet and sour on a food plate to illustrate how cultural experiences guide reactions within ethnographic fieldwork. These personal responses are a part of subjectivity and the research experience. My position as a young female also shapes the interview as societal expectations of the binary of masculine and feminine roles comes into play. My rank need to be taken into consideration as I am a team leader, meaning that I am in charge of teams, and am usually the primary decision-maker in SES operations. To avoid this power dynamic the participants aren’t members with whom I would usually interact. My own knowledge of the organisation was used to detect if participants were stretching the truth. For example, the answers of an interviewee that do not appear true to me may not be taken as fact, as they would if a non-SES person was conducting the research. For instance when I was talking to a potential research participant, he spoke about a tree job he had been on and how he had ‘single handily cut this massive tree down’. As I have knowledge of what chainsaws and qualifications are available and needed for a task of that size, I realised I was being lied too and I declined to interview that member. The professional aspect of ethnography reflects research experience and the ability to follow codes of conduct. While I am quite proficient in SES tasks, I am a novice ethnographer and still learning the process. The delay in ethics approval also pushed the fieldwork into a much narrower timeframe, which had implications for the quantity of fieldwork undertaken.

3.7.1 Participant observation and why it wasn’t used

Originally participant observation was to be included as a research method. I was in a unique position to observe, as I already had the SES qualifications and contacts to follow a team without causing safety concerns. The original plan was to observe SES crews completing jobs, in order to analyse participant practices towards nature. The participant observation would provide ground truthing for practices and attitudes described by participants in interviews and surveys. Upon reflection on my insider ethnographer
position, I realised I was too close to the subject to be able to complete formal participant observation. My responsibilities in the SES include ensuring people’s safety, and while watching SES work I could not transition from that role to an observer’s role. Safety had to always come first. I believe that if volunteers knew they were being purposefully watched by someone of a higher rank, they would get nervous and change their behaviour. Considering the real danger in some of these jobs, I did not want to disturb volunteer activities that could have safety ramifications. Instead of watching others and possibly jeopardizing safety, I instead reflected on my own experiences within SES work. This reflection also provides some ground truthing to experiences described by participants. Furthermore, the logistics of watching an SES crew unknown to me would have been impractical. There is often less than 20 minutes notice of a job and I would not have been able to travel out of area on that short notice.

3.8 Rigour of the project

Rigour is identified by Baxter & Eyles (1997) and (Hay 2005) as a measurement of credibility. In order for the results to gain acceptance in academic disciplines, the appropriateness of the methods used must be examined (Baxter and Eyles, 1997). It is good academic practice to examine the methods used, especially in qualitative methods where the mathematical checks and balances within quantitative research are not present. Evaluative research frameworks are a growing field in geography, with geographers such as Tracy (2010) creating new evaluative methods. Lincoln and Guba (1985) have provided a basic framework for ensuring rigour that has been well used to judge qualitative research and adapted by Baxter and Eyles (1997). It is against these criteria that the methods used in this thesis are being judged, to ensure the research is rigorous. The four aspects of Baxter & Eyles (1997) for research rigour are as follows.

3.8.1 Credibility

Credibility is defined as the “authentic representations of experience” (Lincoln and Guba, 1985). Baxter and Eyles (1997) extrapolate this to argue that the representations of the
subject group should be understood as true by not only the academic community but by
the participants themselves. Multiple realities and understandings are accepted and the
greater number of different experiences within the subject sample contributes to its
overall credibility (Baxter and Eyles 1997). The strategies used to enhance credibility of
research include selection procedures, sampling, and triangulation and disciplined
subjectivity (Patten 1990; Baxter and Eyles 1997).

To ensure the credibility of this research several strategies were used. These included
wide subject recruitment, triangulation of research through checking different methods
against each other and the careful assessment of subjectivity. To engage with a range of
both rural and urban volunteers e-mail was used in conjunction with snowballing. This
method may have discouraged less technologically adept members from participating,
but unfortunately there were insufficient funds to use a different method.

The research achieved triangulation by using methods that checked the factual integrity
of each other. The data collected from surveys and interviews gave a general sense of
member’s attitudes and practices in the SES, whilst talking to the participants about SES
jobs confirmed whether they acted upon their attitudes. The ethnographic fieldwork also
creates triangulation as I have considerable SES knowledge to judge whether a
participant was talking about feasible concepts. Alternatively, comparing the general
views of members to the researcher’s findings helped position the researcher’s views on
the spectrum of those found in the SES. As the researcher’s positionality within the SES
creates power issues the subjectivity was very closely monitored and acknowledged.

3.8.2 Transferability

Transferability as defined by (Baxter and Eyles 1997) as the ability for research to be
contextually relevant in other fields. The transferability, or ability to generalise findings,
has not been emphasised in qualitative research, as knowledge is believed to be heavily
tied to the people and circumstances of the research (Warren 2007). This research is
quite specific to the State Emergency Service (SES); however there is scope for the
approach, research questions and the methodology to be transferable to other volunteer or emergency or military services that interact with nature. The methods used may be transferable to future studies of the SES, as the challenges and successes of the methods have been evaluated. The research is also transferable to other aspects of SES work, as the way in which SES transfers knowledge is applicable to more than nature.

3.8.3 Dependability

Dependability is related to the ability of the research design to cope with instability and uncertainty and in essence the plausibility of accounts and design (Baxter and Eyles 1997). Credibility and dependability are quite similar and many tools to confirm credibility are used for dependability (Guba and Lincoln 1989). Dependability is focused on the “degree in which interpretation is made in a consistent manner (Baxter and Eyles, 1997).

This research design has ensured dependability in interpretation by recording all interviews, writing detailed field notes, and carefully acknowledging and analysing the researcher’s and subject’s positionality. It is also suggested that research is audited by those with knowledge of qualitative research (Baxter and Eyles, 1997). This research has undertaken several checks by both peers and those with higher research knowledge such as academics.

3.8.4 Confirmability

The confirmability of qualitative research refers to the amount of bias or motivation that has informed the research process. A thesis with good confirmability acknowledges the influences of the researcher and accurately reports the intent of the research participants. To ensure confirmability, a positionality statement was written to explore the researcher’s relationship with participants, the SES, nature and any theoretical leanings that would influence the information gathered. A research diary written through the research process also allows for changing subjectivity to be recorded and monitored.
3.9 Conclusion

The research methods used were effective in completing the project aims. Through the use of discourse analysis, surveys, semi-structured interviews and ethnography I was able to discover what attitudes and practices volunteers had towards nature. The methods used were flexible enough to deal with the challenges of delayed ethics approval, a busy storm season, a small Honours budget and inability to safely conduct participant observation.

Through using a framework of research evaluation by Lincoln and Guba (1985) and Baxter and Eyles (1997) this chapter illustrates how the research ensures rigour. The chapter also explores how my own position to the SES and nature has changed, throughout the duration of the research. The advantages and disadvantages of my insider position to the research subject have been discussed in this chapter. The project finds that this position provides a unique approach to researching the SES.

Twenty-five surveys, eight interviews and twenty-five ethnographical experiences have been used to uncover how nature is framed, used and thought of in the SES. The results of how nature and the SES are framed within the organisation are explored in Chapter 4, whilst and volunteer attitudes and practices towards nature are discussed in Chapter 5.
Chapter 4 – When nature goes feral

Source: J. McKinnon, 2010
This chapter explores how the SES as an organisation frames nature and its role in relation to nature. Drawing primarily on discourse analysis and ethnographic research, the chapter argues that the SES constructs nature as both a place and a process; the organisation encounters ‘nature’ in particular places, and during specific events, to the exclusion of others. Further, the chapter argues that the SES constructs nature as a binary of good vs. bad. Using Kaika’s (2004) analysis of ‘good’ and ‘bad’ nature, it can be shown that nature is positioned as a threatening ‘other’ in the organisation. The way in which nature is perceived by the SES is important to the research as it guides volunteer attitudes and practices. The nature encountered by SES volunteers often is associated with hazards; hence it makes sense for the organisation to alert both its members and the general public to these dangers. The dangerous ‘bad’ nature shown in training guides and brochures is exposed as both a place and process. Any discussion of the benefits of nature is non-existent within the SES. Through discourse analysis of SES documents and my own ethnographic experience, it is illustrated that the SES paints nature as a fearful and threatening entity in order to keep both volunteers and the general public safe.

The chapter begins with an account of Kaika’s (2004) notion of good and bad nature. It then goes on to show how the SES frames nature as both a place and a process. In section 4.4, I examine the way in which the SES frames its own role in relation to nature, and finally, the chapter considers the limitations that the SES faces in relation to its interactions with nature.

4.1 Ideas of Good and Bad Nature

The work completed by the SES falls into an interesting conceptual crossroads where ideas of ‘bad and good nature’ collide. Kaika (2004) identifies that the conceptual understanding of the modern home is built through the exclusion of social processes and social relations such as crime, natural processes and natural elements. Simultaneously processes of nature are necessary for the running of a home, but are sanitised and processed to take away their threat (Kaika 2004). These processes create a form of ‘good and bad nature’ where ‘good nature’ has been processed and controlled through society
whilst bad nature is uncontrolled and can have harmful consequences. In a natural hazard these roles are challenged and the home-dweller is forced to examine the material processes that create their house and is hence alienated (Kaika, 2004). Within the SES, trees, wind and water are the most common aspects of nature that threaten the sanctity of the modern home. Trees, as shown in section 4.2 create landscapes of both fear and aesthetics in the suburban backyard.

Water is an exemplifier for the idea of hybridities and quasi-objects (Haraway 1988; Latour 1993) as it is neither purely natural nor a human product (Kaika and Swyngedouw 2000). Water occurs naturally but is controlled and produced through human interaction; when water revolts against these human controls the SES is called in to try to tame water back to its position as “good nature”. This is an example that consistently happens in heavy rains, as basement car parks are filled by water that can’t be contained by drainage systems. SES volunteers are then forced to pump out the basements until they are usable by humans.

Kaika (2003) demonstrates through the example of water scarcity, how modernisation has turned what used to be threatening and fearful, such as water, into a necessity for growth. Parts of nature such as trees and water have become commodities in which a “blissful, commodified relationship became established with what was now believed to be a perfectly tamed nature” (Kaika, 2003, pg 921). The urbanisation of areas has been seen to exacerbate this idea, as the city has been further removed from the tamed nature (Kaika and Swyngedouw, 2000). It is when the so-called tamed nature does not behave how humans have expected it too, that people feel threatened.

4.2 How the SES frames nature

The SES frames nature as both a place and a process Drawing on Kaika’s (2004) notion of good and bad nature, as described above, the following sections demonstrate how the SES frames nature firstly as place, through its treatment of suburban backyards and the exclusion of urban nature; and secondly, as process, through presenting nature as a
harmful, threatening other. Discourse analysis of SES documents and ethnographic fieldwork reveal how nature is associated with fear within the organisation.

4.2.1 Urban nature

Within the research, “nature” was often defined as oppositional to urban areas, with one volunteer in particular considering nature as “anything outside the city” (Survey 7). Cities or urban areas were excluded from the participant’s understandings of nature. The division between nature/culture and city/country seems to be present in the attitudes of some volunteers, who don’t see urban areas as capable of having any viable nature (Anderson 2003). This attitude rolls into the practices of volunteers in their own gardens, with one interviewee trying to eradicate all the trees in his yard, as he has seen no good value in urban nature: “It’s not really a positive natural environment in an urban area” (Interviewee 7). Tallmadge (2001) identifies that nature is still seen in opposition to civilisation, an idea that appears to be continuing within an SES context. A large percentage of nature experienced by SES volunteers is where nature is interfering with human settlement in urban and suburban areas.

Survey data illustrates that participant conceptualisation of nature conforms to ideas of wilderness and pristine nature. Throughout the interviews and surveys natural parks and bushland were used as exemplifiers of nature. Two thirds of participants included “Wilderness, flora and fauna and National Parks” (Survey 17) in their definitions of nature. When interview participants were shown a picture of an idyllic national park setting (Mt Kosciusko and surrounds) and a picture of a home damaged by a fallen tree and powerlines (Appendix seven), most interviewees referred to the national park photo as an example of nature.

The exclusion of urban nature is continued in the official documentation within the SES. Any environmental management advice given in the SES is in relation to courses (Land search and 4WD Operations) that interact with the bush and national parks. The SES has provided a small chapter in the Land Search guide, on environmental management. The first sentence of this guide does illustrate the SES’s intentions towards the environment:
“Take care not to damage the environment through misuse or ignorance”. The rest of the chapter is quite anthropocentric with advice that relates to searching through farms and properties, such as: “always respect the wishes of the landholder”. While an anti-litter emphasis is acknowledged in this chapter, it is for a pragmatic rather than a conservationist reason: “Take out everything that you take in, so that your rubbish isn’t mistaken for clues about the missing person” (SES, 2007, pg 22).

The SES also acknowledges more advanced environmental issues in the Trainers guide for Land Search (2007). The document discusses the importance of collaboration with other land management agencies and the need for sensitivity and careful actions in sacred sites: “If searching sensitive areas such as Aboriginal sacred sites, private properties or sand dune regeneration areas, have respect for the wishes of the land owners and for the environment.” (SES 2007, pg 45). This advice does show that the SES has consideration for culturally and environmentally sensitive areas but fails to apply this logic to urban areas.

The exclusion of management advice within urban areas shows that throughout the SES the urban environment is not considered to be nature. These small sections of environmental advice shows that the SES wants to protect the idyllic versions of nature. This is not surprising considering flora, fauna and national parks were the most common ideas of nature identified by volunteers in the surveys. There is not the same advice on environmental issues in courses that occur in an urban or suburban setting such as Storm and Water Damage and General Rescue. Throughout the SES there seems to be a systematic ignorance of urban nature. Furthermore, humans and their property are always the priority within the SES; a policy that is recognised in legislation and from the attitudes of the volunteers themselves.

4.2.2 Nature and the suburban backyard

The suburban backyard is where nature and the home interplay most commonly in an SES context. The suburban backyard is a cultural reflection of the people who live there
as the desires of the inhabitants are shown through the nature represented (Head and Muir 2005). Ideas of good and bad nature are reflected in garden design with desirable plants conforming to human expectations of pleasing aesthetics and shade cover. The SES is very commonly a presence in backyard situations, when trees have dropped branches or completely fallen over. When these trees display behaviours that threaten humans or their property, it is considered to be ‘bad nature’ compared to the ‘good’ commoditised nature as described by Kaika (2004). Head and Muir (2005) found that trees in suburban backyards have symbolic representations of forests. This research has found that backyard trees also have the respect and affection of those who fell them, including SES volunteers. This is exposed through the fieldwork conducted that illustrated that most members surveyed have a respect for nature, especially trees.

People’s attitudes and practices to trees are important to the research question addressed in this thesis, as interview participants have identified that their most common SES interaction with nature is through fallen trees. There is however a different set of attachments to trees in a backyard context compared to a national park or bush setting. While the beauty and importance of trees in national parks are recognised and valued, people are much more pragmatic about the value of trees in their own gardens. If the tree suits their purposes or is a native plant valued by residents it will stay, whereas if it is seen as a danger or in the way of plans it is cut down (Head and Muir 2005). This pragmatic approach to trees can be seen in the SES where many members don’t think twice about cutting down a damaged tree but spend their weekend leisure time in the national parks.

Head and Muir (2005) also identify the tree as a source of danger and fear, which challenges the idea of safety in people’s backyards. Danger was considered by the research subjects to be a major reason why trees were removed in suburban backyards. Trees are the representation of volunteer ideas of nature (flora, fauna etc.) that appear near people’s homes in urban and suburban areas. As Kaika (2004) describes, the home is a defence that keeps out natural processes and natural elements; this home is only kept safe from these undesirables through exclusionary practices. In an SES setting the volunteers are called in when nature has passed its boundaries as an aesthetic, and it is
the SES volunteers who perform part of these exclusionary practices by removing or controlling nature, whether it is through felling a tree or sandbagging a once idyllic creek. The ethnographic research suggests that volunteers experience no guilt in removing or controlling these types of nature as they are seen to be threatening and dangerous. The SES volunteers restore human control over nature when it has gone ‘feral’ and is considered dangerous and threatening.

4.3 Nature as a process

Nature is constructed as a threatening process throughout SES documents; including training guides for members and brochures for the general public. Constructing nature as threatening is beneficial for the SES, as identification of hazards helps scare volunteers and the general public into less risky behaviour. The SES uses discourses of war to further legitimise the idea of the threat of nature.

4.3.1 SES Brochures and Fear

Brochures are given to the general public to inform them on safety aspects of storms and flooding in their areas. The purpose of the brochures is to illustrate the threat of flooding and storms to people’s personal safety. The photos and text used in the brochures are extreme and provide evidence of the nature/society divide, which is apparent throughout the SES. The brochures are also used to scare the public into safer behaviour in storms. The brochures reinforce the idea that the home is under threat from nature. Even leaves are positioned as potentially creating harm to the home as they can fill gutters and eaves. The StormSafe brochure (2005) provides the following suggestions for preparing a household for storms:

- *Clean your downpipes and gutters frequently*
- *Trim overhanging branches*
- *Keep your yard or balcony free from clutter*
- *Make sure your roof is in good repair.*
In the 2009 addition there is the extra advice of:

- Secure or put away any loose items from around the house, yard or balcony. These can become dangerous missiles during storms

The general public is told to avoid nature all together if they want to stay safe throughout a storm. During a storm the StormSafe brochures advise:

- Move indoors, bringing children and pets with you
- Stay clear of windows
- Park your car under secure cover and away from trees, powerlines and drains
- Stay away from creeks, drains, causeways, gutters, streams, creeks, trees and powerlines and any damaged buildings
- If outdoors, seek secure shelter away from drains, causeways, gutters, streams, creeks, trees and powerlines
- Never drive, ride or walk through floodwater.

The language used in these brochures brings a discourse of war; the illustrations and photos used show the home under threat from nature. This is very evident in the logo for the StormSafe series, which depicts lightening striking a home and missile-like branches striking the roof. Four out of the five photos shown in the 2005 version show a home or vehicle under threat from nature with SES members valiantly trying to repair the damage. The fifth photo shows the preparation of an emergency kit for storms. The idea of hoarding supplies recollects the idea of air raids and the seriousness of the threat. The Flash Flood
Business FloodSafe Toolkit (2011) reinforces the idea of fear to encourage people to prepare for events “IT’S ONLY A MATTER OF TIME, RAIN CAN TURN INTO A FLOOD IN A FLASH” and “Only those who are not prepared get caught out” (SES, 2011, Pg 4). This militaristic language and extreme visual examples shows the seriousness of the role the SES is given in restoring the equilibrium of human agency and power over nature. Both editions of the StormSafe brochures use the word ‘protect’ in the writing of the front cover. “Protecting your family and property from storms” (2005) and “How to help protect your home, business and property from storms”. (2009)

The above messages and quotes throughout the brochures reinforce the idea of bad nature (Kaika, 2004) where people’s homes are lives are threatened from nature. The flooding brochures released by the SES illustrate the way ‘bad’ nature (flooding) is framed. Examples of these quotes include; “Even if your home is not directly flooded you may suffer indirectly. Deciding to remain, even if it is raised is dangerous” and “your property may become a refuge for vermin, snakes and spiders” ‘Stack possessions on benches and tables, placing electrical items on top’ These quotes imply that the result of ‘bad’ untamed nature is more undesirable forms of nature invading the home to use as a shelter. Instructions to protect the home during floods include:

- Secure objects that are likely to float and cause damage
- Relocate waste containers, chemicals and poisons well above floor level
- Never drive, ride or walk through flood water – this is the main cause of death during floods as water may be deeper or faster than people think and can contain hidden snags and debris
- Don’t leave your pets behind- they may die
The brochures reaffirm that the good nature of the home has to be protected and preferably excluded from the outside threats of nature. Furthermore, the threat of death used in this brochure illustrates the seriousness of flooding and the way nature is positioned within SES operations. This life or death approach is shown through a historic photo of two men clinging to a street sign pole during flooding.

![Historic photo from FloodSafe brochure.](image)

**Figure 4.2:** Historic photo from FloodSafe brochure.

This life or death theme is reinforced in the Rockdale Area FloodSafe guide (2011) as the area is flash-flood prone. The guides highlight this danger through the repetition of phrases such as:

- *Due to the unpredictable and life-threatening nature of flash floods, the safest action is to evacuate homes and businesses before flash flooding begins*
- *People are often swept away after entering floodwater on foot or in vehicles*
4.3.2 SES Training Guides and Nature

The training guides in the SES reaffirm an idea of good vs. bad nature within the service. The SES’s role as an organisation that restores human agency over a wild nature is shown from the cover of the Storm and Water Damage Learners Guide (2004), as it is the SES correcting the bad nature of a tree against the modernist symbol of a car (see figure 4.3).

The training guides are important documents to analyse within the SES, as they illustrate appropriate ways of interacting with nature. The SES positioning of nature as a dangerous and fearful entity is shown throughout the various training guides analysed including the Storm and Water Damage Course. The Storm and Water Damage Course (SWD) is useful in looking at SES conceptualisations of nature, as it is the course that covers the most common SES jobs. The aims of the course, as stated on page two of the trainers’ guide, is “to mitigate the effects of storm and water damage and to control and avoids hazards in this process” (SES, 2004).
The training guide focuses on the hazardous affects of nature, with no recognition of how human activities have affected or worsened the effects of these events. For example, the threat of tree branches is identified but there is no recognition of why a property is so close to a dangerous tree branch. The only recognition of human agency shown in the training guides is the guidance to talk to property managers about harm reduction measures (SES, 2004).

In the identification of so called ‘bad’ nature vs. ‘good’ nature it is interesting to note that in the identification of hazards on the typical suburban storm job the majority of hazards posed are by *good nature* that has been selectively transformed to enter a home after undergoing significant transformation (Kaika, 2004). This is shown below in figure 4.3, a diagram of common suburban hazards.

![Diagram of common suburban hazards](image)

*Figure 4.3:* Hazards shown for a typical suburban storm job.
The typical work the SES is involved in is where good nature has been challenged by so-called bad nature, or the controlled good nature has turned to become a threat to the home. In this crisis situation it becomes evident that while the modern home has been constructed to be independent and disconnected from nature its function is dependent on the material connection (Kaika, 2004, pg 275). The State Emergency Service comes into contact with nature to reassert the dominance that modernism has given humans over nature. The training guides, through constant identification of potential hazards reinforce the idea that there is a good nature worth saving (the nature that has been commodified in people’s homes) and a bad nature that needs to be battled as it may harm and possibly kill.

Whilst the SES does provide some environmental management guidelines they are very small in comparison to the information provided on the hazards that the environment poses. A picture shown in the Land Search Learning Guide (2007) sends a much stronger message to volunteers that nature is out to get them (Figure 4.5). Within the older SES chainsaw guides (SES 2000) a responsibility to the environment is considered as a part of a professional attitude in chainsaw operations, the texts that refer to this have been replaced with forestry manuals. The promotion of a professional attitude towards chainsawing has been replaced by a guide on cutting healthy trees down. The environmental advice within the training guides is useful in promoting positive interactions with nature. However, whilst out in the field the imperative to avoid natural hazards is much stronger than the advice on environmental issues mentioned in the training guides.
Figure 4.5: Natural hazards present in the Land Search Learning guide
Fear of nature is a concept that most volunteers are well versed in. It is not a notion that most volunteers like to talk about but it is visible in their eyes on occasion. When taking trainees up on a roof for the first time you can see the apprehensive looks in their faces and the shaking of legs as they position themselves on the ladder.

On a personal level I will never forget undergoing basic swift water awareness training and becoming aware of the helplessness of human agency against flood water. Being carried down a white-water rafting course (sans raft) reaffirmed the danger evident in floodwater and has given me a very healthy respect and fear of floodwater.

The fear of nature that is experienced in SES work reinforces ideas of bad and good nature. After seeing the remnants of homes after a tree fall, it is easier to associate some trees and some processes as 'bad nature', making the cutting up of trees a guilt-free endeavour.
4.4 How SES frames its role

The SES frames its own role as a protector from a menacing nature. Discourse analysis regarding nature has been undertaken on important SES documents ranging from legislation to informational brochures. The most guiding policy in the organisation is its legal obligations in *The State Emergency Service Act 1989*. These obligations include:

- To protect persons from dangers to their safety and health, and to protect property from destruction or damage, arising from floods and storms
- To act as the combat agency for dealing with floods (including the establishment of flood warning systems) and to coordinate the evacuation and welfare of affected communities
- To act as the combat agency for damage control for storms and to coordinate the evacuation and welfare of affected communities

From the very start of SES policy nature and all of its forces are constructed as the enemy, with the SES being legally obliged to ‘combat’ these forces of nature and protect the persons of NSW from the danger posed by floods and storms. This idea of nature being constructed as the enemy filters down the chain of command in the SES, and is shown in the groundwork of the volunteers. In the surveys and interviews, the idea of battling nature was mentioned throughout different ranks with one volunteer summing up his view on interactions with nature as “No doubt, SES motto is ‘The worst in Nature, the best in us’. It is all out war, our mind set is to fix the problems that a storm has dumped on us” (Survey nine). While it should be noted that SES has never been envisioned as an environmental protection agency, there is no mention of any responsibility the SES has towards nature. Storms and floods are only mentioned in their capacity to damage people and property rather than the important part they play in revitalising ecosystems and breaking droughts. As discussed in section 4.3 the brochures
within the SES illustrate how the SES positions itself as a protector from a dangerous nature

4.5 SES hands are tied

Discourse analysis of SES documents shows how the SES frames both nature and the organisation itself. Additionally, the documentation shows the SES has a limited extent of power to act on nature outside the constructs of a natural disaster. The discussion of nature in SES annual reports, corporate plans and its memberships in committees illustrates the ways in which the SES is limited in the management of nature. These limitations have lead to informal nature practices being passed on between SES members. The individual team leaders in an SES environment have been found to have a strong influence on what practices are transferred.

4.5.1 SES Annual Reports and Corporate Plans

The last three annual reports released by the SES have been analysed for what they imply about nature, and the SES’s role in relation to nature. The annual reports illustrate clearly that the core business of the SES is fulfilling the legislative requirements of the organisation (as shown in 4.4). “The Service’s core business is managing the effects of floods, storms and tsunamis, which, between them, account for more than two-thirds of the dollar cost of natural disasters in NSW” (SES 2011, pg 9.)

The corporate structure of the SES is not built for environmental considerations, there are no specific environmental sections and all land-use and environmental queries are undertaken by the planning department within the SES, which has a disaster mitigation focus. As the SES has no legal obligation to provide an environment department, there is no group within the service that looks after environmental issues (natural disasters excluded). From the interviews and surveys there was a sense that it was the job of other agencies – such as the Department of Environment and Heritage – to look after nature rather than the SES. The “NSW SES Corporate Plan 2011-2015”(2011) was introduced in 2011 as a guiding document for the organisation. Within the corporate plan there is no
mention of nature or environmental responsibility. The document calls for a ‘One SES’ approach where all units operate in the same way: ‘All members come together and form the “One SES”. To be as effective as we can in our roles, we will review, improve and implement the framework that creates “One SES” and enhances our ability to deliver the best services to communities’ (SES, 2011, pg 8). It could be said from the document that the ‘One SES’ approach to nature is to ignore it until it becomes threatening and hence an SES problem.

4.5.2 SES Committees

Another aspect of the SES’s role is its participation in planning and mitigation committees. The SES is a part of many local, state and national emergency committees that are emergency related; the only committee of these having an environmental focus is the Climate Change Committee for the Southern Sydney Councils. The SES has also been one of the first emergency response agencies to attend National Climate Change Forums (SES 2011). The participation of the agency in these two events shows an awareness of climate change, showing the organisation realises the potential for worsening flood and storm conditions that would accompany climate change (Mooney, 2007). This participation in committees shows that where it is in the scope of SES’s role, the organisation will take consideration of environmental issues. However the SES in comparison to other agencies is not adapting widespread environmental practices such as carbon neutrality, with the exception of a mention of more fuel efficient vehicles in the latest annual report (SES 2011).

The SES is restricted in taking action on issues regarding nature and the environment as it is bound legislatively to ‘combat’ the effects of nature at its worst. The legal and funding structure of the SES restricts its ability to incorporate the management of nature into its activities on a wide scale. In effect there is not much the SES can do with nature until it has turned ‘feral’.
4.5.3 Informal environmental knowledge transfer

As discussed above, the SES is somewhat limited in giving environmental management advice. In lieu of official guides there is an unofficial guide on environmental management within the SES. Ideas and practices towards natures are passed on from senior members to more junior members. For example through my own time in the SES it was through a Team Leader that I found out about the policy of only cutting down damaged and dangerous trees. Several research participants also talked about the influence of team leaders on actions that occur on jobs (Interviewee 6). Furthermore, there were responses that repeated themselves throughout the surveys that were not mentioned on official guidelines such as “leave only footprints behinds”. This suggests messages being passed on informally through members, although the influence of conservation messages in the media can’t be discounted either.

4.6 Conclusion

Through analysis of SES documentation and my own ethnographic experience it is evident that nature is conceptualised as both a place and process by the SES. Nature is portrayed by the SES as threatening, allowing the organisation to use fear as a behaviour deterrent. If nature is portrayed as dangerous, people including SES members are less likely to place themselves in harm. In addition, the dangerous associations laden on nature allow the SES to place itself as a protector that battles nature. Legislation and official SES policy do not allow the SES to become involved with nature until it has gone ‘feral’ and is threatening human life or property. As official policy only covers nature when it is threatening, informal knowledge transfer is used to advise the management of non-threatening nature.

The SES’s position on nature influences the attitudes and practice of volunteers. This is the subject of Chapter 5.
Chapter 5: SES Volunteers’ ideas of nature

Source: J. McKinnon, 2011
The fieldwork, including ethnographic research, has contributed to an understanding of what SES volunteers consider nature to be. Unsurprisingly, the diversity in SES membership and volunteer experience leads to various entangled ideas and concepts relating to nature and the SES. These understandings and experiences with nature were gathered through surveys, interviews and ethnographic fieldwork. Approximately 25 surveys were returned, 8 interviews were undertaken and four years of ethnographic experience was used to comprise the fieldwork. The volunteers recruited for the study were predominantly male (92%), from urban areas (58%). There was however an equal distribution of ranks in the study with team members comprising 33%, Team Leaders and Deputy Team Leaders (TL/DTL) 33% and officers (deputy rescue/operations officer and above) 34%. This distribution of rank was similar for both urban and rural areas. The educational and occupational status of participants wasn’t asked in the survey and hence has not been calculated. The occupation of the participants was obtained informally in the interviews but the sample size is too small to generate substantive claims regarding attitudes and practices. Whilst the group overall is not a statistically significant sample group it gives a good idea of what attitudes and practices exist in the greater SES.

5.1 When you think of nature, what do you think of?

Question three in the survey asked respondents “When you think of nature, what you think of?” The most prevalent ideas about nature represented in the survey referred to flora and fauna, with 60% of participants listing flora and fauna or animals and plants in their responses. This idea of nature is reflected in wider/broader society and is identified by Cronon (1996) and Castree (2001) as a part of the social construction of nature. This idea of nature being flora and fauna is consistent with what is shown as nature within the literature of the SES. Any mentions of nature in training guides refer to the impacts of activities on flora and fauna. Furthermore it is only when interactions with nature involve pristine flora and fauna that the potential impacts on the environment/nature are highlighted within SES literature. This is shown most clearly in the Land Search (2007) and Four Wheel Drive training guides (2007). Although the ideas created by SES literature
are reflective of the social construction of nature, the volunteers themselves reject this theory as it does not reflect their lived reality.

For some respondents (46%) weather was considered as a part of nature. In addition 20% of survey respondents identified storms and floods as a part of nature, separate from the weather. These mentions of weather, storm and flood could be seen to be reflective of the nature most commonly thought of and encountered by SES volunteers. Some interviewees also talked about dual interpretations of nature, where they had an everyday understanding of nature and an SES understanding of nature. While only 45% of people mentioned the weather as a part of nature, a much higher percentage identified the weather as part of their interaction with nature. This difference means that some participants don’t immediately consider weather in their definition of nature, but the role of weather becomes apparent through their participation in the SES.

Many volunteers also identified nature as part of the society/nature binary by identifying nature as “things outside manmade”, however some volunteers did identify humans and the built environments as part of nature. It is unsurprising after reviewing SES documentation that there is a strong theme of nature/society dualism, as the documentation illustrates a strong occurrence of a nature/society binary, especially in the illustration of nature as something destructive and to be feared. Many participants also mentioned the destructive elements of nature within their survey responses. The strong association with the destructive power of nature may be linked to the experiences and memories of SES members, whom have seen traumatic examples of the power of nature. Nearly all interview subjects referred to trees falling on houses as examples of nature they have seen. Many participants interviewed had also witnessed the destructive power of flooding within urban and rural areas. These experiences of destruction have changed the attitude of some volunteers towards nature, as discussed in section 5.2.

The rank of the volunteer also influenced the responses of volunteers towards nature, while the data collected is in no way statistically significant they do show that among those surveyed and interviewed, those in officer positions have different ideas on nature than those who have lower ranks or no rank. Whilst ranks are not based specifically on
how long a volunteer has been in the service, it does take time to gain the experience needed for a higher ranking. Hence through analysing the response through rank, an idea of changing attitudes can be observed (Table 5.1).

<table>
<thead>
<tr>
<th>Ideas of nature</th>
<th>Flora/fauna</th>
<th>weather</th>
<th>Floods/storms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>62.5%</td>
<td>62.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Team leader/deputy team leader</td>
<td>87.5%</td>
<td>37.5%</td>
<td>25%</td>
</tr>
<tr>
<td>Team members</td>
<td>62.5%</td>
<td>25%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 5.1: Ideas of what constitutes nature from question three, split by rank.

![Ideas about Nature](chart.png)

Figure: 5.1 – SES volunteer ideas about nature

As shown in Figure. 5.1, officers in the service are more likely to include storms and floods as specific parts of nature than those ranked TL or DTL and those who are team members. This could be reflective of a changing idea about nature through longer service time. Those who are officers have more duty responsibilities and are forced to watch the weather more closely. Officer ranks identified the weather as a part of nature as frequently as they identified flora and fauna. Within the officer ranks all responses fit into the flora and fauna/weather/storms categories; in contrast, answers from lower
ranks evoked more ideas about recreation and ideas of the majesty of nature which
didn’t fit into the above categories. The TL/DTL category was the one most likely to
identify nature as flora and fauna; this is not surprising as those in the TL/DTL category
still carry out jobs out in the field and have several years experience of working with
nature within the SES. Those who were in the lower ranks had the lowest number of
responses in considering the weather and storms and floods as part of nature. This group
would have the least amount of time and experience in the SES and may have not
responded to a large number of SES jobs so far. The above data is reflective that time in
the SES may contribute to changing attitudes of what is considered ‘nature’.

When comparing the results from rural volunteers compared to urban volunteers
interesting patterns of results emerge. There is a real difference in the perception of
nature by urban team leaders and deputy team leaders to their rural counterparts. Urban
members are much more likely to include weather and storms in their definition of
nature than rural members. It may be beyond the scope of the study to understand why
there is this difference in perception. This question also warrants further research at a
later stage.

The results from surveys and interviews show that the majority of SES members see
nature as discrete objects such as flora and fauna. This could be due to the reality of out
in the field SES work where the work is systematically undertaken one job at a time.
Those in operations and higher ranks have a wider context of the management of these
events. As those in higher positions of the service deal with nature in a bigger picture
context they are more likely to identify nature as a process. From personal experience,
the lower ranked members in SES encounter a smaller, on the ground perspective of an
event which leads them to identify with nature as an object more than a process.

The idea of anthropogenic climate change was raised by only one respondent in the
surveys, who referred to climate change as the “Julia Gillard/Al Gore furphy” (Survey 16).
Furthermore, current debates over climate change were not mentioned (with the
exception of one) in the surveys, which is interesting as there was heavy media coverage
in regards to carbon tax in the time period during which the surveys were sent. The lack
of discussion regarding this topic could be due to the wording on the surveys, which didn’t refer to climate change. SES members are usually reluctant to talk about any controversial topics such as politics and religion with other members. This informal agreement may have continued into the filling out of surveys and interview responses. Also this could be characteristic of the belief systems of volunteers towards nature, where it is seen as a discrete entity rather than part of a global system.

The background of the volunteers also influenced the understandings of nature the volunteers had; those who had tertiary qualifications and dealt with the ramifications of urban nature (an urban planner and an insurance analyst) did believe in the ideas of urban nature. The members who did not have tertiary qualifications identified nature in more of a binary fashion. As the surveys were anonymous and did not ask for educational background, this is an observation from the interviewees who mentioned their occupation in passing. Understanding the background of the volunteers may be a powerful predictor of attitudes towards the environment.

Nature as a place for recreation was also identified by some volunteers who mentioned sporting activities such as hiking and camping in their understandings of nature. This relates to ideas of nature identified by White (1996), discusses the different understandings among those who work with nature compared to those who use it for recreational activities. White found that those who worked with timber and in wilderness settings romanticised the notion less than those who used it purely for recreation. As SES members work within nature more than the average person, it is expected that their ideas of wilderness and nature would encompass more than picturesque scenery.

5.2 The SES and changing attitudes to nature

To investigate whether involvement within the SES changes ideas and practices towards nature a question was asked in the surveys “Has being in the SES changed or challenged your attitude to nature?” Again there was a variety of answers to the question of whether involvement in the SES had changed ideas of nature: 37.5% of respondents
stated that their view towards nature had not changed since joining the SES, although some answers considered a change in attitude towards the weather to be separate to a changed view of nature. Analysing the responses by rank as shown in table 5.2, found that more officers identified that their attitudes had changed towards nature than those of lower rank. There was also a trend that urban SES members were more likely to have changed their attitude towards nature than those from rural areas. This may be due to urban members experiencing new weather conditions and phenomena through the SES, whereas rural members may have experienced this prior to joining the service. Once again, this difference in urban and rural respondents would be an interesting area for further study.

<table>
<thead>
<tr>
<th>Attitude changed</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>75%</td>
</tr>
<tr>
<td>Team leader/deputy team leader</td>
<td>37.5%</td>
</tr>
<tr>
<td>Team members</td>
<td>37.5%</td>
</tr>
</tbody>
</table>

There is a strong sense from the surveys that involvement in the SES has increased the respect that respondents have towards nature after seeing the power of nature in storms and flooding. Those who said that they have changed their attitude, talk of a greater awareness about nature in its ability for destructive action “It has made me more aware of dangers from the environment like fire, flood, storm etc. so that I now try to minimise exposure to those risks.” (Survey 3) There was also a sense of members having to go into battle with nature through their SES involvement, whereas previously they saw nature as a “fluffy feeling of green and good” (Survey 9). This concept of battling nature helped conceptualise why the author and other volunteers interviewed rejected the idea of the social construction of nature. The volunteers had too many lived experiences with nature to be able to think of it as solely a social construct. Rather the more-than-human geographies that encapsulate “messy encounters” (Braun 2008) better fit volunteer experiences with nature. The idea of lived experiences with nature is explored in Chapter 2 in the more-than-human geographies of nature section.
The overwhelming theme from talking to volunteers about nature was the amount of respect they hold for nature. Through encountering nature while volunteering for the SES the respondents gained a greater knowledge about the destructive power of nature “Yes, I realised the destructive power of nature, especially wind and floods” (Survey six). Many interviewees talked about the impact of seeing a home destroyed by trees and how that has made them more alert to their own vulnerability at home. One interview participant talked about his preference to have no trees in his home as they caused too much potential for trouble if they fell (Interviewee seven).

5.3 Does the SES interact with nature?

The volunteers were questioned on whether they feel that they interact with nature in the undertaking of SES work. The majority of responses identified that SES work does involve interaction with nature, with the most commonly identified activities including tree jobs, land searches, flooding responses and interacting with the weather. Many volunteers don’t consider the SES work within an urban setting to be an interaction with nature. Some volunteers did not see their work as an interaction with nature, rather they believe they help ‘mop up’ the scene after nature interacts with society: “I work with cleaning up the issues that natural disasters have already caused” (Survey 6). This again is reflective of the nature/society binary that is prevalent in many aspects of SES operations. This question also raised the idea of SES battling nature, with one volunteer response referring to the SES interaction with nature as an “all out war, our mind is set to fix the problems that a storm has dumped on us”; “If we don’t work with it and respect its power we will become one of its victims as well”.

A proportion of volunteers didn’t believe they generally interact with nature but shared stories about individual encounters with nature. One volunteer talked about a growing dislike of leeches through his SES experience, whilst another volunteer showed how interactions with nature had forced the unit to train a member as a snake handler due to the numbers of snakes during flooding. Despite describing interactions with nature, many survey responses reflect that volunteers don’t believe they interact with nature. This
could be due to volunteers believing that they ‘mop up’ after nature rather than interact with it.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>87.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Team leader/deputy team leader</td>
<td>63.5%</td>
<td>25%</td>
</tr>
<tr>
<td>Team members</td>
<td>75%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Table 5.3: Percentage of SES personnel who believe they interact with nature

Very high numbers of volunteers believe that they work within nature, with officers representing the highest percentage. Ironically, it is officers that are least likely to be out in the field compared to other ranks. The TL/DTL ranks were the most unlikely to indicate that they interact with nature in the SES. This statistic may be related to the narrower definition of nature that TL/DTL participants indicated in the question ‘what is nature?’ These statistics have important implications, as implementation of policy about nature would be difficult if members don’t believe they don’t come into contact.

5.4 SES Responsibility towards Nature

There was a substantial response to the question concerning the SES’s responsibility towards nature. Many respondents didn’t think the SES had a specific responsibility; rather that everyone in the organisation has an individual responsibility to look after nature and the environment. This attitude is reflective of my own experience in the organisation, where ideas of ‘leave nothing but a footprint’ have been advocated in non-urban environments. Activities such as four-wheel driving and land-search exercises raise awareness on keeping the surrounding nature as undisturbed as possible. Environmental management actions included avoiding ecologically sensitive locations and thorough inspections to ensure no rubbish is left behind after training. This differs somewhat to tree and roof jobs in an urban area where wood or broken tiles are stacked for the landowners to deal with. Some survey answers referred to strong unit management that would not allow harm towards the environment and nature: “Our leadership would not tolerate activities which unnecessarily harm the environment”. Various interviewees also
identified that ‘legally’ the SES is off the hook, as environmental management is the responsibility of other government agencies.

Some SES members believe that the SES has no responsibility to nature and identify that activities such as chain sawing and sandbagging are destroying the environment. A theme of the interviews and surveys was the importance of human agency taking precedence over nature; where it comes down to humans or nature, humans win. This aligns with the legal responsibilities of the SES, which require that the organisation protects the people of NSW from the impact and damage from storms, tsunamis and floods (SES 2011). People also questioned the idea of being responsible for nature, when it is such a destructive force. Many people believed the SES was responsible for cleaning up nature’s mess. The idea of cleaning up after nature links into the discourse provided by SES literature that positions the SES as the agency that reinforces human agency over nature once it has misbehaved. As discussed in chapter four, Kaika (2004) discusses the modernist discourse of ‘good’ and ‘bad’ nature and how nature is ‘good’ once human agency has modified it for its own purpose. The SES in this context enters the scene when nature has gone bad and has become threatening to the human domination of the natural environment. It is then the SES’s job to remove and mitigate the hazard that is threatening the home and to restore the equilibrium.

Analysis of the surveys indicates that environmental attitudes and practices are determined at a unit level where the approaches of those in charge determine the practices in the environment. The determination of decisions at this level is why there is such a variety in attitudes and practices, due to the sheer number of leadership positions involved. There is a wide range of people that inhibit on the ground management positions of Deputy Team Leader and Team Leader (such as myself), and the proficiency of the personnel in these positions varies greatly. There are those whose leadership follows SES policy and practice precisely and there are team leaders whose incompetence is frightening. For example there was a team leader known to me, who tested downed power lines by picking them up.
In analysing the responses according to rank, team members were the most apt to feel that SES has a responsibility to nature, and officers were the least likely. As officers are more likely to identify storms and the weather as part of nature it is probable that they do not feel the SES has responsibility for these phenomenon. With team members and TL/DTL being more likely to identify flora and fauna as nature, there is a higher level of responsibility towards nature as it is more tangible.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td>37.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Team leader/deputy</td>
<td>50%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Team members</td>
<td>75%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Table 5.4: Percentage of SES personnel who believe the SES has a responsibility to nature.

![Perceptions of SES responsibility for nature](image)

**Figure 5.3:** Perceptions of SES responsibility to nature by rank and location.

Whilst not statistically significantly, among the respondents there is a higher percentage of rural members who feel that SES has a responsibility towards nature. This could be a result of more rural SES members directly working with nature, e.g. farming or being aware of environmental issues such as salinity. In both rural and urban areas it was the
TL/DTL and team members who felt that the SES has a responsibility towards nature. This is reflective of the higher percentage of team members and their leaders who are out in the field rather than in an office. In research concerning the future of wilderness Dearden (2007) suggests that the more time spent in a wilderness environment, the more likely people are to identify with that environment.

5.5 SES Policies towards nature

In both the interviews and surveys respondents were asked if they knew of any official policy that the SES has towards nature or the environment. In regards to existing policies towards nature in the SES, no one could identify a specific policy that deals with nature. It should be noted that paid staff from both State Headquarters and various Region Headquarters could not identify a policy; hence it is extremely likely not to exist. Some respondents have never seen a policy but assumed there would be one. Although volunteers did not identify a formal policy, they did identify a “principle of minimal impact” which seems to be perpetuated informally. Several volunteers considered the environmental advice given in the 4WD and Land Search courses to be the closest thing to an environmental policy in the SES. These courses were mentioned frequently enough for the training guides to be analysed as part of the research, as detailed in chapter four.

Whilst most of the respondents spoke positively about volunteer practices towards nature, other participants spoke of some members having a “personal policy against nature and environmental care” (Survey 18). A survey participant described that he finds “some peoples disregard for nature somewhat disturbing” (Survey 16). The variety of the responses gathered from this survey question shows that there is ill-defined and non-existent SES policy towards nature. Furthermore volunteers have a wide range of both ‘good’ and ‘bad’ practices towards nature due to this policy vacuum.
5.6 Urban Nature

The other theme that comes from the responses is the rejection of urban nature as an idea. Respondents often didn’t count their experiences of volunteering in urban areas to be interactions with nature. This has been shown in both SES literature and responses from interviews where the interviewees have identified that nature outside the urban areas is treated differently to nature in urban areas. Furthermore training guides talk about the hazards of nature encountered in non-urban environments rather than nature found in urban environments. One of the interviewees suggested that nature could occur in urban areas, but he considered it to be a negative thing due to the trouble it caused.

Interviewees also identified that urban nature was treated differently to rural nature, as in rural areas the nature was more likely to affect people’s livelihoods. Interviewees have also discussed that they believe people in rural areas tend to be more self reliant and the SES gets called out for the more serious jobs. This opinion could be skewed by the number of people in urban units interviewed. Whilst many of the urban volunteers travelled to rural units to give assistance, a major event has to happen before people are requested to help other units.

In the last decade there has been a growing body of work on urban nature that includes Heynen (2006), Hinchliffe (2007), Whatmore (2006), Swyngedouw (2006) and Kaika (Heynen, Kaika et al. 2006). Whatmore and Hinchliffe (2005) have examined the urban wildlife and spaces for non-humans, while the socio-economic ramifications of urban access to nature have been explored by Heynen, Kaika and Swyngedouw (2006). The range of academic studies on urban nature shows there is a difference between the academic acceptance of urban nature and the SES volunteer acceptance of urban nature. This is shown in interview responses, where volunteers talk about how urban and unnatural their area is, but will later describe all the interactions with nature in the same ‘unnatural’ area.
5.7 The impact of nature on volunteers

The volunteer’s attitude to nature is also influenced by actions they take when the weather starts to look ugly. Many respondents talked about cancelling activities and reducing their alcohol intake when the weather is bad as the likelihood of call outs is higher. “But it’s more like a cringe like yeah, the weather’s bad, I’ll cancel this, I can’t go there, I’ll do this” (Interviewee seven). Some interviewees who were on duty rosters were even further restricted as they were requested to stay within the area for lengths of time. This cancelling of leisure activities and geographic restrictions can cause tensions for volunteers and can cause a level of resentment towards the service. This resentment and conflict over time spent in the SES can lead to shortcuts whilst performing SES activities as people are striving to get home early, to appease family members and get to social activities on time. These shortcuts such as chopping a branch down in larger chunks creates more safety issues and is more likely to cause damage to the surrounding nature, as there is extra weight hurtling towards the ground.

Alternatively some volunteers talk about how their experience with adverse nature had made them appreciate nature – such as good weather – more than before they joined the service. Many interviewees also talked about constantly monitoring the bureau of meteorology website to see the emerging weather and weather warnings. Not only do volunteer actions affect nature but nature affects volunteer actions. The impacts of these effects need to be monitored to ensure safe working procedures and minimal environmental harm.

5.8 Conclusion

There is a wide variety of attitudes and practices towards nature that exist in the NSW SES. A large percentage of participants understand nature as part of a nature/society binary, where nature is anywhere that society is not. This binary thinking explains why participants identified flora and fauna as nature and did not accept the idea of urban natures. However concepts of nature, as understood by SES volunteers, are more complex than just binary thinking, as different ranks within the service included different
concepts in their understandings of nature. Those in higher ranks such as officers or TL/DTL were more likely to include weather and storms in their definition of nature. This shows a changing concept of nature through longer service time and experience in the SES, as well as role/function within the organisation. Sixty-two percent of participants agreed that their attitudes towards nature had changed since joining the SES. For the most part, participants indicated that they had gained respect for nature through their involvement in the SES.

SES participants in the surveys and interviews overwhelmingly agreed that they interact with nature; however most of the examples of this interaction were in wilderness or bush settings rather than the everyday operations in people’s backyards. Additionally there were many impassioned ideas regarding whether the SES has a responsibility to nature. A much higher percentage of rural members believed that the SES has a responsibility to nature than their urban counterparts. Officers also considered that nature wasn’t an SES responsibility much more frequently than other ranks. The variety of responses shown illustrates that there needs to be targeted strategies about nature for SES members, as the opinions and practices vary across roles and locations. The only question in which there was universal agreement was that there is no SES environmental/nature policy.

The results of the fieldwork also show that urban nature is a concept that has not gained traction in the SES, despite wider academic acceptance. Many urban volunteers prefer to exclude nature from their homes due to the potential problems it can bring. Volunteer perceptions and practices towards nature are also affected by the pressures of volunteering in the SES. Time and family pressures on volunteers can lead to a resentment of nature, especially the weather, as some volunteers will have to cancel social activities to go out on jobs. If SES activities are rushed, shortcuts that risk both safety and the surrounding environment are implemented. In conclusion, volunteer attitudes and practices toward nature change depending on the experience, ranking and location of volunteers. To manage SES interactions with nature, the personal circumstances of volunteers and these changing constructs need be taken into account.
Chapter Six – Conclusions and Recommendations

Source: J.McKinnon, 2010
This concluding chapter of the thesis identifies the significance of research undertaken, provides recommendations for the SES, identifies areas for future study and summarises key findings of the research. As this week is National SES Week (7-13 November, 2011) it is an appropriate time to be addressing future challenges of the organisation.

6.1 Addressing Aims of the research

As identified in the introduction, the overarching aim of this research has been to explore NSW SES volunteer attitudes and practices towards nature. The way in which the SES frames nature was also examined, as it effects volunteer perceptions of nature. Within these aims there are several questions that also needed to be investigated. In order to investigate volunteer attitudes to nature, the following questions were posed:

- How do Volunteers define nature?
- What academic literature helps conceptualise the SES’s position towards nature?
- Has joining the SES changed people’s attitudes towards nature?
- Do volunteers believe the SES has a responsibility for the environment?
- Do volunteers have different attitudes towards urban and rural nature?

Through analysing the interviews and surveys these questions were able to be answered in chapters five and two. In summary, SES volunteers: define nature as flora, fauna and national parks; generally become more respectful of nature through volunteering; believe they have a responsibility to nature if they are rural and lower ranked; and have different attitudes towards rural and urban nature. There is a range of literature on the social construction of nature and more-than-human geographies that conceptualise the way volunteers may view nature. Literature on natural hazards and the SES also provides guidance on volunteer attitudes and practices.

Practices of SES volunteers have been explored through researching the following questions:
• Do volunteers treat urban nature differently to rural nature?
• How do volunteers believe they interact with nature?
• What practices are being shown by volunteers in the ethnographic fieldwork?

The above questions were explored through surveys, interviews and ethnographic fieldwork. Volunteers were more likely to believe that they take precautions and interact with rural nature rather than urban nature. Land search and four wheel driving were considered the most common interactions with nature by volunteers. Ethnographic fieldwork was able to show the importance of chainsawing to volunteers and how fear is employed in SES work.

Discourse analysis in chapter four was used to show how the SES frames nature. The SES constructs nature as both a place and a process; the organisation encounters ‘nature’ in particular places, and during specific events, to the exclusion of others. Nature is also considered to be a harmful ‘other’ in SES training guides and brochures.

6.2 Summary of Findings

Chapter one of this thesis provides an overview of the aims and objectives of the research. As discussed in the aims section, the overarching aim for the research was to ‘explore attitudes and practices of SES volunteers towards nature’. The chapter then describes the SES as a predominantly volunteer organisation that has approximately 10,000 members. The SES has legal responsibility to ‘manage the effects of floods, storms and tsunamis’ (SES, 2011)

In chapter two the literature on various conceptualisations of nature and wilderness is investigated as it influences volunteer understandings of nature. The theories on nature have developed significantly in the last 20 years, the most influential and relevant theories are discussed including the social construction of nature, actor-network theory and non-representational theories. The literature on the social construction of nature reveals how nature is portrayed and laden with human values. This concept allows an understanding of how the SES constructs nature for its own purposes. The more-than-
human geographies of actor-network theory and non-representational theory build on social constructionism and promote the agency of non-humans in nature. These theories are more complementary to the beliefs of SES members including myself, who do not except the passive role of flora and fauna suggested in strong social constructionism. The non-representational theory provided the theoretical understanding for the ethnographic fieldwork undertaken, as the theory encourages participating in everyday practices to builds understandings of both space and place. The literature on natural disasters is also investigated, as the SES volunteer often encounters nature as a natural disaster. Early critiques of the social construction of disaster are reviewed in addition to literature on political ecology. Finally the eclectic group of literature that exists on the State Emergency Service is examined, to show what research has been established and where more work is needed. As shown by chapter two there is scarcity of literature on the SES and nature; this research intends to address that gap in the literature.

Chapter three describes and justifies the research methods used within the thesis. The chapter shows the research methods used were effective in completing the project aims. Through the use of discourse analysis, surveys, semi-structured interviews and ethnography the attitudes and practices volunteers have towards nature were discovered. Twenty-five surveys, eight interviews and twenty-five ethnographical experiences have been used to uncover how nature is framed, used and thought of in the SES. The methods used were flexible enough to deal with the challenges of delayed ethics approval, a busy storm season, a small Honours budget and inability to safely conduct participant observation. Through using a framework of research evaluation by Lincoln and Guba (1985) and Baxter and Eyles (1997) the rigour of the research was examined. The chapter also explores how my own position with relation to the SES and nature has changed throughout the duration of the research. The advantages and disadvantages of my insider position to the research subject have been discussed. My positionality to the research provides a unique approach to researching the SES.

Chapter four is entitled ‘When nature goes feral’, and it explores how the SES as an organisation frames nature and its role in relation to nature. Through discourse analysis and ethnographic research, the chapter argues that the SES constructs nature as both a
place and a process; the organisation encounters ‘nature’ in particular places, and during specific events, to the exclusion of others. Kaika’s (2004) binary of ‘good’ and ‘bad’ nature, as constructed by the SES, shows that nature is positioned as a threatening ‘other’ in the organisation. The nature encountered by SES volunteers often is associated with hazards; hence it makes sense for the organisation to alert both its members and the general public to these dangers. The dangerous ‘bad’ nature shown in training guides and brochures is exposed as both a place and process. Any discussion of the benefits of nature is non-existent within the SES. Through discourse analysis of SES documents and my own ethnographic experience, it is illustrated that the SES paints nature as a fearful and threatening entity in order to keep both volunteers and the general public safe.

The fieldwork, including ethnographic research, has contributed to an understanding of what SES volunteers consider nature to be. Unsurprisingly, the diversity in SES membership and volunteer experience leads to various entangled ideas and concepts relating to nature and the SES. There is a wide variety of attitudes and practices towards nature that exist in the NSW SES. A large percentage of participants understand nature as part of a nature/society binary, where nature is anywhere that society is not. This binary thinking explains why participants identified flora and fauna as nature and did not accept the idea of urban natures. However different ranks within the service included different concepts in their understandings of nature. Those in higher ranks such as officers or TL/DTL were more likely to include weather and storms in their definition of nature. This shows a changing concept of nature through longer service time and experience in the SES, as well as role/function within the organisation. Sixty-two percent of participants agreed that their attitudes towards nature had changed since joining the SES; most participants indicated they had gained a greater respect for nature. SES participants in the surveys and interviews overwhelmingly agreed that they interact with nature; the majority of examples used were in wilderness or bush settings rather than the everyday operations in people’s backyards. Ideas regarding the SES’s responsibility to nature split among volunteer location and rank; rural and lower ranked volunteers felt the SES had a responsibility to nature much more frequently than their urban and higher ranked counterparts. The variation of ideas across location and ranks illustrates the need for
targeted strategies towards nature, as there is no common consensus on the topic. The only exception to this rule is that all volunteers agree there is no policy on nature.

The results of the fieldwork also show that urban nature is a concept that has not gained traction in the SES, despite wider academic acceptance. Many urban volunteers prefer to exclude nature from their homes due to the potential problems it can bring. Volunteer perceptions and practices towards nature are also affected by the pressures of volunteering in the SES. Time and family pressures on volunteers can lead to a resentment of nature, especially the weather, as some volunteers will have to cancel social activities to go out on jobs. If SES activities are rushed, shortcuts that risk both safety and the surrounding environment are implemented. In conclusion, volunteer attitudes and practices toward nature change depending on the experience, ranking and location of volunteers. To manage SES interactions with nature, the personal circumstances of volunteers and these changing constructs need be taken into account.

6.3 Significance of the research

These research findings are able to contribute to the body of research on the SES. Research on volunteers rather than operational responses is in its infancy, with the exception of Graham and Spennemann (2006) who investigate heritage awareness among SES Controllers. To my knowledge there has been no research undertaken on nature and the SES, besides this thesis. This research will be able to form a basis of knowledge on SES attitudes and practices towards nature that can be researched further. The research establishes that attitudes towards nature differ according to the rank of the volunteer. The fieldwork also suggests that attitudes towards nature do change through SES volunteering. The change in attitude as volunteers gain experience needs to be noted when activities towards nature are planned as the experience and location of the volunteer will affect their interactions with nature.

The experiences documented in this thesis also highlight some of the challenges of researching volunteer emergency services. The bureaucracy experienced in obtaining research permission, as described in chapter three, is a significant hurdle to the research.
As obtaining research permission took several months, there was a limited timeframe for fieldwork, which impacted on the quantity of fieldwork undertaken. Future researchers looking into the SES should be aware that there is an ‘anti-greenie’ belief that is fairly pervasive throughout the organisation. Researchers should be prepared to encounter a defensive position if asking questions regarding the environment or nature. The other challenge experienced is the rush of a busy storm season, when SES staff are too busy to be answering emails. Volunteers are committing so much of their time towards SES work, there is often familial tension over volunteering which can be exacerbated by asking for more of the volunteer’s time. If future researchers are undertaking fieldwork in a busy storm season they should be very patient and facilitate interviews and surveys to be of most convenience to volunteers.

6.4 Recommendations

In light of the research undertaken, my first recommendation is for the SES to provide a comprehensive nature policy. Not one participant identified any environmental or nature policy existing in the SES. Considering some participants were SES staff, I am very confident that a policy doesn’t exist. The lack of formal policy can help explain why answers regarding responsibility and interactions with nature varied greatly in the fieldwork.

A policy that outlines the roles and responsibilities that volunteers have towards nature would be beneficial to the service. This policy needs to acknowledge urban nature, as it is the predominant place in which nature is encountered by the SES and the ignorance of urban nature can lead to its destruction. Many participants in the study did not count the urban nature they interacted with as nature, as it is in opposition to the volunteer definitions of nature, which predominantly include national parks, flora, fauna and bush land. A nature/environmental policy would help some SES members treat the urban nature they encounter with the same respect and consideration that is given to the nature in bush or wilderness areas. The input of environmental scientists and arborists would also provide extra information and solutions to current interactions with nature. A central policy would also empower members to challenge bad environmental decision
making, as they would have written policy to help back them up. In my own SES experience I have seen policy used to stop bad safety decisions, especially after a review of lifting and lowering people in training. A central document would support the haphazard arrangement of environmental management decision that is supplied in the different training guides, as seen in chapter four.

Any policy or strategy that targets nature should have a multi-facetted approach. Fieldwork has shown that volunteers from different locations and ranks have very different ideas of nature. If more information on nature was given to SES members it would help the less experienced members to make sound environmental choices, without relying on a very experienced member to be around every time.

Through the fieldwork conducted, it became apparent that the role of team leaders in the SES was very important. The team leaders and senior management were passing on their own environmental knowledge, rather than there being a formal SES policy. In many cases this is a positive thing and members are receiving sound advice. In some cases however, irresponsible behaviours and attitudes are being transferred through the ranks. This is a problem that needs further investigation, as it is not only attitudes to nature that are being transferred; there are also attitudes and practices to safety and professionalism.

6.5 Future Research Directions

This research contributes to a basis of knowledge on the SES and its attitudes and practices towards nature; however there are areas where further research would contribute greatly to the field of knowledge on the subject. A study with considerably more time and funding than an Honours project would be able to gain statistically significant results of volunteer attitudes and practices towards nature. Furthermore there were significant differences between urban and rural understandings on nature. This study can speculate on why there are these differences, but it would be beneficial if research could focus on why the understandings vary so much, when most volunteers have completed work in both rural and urban settings. Another issue raised by the research is the way knowledge is transferred within the organisation. There are safety
and efficiency implications for understanding how and from whom, SES volunteers gain their knowledge.

More research needs to be completed on the SES and its volunteers. Other volunteer emergency services such as the Rural Fire Brigade have been studied extensively by researchers such as McLennen (2005), Eriksen (2010) and Wallace and Baxter-Tomkins (2006). Considering the SES deals with the most expensive natural disasters (SES 2011) it is slightly unusual that there is not further research into the topic. The SES has an important role in emergency management within NSW. With the advent of climate change, it’s all the more important that the SES is evaluated through further research, to better face the challenges ahead.
Reference List


INITIAL APPLICATION APPROVAL
In reply please quote: HE11/150
Further Enquiries Phone: 4221 3386
GH:LM

2 August 2011

Ms Jacqueline McKinnon
8 Barvon Road,
MORTDALE NSW 2223

Dear Ms McKinnon

Thank you for your response dated 21 July 2011 to the HREC review of the application detailed below. I am pleased to advise that the application has been approved.

Ethics Number: HE11/150
Project Title: Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers.
Researchers: Ms Jacqueline McKinnon, Dr Leah Gibbs
Approval Date: 28 July 2011
Expiry Date: 27 July 2012

The University of Wollongong/Illawarra Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in Human Research. The HREC has reviewed the research proposal for compliance with the National Statement and approval of this project is conditional upon your continuing compliance with this document.

A condition of approval by the HREC is the submission of a progress report annually and a final report on completion of your project. The progress report template is available at http://www.uow.edu.au/research/rso/ethics/UOW009385.html. This report must be completed, signed by the appropriate Head of School, and returned to the Research Services Office prior to the expiry date.

As evidence of continuing compliance, the Human Research Ethics Committee also requires that researchers immediately report:

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforeseen events that might affect continued ethical acceptability of the project.

Please note that approvals are granted for a twelve month period. Further extension will be considered on receipt of a progress report prior to expiry date.

If you have any queries regarding the HREC review process, please contact the Ethics Unit on phone 4221 3386 or email rso-ethics@uow.edu.au.

Yours sincerely

[Signature]

A/Professor Garry Hoban
Chair, Social Sciences
Human Research Ethics Committee

cc: Dr Leah Gibbs, School of Earth & Environmental Sciences, Bldg 41.G11
Participant Information Sheet for Participant Observation

Project Title:

Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers

The project:

The aim of the project is to find out the different attitudes and practices that members of the SES have towards nature and the environment. The research project is interested in the variety of attitudes and practices that exist and how these are influenced by SES procedure and policy. Does doing SES work give people a different view of nature or is reflective or the wider community.

The purpose

To explore what attitudes and practices that the SES volunteers have towards nature. Is it a case of that constant exposure to natural hazards creates disillusionment with the positive aspects of nature this is shown in the SES treatment of nature? or whether witnessing the power of nature’s force results in volunteers that are concerned for the environment. Furthermore what power does SES policy have in influencing these attitudes and positions? Do volunteers know about or follow SES policy towards the environment in there SES work?

The purpose of this study is to see what attitudes and practices towards nature are prevalent in the SES and why these certain attitudes exist.

What you will be asked to do

You will be asked to participate in your normal SES activities while the researcher observes your actions and takes notes. You may be asked questions on why you performed a particular action. The researcher is a trained SES member hence you will not have to directly responsible for their safety during the participant observation.

The notes taken about the activities will be confidential and you will be given a pseudonym in the notes which will only be accessed by the researcher. You have the right to stop participation at any part of the project and your details any information given will be withdrawn and deleted. Copies of your observation notes and the final thesis the research will produce are available on request from the researchers. Data gathered from this project will be used for an honours thesis in the School of Earth and Environmental Science and may be used for an article in a scientific journal. This data will be stored in the archives of the School of Earth and Environmental Science for a period of five years.
If there any concerns or complaints regarding the way in which the research is or has been conducted, please contact the University of Wollongong Ethics Officer on (02) 42214457 or rso-ethics@uow.edu.au

The project organiser

If you have any enquiries regarding the research please contact Jacqueline McKinnon or Dr Leah Gibbs (School of Earth and Environmental Sciences, University of Wollongong)

Contact details:

Jacqueline McKinnon. Email - jlm849@uowmail.edu.au

Dr Leah Gibbs. Email - leah_gibbs@uow.edu.au
Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers

Project Title:

Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers

The project:

The aim of the project is to find out the different attitudes and practices that members of the SES have towards nature and the environment. The research project is interested in the variety of attitudes and practices that exist and how these are influenced by SES procedure and policy. Does doing SES work give people a different view of nature or is reflective or the wider community.

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The purpose of this study is to see what attitudes and practices towards nature are prevalent in the SES and why these certain attitudes exist.

What you will be asked to do

Participation in this project will invoke answering survey questions that will describe your relationship with nature. You may be asked to express your opinions on photos of nature that will be shown in the survey. The emphasis is on your ideas, activities, experiences and feelings. There are no right or wrong answers for these questions. The surveys are anonymous and any identifying features such as handwriting will only be seen by the researchers. You have the right to stop participation at any part of the project. It should take approximately 10 minutes to complete the survey.

It should be noted as these surveys are anonymous once they are handed in, individual surveys can’t be withdrawn as we do not known the authorship of individual surveys. To keep the surveys anonymous it is considered that the completion of the survey is a sign of informed consent rather than the completion of a consent form with personal details. A copy of the final research produced from the results of this survey will also available on request from the researchers. Data gathered from this project will be used for an honours thesis in the School of Earth and Environmental Science
and may be used for an article in a scientific journal. This data will be stored in the archives of the School of Earth and Environmental Science for a period of five years.

You also may be asked in the survey whether you would like to participate in interviews or participant observation that are associated with the research project.

If there any concerns or complaints regarding the way in which the research is or has been conducted, please contact the University of Wollongong Ethics Officer on (02) 42214457 or rso-ethics@uow.edu.au

The project organiser

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Contact details:

Jacqueline McKinnon. Email - jlm849@uowmail.edu.au

Dr Leah Gibbs. Email - leah.gibbs@uow.edu.au
Participant Information Sheet for
Interviews

Exploring attitudes and practices towards nature among NSW State Emergency
Service volunteers

Project Title:
Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers

The project:
The aim of the project is to find out the different attitudes and practices that members of the SES have towards nature and the environment. The research project is interested in the variety of attitudes and practices that exist and how these are influenced by SES procedure and policy. Does doing SES work give people a different view of nature or is reflective or the wider community?

The purpose
To explore what attitudes and practices that SES volunteers have towards nature. Is it a case of that constant exposure to natural hazards creates disillusionment with the positive aspects of nature that is shown in the SES treatment of nature? Or whether witnessing the power of nature’s force results in volunteers that are concerned for the environment. Furthermore what power does SES policy have in influencing these attitudes and positions?

The purpose of this study is to see what attitudes and practices towards nature are prevalent in the SES and why these certain attitudes exist.

What you will be asked to do
Participation in this project will involve answering questions that will describe your relationship with nature. These questions will be structured to form a conversation. You may be asked to express your opinions on photos of nature that will be shown. The emphasis is on your ideas, activities, experiences and feelings. The interview will take approximately an hour. There are no right or wrong answers for these questions. You have the right to stop participation at any part of the project and all your details and any information provided will be deleted and withdrawn from the project. The interview will last for approximately 40 minutes.

The interviews will be transcribed and recorded to allow for interpretation. These interviews will remain confidential, a pseudonym will be shown for your name and only the researchers can gain access to the transcript and recording. Copies of your interview recording, the transcript of the
interview and the final thesis the research will produce are available on request from the researchers. Data gathered from this project will be used for an honours thesis in the School of Earth and Environmental Science and may be used for an article in a scientific journal. This data will be stored in the archives of the School of Earth and Environmental Science for a period of five years.

If there any concerns or complaints regarding the way in which the research is or has been conducted, please contact the University of Wollongong Ethics Officer on (02) 42214457 or rso-ethics@uow.edu.au

The project organiser

If you have any enquiries regarding the research please contact Jacqueline McKinnon or Dr Leah Gibbs (School of Earth and Environmental Sciences, University of Wollongong)

Contact details:

Jacqueline McKinnon. Email - jlm849@uowmail.edu.au

Dr Leah Gibbs. Email - leah.gibbs@uow.edu.au
Consent form

Consent for involvement in Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers.

Project organisers

- Jacqueline McKinnon
- Dr Leah Gibbs

Thank you for agreeing to participate in this research project. If you have any further questions please contact Jacqueline McKinnon or Dr Leah Gibbs.

This form indicates your consent to be involved in the project. This form is to request your permission for the making of audio recordings of interviews with you for the purpose of researching attitudes and practices towards nature within the State Emergency Service. Before giving your consent make sure:

You have been given a project information sheet and understand what the project is about.

You understand that when your interviews are recorded for this project, your real name will not be used. Your interviews will always remain confidential.

Interpretation of your interviews will be used for an Honours thesis and possibly an academic journal article.

Your consent can be withdrawn at any time, for any reason. Withdrawal of consent will have no consequence for you.

If there any concerns or complaints regarding the way in which the research is or has been conducted, please contact the University of Wollongong Ethics Officer on (02) 42214457 or rso-ethics@uow.edu.au
If you have difficulties or questions with the project you can contact:

Jacqueline McKinnon or Dr Leah Gibbs at the University of Wollongong on:

Jlm849@uowmail.edu.au or leah@uowmail.edu.au

I __________________________ grant permission for the interview/s I am participating in to be recorded for research purposes. I also grant permission for transcripts to be produced from the recordings. I also grant permission for extracts from the transcripts of the interviews to be reproduced in University of Wollongong publications and any published research that may come out of this research project.

Signed ________________________ Date ____________________
Hi Pat,

I’ve made the changes suggested. Once again thanks for the help.

Regards,

Jacqui

Hi my name is Jacqueline McKinnon and I’m part of the Kogarah Unit.

For my Honours thesis at the University of Wollongong, I’m looking into SES volunteer attitudes and practices towards nature and natural hazards.

This research is supported by the NSWVA and has been approved by State Headquarters.

I believe it’s an important area to think about as we often are inadvertently forced into environmental management decisions.

It would be really appreciated if you guys could fill out a survey for me about your own attitudes towards nature and natural hazards. Also if you’re keen, I’d really like to arrange some interviews about this subject.

I have attached the information sheet and the survey with this email, to return the survey please send it to jlm849@uowmail.edu.au

Regards,

Jacqueline McKinnon

jm849@uowmail.edu.au

2 attachments

- Survey 17.08.11.docx (37K)
- Participant Information Sheet - Survey.pdf (282K)

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Pat Johnson <pat.johnson@one.ses.nsw.gov.au>  
To: All Members <AllMembers@member.ses.nsw.gov.au>  

Hi All
Hi Pat

I've made the changes suggested. Once again thanks for the help

Regards

Jacqui

Hi my name is Jacqueline McKinnon and I'm part of the Kogarah Unit.

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Regards

Jacqueline McKinnon
jlm849@uowmail.edu.au

2 attachments

Survey 17.08.11.docx
37K

Participant Information Sheet - Survey.pdf
282K

Pat Johnson <pat.johnson@one.ses.nsw.gov.au> Wed, Aug 17, 2011 at 2:00 PM
To: Jacqui McKinnon <jacqui.mckinnon@gmail.com>

Hi Jacqui

Have sent message.

I will be in the SSR office to-morrow is that any help to you re interview.

Cheers

Pat

From: Jacqui McKinnon [mailto:jacqui.mckinnon@gmail.com]
Sent: Wednesday, 17 August 2011 12:53 PM
To: Pat Johnson
Subject: Message to send around

Hi Pat

[Quoted text hidden]

Jacqui McKinnon <jacqui.mckinnon@gmail.com> Wed, Aug 17, 2011 at 4:31 PM
To: Pat Johnson <pat.johnson@one.ses.nsw.gov.au>

Hi Pat

Thanks for sending that round, what time would be good to pop in tomorrow?

[Quoted text hidden]

Pat Johnson <pat.johnson@one.ses.nsw.gov.au> Wed, Aug 17, 2011 at 4:35 PM
To: Jacqui McKinnon <jacqui.mckinnon@gmail.com>
Hi Jacqui

I will be here anytime after 10am.

Cheers

Pat

From: Jacqui McKinnon [mailto:jacqui.mckinnon@gmail.com]
Sent: Wednesday, 17 August 2011 4:32 PM
To: Pat Johnson
Subject: Re: Message to send around

[Quoted text hidden]

Michael Carpena <michaelcarpena@gmail.com>  
To: jacqui.mckinnon@gmail.com

Hey,

Here is a completed survey for you

Michael

On Wed, Aug 17, 2011 at 1:15 PM, Pat Johnson <pat.johnson@one.ses.nsw.gov.au> wrote:

Hi All

Please see below if you could help Jacqui it would be great.

Cheers

Pat

---

**Pat Johnson ESM**

**Public Relations Officer**

NSW State Emergency Service Volunteers Association

Sydney Southern Region Representative

4/150 Canterbury Road, Bankstown, NSW 2200  I  PO Box M54, Manahan, NSW 2200

P (02) 9766 9000  I  M 0408 161 018  I  F (02) 9766 9060  I  E pat.johnson@one.ses.nsw.gov.au
Hi Pat

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Regards

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It would be really appreciated if you guys could fill out a survey for me about your own attitudes towards nature and natural hazards. Also if you're keen, I'd really like to arrange some interviews about this subject.

I have attached the information sheet and the survey with this email, to return the survey please send it to jlm849@uowmail.edu.au

Regards

Jacqueline McKinnon

jlm849@uowmail.edu.au

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Survey 17.08.11 MC.docx

33K
Exploring attitudes and practices towards nature among NSW State Emergency Service volunteers.

This survey is to help understand the variety and types of practices and attitudes towards nature and the environment within the SES. There are no right or wrong answers for this survey and all surveys will remain anonymous.

Are you male □ or female □

Do you belong to an urban or rural unit?

What role do you play in your unit? (E.g. are you in Operations or Rescue? And what role do you play in this area)

When you think of nature, what do you think of?

Has being in the SES changed or challenged your attitude to nature?

Do you think that during SES work that you interact with nature? (Feel free to use examples)

Do you believe it’s an SES responsibility to look after nature? And why?
Do you know if the SES has a policy towards nature or have you ever been told about aspects of SES work that involves nature? (Feel free to use examples)


Thank you for your participation in this survey.
Further Participation in this Project

Thank you for participating, we really appreciate your help with this research project. We are currently looking for more people to become involved in this research project. If you’re interested in helping this research further or know anyone who would be interested in interviews regarding attitudes and practices towards nature in the SES, please leave your contact details in the space below or send the researchers an email at jlm849@uowmail.edu.au. We would really appreciate any further participation in this project.

By providing your name/information, you are not obliged to participate, and you will be sent a Participant Information Sheet and a Consent Form separately. The interviews are confidential and your identity will be protected by using a pseudonym.

Name-
Email – 
Phone number-
Semi-structured Interview Schedule

Are you in an urban or rural SES unit?

What’s your role within your unit?

When you think of “nature” what do you think of?

Do you think that nature exists in urban areas?

Do you think nature outside urban areas gets treated differently to nature in rural areas?

Do you think your role in the SES affects your attitudes towards nature and the way you interact with nature?

Have you learnt anything about nature from your time in the SES?

What kind of ideas about nature do you get from the two photos and does this agree with what you believe nature to be?

Do you think SES volunteers have a different idea about nature from non-SES folk; has joining the SES changed your views of nature?

In the SES what is your most common interaction with nature?

Do you think that is typical of most volunteers?

What is your most common encounter with nature in your SES work?

Do you believe it’s an SES responsibility to look after nature?

What kinds of behaviours have you seen towards nature by SES volunteers, and do you know of any policies guiding that behaviour within the organisation?

What do you think a natural hazard is?

Do you differentiate nature from natural hazards, if so how do you do this?