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Spiritual Experiences and Environmentalism of Recreational Users in the Marine Environment: New Zealand Surfers and Scuba Divers

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of the requirements for the Degree of
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Coastal management and planning is facing the integration of a new policy dimension: the spiritual connection to the marine environment. This dimension has long been recognised in relation to the lives of Indigenous people and is now being acknowledged through international law as an important aspect of the lives of all people. International law has the potential to influence the direction of national level policy-making. This explicit acknowledgement of a spiritual component to experiencing the coastal environment in policy-making can be seen through the marine protection of surf breaks in Australia. The same level of recognition of spiritual values has not yet been recognised legislatively in New Zealand.

Scientifically, while spiritual connections with wilderness are well documented, the potential for spirituality to be a dimension of surfing and scuba diving has received far less scientific attention. Surfing and scuba diving are the focus of this research as a means to inform future policy decisions and research on spiritual connections to the marine environment. This study used quantitative survey methods to research (74 surfers and 83 divers) after participating in their activities. The study was conducted at four sites over the North and South Islands of New Zealand. The research identifies the relationship that spirituality has with leisure activities, ecological paradigms and environmental advocacy. This was achieved through the application of a modified framework based on the Daily Spiritual Experience Scale (DSES) (Underwood, 2006) called the Spiritual Experience Assessment (SEA). The New Ecological Paradigm (Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E., 2000) was
used to establish ecological paradigms to determine the relationship between paradigms and advocacy for the environment.

The main finding for this research is that both surfing and scuba diving lead to a spiritual experience for most participants. The relationship between previous research on factors that affect a spiritual experience largely showed little to no relationship, excluding the area of spiritual tradition. Both marine leisure activities presented a heavily weighted pro-ecological paradigm that related directly to advocacy for the environment. Through the use of the Theory of Planned Behavior, normative, behavioural, and control beliefs are established that indicated the level of advocacy seen by the participants for the environment.

**Keywords:** spiritual experiences, marine environment, recreational users, surfing, scuba diving, new ecological paradigm, environmental advocacy, Spiritual Experience Assessment
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Chapter 1
Human Relationship with Nature and Public Policy

1.1 Introduction

Humankind is indelibly linked with nature. Throughout history, human-nature’s relationship has changed, developed, and evolved through the growth of different paradigms and definitions of nature. Religion and science have played significant roles in the view of nature. Many religions involved polytheism, where many of the Gods represented elements of nature. As the Judeo-Christian religion and other modern mainstream non-polytheistic religions took hold, God was taken out of earthly nature and put into the heavens, as an intangible entity that over looked all of humankind. While religion removed God from being an element of nature, the scientists, such as Galileo, Bacon, and Newton and the philosophers, like Descartes, further demistified nature down to a set of rules and laws, thereby removing God from nature and replacing it with science (Macnaghten & Urry, 1998). The ways in which humans have viewed, and do currently view nature, lead to different types of land ethics, or humans’ relationship to the land and biota that grow on it.

Land ethics have been classified according to two perspectives: instrumental and non-instrumental land ethics (Stanford University, 2008). Instrumental land ethics value the land as a tool for human use, while non-instrumental land ethics places an intrinsic value on land and on non-human elements such as biota. Instrumental land ethics were perpetuated by Bacon. Bacon deemed that nature needed a "total program advocating the control of nature for human benefit" (Merchant, 1989, p. 164). Bacon’s view on nature was that of a female that needed to be dominated and mastered (Merchant, 1989). A category of instrumental land ethic is the anthropocentric view, or human centered view, that puts value on humans only. A type of anthropocentric land ethic is the conservation approach which deems that humans conserve nature for the "benefit of humankind, rather than for the intrinsic value of any entity" (Holden, 2003, p. 99).

In contrast to the instrumental land ethic, the non-instrumental land ethic views land differently in relation to its value and use. An early advocate of this approach, Aldo Leopold (1949) called for a new land ethic that "changes the role of Homosapiens from conqueror of the land-community to plain member and citizen of it" (Leopold, 1949, p. 240). This non-
instrumental and ecocentric land ethic postulated that all living things have intrinsic value, and, being concerned with conservation, this ethical relationship to land cannot "exist without love, respect, and admiration for land, and a high regard for its value" (Taylor, 2009, p. 31). The value of all animals and the land were poetically portrayed by Rachel Carson (1962) in her widely read *Silent Spring*. Carson showed the devastating effects of what can happen when humans dominate nature, through anthropocentric land ethics. Leopold (1949) and Carson's (1962) “call to attention” on land ethics, and specifically on human relationships with nature, has fostered further work on other land ethics by: Naess (1973), Berkes (1999), Driver, B.L., Dustin, Baltic, Elsner, & Peterson (1999), and Taylor(2009), all of whom have emphasised an added dimension in land ethics, spirituality. Driver et al. (1999) called for a land ethic which encompasses the spiritual aspect of the human-nature relationship, and which can be incorporated into environmental policy by natural resource managers. Taylor (2009) adopted a four-pronged approach to the intrinsic value of the environment through the idea of 'dark green religion' which involved spiritual animism, naturalistic animism, gaian spirituality, and gaian naturalism. Dark green religion is a biocentric view that considers "earth and its living systems to be sacred and interconnected" (Taylor, 2009, p. 13). The evolution of non-instrumental land ethics has contributed to a more holistic and spiritually inclusive paradigm with regards to management of natural resources.

Even though this non-instrumental land ethic movement has gained widespread acceptance, especially in Western societies, one world-wide collective paradigm, definition of nature, or singular land ethic, cannot exist, because many humans today still believe that nature needs to be mastered for many reasons. One reason is that many still fear nature because they have to "fight it in order to survive" (Bourdeau, 2004, p. 9). While the more technologically advanced Western societies have increasingly adopted a non-instrumental land ethic approach, since their technology allows them, at some levels, to be seemingly protected against nature, frequently the land ethic in these societies is still one of dominance rather than reverance (Bourdeau, 2004). The lack of collective paradigms and culturally dependant values makes it necessary to explore different peoples' connections with the environment and their paradigms, in order to correctly facilitate policies which ensure protection of what that culture or people find important and/or to provide protection of nature for the greater good of humanity. Seeking to provide protection of nature for the greater good of humanity, despite this lack of one collective paradigm or culture is international law.
International laws (declarations and treaties, including conventions), further referred to as International multilateral agreements, or IMG, have been established recognising the spiritual connection that some indigenous people, or people that are "living descendants of preinvasion inhabitants of lands now dominated by others" (Anaya S.J., 1996, p. 3), have with nature. Indigenous people have been more explicit with their spiritual relationship with nature than non-indigenous people to the extent that there has been international acknowledgment of this relationship especially as it relates to culture, spirituality, and religion. The international recognition this relationship with nature has been seen as an indigenous phenomenon in the 20th century, but the realisation that all people have the possibility of the human-nature spirituality link is now being acknowledged.

This acceptance that all humans may have a human-nature spiritual connection is evident in IMGs and recommendations and reports from international organisations in the 21st century (e.g. World Wildlife Fund(WWF) Beyond Belief (2005), Man and Biosphere (2008-2013), Durban Accord (2005), Millennium Assessment (2005), World Conservation Congress Barcelona (2008), International Union for Conservation of Nature (IUCN), Sacred Natural Sites (2008)). This recognition that all humans have a potential for a spiritual connection with nature can be seen in the designation of the world's first spiritual park in 2004 named Vilcanota Spiritual Park, in Peru. The land in this spiritual park is sacred to many humans, as well as the Incas (IUCN, 2008a). It is this expanded concept, of all humans having the potential for spiritual connection with nature that is the starting point for this research; the preservation of natural resources, specifically marine areas based on spiritual grounds.

The preservation and management of natural resources on a country-wide, or nation-state, level is heavily influenced by these IMGs. New Zealand has signed or ratified a number of multilateral agreements relating to the management of the environment and spirituality such as the World Cultural and Natural Heritage Convention of 1972, The Convention on Wetlands (Ramsar Convention) of 1971, and the 1992 UN Rio Declaration on the Environment and Development. New Zealand laws reflect a special relationship with the indigenous people of New Zealand, Maori. The Treaty of Waitangi defines the Crown's relationship with Maori. The Treaty, written in both Maori and English with different translations, has created "though failure of either race to understand and come to terms with the other, the seeds of conflict are sown for the next generation" (Ward, 1991, p. 111). If a full understanding of the Treaty signed by Maori chiefs and the "extent of the authority
that the new government would eventually extend over them" (Ward, 1991, p. 91) they would not have signed the Treaty. After the signing of the Treaty, Pakeha considered the matter settled for over a hundred years (Ward, 1991, p. 95). Growing race relations problems led the Labour Party to create the Treaty of Waitangi Act of 1975 which allowed "individuals or groups who considered themselves to be adversely affected by an action of the Crown or its agencies [...] to see recommendations for redress" (Ward, 1991, p. 98). Since 1975, the cultural relationships of Maori with land and marine areas have received explicit recognition in law (e.g. Resource Management Act 1991, Part 2). Maori have a special cultural connection with the environment that is now widely accepted. However, even with this recognition in the last twenty years, the primary marine protected area legislation, which is currently under review by the Department of Conservation, does not include provisions for protecting sacred sites. The RMA and other legislative provisions for non-Maori spiritual connections are much weaker than are those for Maori. In part, it may be that any spiritual connections to natural places, as might exist, are not as readily identified for non-Maori as they are for Maori. The relatively recent (about 200 yrs) non-Maori settlement history may not have allowed sufficient time for custodial or spiritual relationships with the environment by non-Maori to develop and to be validly acknowledged.

1.2 International Law (Declarations and Treaties, including Conventions) and International Organisation's Publications

Protection of natural areas is vital to some people who use these areas as places for human spirit renewal. With numerous religions and the individuality of spirituality, see section 2.1.2, the creation of public policy to protect natural areas for human spiritual renewal would seem to be a major difficulty and challenge. Despite this challenge, a number of public policy instruments have been developed to address this policy issue and problem as demonstrated through IMGs. There are numerous IMGs that have been enacted throughout the 20th and 21st century, with several still influential today in natural resource management. These policies acknowledge the connection that humans have with nature and respect all peoples' right to the protection of nature. Protection of nature occurs through the inclusion of all people and the broad, all-inclusive, and frequently undefined world of spirituality, within the protection of the public policy.
The amount of protection that the IMGs provide depends on what form the international law takes. International law includes both treaties and declarations. While declarations do not hold any enforceable legal weight, they do influence public policy. Treaties, and a category of treaty, or conventions, on the other hand, are technically supposed to hold enforceable weight for the countries that decide to be a part of the treaty. Since the 1970s, sacred and culturally significant sites have been recognised through worldwide intergovernmental organisations pronouncements such as: Man and Biosphere Madrid Action Plan (2008-2013), International Union for Conservation of Nature (IUCN) World Conservation Congress Barcelona (2008), IUCN Statues and Regulations (2008), Millennium Assessment (2005), and the World Park Congress Durban 2003, as well as through international agreements such as the United Nations (UN) Declaration of Indigenous People (2008), UN Rio Declaration on the Environment and Development (1992), World Heritage Convention 1972, and the Ramsar Resolutions (2005).

While the protection of rights of indigenous people on cultural grounds has been recognised since the 1970s, the explicit inclusion of spirituality has only within the last decade been acknowledged in its own right rather than being implicitly absorbed by the word ‘culture’. United Nations Educational, Scientific and Cultural Organisation’s (UNESCO) definition of spirituality, as a component of culture, recognises spirituality as a legitimate basis for natural land and sea protection. All protected areas, including seascapes, should "conserve natural and scenic areas of national and international significance for spiritual, cultural and scientific purposes" (IUCN, 2008a, p. 15) according to the IUCN publication "Sacred Natural Sites: Guidelines for Protected Area Managers". This guideline included the following categories of protected areas: strict nature reserve, wilderness area, national park, national monument, sites for habitat and species management, protected landscape or seascape, and managed resource protected area. IUCN Category five, "protection of landscape or seascapes," gives specific protection to seascapes (IUCN, 2008a, p. 15).

The explicit recognition of spirituality is also seen in the Millennium Assessment, World Park Congress, and IUCN Statutes and Regulations. The Millennium Ecosystem Assessment found that "spiritual and cultural values were just as important as other services for communities" (IUCN, 2008a, p. 11). The recognition that nature has spiritual significance to all people, not just indigenous people, is reflected in the Millennium Assessment (United Nations, 2005b). The Millennium Assessment identified spiritual fulfilment as a key component to human
well-being. The three areas identified in the report for the provision of ecosystems services are provisioning services, regulating services, and cultural services. Ecosystems provide cultural services that include spiritual and religious non-material benefits (United Nations, 2005a). The cultural benefits are echoed in the October 13, 2008 Statutes and Regulations from the IUCN which stated in the preamble that “natural beauty is one of the sources of inspiration of spiritual life” (IUCN, 2008b, p. 1). People often use areas of natural beauty or “protected areas for spiritual reasons” (World Park Congress, 2005, p. 168) identified the World Park Congress Recommendation V.13, which involved the cultural and spiritual values of protected areas.

Other international regulations call for more than the recognition of the spiritual aspect of nature. They ask for the provision of action in relation to, and communication about, this spiritual aspect in order to protect the biosphere. The Man and Biosphere Madrid Action Plan for (2008-2013) identified as its sixth target, the inclusion of the spiritual and cultural importance of biosphere reserves within a communication strategy. The mission statement for the World Network of Biosphere Reserves within the Man and Biosphere programme was “to ensure environmental, economic, social (including cultural and spiritual) sustainability” (UNESCO, 2008, p. 8).

A step beyond communication is the actual preservation of land and sea based on spiritual reasons. The Durban Accord, as part of the Vth IUCN World Park Congress, called for the conservation of areas that are spiritual, so that the preserved land could be used and shared by all. The Durban Accord celebrated this successful protection by individuals, groups, and communities that has made areas "places of natural, cultural and spiritual convergence" (IUCN, 2005, p. 221).

Many areas, which are spiritually and culturally important, have been preserved through other means such as through biodiversity protection or marine protection areas, according to World Conservation Congress section 4.038. The World Conservation Congress believed in the recognition of these areas for spiritual and cultural significance, despite being already protected via other means, and advocated their management as “places for their cultural and spiritual realisation and reverence” (IUCN World Conservation Congress Barcelona, 2008, p. 43). World Conservation Congress section 4.099 recognised the varying definition(s) of nature and that the separation between the material and spiritual values does not exist in
most cultures. According to the IUCN, most cultures believe that “spiritual realities permeate everything and that humans, nature and the entire universe share the same material and spiritual dimensions” (IUCN World Conservation Congress Barcelona, 2008, p. 120).

Two of the most relevant documents relating to the spiritual protection of nature published by International Non-Government Organisations (INGOs) are the IUCN's (2008a) "Sacred Natural Sites Guidelines for Protected Area Managers" and the WWF's (Dudley, Higgins-Zogib, & Mansourian, 2005) "Beyond Belief, Linking Faiths and Protected Areas to Support Biodiversity Conservation." As reported in Dudley et al. (2005), the WWF's focus was to promote biodiversity conservation, it highlighted the need to identify faith and the linkage with the land as a means of protecting natural resources. The IUCN (2008a) report, "Sacred Natural Sites: Guidelines for Protected Area Managers," provided a Best Practise Guideline to protecting sacred sites for all people and highlighted the importance of protecting these sites.

These international non-governmental organisations' (INGO) reports, along with IMGs have created a “broad framework for considering cultural and spiritual values and recognizing and preserving sacred natural sites with protected areas" (IUCN, 2008a, p. 18). This framework for the management of the world’s natural resources is a reflection of the acknowledgement/acceptance/recognition by humans globally of the significance of spirituality in nature. The global framework created has developed a method for countries to work within, including New Zealand.

1.2.1 New Zealand Ratified International Law

New Zealand has ratified over a thousand declarations and/or treaties (New Zealand Government, 2010a). Some of those most important to natural resources and spirituality include: the UN Operational Guidelines of World Heritage Convention (2008a), the UN Declaration of Indigenous People (2008), and the World Heritage Convention 1972.

The preamble to the UN Operational Guidelines of the World Heritage Convention (2008a), ratified by New Zealand November 22, 1984, states that the committees intention is to fully respect the "social and cultural values of all societies" (United Nations, 2008a, p. 93). It further states that cultures and heritage are a source of spiritual "richness [to] all humankind" (United Nations, 2008a, p. 93). Annex 3 of the UN operational guidelines
describes the need to protect cultural landscapes as areas that have a spiritual connection to nature.

The UN Declaration on the Rights of Indigenous People (2007) was ratified in 2010 by New Zealand, after voting in opposition to the declaration in 2007, due to issues with some articles of the declaration being in direct conflict with the Treaty of Waitangi. The signing demonstrated, to a large extent the commitment that the New Zealand Government has to the indigenous people, Maori. The declaration recognised indigenous peoples' spiritual tradition. Article 11 allows for the return of property, previously taken without informed and prior consent, to indigenous people that have spiritual and religious meaning. Article 12 states that indigenous people have the "right to manifest, practise, develop and teach their spiritual and religious traditions" (United Nations, p. 6), and also affords the right to "maintain, protect, and have access to religious and cultural sites" (United Nations, p. 6). Article 25 affirmed that indigenous people have the right to maintain and to further their spiritual connection with land and coastal areas, and to uphold this right for future generations. Article 32, 34, and 36 also address the rights of indigenous people to maintain and promote their spiritual connections.

Prior to the signing of the Declaration on the Rights of Indigenous People, the World Heritage Convention of 1972 was ratified. The World Heritage Convention of 1972, identified that culture was an "irreplaceable source of spiritual and intellectual richness for all humankind" (UNESCO, 2005, p. 130). The convention defined culture as inclusive of cultural landscapes, which involved a spiritual connection with nature. Several sites in New Zealand have been identified as World Heritage sites and recognised for their spiritual value (World Heritage, 2007), including Tongariro National Park, Te Wahipounamu, and New Zealand's Sub-Antarctic islands.

1.3 New Zealand Legislative Rights for Maori and Non-Maori

In 1993, Tongariro was added as part of New Zealand’s cultural landscapes to the World Heritage List. The mountains of Tongariro are key elements to the “cultural and religious significance for Maori people and symbolize the spiritual links between this community and its environment” (Department of Conservation, 2002). This spiritual link is implicitly protected in New Zealand’s Resource Management Act, or RMA. Under the RMA, Maori have the right to protect the land and sea, based on cultural, historic, heritage and
stewardship values and the intrinsic value of biodiversity. While this does not specifically list spiritual reasons, the link between culture and spirituality is strong with Maori. Maori do not believe in stewardship of the land but believe that humans belong to the land, not vice versa (Roberts, Norman, Minhinnick, Wihongi, & Kirkwood, 1995). Each tribe, or iwi, have different beliefs systems, although one general perspective emerges. Maori believe in cosmogony, which has two facets: genealogy and the "personification of natural phenomena" (Roberts et al., 1995, p. 137). It is their belief that they come from the land and are nurtured by the land, and it is their obligation to protect the land, or act as guardians; or kaitiakitanga. For Maori it is the "spiritual significance of the land which is most dear" (Roberts et al., 1995, p. 139) to them. Maoris' view towards a land ethic is one of kin-centric, meaning that "humans and nature are not separate entities but related parts of a unified whole" (Roberts et al., 1995, p. 145). Maoris' view on manipulation of the environment is based on the "three orders of reality, the physical or natural, the psychic and the spiritual" (Royal, 2003, p. 5).

A 1985 Treaty of Waitangi Tribunal case, which has been instrumental in representing Maori spiritual values focused on Manukau harbour, in the North Island, where the Tainui people, claimed that pollution from sewage was affecting their seafood (kaimoana) and land (whenua). This decision "acknowledged the validity of Maori cultural and spiritual beliefs" (Roberts et al., 1995, p. 13) by appointing guardians, both Maori and non-Maori, to restore the harbour. Another case, Huakina Development Trust v. Waikato Water Board 1987, recognised and upheld the spiritual landmark that was created by the Manukau case. This recognition by the legal system in New Zealand of "Maori spiritual and cultural values was another landmark decision" (Roberts et al., 1995, p. 13). Not only has the legal system recognised spiritual values but the New Zealand government is starting to as well.

The Local Government Act (2002, Section 10), or LGA, defined the New Zealand Government's responsibility as to "promote the social, economic, environmental, and cultural well-being of communities, in the present and for the future", a perspective which is similar to the RMA definition of sustainable management. The view of the New Zealand Ministry for Culture and Heritage is that cultural well-being included "all the multiple interactions of emotional, spiritual, historical, and physical aspects of human life within local contexts" (Ministry for Culture and Heritage, n.d.-b, pp. 2-3). While the purpose of local government is to promote cultural well-being, neither the RMA nor LGA explicitly mentions...
spiritual reasons as a basis for protection, notwithstanding the inclusion of spirituality via the official interpretation of the Ministry of Culture and Heritage. Further, even though the recently signed Declaration of Rights for Indigenous People explicitly protects the rights of Maori based on spiritual reasons, it is a declaration, and not a treaty, and thus does not hold any legal weight. While it is a gesture by the government to show how important Maori rights are, there is no legally binding regulation that protects Maori spiritual rights under this Declaration. Another area that gives some recognition to Maori spiritual rights is through the New Zealand Ministry of Fisheries. Legislation (Fisheries Act 1996 No 88 (as of 01 October 2010) Public Act) section 174, acknowledges the right of Maori to secure fisheries rights as a source of food or for spiritual or cultural reasons as the "Maori involvement with fishing embraces a spiritual dimension" (Bess, 2001, p. 25). The Ministry of Fisheries uses taiapure, an area set aside as a reserve to gather shellfish or fish, as a local management tool to support Maori customary rights to fisheries. While this spiritual recognition has been afforded to the Maori, this same level of spiritual recognition has not been afforded to non-Maori.

Under the RMA, a legislative right does not exist for non-indigenous people in New Zealand to protect land or sea for cultural or spiritual reasons. The New Zealand Bill of Rights Act 1990 No. 109 (as at 03 September 2007), Public Act stated that all New Zealanders have the rights to “freedom of thought, conscience, religion, and belief, including the right to adopt and to hold opinions without interference,” and “every person has the right to manifest that persons’ religion or belief in worship, observance, practise, or teaching either individually or in community with others, and either in public or in private”(“New Zealand Bill of Rights Act,,” 1990). While the Local Government Act ("Local Government Act," 2002) defined government’s role was to promote the cultural well-being of New Zealanders, direct promotion of cultural well-being is not provided for in the RMA. Instead, the purpose of the RMA, is to promote the sustainable management of natural and physical resources as defined inclusively enabling “people and communities to provide for their social [...] and cultural well-being and for their health and safety” (RMA s5(2)). The explicit weight given to non-Maori spiritual connections lies in the broad RMA cultural (and perhaps health) provisions or the protection of ‘historic heritage’ (RMA 6(f)) and is not given equivalent weight in the decision making criteria or purpose as are Maori spiritual values (e.g., RMA s6(e)). The definition of historic heritage (RMA s2), for instance, included cultural sites for both Maori and non-Maori (which conceivably could include sacred sites), but it also
specifically includes wahi tapu sites significant for Maori, thereby giving more weight to Maori spiritual values. These and other such sites have specifically been recognised as “part of the cultural and spiritual heritage landscape” for particular Maori tribes under New Zealand case law (Macpherson v Otorohanga District Council W25/2007, 2007). Moreover, the Courts have held that while the definition of environment does not include the domain of spiritual beings (Beadle v Minister or Corrections A074/02, 2002), the spiritual values of Maori must be recognised and provided for under s 6(e) of the RMA (Friends and Community of Ngawha v Minister of Corrections CA216/02, 2002; Friends and Community of Ngawha v Minister or Corrections AP110/02, 2002). Maoris' spiritual connection is further recognised in the New Zealand Coastal Policy Statement (NZCPS) 2010. Policy 15 expresses the need to preserve natural landscapes and features that have "cultural and spiritual values for tangata whenua" (New Zealand Government, 2010b, p. 19).

The Marine and Coastal Area (Takutai Moana) Bill, which replaced the Foreshore and Seabed Act 2004, interestingly states, in Clause 53, that no spiritual or cultural association with an area shall be recognised "unless that association is manifested in physical activity or use related to the natural or physical resources" (Marine and Coastal Area (Takutai Moana) Bill, 2010, p. 14). But the General policy statement of the Bill states that it recognizes the "common marine and coastal area for its intrinsic worth for the benefit, use, and enjoyment of all New Zealanders" (Marine and Coastal Area (Takutai Moana) Bill, 2010, p. 1). The intrinsic value of the coastal areas was recognised, and the explicit statement of spiritual preservation of sacred Maori sites was demonstrated through the preservation of wahi tapu, or sacred sites, within clause 78. The difference in weight accorded Maori spiritual values relative to non-Maori could be due to many issues, but the existence of spiritual connections of non-Maori is not explicitly recognised in the RMA, nor was it included in/subsumed under other relevant/related legislation.

1.4 **Natural Resource Based Leisure Activities**

One way that people may develop and maintain this spiritual connection with the land and sea is through leisure activities (Heintzman, 2009). New Zealand has an extensive coastline with "estimates ranging from 15,000 to 18,000 km." and "there is no location in New Zealand that is more than 130 km from the sea" (Ministry for Culture and Heritage, n.d.-a). The vast and varied landscape of the coastline and sea play a major role in the marine leisure and tourism industries in New Zealand. While New Zealanders participate in many
marine activities, the focus of this research will be on scuba diving and surfing. A national survey conducted in 2007-2008 estimated that there were 145,620 people who participated in surfing and body boarding, while 121,625 people who participated in diving and scuba diving (Sports and Recreation New Zealand, 2007/2008). This survey identified the number of people aged 16 years and over who participated within a one-year period of time in a variety of sports. Of the sports listed, surfing and body boarding ranked as the 24th most popular activity in New Zealand, while diving and scuba diving was ranked 26th. While the focus of the present research is on people surfing and scuba diving in New Zealand who are over 18 years of age, these figures above indicate the level of popularity of these marine activities/pastimes within New Zealand. The combination of multiple activities in the national survey such as surfing/body boarding and diving/scuba diving, do not provide a completely accurate picture of the participants for just surfing and scuba diving over 18 years of age, as is the focus of this research, but the figures are a starting point to identify potential population sizes for the activities.

Many recreational users, such as trampers (hikers) in the wilderness and surfers on coastal waves, experience something indescribable while participating in their activities (see section 1.4.1, 1.4.1.1, 1.4.1.2, 1.5). The human spirit can experience one or many of the immense benefits while involved with nature referenced by Driver et al. (1999) including: spirit renewal, and spiritual and religious experiences. For many, spiritual experiences may occur when immersed or deeply involved in their nature-based leisure activity and which, for some, may incorporate a greater connection to a God or a Higher Power or whatever terminology they choose to use (Heintzman, 2010). Some surfers call surfing their religion (Taylor, 2007) which is specific to surfing, while Vanessa (2009) describes the practise of scuba diving as a meditation to get closer to God.

1.4.1 Humans' Spiritual Connection with Wilderness

One prominently researched area of leisure activity is humans' relationship with the wilderness. Wilderness can be defined as "an environment of natural space [...] place for natural solitude and space removed from domestication of animals, human-made objects and urban stress" (Fox, 1999, p. 59). Many studies have undertaken research, mostly qualitative, to determine peoples' spiritual connection with wilderness (e.g. Fox, 1997, 1999; Fredrickson & Anderson, 1999; Heintzman, 2010; Hollenhorst, Frank III, & Watson, 1994; Stringer & McAvoy, 1992). Most studies identified solitude as a major factor in a
spiritual connection with nature. Stringer and McAvoy (1992) identified many factors such as: prior awareness of one's own spirituality, camaraderie, needing to confront and deal with personal questions, physical activity, predisposition toward spiritual reflection and/or experiences, previous spiritual experiences, prompting by other participants or leaders, the natural environment, people on the trip, time off, and structure/organisation/components of the trip, beyond solitude that contribute to, or inhibit, a spiritual experience with in nature. Fox (1997) identified different stages using Stringer and McAvoy’s (1992) factors into a funnel model of spiritual experiences that takes nature plus individuals, which leads to the next stage of overcoming fear, the second step is relaxation and exploration, followed by a spiritual experience, then spiritual growth, and spiritual growth leads ultimately to behavioural outcomes (see section 2.2.1.1 Fig. 1). While humans' spiritual connection with nature through wilderness has been scientifically researched, many leisure activities have been subsumed by the overall concept of wilderness and have not been researched. Within the area of wilderness, there exist leisure activities, which arguably can be included within wilderness, (see section 2.2) such as surfing and scuba diving, which have not been as extensively researched for their relationship with spiritual experiences.

1.4.1.1 Surfing
Surfers have a range of motivations/reasons for engaging in their chosen leisure activity with one of the most common of these being the love of the water and nature. Surfers who call themselves "soul surfers" consider surfing to be a profoundly meaningful practise that brings physical, psychological, and spiritual benefits"(Taylor, 2007, p. 923). Surfers have been noted to explain their life by stating "we who surf, Live life out, Breathe life in, And pray in our own way" (Derosier, Anderson, & Bilderback, 2005, p. Last page). This potential spiritual connection can also be seen through surfing magazines, articles and books that highlight the spirit of the ocean and the surfers’ connection to that spirit (e.g. Butts (2010), Taylor (2007), Farmer (2007), Gabe (2008), Melekian (2005), Nendel (2009), Ormrod (2007), Pearson, (1979), Worster (2006)). These highlight the need, and one aim of this research, to provide scientific research on surfing and spirituality in order to provide measurable data to support the value of spirituality shown in popular literature.

This spiritual connection may motivate some people towards advocacy and activism to protect their surfing spots that is akin to the concept of place-bonding identified in recreation literature (Hammitt & Bixler (2004, 2006), Lorimer (2007)). A number of
organisations and groups have been established to protect surf breaks, natural or man-made sea bed areas that create a displacement of the water upwards creating a wave, and the coastal environment. The Surfrider Foundation, for example, was started in 1984 in Southern California to protect surf breaks, defend biodiversity, and spread Deep Ecology and "by 2006, the Foundation boasted 50,000 members and well over sixty chapters and affiliated groups around the world" (Taylor, p. 938). A splinter group from this organisation, the Surfer’s Environmental Alliance, based out of California and New Jersey, has a central goal of preserving the "integrity, stability and beauty of the biotic community" (Leopold 1949 p. 262 in Taylor, 2007, p. 938). In New Zealand, the Surfers Environmental Advocacy Society and Surfbreak Protection Society Inc. have been active at both local and national levels in surfbreak protection. On a national level, the Surfbreak Protection Society Inc. has submitted evidence to the government for the protection of surfbreaks as part of the New Zealand Coastal Policy Statement. The New Zealand Coastal Policy Statement of 2010 took effect on December 3rd, 2010.

In Australia and New Zealand, there are a range of public policies instruments, (mainly through the developmental of coastal management policy), that have attempted to protect, or, do protect surfing breaks. The newly enacted New Zealand Coastal Policy Statement listed several surf breaks that are protected under this policy. Another surfbreak protection through a public movement in Australia is the National Surfing Reserves, which uses the basis of culture and heritage, while acknowledging the spiritual connection of a site to protect surfbreaks. Eleven surfbreaks have been preserved as of October 2010, including the Angourie and Maroubra Surfing Reserves. The protection of these two sites illustrated the explicit protection of sites based on spirituality. The Angourie plaque declared that the national reserves recognised the "cultural and historical significance in Australian surf culture" (Farmer & Short, 2007, p. 101). The plaque furthers stated that "generations of surfers coming to Angourie since the 1950's, have ensured that the beautiful Place is integral to the environment, spiritual and cultural heritage of Australian surfing " (Farmer & Short, 2007, p. 101). Similarly, the Maroubra site plaque explained that it is "integral to the historical, environmental, spiritual and cultural heritage of Australian surfing"(Farmer & Short, 2007, p. 100). While New Zealand does protect some surfbreaks in the New Zealand Coastal Policy Statement 2010, it does not explicitly state nor imply that the protection is based on spiritual reasons as Australia's National Surfing Reserves does. This explicit recognition of spirituality and its importance to surfing, while preserving the land and sea
through public policy, provides an example of the protection of land and sea based on spiritual reasons.

1.4.1.2 Scuba Diving

Scuba diving for spiritual motivations has not been documented within scientific or popular literature as well as "soul surfing" has been identified in popular surfing literature. It is referred to as a means of meditation within non-scientific accounts. This form of meditation, which some would call ‘mystic’ scuba diving, allows divers to meditate while diving and ostensibly creating a greater connection with the world around them. This was illustrated in the book *Diving into Enlightenment*, where it described diving as a way to heal the body physically, mentally and spiritually (Vanessa, 2009). Most journals and magazines on scuba diving have a specific focus on equipment and on the technical side of the activity with little other subject matter covered. There are, however, several studies of the motivations of scuba divers (e.g., Todd (2002), Cater (2008), and Meyer, Thapa, Pennington-Gray(2002) Meisel-Lusby & Cottrell (2008) Meisel & Cottrell(2004)), but these studies did not specifically list spirituality as a possible motivation. Instead, the motivation to escape, which may implicitly include spiritual reasons, was found to be a popular reason to engage in scuba diving. Todd (2002) found that, in general, the more developed the scuba divers' skill level the more the motivation moved to escapism, (excluding the final stages of post-expert level, which was considered to be an anomaly when compared to the other data). The features of escapism included relaxation, peace, tranquillity, and escaping everyday life and everyday people. Escapism ranked third after adventure and learning on a six factor scale. Meyer et al. (2002) found that there was a difference in motivation based on whether the diver was male or female, with females being more intrinsically motivated than males, which indicated that gender may influence motivations. Cater (2008) explored motivations for dive tourism based on Maslow's hierarchy of needs "where safety and security are partly displaced for self actualization" (Cater, 2008, p. 235). Cater (2008) identified diver education, diver esteem, diver expertise, and diver escape as key motivators. The potential spiritual motivation of divers needs to be explicitly researched in order to ensure informed public policy and IMGs decision making. The impact of this potential spiritual experience on environmental advocacy also needs to be investigated. On a whole, dive organisations do not have the same environmental advocacy impact that the surfing organisations have. Most dive organisations are mostly social, educational, or stewardship organisations, but rarely become involved in the public policy process, which is vastly different to the surfing
organisations. The level of environmental advocacy for divers tends to lie in personal responsibility, to avoid damaging the marine environment and to clean up any debris that is found, but rarely extends beyond that level of involvement into the public policy area. The level of advocacy for the environment may be impacted by a potential spiritual experience that a diver may have while diving. This potential link between nature based leisure activities and advocacy for the environment should be delved into thus facilitating greater knowledge on how to invoke advocacy.

1.5 Environmental-Leisure-Spirituality Relationship

Leisure activities create a greater appreciation and value for the environment through increased connectiveness with nature and a sense of belonging (McDonald & Schreyer, 1991). Nature has been shown to lead to spiritual well being, which in turn leads to a greater connection with nature (Heintzman, 2010). It has been found that "direct encounters with nature [...] can promote affinity toward nature and, subsequently, behavior to protect its natural functioning" (Kals, Schumacher, & Montada, 1999, p. 183). Many natural resource based leisure activities may lead to spiritual experiences, which may lead to long term environmental attitudes (Williams & Harvey, 2001). As leisure activities promote this spiritual connection with the environment it can contribute to empowerment (Heintzman, 2010). If the benefits of leisure are "manifested through the individuals' behavior, and if this behavior in turn improves the condition of the [...] environment, or planet, then the spiritual benefits of leisure may have far reaching consequences" (McDonald & Schreyer, 1991, p. 191) and should be further researched.

1.6 Summary

Indigenous peoples' relationship with the environment, including the New Zealand Maori, has been the catalyst for international law to establish frameworks through which the spiritual connection with the land and sea may be protected. The recognition of spirituality in IMGs, as well as in countrywide (nation-state) level public policy, is both reflecting and promoting the protection of natural resources based on the human spiritual connection. This spiritual connection is recognised at all different levels of contemporary public policy, including in some of New Zealand's national level environmental policy. The acknowledgement within public policy is done in a general manner partially because much is still unknown about how spirituality relates nature resource based leisure activities, and
how this influences environmental advocacy. Greater understanding of how natural resource based leisure activities work with nature to create a spiritual experience needs to be explored. In fact, there is a lack of quantitative and qualitative scientific knowledge on the spiritual connection of leisure activities, and potential connections of leisure activities and environmental protection, which should be investigated to allow better-informed public policy making. The knowledge of how different antecedent, setting, and recreation-based factors influence a spiritual experience can facilitate explicit proper and effective public policy protection for spiritual sites. Protection of these sites through explicit public policy may help to create greater potential for action to preserve the environment. There might be a pattern of protecting the environment based on participants' experience during nature-based leisure activities. Whether it is a connection of cause-effect or just a relationship, it is also an under-researched question.

1.7 Purpose of Study

In recognition of these emerging trends and in response to a need for further research in this area, one aim of this research is to explore if natural resource based leisure activities, specifically scuba diving and surfing, help facilitate a spiritual experience and how frequently among participants. The similarities in the nature of these activities facilitate the ability to see how two different leisure activities may affect this potential experience. Both activities are predominantly non-consumptive of marine biota (as opposed to fishing) and involve a physical immersion in the marine environment, one above water and one below.

The second aim of this research is to determine if these natural resource based leisure activities do lead to a spiritual experience, does that enhance the participation in environmental advocacy. It has been suggested that a spiritual relationship or experience may lead to greater advocacy for environmental issues (Taylor, 2007). Whether a spiritual experience influences New Zealand surfers' and divers' relationships with, and advocacy for, their environment will also be explored.

If such a connection exists, it could add weight to their rights to protect land and sea based on spiritual reasons and assist policy makers consider these stakeholders when creating policy on land and sea protection. While spiritual connections with other wilderness or nature based leisure activities are well-documented (Heintzman 2010, Hollenhorst 1994, Fox 1997, 1999, Fredrickson and Anderson 1999), the areas of scuba diving and surfing have
received far less scientific attention. This research aims to contribute to fill the gap by means of quantitative social science research that analyses the significance of the spiritual dimension of surfing and scuba diving, which policy makers may consider/use when developing coastal management policies.

1.7.1 Research Questions

Consistent with this aim/purpose, the objectives/questions for this research are:

1. How often do surfers and scuba divers have a spiritual experience while participating in their activity?

2. What factors influence that potential experience?

3. Is there a relationship between spiritual experiences occurring within the activities, ecological paradigms, and advocacy for the environment?

1.8 Thesis Structure

The remainder of the thesis is organised into five chapters. Literature relevant to this research is reviewed in Chapter Two including scholarly research on: humans’ relationship with God, spirituality, sacred versus spiritual sites, scientific wilderness literature, surfing and scuba scientific and popular literature.

Chapter Three outlines the methodology used in this research and the rationale for adopting this methodology. This will include information on the survey instrument, the acquisition of data, methods of analysis, and the limitations of the research.

The findings of this research are presented in Chapter Four. This will include New Ecological Paradigm scores, correlation tables and charts, spiritual survey results, advocacy results, and overall analysis.

Chapter Five provides interpretation of the findings, especially in the context of theoretical as well as empirical insights from the existing literature and various policy options.

Finally, Chapter Six comprises the final discussion, implications of this dissertation for theory, summary of major findings, and policy and future research.
Chapter 2
Theoretical Context

This review of literature and the theoretical basis for this thesis is presented in three sections reflecting the broad themes of this research. The first section discusses the human-nature-spirituality relationship from a historical to present day perspective, illuminating the link that some have with nature and God. The distinction is then made between spirituality, religion and culture, and the definition of a spiritual experience through literature is stated. As religion and spirituality are often associated with specific sites, the distinction between a sacred site and a spiritual site is made. A connection with the land, sometimes spiritual in nature, or place bonding, is then discussed. Additionally, highlighting the need for a discussion on place bonding is the choice of surfing and scuba diving as leisure activities as they are dependent on a physical location/environment. The second section investigates literature on leisure activities and their spiritual and environmental connections. The environment for many natural resource based leisure activities is the wilderness, or a "environment of natural space" (Fox, 1999), and so research is presented on wilderness leisure activities and spirituality, as well as what factors affect a wilderness spiritual experience are identified. Wilderness specific activities, which may occasionally include surfing and scuba diving (inclusion in wilderness is discussed more in depth (see section 2.2), are then presented though a review of both scientific and popular literature illuminating the link between leisure activities and the environment. The final section, before the summary, investigates leisure activity and advocacy for the environment. All of the theoretical basis provided is a basis for the research objectives and to help inform the methodological choices in order to answer the research questions.

2.1 Human-Nature-Spirituality Connection

The power of nature has contributed to changing societal attitudes towards nature, from being in "harmony with nature that was all powerful" (Egri, 1997, p. 408) in the hunter gatherer time to being "personified as deities to be worshipped and revered" (Egri, 1997, p. 408). This gave way to the "17th century age of enlightenment where philosophers (Bacon, Decartes, Newton, Hobbes)" (Egri, 1997, p. 409) who believed humans to be the master of nature through human intellect. As the industrial age, the 18th to 19th century, emerged a
more instrumental view of nature as a machine (Egri, 1997), God had been taken out of nature and put God within the heavens (Macnaghten & Urry, 1998). The sacredness of nature was lost when it was stripped of its spiritual value and then was viewed in an instrumental view without moral objections (Holden, 2003). All societies continued to face devastating natural disasters, many of which, despite all our efforts, could not be prevented, and the power of nature continued as a major force in humans' relationship with nature. The powerlessness over nature that many humans feel, has led to respect, reverence, awe, and fear. This awe, respect and reverence are a few characteristics consistent with spiritual connection with nature (Fox, 1997; Stringer & McAvoy, 1992), while powerlessness and fear highlights humans' place in relation to nature and can bring to light ones own mortality (Egri, 1997). Humans seek to reconcile their own mortality through several paths, including utilising religious or spiritual ideology as a means of understanding their place in this world.

In the 20th and 21st century, it can be argued that the increased inclusion of references to spirituality in international agreements (see section 1.2 and 1.3) is indicative of a changing paradigm, one that increasingly recognises spirituality as part of the character of nature and natural settings. This, in turn, arguably suggests an emerging movement toward a non-utilitarian approach, based in morality – a new spiritually oriented land-ethic. Some refer to this change as a paradigm shift (Kuhn, 1996), but usually in the context of it being a shift from anthropocentrism to eco-centrism (Purser, Park, & Montuori, 1995), while Bourdeau (2004) believes a compromise of the two positions is necessary, but such a change would not necessarily entail the need to recognise spirituality.

Whether the source of some humans' paradigm shifts from instrumental to non-instrumental, is from a place of awe and respect or one of fear, the recognition by some humans that they believe there is a need to create a new relationship with the environment is due to the fact that "humankind can no longer deny its role in creating ecological crisis that touches all aspects of the natural environment" (Egri, 1997, p. 410) as argued by Egri. Egri further argued that in order to create a "sustainable relationship with the environment [...] a deep awareness of not only the biophysical environment within which we live but also of one's spirituality" (Egri, 1997, p. 410) is vital. This deep awareness of the biophysical environment can be seen in many nature religions, where god and nature are sometimes synonomous.
2.1.1 Nature and God

The term nature religion is "characterized by reverence for nature and [humans'] consider its destruction a desecrating act" (Taylor, 2009, p. 5). Nature religion has existed since the 19th century, the ideas associated with Baruch Spinoza (1632-1677), a Jewish philosopher, and Jean-Jacques Rosseau (1712-1778), a French social theorist, persevered into the Age of Reason. Spinoza believed that "if for every being and object is a manifestation of God or God's activity, then everything has value, which presents a fundamental challenge to the prevailing anthropocentrism" (Taylor, 2009, p. 8). Spinoza, Rousseau, Albert North Whitehead (1861-1947) and Arne Naess, developer of the concept of "Deep Ecology" (1970s) which influenced the development of "Dark Green Religion", an environmental movement proposed by Taylor in 2003. Dark green religion states that "nature is sacred, has intrinsic value, and is therefore due reverent care" (Taylor, 2009, p. 10). Irrespective of the form that the nature religion takes, whether dark green religion or another form such as: natural religion, nature worship, nature mysticism, or earth religion, the importance lies in the fact that some people who follow/practise nature religion have a connection with nature that is synonymous with God. This earth based spirituality and reverent care is an "imperative toward action in the world and a source of strength and renewal" (Starhawk, 1989, p. 176 as cited in Egri, 1997, p. 418). Whether it is through religion or through non-mainstream religions, such as nature religion, many times these organisations or institutions provide information about the

"principles of stewardship and respect for the natural environment [...] these organisations have translated words into action by initiating environmental projects and providing organisational support and resources for direct action campaigns to stop environmental degradation (Egri, 1997, pp. 422-423).

2.1.2 What is Spirituality?

Spirituality, at first glance, can have the appearance to be quite a widely defined topic and yet be distinctive from religion and culture, despite being commonly interlinked with spirituality including in IMGs. The UNESCO Declaration on Cultural Diversity (2001), for example, defined culture as:

...the set of distinctive spiritual, material, intellectual, and emotional features of society...it encompasses, in addition to art and literature, lifestyles, ways of living together, values systems, traditions and beliefs (UNESCO, 2001).
Religion has also been utilised to embody spirituality and is defined here as “a particular set of beliefs, practises, and rituals that have been developed in a community by people who share similar existential experiences of transcendent reality” (Hodge, 2001b, p. 36).

Mainstream religion is defined here as Bahai, Buddhism, Christianity, Daoism, Hinduism, Islam, Jainism, Judaism, Shinto, Sikhism, and Zoroastrianism as per the IUCN definition.

Religion usually encompasses sacred sites, where a human can access God (Digance, 2003). They are also sites that are associated with its historical origins and/or recognise places of sightings of spiritual leaders or deities. The main concern for mainstream religions is to transcend this world into the next (Taylor, 2009). In contrast, spirituality, is more individualistic and is thought to "be about personal growth and gaining a proper understanding of one's place in the cosmos, and to be intertwined with environmental concern and action" (Taylor, 2009, p. 3).

At a fundamental level, spirituality can be described as a unique personal connection with a power greater than oneself, higher power, God, principle greater than oneself, or transcendent force (Fox, 1997, 1999; Heintzman, 2009, 2010; Heintzman & Mannell, 2003; Hodge, 2001a, 2001b; Hollenhorst et al., 1994; James, 1985; Stringer & McAvoy, 1992). In spite of this individualistic nature of spirituality, there are commonalities within definitions, characteristics, and feelings. Following are a few definitions of spirituality utilised by researchers, which all illustrate the commonality of the relationship with a power greater than oneself.

"awareness of and fusion with a power or principle greater than the self" (Stringer & McAvoy, 1992, pp. 13-14)

"altered state of consciousness where an individual may experience a higher sense of self, inner feelings, inner knowledge, awareness and attainment to the world and one's place in it, knowledge of personal relations and the relationship to the environment, or a belief in a power greater than imaginable" (Fox, 1997, p. 455).

"relationship with God, or whatever is held to be the Ultimate...that fosters a sense of meaning, purpose, and mission in life" (Hodge, 2001a, p. 204)

A second attribute of spirituality, are the characteristics it provides a person beyond a connection to a God or higher power. Stringer and McAvoy's (1992) research revealed the following characteristics of spirituality: awareness, human interconnectedness, attunement, inner feelings, connection or relation to a greater power/deity, inner of self-knowledge,
faith or beliefs, inner strength, sense of wholeness, oneness, peace and/or tranquillity, values, intangibility, and shared or common spirit.

As well as creating and embodying these characteristics, spirituality can generate feelings identifiable within a person such as: intangibility, centring force, heightened sensory awareness, timelessness, being empowered, hope, grounded and secure, full of wonder, awe, and humility (Fredrickson & Anderson, 1999). Stringer and McAvoy (1992) found that the associated feelings with spirituality included: accomplishment, optimism, exuberance, calmness, quietness, gentleness, clarity, security, hope, curiosity, tranquillity, joy, equilibrium, warmth, oneness, exhilaration, awe, peace, fear, centeredness, reverence, happiness, contentment, serenity, humbleness, empowerment, trust, majesty, excitement, and wonder. While spiritual people arguably have the possibility of feeling these characteristics on a continual basis, there are undoubtedly times when they do feel more/less connected to a higher power and characteristics of spirituality.

2.1.3 Spiritual Experience

A deep moment of spirituality can be described as a spiritual experience. The nature of a spiritual or mystical experience is transient, ineffable, noetic, and passive as described by William James's (1985) psychological perspectives on religious experiences. James described the transient characteristic nature of the mystical experience as temporary as the individual soon fades into daily routines, while the ineffability of the event means that the individual cannot adequately put the experience into words. James described the noetic characteristic as a feeling that the individual has learned something valuable from the experience. The passive characteristic represented that the mystical experience happened without conscious control of the situation. William James's definition highlighted the transient nature of the spiritual experience and accentuated the value of doing field research as soon as was practical (James, 1985).

William James's conceptualisation of the four characteristics (transient, ineffable, noetic, and passive) of spiritual experiences was utilised by Stringer and McAvoy (1992) within their research. Stringer and McAvoy (1992) also identified that each spiritual experience was unique to an individual and was both cognitive (active contemplation) and affective (involving feelings including those with a high level of emotional intensity as peace, tranquillity, joy, love, hope, awe, reverence and inspiration).
Wilderness scientific literature discussed in section 2.2.1.1 examines research that has shown what factors contribute or inhibit a spiritual experience. One factor that may enhance a spiritual experience is the nature of the site in which the human is located (i.e. a sacred site or spiritual site). While spirituality is not only accessible at certain locations, some sites have an intrinsic value about them that may enhance the connection with a God via place bonding (Hammit, Backlund, & Bixler, 2006)(see section 2.1.5).

2.1.4 Sacred versus Spiritual Sites

Both sacred and spiritual sites can have an influence on a religious or spiritual person's spirituality and enhance their ability to have a spiritual experience. While a non-religious person may not feel the same connection, "it is the individuals willingness to associate spiritual value with a landscape that best predicts the psychological state of place attachment" (Brown & Raymond, 2007, p. 108). Arguably, for this thesis, delineation is made between a spiritual and sacred site; a sacred site is a spiritual site, but a spiritual site is not necessarily a sacred site. Some common characteristics associated with the two types of sites are that they are places where: an individual or communities may go to connect with a God or have a spiritual experience (Digance, 2003), healing water and medicinal plants are sourced, communication with a "more-than-human" reality is sought, revelation and transformation may occur, are associated with special events, saints and spiritual leaders, may be tied to a historical event or myth, and/or may be the origins and cultural legacy of peoples (IUCN, 2008a).

Some characteristics that might distinguish a sacred site from a spiritual site are that sacred sites are deeply embedded in belief systems, cultural values, or a religion, characteristic of preserving both cultures and protecting nature, may be burial grounds of ancestors, places of pilgrimage, locale of a temple, shrine, or church, and are often cared for by long term custodians (IUCN, 2008a). A sacred site was defined by the IUCN as "an area of land or water having special spiritual significance to peoples and communities" (IUCN, 2008a, p. xi) which has the implication that sites are not sacred unless recognised formally as such by a culture, community, religion, or peoples. The World Wildlife Fund publication by Dudley, Higgins-Zogib & Mansourian (2005) defined sacred natural sites as "an area such as forest, woodland, coast or mountain that has spiritual importance" (Dudley et al.2005, p. 18).
Sacred sites can be significant for the cultural origins and legacy of peoples, with some sites existing for hundreds, and sometimes, thousands of years (IUCN, 2008a), while many others having been only recently considered as sacred (Digance, 2003). Sacred natural sites "are not static in time or space; new sites can be created in response to changing circumstances and environment" (IUCN, 2008a, p. 7). For example, Bethlehem, for Christians, is a holy sacred site that has many meanings: the origins of a religion, a historical event relating to the birth of Jesus, and a place of pilgrimage today. Conversely Fatima, which is where the Blessed Mother is reported to have appeared in Portugal in 1917 to three shepherd children, has become a new sacred place of pilgrimage since 1930, when the Catholic Church endorsed the site.

Arguably, the perception by some religious societies is that sacred sites may hold more value than spiritual sites as they have a distinct entity, religion or culture, tied to the site, as well as, frequently receive international wide recognition. Although, spiritual sites relating to local communities and indigenous people are more vulnerable sites than religious or sacred sites (IUCN, 2008a). The lack of equivocal value put on spiritual sites as sacred sites may be due to such reasons as not having one group of guardians for the site, or the inability to amass a group of spiritual people, all at one place and time, that find the place spiritual. Congregation of people is done regularly with mainstream religion through religious rituals. Spiritual but not religious people are an often-transient population, which cannot necessarily be found within a church or religious building, often making this population rather elusive and difficult to locate.

The protection of sacred sites is key to the protection of the culture of indigenous people as loss of a sacred site could mean the loss of a culture (IUCN, 2008a) and the ramifications can be felt by non-indigenous people as well as on an individual, community, or regional level. Loss can happen through natural processes (i.e. weathering) or human destruction, either directly or indirectly (i.e. environmental change). The exact level of destruction needed to destroy a site where humans spiritual connect via place bonding is determined by the "functional, affective, and evaluative significance of these places" (Hammitt et al., 2006, p. 18). For example, if the Great Barrier Reef was declared a spiritual site and was lost through a human-made environmental disaster, the recreational activity, or functionality of the site for users of the reef, would be affected. The loss of the Great Barrier Reef as an environment for scuba diving could result in divers either being forced to find other
destinations suitable to achieve possible spiritual outcomes or having to substitute another activity for diving which may achieve such outcomes (G. Brown & Raymond, 2007; Hammitt et al., 2006). The same could be true with the continuous loss of surfbreaks, equating to loss of places to surf, which could damage the surfers’ ability to participate in their activity and potentially experience a spiritual connection.

2.1.5 Place Bonding

Place bonding is a "person-place bond that evolves from specifiable conditions of place and characteristics of people" (Hammitt et al., 2006, p. 18) and the bonding must be "functional, affective, and [have] evaluative significance" (Hammitt et al., 2006, p. 18) to the individual. The conditions of place that must exist for place bonding to occur is functionality, in the case of recreational users, the site must be able to be used for their activity. The site must be affective, or generate emotions, cognitive, and it must have evaluative significance as determined by the individual. The perceptions of the individual were measured by Brown & Raymond (2007) and were found that the most significant factors for place bonding were "perceptions of spiritual, wilderness (naturalness), and aesthetic connections to the landscape" (G. Brown & Raymond, 2007, pp. 107-108). Brown & Raymond (2007) agreed with the need for functionality of the landscape for recreation values, and arguably the aesthetic conditions could be comparable to Hammitt et al.'s (2006) affective component as an aesthetically pleasing site could generate an affective response. The last factor the evaluative significance, which Brown deems spiritual, is determined by the "individual’s willingness to associate spiritual value with a landscape [...] best predicts the psychological state of place attachment" (G. Brown & Raymond, 2007, p. 108).

Hammitt et al. (2006) determined five different types of place bonding: place familiarity, place belongingness, place identity, place dependence, and place rootedness. Place familiarity involves places where the individual had an achievement or had a pleasurable time and it is the beginning of place bonding. Place belongingness held a "spiritual connection toward social and communal environments shared by individuals, or in the case of leisure, other recreationalists" (Proshansky et al. 1983 as cited in Hammitt et al., 2006, p. 21). The trout anglers that Hammitt et al. (2006) researched were all found to have a sense of place belongingness to the river they fished. Both locals and those with high levels of experience were found to have a higher level of place bonding than visitors did. Place
identity is best described as part of an individual’s identity, i.e. being a New Zealander. Whereas place dependence is highly related to functionality of a site, such as to perform the participants leisure activity, the individual is dependent on the site. And finally, place rootedness is being "completely at home, that is, unreflectively secure and comfortable in a particular location" (Stegner, 1992 as cited in Hammitt et al., 2006, pp. 23-24). Hammitt et al. (2006) also extolled that the right activity must be done by the right person.

Hammitt et al. (2006) and Brown & Raymond (2007) have shown that people can interact with the natural environment in a functional, affective, and evaluative way and may derive a spiritual connection if the individual is open to the spiritual connection and participating in the right activity.

2.2 Natural Resource Based Leisure Activities Spiritual and Environmental Connection

The wilderness as a place of leisure activities, or "an environment of natural space [...] places of natural beauty and natural ecological cycle [...] removed from domestication of animals human-made objects and urban stress" (Fox, 1999, p. 59), is a well documented area of research regarding spiritual experiences and human connection with nature. Sloan argues that "given the omnipresence of human influence [...] [the] a key question for wilderness is the point at which human impact becomes unacceptable" (Sloan, 2002, p. 300). In other words, Fox's definition can be criticized as we are never completely 'removed' from human-made objects (Sloan, 2002). Even a hiker in the woods will have with them a pack and water canister, that is human made. The other criticism is what actually qualifies as urban stress, particularly at the individual level. The IUCN (n.d.) adds, or arguably substitutes, a management dimension when defining wilderness as "a large area of unmodified or slightly modified land, and/or sea, retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition." Despite attempts to define natural coastal character in the New Zealand context (Froude, Rennie, & Bornman, 2010), this too has its ambiguous characteristics within the definition, such as: what is a large area, and how far do you have to be from permanent or significant habitation and what does significant habitation actually mean?
The concept of marine wilderness is defined by the IUCN as "any area of intertidal or subtidal terrain, together with its overlying water and its associated flora, fauna, historical and cultural features, which has been reserved by legislation to protect part or all of the enclosed environment" (Sloan, 2002, p. 296). The qualification of legal protection is to ensure that the area is for non-consumptive use (Sloan, 2002).

As this thesis focuses on the two leisure activities of surfing and scuba diving the question arises do these activities occur in the wilderness? Surfing is a non-consumptive activity that physically occurs near urban stress, but removed from it. The beach provides a liminal space, passage through which enables the surfing waves, even within sight and sound of land, to be felt as if it is wilderness with waves to be tamed. As for scuba diving, it can be a non-consumptive activity, which sometimes does occur in protected areas. But even when not in a protected area it is arguably always a wilderness activity as it occurs in the depths of another world, where there is a no human visual or audible urban stress leading to solitude and is in a unique landscape that is nothing like what is found terrestrially (Sloan, 2002). The relevance of terrestrial wilderness leisure activity literature lends itself to assumptions that may be applied to the ocean wilderness. Theories drawn from terrestrial wilderness research in the realm of spirituality may serve as a theoretical basis for application to the marine wilderness environment. Research completed in wilderness leisure demonstrates the link that wilderness has with spirituality, as well as indicating other factors that may or may not influence the characteristics of a spiritual experience.

### 2.2.1 Spiritual Experiences in Wilderness

Wilderness research utilised and concluded similar definitions, characteristics, and feelings of what a spiritual experience is, as spiritual literature provided in section 2.1.3. Wilderness based spiritual experiences according to Driver, Dustin, Baltic, Elsner, & Peterson (1999) and Fox (1997) included a connection with a higher power and such feelings as:

"introspection and reflection on deep personal values; the elements of human devotion, reverence, respect, wonder, awe, mystery or lack of total understanding; inspiration; interaction with and relationship to something other and greater than oneself; sense of humility; and sense of timelessness, integration, continuity, connectedness, and community" (Driver et al., 1999, p. 5).

"moments of transcendence and spiritual enchantment. Feelings of enrapture characterise these transcendent episodes and include
experiences such as sudden awakenings, something inexplicable, or something of natural beauty" (Fox, 1997, p. 455).

Characteristics of a spiritual experience in the wilderness included a "belief in the connectedness or sense of oneness toward people, self and all things" and a "sense of inner peace, oneness and strength" (Fox, 1997, p. 457). Fox (1999) found that there were some similar characteristics of a spiritual experience to the characteristics that Driver et al. (1999) found such as: awe and wonderment, "elatedness, inner happiness, inner peace, joy, inner calm, heightened senses, and connectedness" (Fox, 1999, p. 62). Other key characteristics of spiritual experiences were identified by Williams & Harvey (2001), through research on transcendent experiences in forests. These characteristics included strong positive effect, feelings of overcoming the limits of everyday life, a sense of union with the universe or some other power or entity, absorption in and significance of the moment, and a sense of timelessness. Some of this research not only identified definitions, characteristics and feeling but some identified factors that affect a spiritual experience.

### 2.2.1.1 Factors that Affect a Spiritual Experience

Wilderness research has shown that several factors influenced that process of having a spiritual experience. Stringer and McAvoy's (1992) work identified several factors that influenced a spiritual experience such as: prior awareness of one's own spirituality, camaraderie, needing to confront and deal with personal questions, physical activity, predisposition toward spiritual reflection and/or experiences, previous spiritual experiences, prompting by other participants or leaders, the natural environment, people on the trip, time off, and the structure/organisation/components of the trip. Stringer and McAvoy (1992) found that the inhibiting factors of a spiritual experience were: not enough time to feel, see, and/or process experiences, not having enough time off or alone, not looking for spiritual experiences, and too large a group.

Other research by Fox (1997) identified other factors that contributed or detracted from a spiritual experience, including solitude (Fox (1999), Fredrickson and Anderson (1999), Heintzman (2009), and Hollenhorst et al. (1994)), comfort within environment, fear and anxiety, and issues that people carry in from their lives into the experience (Heintzman, 2010). These factors and the process of experiencing a spiritual experience as researched by Fox (1997) can best be seen in the Spiritual Experience Process Funnel (Fig. 1).
Fox (1997) contends in the Spiritual Experience Process Funnel, through adding individuals and nature in a wilderness experiences, brings the individual to stage one. Stage one was overcoming fear and led to relaxation and exploration in stage two. The third stage was a spiritual experience in which a positive transference of changes in an individuals' behaviour, and shifts in life perspectives then occurs. Fox's (1997) Spiritual Experience Process Funnel showed that through spiritual growth the outcome of a spiritual experience was a change in everyday living and behaviours. Behavioural change was shown as an outcome, but little research has been done to follow the spiritual connection through to a behaviour change, such as environmental advocacy.

Figure 1 Fox (1997) Spiritual Experience Process Funnel
Heintzman (2010) has argued that Fox's (1997) research required revisions in the light of new research completed in the area of spirituality and wilderness. In spite of Heintzman's assertions, Fox (1997) is still a relevant piece a research to explore as it showed links to behavioural outcomes which was investigated in this thesis. Heintzman (2010) outlined three components that affect a spiritual experience: 'antecedent' conditions, 'setting' components, 'recreation' components, which in turn led to different 'spiritual outcomes'.

Heintzman's (2010) research identified 'antecedent' conditions (preconditions) which played a major role in achieving a spiritual experience. The concept of 'antecedent' condition was similar to Fox's (1997) idea that "people carry 'baggage' into wilderness" (Heintzman, 2010, p. 76) experiences. Heintzman (2010) identified four components of "baggage" or 'antecedent' factors: 'history and circumstances', 'motivation and attitude', 'socio-demographics', and 'spiritual tradition'. 'History and circumstances' referred events occurring in the human's life on a personal level. 'Motivation and attitude' referred to the participants' reason for participating in the leisure activity. 'Socio-demographics' and 'spiritual tradition' both identified the participants' background on a social and spiritual basis.

Heintzman (2010) referred to 'setting' components as: 'being in nature', 'being away' from everyday life, and 'place processes'. These factors of 'being in nature' and 'being away' from everyday life Driver et al. (1999) believed created a natural human spirit renewal. The human spirit renewal and spiritual connection to the environment was also described by Hammitt, Backlund, & Bixler (2004) as place belongingness. Hammitt et al. (2004) identified that the setting can create place belongingness (see section 2.1.5). Part of the setting components according to Heintzman (2010) were place processes such as weather, swell, current conditions, where the place was seen as a mediating factor.

The recreation components that Heintzman (2010) and other researchers referred to, are not only the particular 'activity', but amount of 'free time' (Driver, Brown, & Peterson, 1991; Heintzman, 2010; Stringer & McAvoy, 1992), 'solitude' (Fox, 1997, 1999; Fredrickson & Anderson, 1999; Heintzman, 2009, 2010; Hollenhorst et al., 1994; Stringer & McAvoy, 1992), 'group experience' (Stringer & McAvoy, 1992), and the 'facilitation' of the recreation (Stringer & McAvoy, 1992). These three components, ('antecedent', 'setting', and 'recreation' components) all combine to determine different various 'spiritual outcomes' according to Heintzman (2010).
2.2.1.2 **Spiritual Outcomes**

Most research has identified the establishment of a spiritual experience, its definition to participants, characteristics, and enhancing or inhibiting factors, but two studies that this research focused on delve into the type of spiritual experience outcome. Heintzman (2010) identified three categories of possible spiritual outcomes from nature-based recreation: "spiritual experiences, spiritual well-being, and leisure-spiritual coping" (Heintzman, 2010, p. 81). In contrast with spiritual experiences, which are identified with short-term positive emotions, 'spiritual well-being' and 'leisure-spiritual coping', have long-term outcomes.

'Spiritual well-being' was associated with:

"(a) sense of life purpose and ultimate meaning; (b) oneness with nature and beauty and a sense of connectedness with other; (c) deep concern for a commitment to something greater than self; (d) a sense of wholeness in life; (e) strong spiritual beliefs, principles, ethics and values; and (f) love, joy, peace, hope, and fulfillment" (Hawks, 1994 in Heintzman, 2010)

'Leisure-spiritual coping', as a form of spiritual outcome, was identified as a way for people to use leisure activities as a means of spiritually coping with difficult life circumstances. While Heintzman identified categories of spiritual outcomes, Fox (1997) characterised the outcomes as stages rather separate categories.

Fox (1997) identified four stages of a spiritual experience. The first was the recognition of "natural beauty, sudden awakenings, something of surprise, something inexplicable" (Fox, 1997, p. 459). The second type was an event followed by feelings and emotions such as: "awe, wonderment, timelessness and absorption" (Fox, 1997, p. 459). The third stage showed a delayed reaction of feelings such as: "tranquillity, calmness, elation and peacefulness" (Fox, 1997, p. 459). The final stage involved spiritual growth and was associated with behavioural change in our everyday lives. The focus of this thesis is not to delineate the type of spiritual experience, but delves into all levels of spiritual experience; from type one to type four, behavioural change, which may have implications for advocacy for the environment.

Not only has research identified what the spiritual outcomes may be, as a result of natural resource based leisure activities within the wilderness, but research has identified factors that either enhance or inhibit a spiritual experience. While the characteristics that inhibit or enhance a spiritual experience have been attributed to leisure activities 'being in nature' or
the wilderness, assumptions can be drawn to activities arguably in a subset of the
wilderness, the marine environment.

The focus of this research is on the natural resource based activities of surfing and scuba
diving. The lack of scientific research, for both surfing and diving, is enhanced by the
background of assumptions derived from wilderness leisure literature and personal
statements/popular literature of each activity.

2.2.2 Surfing

Surfing is a popular activity in New Zealand, as shown by the 24th place ranking among
recreational leisure activities (Sports and Recreation New Zealand, 2007/2008). Despite the
activities popularity, there is little to no research on surfing and spirituality, and the factors
that may influence a spiritual connection. Little scientific attention has been given to
whether surfers feel a spiritual experience while participating in their activity and the
potential implication for advocacy for the environment. What has received a vast amount of
attention in surfing literature is the history of the activity, motivations for surfing (excluding
explicit statement of spirituality), and the connection with the environment. These will be
the focus of the next few sections as they relate to surfing and its relationship with
spirituality, which started from the origins of the activity.

2.2.2.1 History of Surfing and Spirituality

The literature on the history of the activity does provide a valuable context to the
contemporary understanding of the spiritual connection of surfers today. The exact origins
of surfing are unknown, but some evidence points to the Peruvians as the originators, while
others believe that the Polynesians first developed it. The activity had spiritual and religious
origins, as the Polynesians held "great spiritual importance to their surfing" (Nendel, 2009,
p. 2433), as was evident in the ritualistic nature of the activity starting with the selection of a
tree to make a board. There were ceremonies and prayers offered to the Gods, for the
board. The connection between the surfer and the board was intense and the surfer
revered the board.

In recent times the first major development of the activity occurred in Hawaii in the
twentieth century where the spiritual tradition continued as the Hawaiian surfers viewed
the act of building a surfboard as sacred (Nendel, 2009). As the activity developed in Hawaii,
spiritual dedication was associated with more than one god, unlike Tahiti where prayers
were made to Tahiti surfing god, Huaouri (Nendel, 2009). There was and still is a temple in Hawaii dedicated to surfing called the Kuêmanu Heiau, located at the Kona Coast (Nendel, 2009, p. 2434). This spiritual connection with God through surfing, for the Hawaiians, began in 1820 and became a way of life until the Christian missionaries came to Hawaii. The missionaries were not pleased with the Hawaiian surfing lifestyle which involved spirituality, gambling, and casual sex, (Nendel, 2009) and set out to convert the local surfers, which led to the disappearance of surfing from Hawaii, from the late 19th century until the early 20th century. Interest was reinvigorated in the activity (Taylor, 2007) after the poetic writing style of Jack London, the first well-known surfing writer (Warshaw, 2004). Also vital to the resurgence of surfing and the spread of surfing around the world was Duke Kahanamoku, who became surfing's unofficial ambassador to the world (Nendel, 2009; Taylor, 2007). He spread his love of surfing to all of the coasts of North America and Australia, and to New Zealand. On February 24, 1915, Duke Kahanamoku arrived in New Zealand, where he put on exhibitions of his surfing skills in Wellington and New Brighton (Barr, Moran, & Wallace, 2005). Further promoting surfing was the surfing movies of the 1960s and 1970s, including Morning of the Earth (Falzon & Elfick, 1972) and Endless Summer by (B. Brown, 1968), among others, which recruited a whole new group of surfers (Taylor, 2007).

The surfing spiritual connection flourished in the 1960s in the United States. As a counter culture, 'soul surfing' emerged which was surfing for the "values of spirituality, aesthetics and the quest for inner peace and authenticity" (Ford & Brown, 2006, p. 30). Soul surfing commercialization was highlighted by Ponting (2008) who emphasized the social construction of surfing as nirvana. The commercialization and competitive nature that the activity has evolved into is what was believed to be the destruction of the spiritual practise of the activity according to Nendel (2009). Contrary to that viewpoint, Taylor (2007) believed that surfing "has a spiritual aura that you only get once you've experienced it yourself...It's always a journey to the inner self...[Surfing] never will lose its soul and spirit, because the magic that envelops you when surfing is far too powerful" (Taylor, 2007, p. 924). The spiritual relationship to surfing is evident throughout its history through rituals such as the sacred choice of a board. As many of those rituals no longer exist, does the activity still hold on to its spiritual connection, as is expressed in quotes from surfers? The historical spiritual connection is shown to be evident in literature but what is today's motivation for surfing; this is the question that research on surfing motivations has tried to capture.
2.2.2.2 Surfing Motivation

Several research studies have identified the motivations of surfers, namely, why surfers' surf (Farmer, 1992; Butts, 2010; Diehm & Armatas, 2004; 1992; Kerby, 2010; Pearson, 1979; Ponting, 2008; Stranger, 1999). One study specific to New Zealand and Australia by Pearson (1979) identified and analysed 19 different motivations of surfers in the 1970's for surfing. Of significance to this thesis, are the motivations of self-actualization potential, interaction with the environment, and cathartic reasons. Pearson (1979) found for New Zealand surfers, that 36.6% participated for cathartic reasons. The category of interaction with the environment was divided into three categories, appreciation of nature, blending with nature, and "those containing a mystical or spiritual element, such as references to God or divinizing Nature" (Pearson, 1979, p. 79). Pearson described mystical or spiritual as the "ultimate fusion of nature, expression and enjoyment [...] a closeness to God and nature" (Pearson, 1979, p. 80) and 26.8% of surfers were motivated by interaction with the environment. The inclusion of spirituality within other categories such as interaction with the environment made it difficult to identify how many people surf for the appreciation of nature and blending with the nature, and who does for spiritual reasons. The explicit separation of spirituality into a separate category would help to expand the clarity of motivations of the surfers.

While Farmer (1992) did not use explicit separation of spirituality, Farmer (1992) did have similar findings with analysis of surfer motivations for surfing as Pearson. Farmer (1992) stated that people either participate for aesthetic, ascetic, catharsis, health and fitness, social or vertigo reasons. Cathartic motives included "stress reduction, religious experiences, and escape or transcendence" (Farmer, 1992, p. 244). In two different samples, the catharsis ranked second and third, as motivating factors behind vertigo and vertigo and aesthetic in the other sample. This study "highlights surfers' higher intrinsic, rather than extrinsic motivation" (Ford & Brown, 2006, p. 156).

Similarly, Diehm and Armatas (2004) found that surfers are more intrinsically motivated than extrinsically motivated when they compared surfers with golfers' personality traits and motivations. The study found that surfers engage in adventurous behaviour to provide "stimulation through the mind and senses" (Diehm & Armatas, 2004, p. 675).

The intrinsic motivation, transcendence of self, through the element of risk, was researched by Stranger (1999). It was identified that in order to achieve transcendence, thrill was
needed. Seeking this thrill within leisure activities "often emphasize ecstatic feelings of oneness with the environment, the loss of self in the activity, and an intense awareness of the moment" (Stranger, 1999, p. 268). The thrill or risk involved could include the concept of flow from Csikszentmihalyis and Csikszentmihalyis (1999) as it is described as:

"deep concentration on the activity at hand, the person in flow [...] loses temporarily the awareness of self [...] At the most challenging levels, people actually report experiencing a transcendence of self" (Csikszentmihalyis and Csikszentmihalyis, 1988, p. 33 as cited in Stranger, 1999, p. 269).

Whether it be due to risk or other factors, surfing created an "almost spiritual feeling [...] from riding waves" (Butts, 2010, p. 3) that non-surfers could not understand. The surfers even reported an almost addiction to the activity and a constant state of emotional change from calm to tension. Butts (2010) found that surfers could not explain to a non-surfer the feeling of riding a wave, and, thereby, why one would want to ride one to begin with.

The desire to surf was also analysed by Kerby (2010) through a small snowballing sample size. The surfers that Kerby (2010) interviewed participated in surfing because it was a fun lifestyle, spiritual lifestyle, and others because surfing was considered very spiritual. Twelve out of the 14 surfers found that surfing was a spiritual activity, even if that spiritual experience occurred only once.

All of these studies point to the connection that surfing has with the intrinsic motivations or connections to the environment, and several with spirituality. However, none of them explicitly state spirituality as a clear distinct motivation for surfing, with the exception of Kerby (2010), nor did they identify specific surfing places as spiritual, or the connection with the environmental advocacy.

### 2.2.2.3 Popular Literature

While most scientific literature has failed to explicitly research surfing and spirituality, the connection can be easily seen throughout popular literature, such as surfing magazines. Surfing magazines have long since recognised the spiritual connection that was shown throughout the history and current state of the activity. It was during the time of the 1960s and 1970s, that the term 'soul surfing' really gathered momentum as description of surfing for spiritual reasons. Green room writing, which was a type of writing that developed in the 1960s which described the "spiritual and aesthetic aspects of the wave" (Ormrod, 2007, p.
Surfing the tube was described as
"spiritual and mystical experience […] likened to an 'altered state'"
(Ormrod, 2007, p. 94)

Champion surfer Roger Mansfield expressed
"the whole essential purpose of surfing today is to get tubed. Once you've been tubed properly it affects your whole life[…] because getting tubed is an out-of-the-body experience, an experience that will affect your entire lifetime, a spiritual experience" (Ormrod, 2007, p. 95).

Rabbi Shifren concluded in Surfer magazine (2005) Vol. 46 #3 that
"surfing is a spiritual connector. It's like a conduit where one could appreciate God and the forces of the world" (Melekian, 2005, p. 2)

Surfer magazine in an article called "Is surfing spiritual" received comments from surfers that ranged from
"it's like meditation" to "surfing is like a spiritual discipline" to "it cleanses the soul and cleanses the mind" (Gabe, 2008, p. 1).

David Rastovich stated for Surfer Magazine
"I think that's one real magical aspect of surfing that we all share, no matter what religious belief or what culture we come from, we all share that same experience of indescribability, that immensity of everything." (Bass, n.d.).

Whether it was the social climate that perpetuated the soul surfing within literature, or, if it was just the magazines' capitalizing on the social atmosphere, the popular literature today still reports that surfing has some soul. Popular literature of surfing and spirituality identifies that some surfers do have a spiritual relationship both historically and currently with a higher power through the activity of surfing. The question is how prevalent is that spiritual connection today? While surfing in popular literature explicitly states spiritual connection the same is not as predominate for either scientific or popular literature of scuba diving.

2.2.3 Scuba Diving

It is estimated that there are "5-7 million active divers worldwide" (Thapa, Graefe, & Meyer, 2006) as of 2006, and New Zealand leisure activity statistics ranked it 26th, only two places behind surfing in popularity as of 2008 (Sports and Recreation New Zealand, 2007/2008).

While there has been an enormous amount of research on the medical effects of diving, and the marine behaviours of divers, little has focused the motivations, which may include spiritual connections, or the history of the activity. The activity is relatively young when
compared with surfing, which may be the reason for the lack of spiritual connection with the history of the activity. The activity was developed during the 19th century but equipment was not readily available to areas such as the United States until 1948 (Richardson, 1999). The influence of books, movies, and magazines propelled the activity into popularity, but the influence of these forms of media lack the spiritual nature that was shown in surfing media. While, a detailed history of scuba diving has been omitted, as it lacks a spiritual connection, some research on the motivations of divers did show an implicit relationship with spirituality.

2.2.3.1 Motivations for Diving

Diver motivations were explored by Todd (2002), who found that six factors emerged as major motivations for divers: adventure, learning, escape, social interaction, stature, and personal challenge. Of note, with regard to the focus of this thesis, is the escape motivation. While questions did not explicitly reflect spirituality, they did reflect potential outcomes of having a spiritual experience. The questions that were included as part of the escape heading were "relaxation, peace, and tranquillity, but also escaping everyday life and everyday people" (Todd, 2002, p. 109). Escape ranked as the third most important factor. When analysed with level of development of scuba diving ability, the escape ranking increased with the level of development, excluding the expert category where it tended to dip to the same level as intermediate. The key finding was that the "idea that leisure activity becomes more intrinsic with experience, or done for its own sake, was not supported" (Todd, 2002, p. 112).

While level of development did not show more intrinsic motivation, females were more intrinsically motivated than males (Meyer et al., 2002) when using the same motivational scale as Todd (2002). Meyer et al.'s (2002) research was conducted on divers with a year or less of experience, and, but did not take into account different motivations as a diver progressed in their diving career (Meyer et al., 2002).

These different motivations and dive satisfaction throughout a career can also be affected by the divers' country of origin (Meisel & Cottrell, 2004). Meisel and Cottrell (2004) researched the motivations and expectations of divers in the Florida Keys. The level of satisfaction was determined largely by the country of origin. International divers were largely diving to escape daily life. The more advanced divers' motivations were found to be more relaxed with more realistic expectation, whereas new divers' motivations were more
involved with the use of equipment and the challenge of using new skills. While spirituality was not listed as a motivation, items such as: experiencing the tranquillity here, to forget the pressures of my daily work and for relaxation are some characteristics of motivations listed.

The motivation to provide "escapism and transcendence from established social constructs" (Morgan & Stevens, 2008, p. 951) into risky behaviours showed a significant increase in confidence with decreased perception of risk, from pre-dive to post-dive (Morgan & Stevens, 2008). The transcendence that Morgan and Stevens (2008) researched is similar to Cater's (2008) conception who researched transcendence based on Maslow’s hierarchy. Cater (2008), however, took a similar view on motivations of divers and included the thought that diving could be "placed high on Maslow's (1973,1987) hierarchy of needs, where lower order needs for safety and security are partly displaced for self-actualization" (Cater, 2008, p. 235). While Cater (2008) viewed self-actualization as a motivation of diving, Dimmock’s (2009) view showed a different perspective on the reason for spiritual connection.

Dimmock (2009) addressed spiritual connection through the concept of comfort, which was defined based on an eighteenth century definition as a "source for emotional and spiritual support" (Dimmock, 2009, p. 280). Dimmock (2009) found that divers had four realms of comfort: physical, social, psychological and visual. Of importance, to note here, is the psychological comfort. Psychological comfort occurred with a lack of fear and anxiety, when the mind was free to leave behind the day’s worries and just focus on diving. This mental release was expressed in many different ways during Dimmock's (2009) interviews. Psychological comfort did allow divers to get a "sense of well-being that some reported was like 'meditation' (Dimmock, 2009, p. 288).

The diving literature does implicitly mention spirituality but lacks an explicit explanation of spirituality as a possible motivation. None of these studies looked at multi-dimensional factors that may affect a diver’s motivation. They only focused on one aspect that might influence that motivation, this leaves many potential other causes for the motivation. Nor have any of these studies looked at scuba diving leading to environmental advocacy. One area that does explicitly mention spirituality is popular literature. Assumptions about the
spiritual connection can be derived occasionally from reports in popular literature and from talking with divers.

### 2.2.3.2 Popular Literature

Unlike the explicitly stated spiritual connection that can be seen in surfing popular literature, scuba popular literature does not reflect the same spiritual connection. The non-scientific literature relating spirituality and diving is limited as well. As diving is not a competitive activity as surfing can be, (there is no competitive professional diving competitive circuit, in the same sense as there are professional surfing competitions) gathering quotes could not be done in the same manner as with surfing to illustrate the spiritual connection. Spirituality is not a subject that seems to be communicated in diving magazines, but, when speaking to a diver, it is readily present for many. Crowley (2008) and Vanessa (2009) are both two books of personal experiences that extol the virtues of diving and its relationship with spirituality. Both books talk of the peace and tranquillity experienced by them as divers, and speaks of the spiritual or religious connection that they find with diving.

Dive magazines are heavily technology focused, as diving is a very equipment intensive activity. However, two articles were found within the web magazine Dive Pacific and Dive New Zealand that address spirituality (Moran, 1999; Walton, 2000). Dive Pacific (Moran, 1999) discussed an experience that a diver had diving with the whales in Hawaii, which the diver deemed as spiritual. The Dive New Zealand (Walton, 2000) article highlighted the Maori spiritual connection with the Waikoropupu, as a sacred place that has spiritual waters for divers. While prolific amounts of literature does not appear on spirituality and diving, the spiritual connection appears to be present for some divers, but how many divers and what are the implications of a spiritual connection? Does it lead to advocacy as Fox (1997) suggests? This thesis will address these questions and the next sections will address leisure and advocacy.

### 2.3 Leisure activities and Advocacy

A "common feature of [spirituality is] a sense that nature is sacred and that ethical responsibilities naturally follow such a realisation" (Taylor, 2009, p. 4), and that spirituality transcends feelings and moves into action. It was this transcendence that may have led leisure participants whom feel spiritual connection with nature through their activity, into
advocacy for the environment. Just as surfing was more explicit through literature and research with its spiritual connection than diving so is it with advocacy for the environment through organisations.

2.3.1.1 Surfing Advocacy
The history of the connection of surfing and environmentalism started in 1961 with "Save our Surf". This Hawaii based organisation was formed to save the surfbreaks. The next major surfing organisation, formed in 1984, was the Surfrider Foundation. While its primary purpose was to save the breaks, it soon formed into a full-fledged environmental activist group, concerned with biodiversity (Taylor, 2007). Many organisations have formed since these initial organisations and most have a pro-environmental stance beyond just saving the breaks.

The increase in surfers that are advocates to help save breaks, biodiversity, and other environmental causes shows that there is a growing concern among some surfers for the protection of nature. While largely social clubs, some of these organisations, are action oriented clubs that make submissions to the courts and do what they can to protect the environment. Hill and Abbott (2008) believed that while the nature of surfing is environmentally friendly, the technological advancements were far from friendly. The boards and clothing themselves were very damaging to the environment. While the correlation between surfing and advocacy is noted in literature, it is not a well-researched connection.

Surfing may lead to a greater connection with nature and thereby action as seen through the following personal statements:

Surfing combined the
"total engagement of psychic capabilities in a physical challenge that facilitates ecstatic union with nature" (Stranger, 1999, p. 270).

The act of surfing makes the surfer more
"compassionate toward both people and nature" (Taylor, 2007, p. 924).

The connection that some surfers felt with nature created a desire to protect nature. This connection can shape the paradigm that they have towards nature as
"powerful, transformative, healing, and even sacred. Such perceptions, in turn, often lead to environmental ethics and action" (Taylor, 2007, p. 925).

Kelly Slator, the world famous surfer from Florida, makes it clear that he believed that if you are a surfer you have to be an environmentalists in Hill and Abbott (2008) when he affirmed that

"if you are one, you're the other - you have to be" (Hill & Abbott, 2008, p. 165).

These statements illustrate that some surfers hear a call to action based on their involvement in surfing. While diving has taken a different route for advocacy, it can still be found through participation in the activity.

2.3.1.2 Diving Advocacy

Diving research on advocacy focuses on individual's participation within the marine environment, and does not extend into the level of activism. Diving's perspective lies more in stewardship of the marine environment through personal responsibility. Personal responsibility was "perceived feelings of duty or obligation of the respondent toward the environment" (Cottrell & Meisel, 2004, p. 252). Cottrell & Meisel (2004) found that personal responsibility was tied to attitude and behaviour intention, as explained in the Ajzen & Fishbein (2005) Theory of Planned Behavior (discussed in section 3.3.4). Research as the level of education increased, personal responsibility increased, and research has shown that through education and increased diver specialization, that divers are more likely to engage in pro-environmental behaviour (Thapa et al., 2006). This was not studied beyond the marine environment, into an area such as advocacy for marine legislation (Thapa et al., 2006).

While education, diver specialization, and personal responsibility are the main pro-environmental behaviours that divers engage in, one major worldwide organisation does advocacy on the marine policy level. Of the major dive certification organisation in the world, Professional Association of Diving Instructors (PADI) is with a prominent pro-environmental foundation. This foundation, Project AWARE, founded in 1989, is a non-profit environmental organisation. The foundation "conserves underwater environments through education, advocacy and action" (Project AWARE Foundation 2011, n.d.). The foundation is concerned with underwater cleanups, marine debris prevention, coral reef conservation, shark education, improving management policies and marine protection efforts, and environmental training for divers and education programs for children.
Both diving and surfing do show that through the leisure activity some participants may be led to advocacy for the environment either via participation in a pro-environmental organisation or through personal initiative. Whether there is a relationship between spirituality and environmental advocacy has not been researched specifically for surfing and scuba diving, but what can be drawn on to explain this link of leisure activities and advocacy for the environment is the Theory of Planned Behavior (discussed in section 3.3.4).

2.4 Summary

Humans have a connection with nature that while in flux and constantly changing the overall existence of this relationship is unquestioned, and for some the connection is spiritual. A number of researchers (Heintzman(2009, 2010), Fox(1997, 1999), and Stringer and McAvoy (1992)) have identified factors that influence spiritual experiences within nature from which extensions may be made in relation to marine environments involving the activities of scuba diving and surfing. It has been shown through models such as the Theory of Planned Behavior that there are several factors that influence advocacy for the environment, which may include spirituality, leisure activities and their impact on the participants' relationship with nature. It is intended that this research will shed light on the following questions: How often do scuba divers and surfers have spiritual experiences while participating in their activity and what factors (antecedent, place, or setting) influence them in these experiences? Is there a relationship between a spiritual experience occurring with these activities, ecological paradigms, and advocacy for the environment? The answers to these questions shall add knowledge to this under researched area and facilitate further dialogue on the relationship between the marine environment and spirituality, the protection of spiritual places, and advocacy for the environment.
Chapter 3
Methodology

3.1 Introduction

The potential spiritual connection that humans have with the environment suggests that enhanced knowledge of this research area, which could lead to a framework within which spirituality could be incorporated into the management of the natural resources, is highly desirable. As spirituality is a deeply personal experience, the measurement and management of something that is so personal and possibly unique, for an individual and for a group of people is challenging. However, as a number of studies, previously discussed (Chapter Two) have enabled several characteristics to be identified that are present in spiritual experiences, we can endeavour to identify the nature of such experiences. Particularly relevant to this research are 'antecedent', 'recreation', and 'setting' factors which influence this spiritual outcome and identification of these factors may help to explain the spiritual relationship that surfers and scuba divers have with the environment. Those surfers and scuba divers, who have a spiritual connection with the environment, may have a higher propensity to hold personal values/have personal paradigms, which may lead to environmental advocacy.

The methods applied to this research have been guided by the research questions and by theoretical and methodological considerations drawn from the literature, while recognising the relatively unexplored nature of this research area. This chapter will identify how the methodology and survey instrument utilised is designed to answer the research questions drawing from previous literature. An interest in achieving compatibility between the research questions and the spiritual experiences and environmental advocacy preferences of surfers and divers was also incorporated into the process of method selection and survey design. The adoption of a quantitative, and not a qualitative, methodology will be discussed and, following Heintzman (2010), how to quantify a spiritual experience, including factors identified as potential causes of a spiritual experience, is described.

The data collection procedures (e.g., sampling techniques and locations) and approach to data analysis are set out and their strengths and weaknesses discussed.
3.2 **Adopting a Quantitative Approach to Spirituality**

The subjective nature of spirituality has led to a dominance of qualitative research within the literature. This qualitative dominance appears largely because in attempting to measure spirituality "the subjective, often intangible, nature of human existence is not captured" (Hodge, 2001a, p. 204). However, the literature reviewed indicates that there are common qualities of a spiritual experience that can be distinguished and are amenable to being measured quantitatively. If this is the case, then there is potential for comparison of these characteristics of a spiritual experience between individuals and groups using statistical methods to test for significance. In order to test for significance of a spiritual experience, its potential impacting factors, and the relationship with advocacy, numerical data was needed for statistical analysis. A quantitative survey methodology was therefore adopted to enhance the potential to generalise from the results, to facilitate the expression and comparability of spiritual experience across a wide range of people, and to compare participants in the two specific activities that are the focus of this research (surfing and scuba diving).

The relatively recent development of quantitative techniques for assessing spiritual experiences and interactions with nature (as discussed in this chapter) also offers an opportunity to explore the relationships experienced by a larger number of people than would qualitative research within the time frame of a master's thesis. A potentially significant drawback to using a quantitative method is that not all factors can be addressed and it limits the ability for participants to bring up factors that may not be on the survey. This problem was partially mitigated by open-ended questions where the participants were allowed to write what they felt might be additional information that they deemed relevant. The open-ended questions also allow the ability to confirm the results of the quantitative data questions. While the qualitative methodology has been the preferred methodology of spiritual research, it is evident that the issues that have prevented or dissuaded researchers from quantitative methodology can be overcome. Quantitative methodology in fact can add a great deal of statistical ability to study relationships of spirituality and other factors. One system for overcoming some of the drawbacks is the overall design of the survey.
3.3 **Survey Design**

Through a review of literature on spiritual experiences, several items presented as common elements throughout the literature as factors that identify a spiritual experience and other factors that affect the possibility of having a spiritual experience. Research by Underwood (2006) identified several factors inherit in a spiritual experience such as: connection with a higher power, joy, transcendent sense of self, strength and comfort, peace, divine help, divine guidance, perceptions of divine love, awe, thankfulness, appreciation, compassionate love, union and closeness. Similarly, peace, tranquillity, joy, love, hope, awe, reverence and inspiration were identified by Stringer & McAvoy (1992). Many of these characteristics were also identified in section 2.2.1 (Driver et al., 1999; Fox, 1997, 1999; Williams & Harvey, 2001). On a more conceptual level James (1985) identified a spiritual experience as transient, ineffable, noetic, and passive. These characteristics are addressed through this survey via the questions that delve into the level of feeling. The level of feelings were grouped into ten common characteristics and measured from pre-activity to post-activity for the surfing and scuba diving participants. In the same way, the factors that affect a spiritual experience were identified from literature (Chapter 2) and grouped together according to commonalities. Heintzman (2010) grouped the factors into three categories: 'antecedent', 'setting', 'recreation' factors. This grouping of factors was the basis of the survey design in order to identify factors that affect a spiritual experience. The design was developed to answer the following research questions:

1. How often do surfers and scuba divers have a spiritual experience while participating in their activity?
2. What factors influence that potential experience?
3. Is there a relationship between spiritual experiences occurring within the activities, ecological paradigms, and advocacy for the environment?

The survey instrument (Appendix A) to gather information to address each of these questions is discussed in the following sections. Appendix B shows the categorisation of questions on each survey and how they relate to the methodology utilised.
3.3.1.1 Basis for Spiritual Experience Assessment

The Daily Spiritual Experience Scale (DSES) by Underwood (2006) is a spiritual assessment tool that is used to measure spiritual experiences in daily life. The DSES assesses ordinary spiritual experiences not near-death or mystic experiences. This scale has been used throughout the United States, within its General Social Survey, and throughout the world such as: France, Mexico, and China with reliable results (Underwood & Teresi, 2002). The instructions of the DSES asks the participant to "substitute another word which calls to mind the divine or holy for you" (Underwood, 2006, p. 16). The questions are drawn from characteristics identified within literature as part of a spiritual experience. The question format is suited to a daily measurement of how many times a day a participant feels each emotion/connection/characteristic. Hodge (2001a) expressed concerns that the intangible quality of spirituality is lost, that the inner reality is hard to quantify, the reality of spirituality can vary tremendously between different spiritual traditions in quantitative spiritual surveys. Underwood addresses these concerns with poetic wording; consultation with all types of religions and spiritual people, and through measuring the experience rather than beliefs or behaviours, meaning it transcends religion and focuses on inner qualities. The drawback to this methodology is that it does have a religious feel with the use of the word God frequently, mentions worship usually associated with religion, and mentions the word religion a couple times.

The Spiritual Experience Assessment (SEA) developed for this thesis is applicable to post-leisure activity and has a less religious and more spiritual feel. The format of the SEA is based on ten characteristics of people having a spiritual experience: humility, gratitude/service, serenity, unity, surrender, faith/trust, patience/tolerance, unselfishness, courage/strength, and love. These characteristics mirror many of the characteristics outlined by Underwood. Many of the questions used in Underwood's (2006) assessment are used or slightly reworded for a less religious connotation and for ease of understanding (see Table 1).

Each of the ten spiritual experience characteristics outlined were developed with two questions measured on a scale that was based on the ‘finishing the sentence’ format. On one side ‘was the participant feeling the same as pre-dive’ (or pre-surf) in relation to one of the characteristics, while the other side showed the ultimate acceptance of a complete change of feeling to one embracing the characteristic. This survey was scored to determine
Table 1 Comparison of DSES (Underwood, 2006) Qualities and Questions with those used in this Research for Spiritual Experience Assessment

<table>
<thead>
<tr>
<th>DSES Quality Question based on</th>
<th>DSES Question*</th>
<th>SEA Quality Question based on</th>
<th>SEA Question*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection</td>
<td>1. I feel God’s presence</td>
<td>Faith/Trust</td>
<td>P. I feel everything is taken care of by God or a Higher Power</td>
</tr>
<tr>
<td></td>
<td>2. I feel a connection to all of life</td>
<td>Unity</td>
<td>N. I feel a new feeling of total connection with everything</td>
</tr>
<tr>
<td>Joy, Transcendent sense of self</td>
<td>3. During worship, or at other times when connecting with God, I feel joy which lifts me out of my daily concerns.</td>
<td>Serenity</td>
<td>C. I feel peace, joy or a new happiness that I did not have before</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M. I feel a quiet mind, peaceful</td>
</tr>
<tr>
<td>Strength and Comfort</td>
<td>4. I feel strength in my religion or spirituality</td>
<td>Courage/Strength</td>
<td>I. I feel a new feeling of complete strength to face my life</td>
</tr>
<tr>
<td></td>
<td>5. I feel comfort in my religion or spirituality</td>
<td></td>
<td>S. I feel a new feeling of complete courage to face life</td>
</tr>
<tr>
<td>Peace</td>
<td>6. I feel deep inner peace or harmony</td>
<td>Serenity</td>
<td>C. I feel peace, joy or a new happiness that I did not have before</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>M. I feel a quiet mind, peaceful</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>E. I feel a completely new “go with the flow” attitude</td>
</tr>
<tr>
<td>Divine help</td>
<td>7. I ask for God’s help in the midst of daily activities</td>
<td>Faith/Trust</td>
<td>P. I feel everything is taken care of by God or a Higher Power</td>
</tr>
<tr>
<td>Perceptions of divine love</td>
<td>8. I feel guided by God in the midst of daily activities</td>
<td>Faith/Trust</td>
<td>F. I feel complete clarity to the purpose of my life</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Humility</td>
<td>K. I feel my place in this world is completely understood</td>
</tr>
<tr>
<td></td>
<td>9. I feel God’s love for me directly</td>
<td>Love</td>
<td>T. I feel a new feeling of complete love for God or my Higher Power</td>
</tr>
<tr>
<td></td>
<td>10. I feel God’s love for me through others</td>
<td></td>
<td>J. I feel a new feeling of complete love for myself and others</td>
</tr>
<tr>
<td>Awe</td>
<td>11. I am spiritually touched by the beauty of creation</td>
<td>Humility</td>
<td>A. I feel awe or amazement over God’s creation in nature to be significantly increased</td>
</tr>
<tr>
<td>Thankfulness, appreciation</td>
<td>12. I feel thankful for my blessings</td>
<td>Gratitude/Service</td>
<td>B. I feel completely thankful and appreciative of the experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>L. My motivation to help preserve nature increased dramatically</td>
</tr>
<tr>
<td>Compassionate Love</td>
<td>13. I feel a selfless caring for others</td>
<td>Unsselfishness</td>
<td>H. I feel a new feeling of being completely unsselfish</td>
</tr>
<tr>
<td></td>
<td>14. I accept others even when they do things I think are wrong</td>
<td>Patience/Tolerance</td>
<td>R. I feel a new feeling of being completely kind, giving, and willing to help</td>
</tr>
<tr>
<td>Union and Closeness</td>
<td>15. I desire to be closer to God or in a union with the divine.</td>
<td>Unity</td>
<td>D. I feel completely connected with God or a Higher Power</td>
</tr>
<tr>
<td></td>
<td>16. In general how close do you feel to God</td>
<td></td>
<td>N. I feel a new feeling of total connection with everything</td>
</tr>
</tbody>
</table>

*Reading the table: The 'DSES Question' category shows the number of the question as taken directly from the DSES scale. The 'SEA Question' category shows the letter of the question taken directly from the survey given to participants.
whether or not the person was experiencing the characteristics of a spiritual experience. The scale used was a zero to ten Likert scale with ten representing the full acceptance of complete change in feelings. Questions alternated from zero to ten and ten to zero to ensure that participants read and reflected on each answer, as recommended by Hodge (2003). Scoring for the SEA was that any score over zero represented a spiritual experience up to 200, which indicated a much more intense spiritual experience. This methodology was used as there was no way to calibrate the scale, as there is no scientific basis to determine that any score over zero is due to anything else such as: fatigue or endorphins, but while this is an arbitrary distinction it has been chosen because it is reasonable, and possibly conservative approach. The overall format of the survey was designed for ease of understanding by the participants and to achieve the highest reliability and validity when measuring spirituality by utilising methods employed by the Daily Spiritual Experience Scale developed by Underwood (2006) (see section 3.3.1.1), to overcome and tap into the subjective internal reality.

The review of literature has highlighted the debate and level of agreement over the reality or otherwise of spiritual experiences, and has focussed attention on the potential to use a survey questionnaire for such studies. To measure and quantify these experiences a questionnaire based heavily on Likert type questions was adopted. Survey questions were in the format of a check box, open ended or a modified Likert (‘finish the sentence’) scales. The ‘finish the sentence’ questions were worded where the beginning of the sentence was posed and two opposing answers were given on each side with a Likert scale in the middle. This format was found to receive a more accurate response than the standard Likert scale (Hodge (2003) see Figure 2 for sample question format).

26. How did you feel about the explanation of the dive and instructions given by the dive master/boat captain?

<table>
<thead>
<tr>
<th>Not enough information given</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Well Informed</th>
</tr>
</thead>
</table>

**Figure 2 Sample Question Format**
The assumed enhanced accuracy over the standard Likert scale has been argued to occur because the participant is faced with less "cognitive load that occurs when respondents must disagree with a negatively worded statement" (Barnette, 2000 as cited in Hodge, 2003) "and the use of multiple dimensions" (Brody & Dietz, 1997 as cited in Hodge, 2003, p. 46).
The use of a sentence completion format allows for the "underlying theoretical continuum of the construct of the question" (Hodge, 2003, p. 46) to surface. This allows the participants to delve into one dimension which enhances reliability and validity of the response (Hodge, 2003, pp. 46-47). The scales were also reversed in direction to avoid "response set bias" (Hodge, 2003, p. 47) in questions. Once the decision on how to format the survey was established, the content of the survey and how each research question would be answered was addressed.

To address the first research question (How often do surfers and scuba divers have a spiritual experience while participating in their activity?) within a quantitative framework, the concept of a spiritual experience was left to each individual to determine. This reflects the personal nature of such experiences. Rather than provide a definitive statement, the approach adopted was to assume that a spiritual experience would occur if an individual felt some connection with a greater reality (e.g., God or some other spiritual ascription). Consequently, the survey instrument employed included the following statement: "This survey uses the word "God" to represent a spiritual deity, but please replace the word "God" with anything that feels more suited to YOUR spiritual beliefs. This may be higher power, spirit of the universe, Buddha, or any other wording that you believe to be consistent with your beliefs." The description provided allowed each participant the flexibility to connect personally with the questions.

### 3.3.2 Identifying Factors Affecting a Spiritual Experience

Many factors can affect a spiritual experience. As discussed in Chapter 2, Stringer and McAvoy (1992), Fox (1997, 1999), Fredrickson & Anderson (1999), Heintzman (2010), Williams & Harvey (2001) and Hollenhorst et al.'s (1994) found the following particularly relevant: prior awareness of one's spirituality, camaraderie, physical activity, free time, alone time, group size, solitude, fear, 'antecedent', 'recreation', and 'setting components'. Fox's (1997) research on the 'Funnel Process' showed how overcoming fear combined with wilderness experiences could lead to a spiritual experience and eventually behaviour change (discussed in section 2.2.1.1). Identifying different factors that affect a spiritual experience is the angle that Heintzman (2010) took when identifying several factors such as 'antecedent', 'recreation', and 'setting' components. These three components are discussed in further detail below along with how they have been addressed within the survey to the participants.
3.3.2.1.1 Antecedent Conditions

'Antecedent conditions' or 'baggage' that each participant carries into the wilderness experience can be grouped into four categories, according to Heintzman's (2010) research, 'history and circumstances', 'motivation and attitude', 'socio-demographics', and 'spiritual tradition'.

'History and circumstances' referred to elements of a human's personal life including struggles such as deaths, financial concerns, or marital issues. Due to the potential for sensitivity over issues about present situational problems, the survey addressed the 'history and circumstances' a 'history within the activity' perspective (e.g., identifying if the individual has had any dive or surf accidents). Personal histories of current personal troubles were not sought due to a desire not to probe into private issues that might be upsetting and were not fundamentally important to the research.

The 'antecedent' condition of 'motivation and attitude' was addressed through questions on motivation for participation in the activity. Driver (1991) and Ford & Brown (2006) respectively identify intrinsic motivations for leisure activities generally and specifically surfing. Other surfing motivation research has identified catharsis, vertigo, spirituality, and intrinsic motivations and scuba motivations (see section 2.2.2.2 and 2.2.3.1).

For instance, the level of personal development within the activity had an influence on the motivation of the participant in Todd (2002). Todd found that participants became more intrinsically motivated the more experienced they became. Intrinsic motivation was a common theme in spiritual research but, with the exception of Kerby (2010), no studies were found that have explicitly mentioned spirituality as a possible motivation without it being subsumed within other categories of motivations. Kerby (2010) identified several surfers through a snowballing technique that did have the motivation of participation based on spiritual reasons.

The third antecedent condition was 'socio-demographic'. Many of the studies that have been done on spiritual experiences have been qualitative, and have not addressed the contextual 'socio-demographics'. Among the exceptions, Meyer et al. (2002) found that female were more intrinsically motivated to dive than male scuba divers. If there is a connection between intrinsic motivation and spirituality, this suggests a potential for 'socio-demographic' variables to have a bearing on spiritual experience. Accordingly, the
questionnaire sought information on 'gender', 'age', 'highest education level', and 'ethnicity' to determine if there were 'socio-demographic' elements to spiritual experiences.

The last antecedent condition was 'spiritual tradition'. Heintzman (2010) argued that a person's 'spiritual tradition' did play a major role in the possibility of having a spiritual experience. In this Heintzman followed in the tradition of Stringer and McAvoy's (1992) research which found that a predisposition towards spiritual reflection, having had a previous spiritual experience, and prior awareness of the participant’s own spirituality can influence a spiritual experience. Consequently, this was addressed in the questionnaire through several questions on 'spiritual/religious background', 'current religious practise', 'belief in God', and through Hodge’s (2003) Intrinsic Spirituality Scale and in the later analysis.

The Intrinsic Spirituality Scale (Hodge, 2003), measures the overall level that spirituality serves as a main motive for an individual to depend on a Higher Power. This scale provides a means to explore the how dependant the participant is on God as a main motive in their lives. While spirituality is the belief in a higher power, it does not necessary mean dependence on one. This scale measures the dependence on this spiritual belief as a way of life. Six questions were scored from a possible zero to 10, and then the average was determined for each participant. While relatively recent development of the scale, it is still in the testing stages by researchers but aims to reach both the theistic and non-theistic populations. The score was then grouped into categories based on their average score on the six questions indicating their level of dependence on a higher power (Table 2).

<table>
<thead>
<tr>
<th>Level of Dependence</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Dependence</td>
<td>10 - 7.5</td>
</tr>
<tr>
<td>Moderate Dependence</td>
<td>7.49 - 5</td>
</tr>
<tr>
<td>Low Dependence</td>
<td>4.9 - 2.5</td>
</tr>
<tr>
<td>Little or No Dependence</td>
<td>2.49 - 0</td>
</tr>
</tbody>
</table>

3.3.2.1.2 Setting Components

Heintzman (2010) referred to 'setting' components as: 'being in nature', 'being away' from everyday life, and 'place processes'. Due to the way that surfing and scuba diving are
participated in, certain items (e.g. 'being away' from regular life and 'being in nature') are inherit within participation at certain sites, therefore these two elements of 'being away' and 'being in nature' were not included in the questionnaire formally (see section 5.3.2). Items reflecting these elements emerged from open-ended questions. Whereas 'place processes' (e.g. weather, swell, current conditions, etc) could be seen as a mediating factor. The site conditions of each place were identified and several locations were surveyed in this research to account for 'place processes' and place bonding. The participants' place bonding was also questioned with having participants identify places that they deemed to be spiritual places, and space was provided in the questionnaire for them to explain why these were spiritual places.

### 3.3.2.1.3 Recreation Components

The 'recreation' components that Heintzman (2010) and other researchers refers to are not only the particular activity, but amount of 'free time' (Driver et al., 1991; Heintzman, 2010; Stringer & McAvoy, 1992), 'solitude' (Fox, 1997, 1999; Fredrickson & Anderson, 1999; Heintzman, 2009, 2010; Hollenhorst et al., 1994; Stringer & McAvoy, 1992), 'group experience' (but this can hinder one if the group is too crowded (Stringer & McAvoy, 1992), and the 'facilitation' of the recreation for scuba divers (Stringer & McAvoy, 1992). Since surfing requires no 'facilitation', this item was not addressed to the surfers, but a Likert sentence completion format was used for this for divers because most diving is 'facilitated' by others. The Likert style sentence completion was utilised to stay consistent with the rest of the format of the survey.

### 3.3.2.1.4 Spiritual Outcomes

Heintzman (2010) identified the spiritual outcomes of nature based spiritual experiences as: 'short term spiritual experiences', 'long term spiritual well being', and 'leisure-spiritual coping'. Similarly, Fox (1997) identified different stages of spiritual experience outcomes in the 'Spiritual Experience Process Funnel' (see section 2.2.1.2). The last stage was spiritual growth, which was associated with behaviour change to participants' lives. To properly study, the long term effects of nature related spiritual experiences a longitudinal study would be necessary. While this study was not longitudinal, questions were addressed to participants as to how long the spiritual feeling lasts, and whether the activity led to better advocacy for the environment as an indicator of potential long term spiritual growth. The
participants were also questioned to see if they consciously noticed a positive personality change and if that occurred the more that they participated in their activity. The last area questioning on spiritual connection was the participants' spiritual connection to the environment. Having established the methodology for the first research question and quantifying spirituality the next section addresses the method employed to identify environmental advocacy and environmental paradigms so that the relationship between spirituality and environmentalism could be explored.

3.3.3 Measuring environmental paradigms and environmental advocacy

Techniques to quantify ecological paradigms and establish the existence of advocacy enable exploration of relationships between spirituality and environmentalism. Such methods remain relatively new and therefore warrant further explanation.

3.3.3.1 Establishing Ecological Paradigms

The importance of paradigms in the shaping of individual and societal relationships with and actions toward the environment has been a major focus of research since the early 1970s. A method of measuring paradigms that incorporated political, technological and economic dimensions is known as the Dominant Social Paradigm (DSP) (Pirages & Ehrlich 1974). Critics have noted, however, that this fails "to provide an adequate conceptualization of [those dimensions'] respective constructs" (Kilbourne, Beckmann, & Thelen, 2002, p. 193) and that "empirical work on the DSP is sparse and consists mainly of work in sociology beginning in the late 1970s" (Kilbourne et al., 2002, p. 195).

To address these issues a “New Environmental Paradigm” concept was created by Dunlap & Van Liere (1978) as a framework through which to measure and explore environmental attitudes, and this evolved as a means to record changes in underlying world views (paradigms) of individuals and society (Dunlap, Van Liere, Mertig, & Jones, 2000, p. 426). As the worldview, began to change towards an emerging 'ecological' worldview, Dunlap & Van Liere recognised the need to modify the New Environmental Paradigm. The changes made to the survey were to eliminate the sexist terminology and add the new the dimensions such as possible paradigm of exemptionalism, whether "humans (unlike other species) are exempt from the constraints of nature" (Grenstad, 1999, p. 195) and ecocrisis as derived from their research on the changing paradigms of the world's population. The new assessment tool created the New Ecological Paradigm (NEP)(Dunlap et al. (2000).
For the current research, the New Ecological Paradigm was adopted as a conceptual framework enabling the Dunlap et al. (2000a) questionnaire to be employed to measure the strength of the NEP among those surveyed. The NEP identifies whether a person has ecological views that are in balance with nature, limits to growth, anti-anthropocentrism, and rejection of exemptionalism, or ecocrisis probability paradigms towards the environment. Dunlap et al. (2000) created the scale to also show a pro-ecological or anti-ecological scoring method.

It is important to note that the NEP has been criticised on the basis that the scale is not suited to measuring experts or highly educated peoples' relationships to the environment, in particular because it has too broadly defined questions that they can interpret in many ways. Another criticism is that, stand alone, it is a weak predictor of behaviour responses (Ajzen (2005)). The NEP was also developed in the United States and is believed to be worded in a way that corresponds to Western developed nations rather than to developing countries. However, the most prevalent criticism of the scale is that it is not uni-dimensional.

Despite this the scale shows high internal consistency and the creators argue that no 15 point scale is going to be uni-dimensional. The New Ecological Paradigm (NEP) was utilised for this research because of its extensive use, high validity, higher relevance than the DSP, and focus on the ecological paradigm versus the environmental paradigm. The scale has much empirical use with valid results and for that reason was utilised to help establish the participants' environmental values, attitudes, paradigms and the research was reviewed to show whether there is an association, or co-occurrence of spiritual experiences with different ecological values and advocacy.

The scoring of the NEP involves the reverse scoring of the even numbered questions. The totalled scores were then grouped into categories according to the following scores: High 75-55, Medium 35-54.9, Low 34.9-15, and No scores. The choice of categories was based on the approach taken by Waikato Regional Council (Environment Waikato, 2009, Jill Thomson, Social Scientist, Environment Waikato, June 1, 2010) in applying the NEP to its region. The strengths of this approach are that it has a high threshold for high ecological paradigms and the weaknesses are scores of "Unsure" are deemed to have 3 points instead of a score of 0, but on overall the scoring system does present a balanced and rigorous approach to identifying high and medium pro-ecological views.
3.3.4 Measuring Environmental Advocacy

Now having established a method for determining a spiritual experience and ecological paradigms, the linkage of these elements to environmental advocacy draws on the work of Ajzen & Fishbein (2005). Background factors (which could include a spiritual experience) led to three perceived belief categories: behavioural, normative, and control (Ajzen & Fishbein 2005). Behavioural beliefs are what the participant believes, which are measured through a series of questions regarding their beliefs about their activity and how it impacts their lives (i.e. does it give them a positive personality change, does it lead them to advocacy for the environment). These beliefs were measured through a series of Likert scale questions that can be correlated against the SEA and NEP scores. The NEP was used to identify the normative beliefs, or the subjective norm of pressure by society, or in this case the society of surfers and divers. The NEP score was correlated against both the SEA score and reported advocacy for the environment to see if any relationship was found. The control beliefs were measured using a question that asked the participant whether they advocated for the environment, and whether they knew how to advocate for the environment. Without knowing how to advocate for the environment there is little control over the ability to advocate for the environment, thus providing the control beliefs of the participants. These categories yield to a new set of categories that all merge toward intention. Intention then may lead to environmental advocacy or the behaviour.

To determine advocacy, several questions were posed in the questionnaire that sought to identify if the participant was an advocate for the environment. These ranged from direct questions on ‘level of advocacy involvement’ on the Likert scale, to questions of type of advocacy and environmental organisation involvement. There was also an open-ended question that allowed respondents to detail the type of advocacy that they took part in.

In summary, the quantitative measurement of the spiritual experience, behaviour beliefs, normative beliefs (NEP), and control beliefs enable statistical analyses of the relationships between these variables at both an individual and group level.

3.4 Data collection

The key criterion driving the data collection was to ensure that there were sufficient numbers of both surfers and divers to enable statistical analysis. Key criteria for selection of survey sites were diversity of setting and experience, and popularity (to ensure sufficient
numbers of users were present during the surveys to enable statistically valid sampling). Practicalities of administering the survey and ethical requirements (no person under the age of 18 were surveyed) provided additional constraints on the data. The use of quantitative research draws on William James’ (1985) argument that a spiritual experience is ineffable, meaning hard for the person to put into words. It may prove difficult to get participants to articulate their feelings on such a sensitive matter as spirituality, especially to a stranger. This may be even more difficult if they have not thought deeply about the concept and have not been experienced in articulating it.

3.5 Selection of Sites for Implementing the Surveys

All surveys were conducted in the late summer early winter period (March-June) in 2010. The scuba divers’ survey was conducted at Wellington, Tutukaka, within the Marlborough/Canterbury region, and in Dunedin. The Marlborough/Canterbury region encompassed Picton, Nelson, Blenheim, Kaikoura, Riwaka, and Motunau. The reason for this region comprising so many different sites reflects the logistical problem of locating enough divers when the large dive shop within Christchurch chose not to participate in the research. The different sites across New Zealand provided a diverse geographical sampling as well as including the main New Zealand dive locations. This was expected to aid in identifying whether location was a factor in any potential spiritual experience.

There was also a diverse range of type of dives provided by these locations. Wellington provided some participants that dove at night and some that dove on a shipwreck, whereas some Marlborough participants dove in a cave. Canterbury provided participants that dove in open water areas, whereas Tutukaka dive participants were diving next to the rock formations inside the Poor Knights Marine Reserve. Dunedin provided an open water dive location in much colder conditions than the other locations. Although not anticipated, each dive site provided a different level of experience of divers as well. Dunedin and some of the Canterbury participants were new divers. The other sites provided more experienced divers and Tutukaka had a mixed level of divers. Tutukaka is predominantly a tourist dive destination. This led to less surveys being completed in this location, as well as, due to weather conditions prohibiting diving for several days while research was being conducted in that location. These locations were chosen for their geographic variety, diversity in experience level, and popularity with divers.
The surfer surveys were conducted in New Brighton (Canterbury), Back Beach and Fitzroy Beach (New Plymouth, Taranaki), Raglan (Waikato), and Piha (Auckland). These locations were chosen for their geographic variety, diversity in experience level, and popularity with surfers (See Figure 3).

Figure 3 Sample Locations and Number of Participants at Each Location
<table>
<thead>
<tr>
<th>Scuba Divers Location and Date of Survey</th>
<th>Surfers Location and Date of Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunedin - 3/30/10 - 3/31/10</td>
<td>New Brighton - 4/8/10, 4/11/10, 4/21/10</td>
</tr>
<tr>
<td>Marlborough - 4/3/10</td>
<td>Back Beach - 4/26/10</td>
</tr>
<tr>
<td>Kaikoura - 4/14/10</td>
<td>Fitzroy - 4/27/10 - 4/29/10, 5/10/10</td>
</tr>
<tr>
<td>Motunau - 4/16/10 - 4/18/10</td>
<td>Raglan - 5/4/10 - 5/6/10</td>
</tr>
<tr>
<td>Riwaka - 4/24/10</td>
<td>Piha - 5/9/10</td>
</tr>
<tr>
<td>Wellington - 4/27/10, 5/1/10 - 5/2/10</td>
<td></td>
</tr>
<tr>
<td>Tutukaka - 5/6/10 - 5/8/10, 5/30/10 - 6/4/10</td>
<td></td>
</tr>
</tbody>
</table>

3.6 The Sampling Procedure

Simple random survey sampling of asking every potential participant that was participating within the activity at the time the researcher was at the site was utilised. The researcher was set up with surveys at the access point to the beach for surfers and addressed all leaving surfers to see if they would participate.

For divers, after a shore dive each potential participant was approached and asked to participate. For divers that were on a boat, they were notified of the survey prior to getting on the boat individually and asked if they would like to participate. This was the random nature of the sample, as no prior knowledge of who would be at each site and what their beliefs would be, were known. A potential weakness of this technique is that participants
that participate together might or might not have similar viewpoints on the survey questions, detracting from a potentially diverse response, and the actual impact of this potential weakness will be determined in Chapter 4. Observation during sampling suggests that this weakness would be very small for surfers as very few came with other surfers, it was a mostly solitary activity participation. Divers, however, did tend to come with a friend as this is inherently a more social activity when considering the need for a 'buddy' to safely participate.

Seventy-eight surfers and 89 divers were participants in the survey with 83 usable divers' surveys and 74 usable surfer responses. Surveys were deemed unusable if the participant did not fill out the consent form or did not finish questions #20 on the survey, which is the Spiritual Experience Assessment, or SEA. Overall, the participation rate was for divers were 97.8%, with a 71.6% participation rate for surfers. A drawback of the approach is that some of the questions were skipped that were at the top of pages as they were not seen under the clip of the clipboard. The overall time it took to finish the survey ranged from approximately 10 minutes to 45 minutes and some participants tended to leave answers blank the longer the survey went on.

Those interviewed were people who spoke English and lived in New Zealand (New Zealand citizens or those who have permanent resident status). The reason for only including the people that live in New Zealand is that they are more likely to be affected by similar ecological paradigms, as opposed to a tourist from another country, who might be exposed to different paradigms. This provided more consistency to the survey and removes variables.

3.7 Data Collection Procedures

Attempts were made to ensure consistency in data collection through the procedures used. For instance, James (1985) has suggested that mystical experiences are transient or temporary and once a person returns to their life it can wear off. Consequently, the survey was administered as soon as possible after the activity (surfing or diving) was completed. Surfers were approached after they were finished surfing and informed of the research, its confidentiality, and asked if they were willing to participate. If they agreed, they were given a survey and explained that this research was for New Zealanders over the age of 18 years old and they were shown the consent form. They then began the survey, which averaged 12 to 15 minutes to finish. As this was an individual activity, and the surfers did not fill out the
surveys around other surfers, the possibility of influence from other surfers was greatly lowered. The researcher administered all surfing surveys.

The data collection for the divers required more consideration of the influence of other divers, since diving is a 'group' activity. Boat and dive shops were contacted to participate in the research. If they agreed to participate, when the dive shop facilitated the dive, the researcher would go with them. Two dive shops did not agree to participate. One did not choose to due to the fact that the researcher would take up a place on the boat that a paying customer could have and the other dive shop did not want to present a survey that contained spiritual references to their customers.

The five dive shops that did participate represented a wide range of scale and type. The use of dive shops could have produced a bias towards different levels of skill development, as some shops cater to the new divers, while others deal mostly with experienced divers. This was mitigated by the use of a variety of dive shops and the level of diver development was varied as shown by the results. One dive organisation also allowed the distribution of surveys by allowing the group members to be surveyed on an organisational group weekend, similarly right after each dive. All data was from dive shop participants, except eight participants from the dive organisation on a trip to Motunau. While some dive shops did go out on a boat, most divers surveyed were shore divers requiring no boat. The dive shops notified the researcher of the time and location of shore dives. The shore divers were asked if they wanted to participate before the dive and then approached to participate after the dive to see if they still wanted to participate in the research. They were informed of the confidentiality and explained that this research was for New Zealanders over the age of 18 years as they were shown the consent form. They then began the survey, which averaged 12 to 15 minutes to finish after spreading out to avoid influence from other divers. The elimination of influence from one participant to another participant via discussion of questions or pressure to answer in a certain fashion due to potential onlookers were factors leading to the spreading out of participants away from each other.

The researcher administered all shore dive surveys. Most boat dive surveys were conducted on land after divers got off the boat after the dives, except at Tutukaka where almost all of the surveys were conducted on the boat. To avoid cross-participant influence participants were asked to scatter around the boat to ensure privacy and the boat captain closely monitored this separation. The only location where the researcher did not personally
conduct all of the surveys was at Tutukaka. The researcher spent time instructing the dive boat captain and owner of the dive shop on proper administration of the survey. After instructing and watching them administer the survey, it was deemed that the same level of scientific rigor was used and they administered most of the surveys for the Tutukaka site.

3.8 Limitations of this Research

As in all research, there are limitations that became apparent throughout this research. The limitations of this research include the sample population, location and methodology utilised.

3.8.1 Sample Population Limitations

The first research limitation is the sample population. For both surfing and diving, low female participation led to little ability to correlate statistically based on gender as the only factor versus the SEA with reliability. The sample populations’ knowledge about the definitions of the word spirituality and advocacy were left to them to define personally. While this allowed for the individualistic definition of spirituality to be employed, one participant did not know what the word meant and a working definition of belief in a Power greater than oneself was given. Several participants did not know what the word advocacy meant and a working definition of standing up for the environment was given to them. For the advocacy questions, a working definition could have been provided on the survey to all participants to eliminate any confusion.

3.8.2 Location Limitations

Another element that was a limitation to this research was location. Due to weather conditions and timing of the research one surf site, Piha, and one dive site Tutukaka did have less participants that most of the three other sites. For surfing, Piha was taken out of the correlation on site versus the SEA as the site had only four surveys. While Tutukaka did have fewer surveys, it was still utilised for correlation versus the SEA.

3.8.3 Methodology Limitations

The last area of limitations is the methodology utilised. The solely post leisure activity survey required participants to recall there mental state prior to participating. While a pre and post survey would have been possible for divers, it would have been near impossible for surfing participants. Having a qualitative supplement to the survey would have been
preferable but was not possible without research assistants, as many of the participants all finished the activity, at the same time making it impossible to interview them all. However, perhaps qualitative methodology could have been used on another date and time that was convenient to the participants. During this qualitative methodology, items such as history and circumstance could have been enquired about. This subject that Heintzman (2010) identified as a factor for spiritual experiences required identifying elements of the participants lives such as: financial issues, marital issues, death in family or other very personal subject matter would be best addressed in a interview format. The category of history and circumstance was correlated based on history with the activity and not personal history. As stated, the limitation on the SEA scale and a lack of calibration is a limitation that requires further research.

3.9 Summary

The quantitative methodology, random sample selection, locations, survey design, and scales (such as the NEP and SEA) were all utilised to achieve robust, internationally comparable, repeatable data collection. The analysis of this data was anticipated to enable statistical analyses that would identify and characterise the relationships, if any, between surfing and diving, spirituality and environmentalism. The next chapter sets out the analysis of the data collected.
Chapter 4
Research Results

4.1 Introduction

Chapter 4 sets out the results based on the methodology discussed in Chapter 3, but the discussion and conclusions based on those results will come in Chapters 5 and 6. The focus of this chapter is to present the research findings about the location of the surveys, type of participants that were surveyed, and then address the research questions.

4.2 Statistical Analysis

Once the data collection period (Table 3) was over the results were examined statistically. Variables that related to the three research questions were analysed using statistical packages from Excel 2007 for the quantitative questions. Each survey was analysed to determine if the participant had a spiritual experience and then that was compared against the factors that Heintzman (2010) identified as influences on spiritual experiences. This was done for the surfers and divers and the results were then compared.

The open-ended questions were analysed for patterns in responses. These commonalities were categorised into common responses. These open-ended questions were used to expand and explain other factors that may not have been questioned and allow the participants to express what they found important. The results of the quantitative and open-ended questions and the implications of these results are discussed in Chapter Four and Chapter Five.

4.3 Socio-Demographic Characteristics of Surfers and Divers

This section will identify the characteristics of the participants via 'gender', 'age', 'education', 'ethnicity', and 'country of origin'. This 'socio-demographic' information is one of the factors that Heintzman (2010) identified as an 'antecedent' factor for a spiritual experience and will be discussed further in the section on 'antecedent' factors in research question one.

The surfer participants were comprised of 66 males, 7 females (ratio 9:1), and 1 person did not indicate gender. Similarly, there were 68 males and 15 female scuba divers who participated. This ratio (4.5:1 males to females) remained relatively constant for all sites for
divers, and although there were no female participants at Fitzroy, there was no significant difference in ratios between sites. The vast majority of surfers (93.2\%\(^1\)) were living in New Zealand (2.7\% in Australia, and 4.1\% in other countries). All divers were living in New Zealand.

While there was little variation in the 'gender' and 'country of origin' that the participants lived in, there was some variation within the 'age' of the participants (Fig. 4). The divers showed a larger range of 'ages' than the surfers and were heavily weighted toward the 18-24 age categories. Surfers' largest percentage 'age' bracket was the 25-29 year old, and did not have any participants over the 'age' of 60. Due to the 18-year-old ethics committee restriction, there were only a few divers that could not participate and less than ten surfers that could not participate.

While surfers tended to be older, they also tended to have a higher 'level of education' than divers by percentage of participants (Table 4). The surfers showed a high percentage of participants that went to secondary or university, while the divers showed a close distribution between secondary school, vocational/trade, and university.

The dominant 'ethnicity' of participants in both activities was European, followed by Pakeha\(^2\) (Fig. 5). Maori were underrepresented relative to their numbers in the total population. The term 'other' for scuba divers was mostly representative of participants that called themselves 'New Zealanders', not relating to the Pakeha terminology. There were no ethnically Asian or Pacific participants for either activity. These statistics are very similar to the 2006 census, excluding the lack of Asian and Pacific peoples (Statistics New Zealand, 2006b).

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\(^1\) All percentages are rounded up to the nearest tenth of a percentage, all correlations are rounded up to the nearest hundredth.

\(^2\) Pakeha, is a New Zealander with European heritage and their cultural and behaviour values have been formed by the New Zealand's dominant group.
The majority of scuba divers were raised with Christianity (51.8%) or no religion at all (41.0%) (Fig. 6). Similarly, the majority of surfers were 'brought up with' Christianity (47.3%) or with no religion (32.4%) (Fig. 8). Of New Zealanders, 34.7%, 'practise no religion' (Statistics New Zealand, 2006a) which is consistent with the figures for religious upbringing. However, when the participants were questioned on the 'religion they currently practised', 50% of surfers and 68.7% of divers practise no religion (Figs. 7 and 9) and Christianity was practised by only 17.6% of surfers and 20.5% of divers. Exploring the reasons for these substantial changes was beyond the scope of this research, but the percentage of general spirituality tended to increase for both activities compared to the 'religion that the participants were raised with' (Divers 4.8% and Surfers 17.6%).
Despite over 50% of surfers and 68.7% of scuba divers not ‘practicing a religion currently’, the participants showed a high ‘belief in ‘God’’. Surfers had a 67.6% ‘belief in God’ and scuba divers had a 43.4% ‘belief in God’ (Fig. 7). Only 16.2% of surfers did not ‘believe in God’, while 28.9% of scuba divers did not ‘believe in God’. Interestingly, this shows that despite the overwhelming lack of religion, there is a strong belief in something greater than oneself, some kind of spirituality, in many participants.
Figure 6 Scuba Divers' Religion Raised With

Figure 7 Scuba Divers' Religion Currently Practised

Figure 8 Surfers' Religion Raised With

Figure 9 Surfers' Religion Currently Practised
This belief in something greater than oneself can be taken a step further by use of Hodge’s (2003) Intrinsic Spirituality Scale (ISS). It is one thing to believe in God and another to rely on God as a main motivation of one’s life. The ISS measures this main motivation as discussed in section 3.3.2.1.1 and was scored accordingly. Over 75% of divers and over 50% of surfers have no dependence or little to no dependence on spirituality as a main motive in their life (Fig. 11). Only 5% of surfers and 4% of divers had a high dependence on spirituality. There was an even distribution for the surfers between all the categories that responded, while there is a significant increase from high dependence to little or no dependence for divers (Fig. 11). Therefore, despite the highest percentage of 'belief in God', the reliance on that God remained very low.
4.4 Research Question #1: How often do surfers and scuba divers experience a spiritual experience while participating in their activity?

Spiritual experiences were measured using the Spiritual Experience Assessment (SEA), a modified version of the Daily Spiritual Experience Scale (DSES) (Underwood & Teresi, 2002) as described in section 3.3.1.1. The second part of this research question is derived from Heintzman (2010), which identifies factors that contribute or take away from a spiritual experience as discussed in section 2.2.1.1.

4.4.1 Spiritual Experience Assessment

The Spiritual Experience Assessment (SEA) was scored by adding up numbers indicated by the participants and then the scores were grouped (Figs. 12 and 14). The groupings were by categories from 0-20, 21-40, etc. up to 200. The data showed normal distributions with few outliers (Table 5, Figs. 13 and 15). Most participants in both activities reported having a spiritual experience while participating in their activity.
Table 5 Tests of Normality of Surfing and Scuba Diving Samples

<table>
<thead>
<tr>
<th>Statistical Analysis</th>
<th>Surfing</th>
<th>Scuba Diving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Score</td>
<td>97.0</td>
<td>74.6</td>
</tr>
<tr>
<td>Standard Error</td>
<td>5.67</td>
<td>4.78</td>
</tr>
<tr>
<td>Range</td>
<td>188</td>
<td>159</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>48.8</td>
<td>43.5</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.96</td>
<td>-1.12</td>
</tr>
<tr>
<td>Skewness</td>
<td>.06</td>
<td>.11</td>
</tr>
</tbody>
</table>

Figure 12 Surfers' Spiritual Experience Assessment Scores

Figure 13 Surfers' Spiritual Experience Assessment Scores
Tests for relationships between variables were conducted (Table 6) and 'p' values were considered significant if they were $p<.05$ or less. Both activities showed a significant relationship with the perceived behaviour beliefs that surfing/diving led to a 'positive personality change' and that the more they participated the 'more they experienced the change'. Both of these questions related directly to the occurrence of a spiritual experience.
Table 6 Likert Score Questions on Behaviour Beliefs

<table>
<thead>
<tr>
<th>11 Point Likert Scale Question</th>
<th>Surfers (Mean Score out of 65 participants and correlation with SEA)</th>
<th>Scuba Divers (Mean Score out of 78 participants and correlation with SEA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did the participants notice a positive personality change from pre-surf or dive to post-surf or dive</td>
<td>7.29 Mean r(63)=.39, p&lt;.01</td>
<td>5.41 Mean r(76)=.57, p&lt;.01</td>
</tr>
<tr>
<td>2. The more I surf/dive the more I notice a personality change that happens with each surf/dive</td>
<td>6.18 Mean r(63)=.41, p&lt;.01</td>
<td>5.07 Mean r(76)=.311, p=.01</td>
</tr>
<tr>
<td>Correlation of question 1 with question 2</td>
<td>r(63)=.47, p&lt;.01</td>
<td>r(76)=.29, p=.01</td>
</tr>
</tbody>
</table>

In addition to recognising a positive personality change and spiritual experience, the majority of participants stated the feeling after a surf or dive lasts for the rest of the day or for multiple days (Fig. 16). The next most prevalent response for surfers was that it lasts for a few hours, while for divers it was until the participants' encountered stress.

Figure 16 Length of Time that Spiritual or Better Feeling Lasts after Surf/Dive

Participants not only identified how long the better or spiritual feeling lasts, but also identified why the feeling left them through an open-ended question. The majority of surfing and diving participants stated the feeling disappeared due to stress/reality/work (Fig. 17). For surfers, the next most prevalent response was that it does not disappear it lasts
forever (Fig. 17). Only a few surfers and divers identified that they believed that the endorphins released through the exercise were the cause of the feeling and that when the chemicals dissipated the feeling left.

![Figure 17 Reason why Surfers' and Divers' Experience of a Better or Spiritual Connection Disappears After a Surf](image)

Some of the quotes obtained from open-ended questions about the spiritual connection and how long that lasts can be seen in Box 4.4.1.

**Box 4.4.1 Statements of Spiritual Connections and Length of Feeling**

The following are some quotes that the participants stated about the better or spiritual connection feeling they have after surfing and how long it lasts as stated in open ended questions:

"It lasts until the next surf. It stays in the mind. It's a lifestyle"
"to me the sound and smell of the beach/ocean all help to extend the feeling of connecting"
"connection with a power greater than I is always good"
"it's a gradual state of mind"
"I believe it relaxes you and only makes you focus on one thing-surfing. The feeling can disappear if I have to go into a stressful situation"
"Depends on the session. One good surf makes me feel elevated for a day, sometimes longer."
"Surfing is like a drug if you are away from it for too long you do not feel complete"
"When you are on a wave your conscious mind shuts off, and instincts take over. The feeling is when you are completely connected to the sea"
"feel more peaceful connected to earth and all things"
"god is in me all the time"
"lifetime"
4.5  **Research Question #2: What factors influence that potential experience?**

Having established that the participants of each activity showed that the majority had a spiritual experience, the following sections report the results of applying Heintzman’s (2010) categories of factors affecting a spiritual experience to the data. Analysis of variance (ANOVA) tests (Salkind, 2007) were carried out using Excel 2007 on the specific variables identified in Chapter 3, correlations are indicated by ‘f’ and where the ‘p’ values equalling p<.05 or less was found to be significant, and the results are incorporated in the reporting below.

**4.5.1.1 Antecedent Conditions**

Heintzman (2010) identified four components of the 'antecedent' condition category: 'history and circumstances', 'motivation and attitude', 'socio-demographics', and 'spiritual tradition'. Table 7 indicates the 'antecedent factors' that showed relationships with the SEA. The 'history and circumstances' that this study addressed was related to previous activity in the activity such as how this surf/dive relates to previous dives/surfs, and pre-dive/pre-surf fear. More sensitive circumstance issues such as current stresses in the daily life were not addressed due to the potential for significant sensitivity surrounding such issues (i.e. marriage difficulties or financial stress). Some of the emotional baggage that could be carried into the experience by a participant is fear and previous dive/surf accidents. No ANOVAs showed a relationship between the groups questioned within the 'history and circumstance' factors and the SEA.

One 'history and circumstance' factor of the participant’s relationship with the activity was the factor that affects a person's experience was their past dives/surfs. The question was how this dive/surf location compared to other places the participant had surfed/dived. This related to the SEA for both activities (Table 7). This relationship shows that the divers and surfers comparison of the diving or surfing was a factor relating to spiritual experience they felt.

The 'motivations and attitude' of the surfers and divers to carry out their activity was for fun, followed by connection with/enjoy nature (Fig.18). Out of the 74 surfers, 22 reported a motivation of surfing for spiritual reasons, in contrast with only 4 out of 83 divers. The hunter/gatherer motivation of divers and the spiritual motivation had no relationship with SEA for scuba divers. As the motivation of hunting/gathering increased, it would be
expected that the intrinsic spirituality motivation might have decreased, but this was not shown to have a relationship. The lack of correspondence with the spiritual motivation could be due to the minimal number of scuba participants that indicated spirituality as motivation for diving (Table 7). Surfers did show a direct relationship with spiritual motivation, as would be expected.

The third antecedent factor that was identified was 'socio-demographics', which are described in detail in section 4.3. The participants were questioned on their 'gender', 'country that they live', 'highest level of education', and 'ethnicity'. The lack of variety of participants’ country location provides continuity to the background of the participants, but does not allow for identification of this factor as a possible explanatory element for the research questions. There was some variation in 'ethnicity', but no relationship with 'ethnicity' and the SEA for either activity; this could be due to the dominance of the European and Pakeha 'ethnicity'.

One 'socio-demographics' element that did show a relationship for divers (f(4,77) =2.55, p <.05.) was 'highest education level'. The more educated the divers the more likely they were to have a spiritual experience, excluding the anomaly of the 'highest level of education' being primary school. The highest mean score was from those that had denoted the 'other' category, which included several of the divers that were training to be dive instructors. Surfers did not show this same relationship.
Figure 18 Surfers' and Scuba Divers' Motivation by Percentage of the Respective Number of Respondents Undertaking that Activity.

Table 7 Relationship of Antecedent Factors to SEA and other Factors

<table>
<thead>
<tr>
<th>Antecedent Questions that showed a Relationship</th>
<th>Surfers (Mean out of 65 participants and relationship)</th>
<th>Scuba Divers (Mean out of 78 participants and relationship)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How does this surf or dive location compare to previous sites you have surfed/dove</td>
<td>5.58</td>
<td>5.74</td>
</tr>
<tr>
<td></td>
<td>$r (63) = 0.25, p = 0.04$</td>
<td>$r (76) = 0.31, p = 0.01$</td>
</tr>
<tr>
<td>Did surfing/diving spiritual motivation correlate with the SEA</td>
<td>$f (1,72) = 17.69, p &lt; 0.00$</td>
<td>No relationship</td>
</tr>
<tr>
<td>Education correlation with SEA</td>
<td>No Relationship</td>
<td>$f (4,77) = 2.55, p &lt; 0.05$</td>
</tr>
<tr>
<td>Religion Currently Practised</td>
<td>$f (5,64) = 4.93, p &lt; 0.01$</td>
<td>No Relationship</td>
</tr>
<tr>
<td>Belief in God</td>
<td>$f (2,67) = 3.18, p = 0.05$</td>
<td>No Relationship</td>
</tr>
<tr>
<td>Intrinsic Spirituality Scale</td>
<td>$r (63) = 0.62, p = 0.00$</td>
<td>$r (76) = 0.49, p = 0.00$</td>
</tr>
</tbody>
</table>
The final antecedent condition is ‘spiritual tradition’ (Table 7). There was no relationship with the religion that the participants were raised with and the SEA. Although, surfers did show a relationship with the religion that they 'currently practise', 'belief in God', and the ISS. For divers, there was only the relationship with the ISS and the SEA.

### 4.5.2 Setting Components

The second category of factors that Heintzman (2010) identified as contributing or detracting from a spiritual experience are ‘setting components’. These include items such as ‘being in nature’, ‘being away’, and ‘place processes’. As discussed in section 2.2.1.1 the activities satisfy both ‘being in nature’ and ‘being away’, at some sites, as part of the activity (see section 5.3.2). ‘Place processes’ includes the site, site conditions, and how this surf/dive rated overall including all conditions for the participant.

The surveys were tested using ANOVAs to determine if there was a relationship with the SEA and the site. Since Piha, the surfing site had only 4 participants it was excluded from the ANOVAs analysis with the SEA. The other sites showed no correlation with the SEA for either of the activities. This suggests that spiritual experiences are not place dependant. Each site had different site conditions, and all were sampled over a variety of conditions and days and did not show a statistically significant relationship with the SEA.

### 4.5.3 Recreation Components

The final element Heintzman (2010) identified is ‘recreation components’. The 'recreation components' were examined through a series of questions targeting experience, 'solitude', 'free time', interference of 'equipment', the way the activity was 'facilitated', and whether it felt like a ‘group activity’. Surfers’ and divers’ 'level of experience', 'free time', 'group experience', 'equipment issues', 'solitude', and scuba 'facilitation' had no significant correlation with the SEA.

To determine what other factors may have influenced the recreational experience the participants were asked open-ended questions about what favourable and unfavourable items contributed to their surfing/diving experience. The three most identified elements to a good surfing experience are the weather, site conditions, and social factors (Fig. 19), while for divers the site conditions, sea life, and social factors were significant elements. Coded in the weather category were wind, sunshine, rain, and similar meteorological variables. Site conditions included hydrographic items such as swell, rips, and tide for surfers, current and
visibility for divers. Social factors include items such as crowding, social etiquette, and the diver buddy relationship. ‘Activity specific’ includes items like getting enough waves, easy paddling, and the surfers' ability to surf the conditions. The identification of sea life is a different factor that is unlikely to occur for surfers as their activity is on the water and not under the water. The more sea life the divers saw the more enthusiastic about the dive they were.

Participants were asked open-ended questions about what unfavourable items contributed to their diving/surfing experience. Site conditions are the overwhelming unfavourable condition followed by social and weather conditions for surfers and divers (Fig. 20). Weather was the second most important category for surfers.

All of these recreation components combine together to create an overall rating of that day’s surf or dive. Both the surfers and divers rating of the surf/dive significantly correlated with the SEA (Surfer r (64) = .37 p < .01, Divers r (76) = .30, p = .01).

![Figure 19 Surfer and Divers Identified Favourable Factors](image-url)
4.6 **Research Question #3: Is there a relationship between spiritual experiences occurring within the activities, ecological paradigms, and advocacy for the environment?**

The ecological paradigms of the participants were measured using the New Ecological Paradigm and tested for relationships against the SEA, and advocacy for the environment. The relationship that emerged is shown below.

**4.6.1 New Ecological Paradigm**

The New Ecological Paradigm (Dunlap et al., 2000) was used to determine the ecological paradigms for both groups. Both surfers and divers had the majority of participants fall within a high or medium strength pro-ecological paradigm. The surfers, however, had a statistically significantly larger number within the high pro-ecological category compared to the medium category (Fig. 21).
Concerning the individual paradigms of limits of growth, anti-anthropocentrism, nature balance, exceptionalism, and ecocrisis, both groups had the nature balance paradigm as the most dominant, but only by a slight margin over the other paradigms. Divers' paradigm values ranged from 9.75 - 12, while surfers' paradigms ranged from 10.46 - 12.57. Utilising a Pearson coefficient to determine a potential relationship with the SEA, it showed no relationship with both activities.

The NEP did show a correlation between divers and surfers with advocacy for the environment, and the more the participant surf/dives the more they are led to advocacy (Table 8). Interestingly, for surfers the 'belief in God' was related to the NEP score, tying the SEA and NEP scores together based on a belief in God. The pro-ecological views (as determined by the NEP score) were correlated against 'antecedent conditions', 'spiritual tradition', 'setting' and 'recreation' components and did not show any other significant relationships for either activity.
4.6.2 Summary of NEP, SEA, and Environmental Advocacy Relationships

The results of the NEP showed that all surfers and most divers had medium to high pro-ecological paradigms, with the 'nature balance' paradigm being the most prevalent. The NEP did relate directly to environmental advocacy for the environment for both activities. There was also the belief that the more the participant surfs/dives the more they are led to advocacy, indicating that the spiritual experience leads the participants to behaviour beliefs about advocacy. The other belief that played a role with the NEP score for surfers was the 'belief in 'God''. The same was not true for divers. While the SEA and NEP scores did not directly correlate, it can be seen that there are connectors that link the NEP and SEA together, such as 'belief in God' for surfers, and behaviour beliefs for both activities.

4.6.3 Surfer Connection to the Environment

While there was a lack of relationship between the NEP and SEA directly, the behaviour beliefs of the participants indicate that there is an indirect relationship. When asked directly if surfing led to a greater connection to the environment on an 11-point Likert scale, surfers reported an 8.12 average out of 10. While the 8.12 average was high, it did not, surprisingly, show a relationship to the NEP. For surfers, a greater connection to the environment related to both questions: does surfing lead to a positive personality change, \( r (64) = .47, p < .01 \) and does the more the participant surfs mean the more the personality change occurs \( r (64) = .34, p = .01 \). Both of these beliefs were related directly to the occurrence of a spiritual experience.

There were no statistical indications of specific place bonding; although some indicated they felt a connection to the whole of New Zealand. One participant stated, "I believe that every...\n
---

Table 8 NEP and Relationships for Surfers and Divers

<table>
<thead>
<tr>
<th>Question Correlated against the NEP</th>
<th>Scuba Divers Correlation</th>
<th>Surfers Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocacy for Environment</td>
<td>( f (1,73) = 18.86, p &lt; .01 )</td>
<td>( f (1,58) = 9.93, p &lt; .01 )</td>
</tr>
<tr>
<td>More the participant surfs/dives the more they are led to advocacy</td>
<td>( r (80) = .44, p &lt; .00 )</td>
<td>( r (65) = .28, p = .02 )</td>
</tr>
<tr>
<td>Belief in God</td>
<td>No relationship</td>
<td>( f = 4.76, p = .01 )</td>
</tr>
</tbody>
</table>
surf location has its own unique spiritual feeling and the experience is to try and be at one or a part of the connection." Others listed specific locations and the results of this are compiled in Appendix C, along with the reasons for that connection. Appendix C is grouped into categories that indicate the reason why the participant listed the place as a spiritual location, and these include that is was their home/where they grew up/holiday home, where ashes were spread, the place has a beauty/untouchedserene/sacred, or is a good location to participate in the activity.

4.6.4 Diver Connection to the Environment

When asked directly if diving led to a greater connection to the environment on an 11-point Likert scale, divers reported a 7.71 average out of 10 in agreement. The ANOVA did show a relationship for divers with the question of whether diving leads to a better connection with the environment \( r (76) = .24, p = .036 \) and the NEP. For divers, the better connection with the environment was also correlated with the overall rating of the dive \( r (76) = .24, p = .04 \). For scuba divers, greater connection with the environment was also linked with the more you dive the more a personality change occurs \( r (76) = .23, p = .04 \).

As with the surfers, when the diver participants were asked if there was a marine/coastal area that they have a spiritual connection to, one respondent stated a spiritual connection with the whole of the New Zealand coast due to a sense of ownership, while most participants stated specific locations and reasons why (Appendix C).

4.7 Advocacy

The NEP and connection to the environment was taken a step further to see if it led to advocacy for the environment. The percentage of participants from each activity and their advocacy for the environment is shown in Figure 22. If respondents indicated that they did advocacy through an organisation, through submissions to the government, or through other means the participant was scored as being involved. If they were not involved, they were asked if it was due to lack of knowledge on how to help. The activities reported that of the participants not involved, 58.3% of divers and 65% of surfers, did not know how to advocate for the environment.
Of those surfers involved in advocacy, 30% of those involved indicated, interestingly, that they also did not know how to advocate for the environment. Similarly, the scuba divers involved in advocacy that indicated that they did not know how to advocate for the environment was 25%. This totals 35.1% of surfing participants and 33.7% of diving participants that did not know how to advocate. The participants were asked if they did advocacy through an organisation, and 19.3% of scuba divers and 21.6% of surfers reported belonging to an advocacy organisation. They were also questioned if they belonged to surf or dive organisations and the results shows that scuba divers are much more involved in dive organisations than surfers are in surf organisations (Fig. 23).

The participants were questioned as to whether the activity was causing them to advocate for the environment and both activities showed high averages (Table 9). Both activities reported similar average scores when related to how much advocacy they were involved in scuba divers also showed relationships with the level of involvement in advocacy and the occurrence of a spiritual experience, and that the activity led to advocacy for the environment and the occurrence of a spiritual experience although the surfers 'p' value was not significant. There was no direct correlation between the SEA and advocacy for either activity.
Table 9 Advocacy Responses and Correlations

<table>
<thead>
<tr>
<th>Question</th>
<th>Scuba Divers (Mean or correlation)</th>
<th>Surfers (Mean or correlation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does surfing/diving lead to advocacy for the environment</td>
<td>7.42 out of 80 participants</td>
<td>7.15 out of 65 participants</td>
</tr>
<tr>
<td>How involved in advocacy is the participant</td>
<td>5.60 out of 80 participants</td>
<td>5.29 out of 36 participants</td>
</tr>
<tr>
<td>SEA and Level of Involvement in Advocacy</td>
<td>( r(78) = .28, p = .01 )</td>
<td>No relationship</td>
</tr>
<tr>
<td>Surfing/Diving led to advocacy for environment and SEA correlation</td>
<td>( r(78) = .29, p = .01 )</td>
<td>( r(64) = .24, p = .054 ), relationship but not significant</td>
</tr>
</tbody>
</table>

Figure 23 Level of Participation of Surfers and Divers in Activity Organisations

4.8 Summary

Heintzman's (2010) factors affecting a spiritual experience discussed in Chapter 2 were researched through the survey of participants of both surfing and scuba diving. Of these factors, a model was created that shows which of these three categories that Heintzman identified (antecedent, recreation, and setting factors) actually showed relationships to a spiritual experience within this research (Fig. 24 and Fig. 26). It is this spiritual experience that leads to behaviour beliefs, some of which were identified within this research.
The greater implications of the spiritual experience can be seen in Figures 25 and the relationship to advocacy. While the surfers have a spiritual lynch pin of belief in ‘God’ that connects the occurrence of a spiritual experience to the NEP, which has a relationship with advocacy, divers did not have a same direct relationship with advocacy.

Chapter 5 and 6 will identify the framework that is created by these relationships and the further implications of this research when contrasted with Heintzman (2010) and Ajzen and Fishbein (2005).
Figure 25 Surfing, Spirituality, NEP, and Advocacy Relationship
**Antecedent Factors**
- Socio-Demographics - Education
- History - Comparison of this dive to others
- Spiritual Tradition - Intrinsic Spirituality Scale

**Setting Factors**
- Being Away
- Being in Nature

**Recreation Factors**
- Overall rating of this dive
- Activity - Scuba Diving

**Behaviour Beliefs**
- Diving leads to Advocacy
- Diving leads to Personality change
- The more the participant dives the more the personality change occurs
- Diving leads to a greater connection to the environment

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**Figure 26 Scuba Diving Spiritual Experience Summary**
Chapter 5
Interpretation of Results

5.1 Introduction

This chapter will draw on the results presented in the previous chapter to develop a profile of the different categories of respondents based on their reporting of their spiritual experience. The findings are specifically explored through the models and theoretical lenses offered by other researchers (notably Heintzman) reviewed in earlier chapters. The chapter then proceeds to identify a framework, based on the Theory of Planned Behavior, through which the research will answer the research questions that were identified in the purpose of the study in Chapter One, while comparing and contrasting results from previous research and literature from Chapter Two. After answering each research question, this chapter will create a spirituality-paradigm-advocacy framework; discuss implications of the research, and solutions for future spiritual integration.

5.2 Profiling the Participant

The Spiritual Experience Assessment (SEA) is a scale utilised to measure the occurrence and magnitude of a spiritual experience and it demonstrated a high level of validity with highly consistent results found at different locations, dates, and times. Through utilisation of this methodology, it is evident that most of the participants did have a spiritual experience while participating in their activity and the level of experience was evenly distributed. However, there were differences between the two activities. There was a higher mean for the surfers (97.02) than for divers (74.57). This relatively large difference between the activities may be due to differences in the number of respondents from each activity that had a dependence on a “Higher Power”. It is probable that participants who are religiously or spiritually inclined will have higher scores on this scale. The divers' had a much lower dependence on a Higher Power as indicated by the Intrinsic Spirituality Scale, a significantly lower belief in God, and a larger percentage of currently non-practising religious participants. The positive relationship found for surfers with the SEA and Intrinsic Spirituality Scale, 'belief in God', and 'religion currently practised' suggest a more religious or spiritual nature to either the people involved or the activity they engage in. By taking a look at those participants that were outliers (scores over 150 and below 50 for surfers and under
40 and over 125 for divers), some items are identified that may have been factors in the participants’ scores but did not show a direct relationship via Pearson’s coefficient or ANOVAs when the whole group of surfers or divers were correlated. The outliers were determined by utilising the range that lay closest to one standard deviation, thus there are lower outliers for the divers as they had a lower mean than the surfers.

While a person can do particular things to enhance the possibility of a spiritual experience, there is no guarantee that by doing certain things that will result in a spiritual experience. A spiritual experience is not guaranteed, especially if the participant is not open to the experience. Some of the diver outliers indicated on their form that they were not religious and were biased against the whole SEA, as they were not open to anything spiritual or religious.

5.2.1 Surfing Outliers

Analysing the surfing outliers, or scores below 50 on SEA, (n=16), referred to as the low outliers hereafter, against the mean for the whole group of surfers, it becomes apparent that the overwhelming factors for the lower spiritual experience scores, although still spiritual experiences, are: Intrinsic spirituality scores, lack of a 'currently practised religion', not 'believing in God', and lack of spiritual motivation for surfing. When 'recreation factors', identified by Heintzman (2010), such as equipment issues and 'free time' were compared with the mean for the whole group of surfers, they were higher than the mean. While Fox (1997) identified 'fear' as a necessary factor to overcome, the 'fear' factor for this group of outliers was only slightly higher than the overall group mean. The overall rating of the surf that the participant just finished was only a slightly lower mean than the overall group. Interestingly, higher than the mean for the whole group of surfers, advocacy rated slightly higher, the median age was one category higher, 93.8% were 'raised with religion', but only 20% 'currently practise a religion' (See Table 10).
<table>
<thead>
<tr>
<th>Table 10 Surfing Outliers Compared to Means</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surfing</strong></td>
</tr>
<tr>
<td><strong>Antecedent Factors</strong></td>
</tr>
<tr>
<td><strong>History and Circumstance</strong></td>
</tr>
<tr>
<td>Fear Felt</td>
</tr>
<tr>
<td>Had Accident</td>
</tr>
<tr>
<td>Comparison to other surfs/dives (10 is best dive/surf ever had)</td>
</tr>
<tr>
<td><strong>Socio-Demographics</strong></td>
</tr>
<tr>
<td>Gender (female)</td>
</tr>
<tr>
<td>Age (median)</td>
</tr>
<tr>
<td>Education (median)</td>
</tr>
<tr>
<td><strong>Motivation and Attitude</strong></td>
</tr>
<tr>
<td>Spiritual Motivation</td>
</tr>
<tr>
<td><strong>Spiritual Tradition</strong></td>
</tr>
<tr>
<td>Raised with a Religion</td>
</tr>
<tr>
<td>Currently Practising a Religion</td>
</tr>
<tr>
<td>Belief in God</td>
</tr>
<tr>
<td>Intrinsic Spirituality Scale (10 is total dependence on God)</td>
</tr>
<tr>
<td><strong>Setting Factor</strong></td>
</tr>
<tr>
<td>Location- # of Participants within Mean Group that surfed/dove at each site</td>
</tr>
<tr>
<td>Place Process</td>
</tr>
<tr>
<td>Being Away</td>
</tr>
<tr>
<td>Being in Nature</td>
</tr>
<tr>
<td><strong>Recreation Factor</strong></td>
</tr>
<tr>
<td>Had enough Free Time</td>
</tr>
<tr>
<td>Felt Solitude</td>
</tr>
<tr>
<td>Felt Group Experience</td>
</tr>
<tr>
<td>Overall Surf/Dive (10 being best possible surf/dive)</td>
</tr>
<tr>
<td>Had Equipment Issues</td>
</tr>
<tr>
<td>NEP Score (out of 75)</td>
</tr>
<tr>
<td>Involved in Advocacy</td>
</tr>
</tbody>
</table>
Not surprisingly, when identifying the outliers above 150 on the SEA (n=11), referred to as the high outliers hereafter, similar factors became apparent as contributors to the score. Having a spiritual 'motivation' for surfing, being 'raised with religion' and 'currently practising a religion', 'belief in God', and higher Intrinsic Spirituality Scores led to higher SEA scores. Items such as overall surf, comparison surf, and 'fear' all had significantly higher means than the overall group of participants. Of interest is that 'fear' was seen above average in both the outliers above and below indicating that, as Fox (1997) identified, 'fear' could be a factor that must be overcome to have a spiritual experience. This signifies that perhaps some surfers did overcome their 'fear' for those with high scores. Lower means for equipment issues, 'age', and 'free time' were shown. They were significantly more active in advocacy (See Table 10).

5.2.2 Scuba Diving Outliers

When looking at the outliers participants who scored below 40 on the SEA, (n=19), referred to as the low outliers hereafter, for scuba divers, it becomes clear that a number of factors were involved. The participants' 'religion they were raised with' and 'religion practised' showed much less involvement in religion than the overall group of divers. Thus, not surprisingly, there was significantly less 'belief in God' compared to the mean for the overall group. This significantly less than the mean score, continued through the Intrinsic Spirituality Scale. Possibly, due to a high group experiences a low 'solitude' experience was shown versus the mean. Participants had a slightly lower than the mean score for the overall rating of the dive and comparison of this dive with other dives. They showed a very low fear score possibly indicating that there was not enough 'fear' to overcome as per Fox's (1997) research, that indicated that 'fear' must be overcome to have a spiritual experience. Also of note, is that there were no females possibly confirming Meisel and Cottrell (2004) that females are more intrinsically motivated (See Table 11).

Not surprisingly, when identifying the outliers above 125 on the SEA (n=12), referred to as high outliers hereafter, similar characteristics became apparent as factors consistent with the score. Participants with scores over 125 had a higher mean score than the overall group of divers in the following areas: female participants, 'fear', overall rating of dive, higher comparison of this dive to others, and felt more 'solitude'. The area of 'spiritual tradition' showed much higher percentages for the following areas: 'being raised with a religion', 'currently practising a religion', 'belief in god', Intrinsic Spirituality score, and spiritual
'motivation'. Equipment issues decreased in mean compared to the overall group (See Table 11).

<table>
<thead>
<tr>
<th>Table 11 Scuba Diver Outliers Compared to Means</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scuba Diving</strong></td>
</tr>
<tr>
<td><strong>Antecedent Factors</strong></td>
</tr>
<tr>
<td>History and Circumstance</td>
</tr>
<tr>
<td>Fear Felt</td>
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<tr>
<td>Had Accident</td>
</tr>
<tr>
<td>Comparison to other surfs/dives (10 is best dive/surf ever had)</td>
</tr>
<tr>
<td>Socio-Demographics</td>
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<td>Gender (female)</td>
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<td>Age (median)</td>
</tr>
<tr>
<td>Education (median)</td>
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<tr>
<td>Motivation and Attitude</td>
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<tr>
<td>Spiritual Motivation</td>
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<tr>
<td>Currently Practising a Religion</td>
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<tr>
<td>Belief in God</td>
</tr>
<tr>
<td>Intrinsic Spirituality Scale (10 is total dependence on God)</td>
</tr>
<tr>
<td>Setting Factor</td>
</tr>
<tr>
<td>Location- # of Participants within Mean Group that surfed/dove at each site</td>
</tr>
<tr>
<td>5 Wellington, 3 Canterbury, 5 Dunedin, 6 Tutukaka</td>
</tr>
<tr>
<td>Place Process</td>
</tr>
<tr>
<td>Being Away</td>
</tr>
<tr>
<td>Being in Nature</td>
</tr>
<tr>
<td>Recreation Factor</td>
</tr>
<tr>
<td>Had enough Free Time</td>
</tr>
<tr>
<td>Felt Solitude</td>
</tr>
<tr>
<td>Felt Group Experience</td>
</tr>
<tr>
<td>Overall Surf/Dive (10 being best possible surf/dive)</td>
</tr>
<tr>
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</tr>
<tr>
<td>NEP Score (out of 75)</td>
</tr>
<tr>
<td>Involved in Advocacy</td>
</tr>
</tbody>
</table>
5.2.3 Mean Range Spiritual Experience

Some factors emerged though analysis of the participants without the outliers, which created a profile for an average participant having a spiritual experience for each activity and might help explain why the surfers mean was significantly higher than the divers. The factors that are shown to influence a spiritual experience through this research can be grouped similarly to Heintzman (2010) factors. The factors that were identified through analysis as mean spiritual experiences are shown in Table 12.

Antecedent factors of 'socio-demographics' lacked any significant relationships between 'socio-demographic' variables (other than 'education' for divers). This suggests that anyone within the surfing and diving communities may have a spiritual experience. It needs to be recognised, however, that this may be only a characteristic of mostly non-Maori New Zealanders participating in these activities. Further research would be needed to examine whether this held for other peoples and for greater 'gender' variation. 'History and circumstances' revealed that surfers had a greater percentage of accidents than did divers but the divers still had a higher mean SEA score. The 'fear' factor seemed closely related in the outliers but did not seem to show much difference between the activities in the mean group. The surfers had a significantly higher percentage of spiritual 'motivation' for their activity than did divers. This trend of high spirituality scores for surfers continued into the 'spiritual tradition' where 'currently practising a religion', 'belief in God', and the Intrinsic Spirituality score all were much higher than divers. Interestingly, almost double the percentage of divers, than surfers were 'raised with a religion'. It is possible that this biased these participants against religion as divers 'currently practising a religion' diminished greatly, but almost half of the participant divers 'believed in God', indicating that perhaps they are more spiritual than religious.

'Setting factors' of location showed no role as the locations were evenly distributed between all sites relative to the amount of surveys gathered from each site. Both divers and surfers had participants within this mean group of participants that were located at each site, representing both urban and rural areas. 'Being in nature' and 'being away' will be discussed in section 5.3.2. The last category, 'recreation factors', results showed the higher the percentage of 'group time' that the divers felt the lower the 'solitude' they felt. 'Solitude' was significantly higher for surfers as would be expected from an activity that does not depend as much on group transport and 'buddy' systems.
Table 12 Profile Comparison of Diving and Surfing

<table>
<thead>
<tr>
<th>Antecedent Factors</th>
<th>Diving (Under 40-Over 125 on SEA score)</th>
<th>Surfing (Under 50-Over 150 on SEA score)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>History and Circumstance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear Felt</td>
<td>39.58%</td>
<td>36.17%</td>
</tr>
<tr>
<td>Had Accident</td>
<td>6.25%</td>
<td>25.53%</td>
</tr>
<tr>
<td>Comparison to other surfs/dives (10 is best dive/surf ever had)</td>
<td>5.45</td>
<td>5.45</td>
</tr>
<tr>
<td><strong>Socio-Demographics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (female)</td>
<td>22.92%</td>
<td>10.64%</td>
</tr>
<tr>
<td>Age (median)</td>
<td>25-29</td>
<td>30-34</td>
</tr>
<tr>
<td>Education (median)</td>
<td>Vocational</td>
<td>Vocational</td>
</tr>
<tr>
<td><strong>Motivation and Attitude</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual Motivation</td>
<td>6.25%</td>
<td>25.53%</td>
</tr>
<tr>
<td><strong>Spiritual Tradition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raised with a Religion</td>
<td>62.5%</td>
<td>36.17%</td>
</tr>
<tr>
<td>Currently Practising a Religion</td>
<td>27.09%</td>
<td>51.06%</td>
</tr>
<tr>
<td>Belief in God</td>
<td>45.83%</td>
<td>65.96%</td>
</tr>
<tr>
<td>Intrinsic Spirituality Scale (10 is total dependence on God)</td>
<td>2.98</td>
<td>4.12</td>
</tr>
<tr>
<td><strong>Setting Factor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location- # of Participants within Mean Group that surfed/dove at each site</td>
<td>14 Wellington, 12 Canterbury, 15 Dunedin, 7 Tutukaka</td>
<td>19 New Brighton, 14 Taranaki, 13 Raglan, 1 Piha</td>
</tr>
<tr>
<td>Place Process</td>
<td>See section 5.3.2</td>
<td>See section 5.3.2</td>
</tr>
<tr>
<td>Being Away</td>
<td>See section 5.3.2</td>
<td>See section 5.3.2</td>
</tr>
<tr>
<td>Being in Nature</td>
<td>See section 5.3.2</td>
<td>See section 5.3.2</td>
</tr>
<tr>
<td><strong>Recreation Factor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had enough Free Time</td>
<td>70.83%</td>
<td>68.09%</td>
</tr>
<tr>
<td>Felt Solitude</td>
<td>22.92%</td>
<td>34.04%</td>
</tr>
<tr>
<td>Felt Group Experience</td>
<td>79.17%</td>
<td>32.9%</td>
</tr>
<tr>
<td>Overall Surf/Dive (10 being best possible surf/dive)</td>
<td>7.17</td>
<td>6.04</td>
</tr>
<tr>
<td>Had Equipment Issues</td>
<td>29.17%</td>
<td>31.9%</td>
</tr>
<tr>
<td><strong>NEP Score (out of 75)</strong></td>
<td>53.48</td>
<td>53.40</td>
</tr>
<tr>
<td>Involved in Advocacy</td>
<td>35.42%</td>
<td>21.3%</td>
</tr>
</tbody>
</table>
5.3 Theoretical Implications

Heintzman (2010) (as discussed in Chapter 2) identified three groupings of factors that influence a participant’s spiritual experience, which will be addressed below. A number of authors have identified factors that determine a person’s propensity to have a spiritual experience in particular settings (e.g., (Fox, 1997, 1999; Fredrickson & Anderson, 1999; Heintzman & Mannell, 2003; Stringer & McAvoy, 1992). Building on the profiles here, the findings of this research are discussed in relation to those models, with particular attention to Heintzman (2010).

5.3.1 Antecedent Factors

Among the 'antecedent factors', the 'historical and circumstantial' factor that plays a particular role in participants’ spiritual experience is the comparison with previous surfs/dives. The results suggest that the previous dive/surf provides a mental standard and if the participant has a spiritual experience during the current dive, it is likely that they will rate this dive/surf better than previous dives/surfs, which was indicated by the increased mean in the high outliers.

The profiles also indicate the significance of 'fear'. Fox's (1997) funnel model, discussed in section 2.2.1, identifies overcoming of 'fear' as the first stage in having a spiritual experience. Dimmock (2009) similarly, states that for the necessary psychological comfort to occur, 'fear' must be absent. This does not mean that it was never there, but perhaps it was present, but overcome as Fox (1997) suggests. This is supported by the data from this research. Participants with higher than mean the overall group levels of 'fear' before commencing their activity showed SEA scores that related to whether the 'fear' was overcome. It was apparent from the open-ended questions that most of the people that had fear had experiences that justified that 'fear'. For example, one participant identified that he was 'fearful' of cutting his feet on the rocks, and as an unfavourable factor of the surf the participant listed that he ended up cutting his feet on the rocks. His SEA score was 20, according to Fox (1997) 'fear' must be overcome and when it manifested as reality during the experience, as for this participant, there is not the ability to overcome the 'fear' that was present before having a spiritual experience. Other factors that could have been relevant to recording this participant’s low score, were a lack in 'belief in God' and a zero score for the Intrinsic Spirituality Scale, 'being raised with no religion', and 'practising no religion'.
A somewhat surprising feature was the contrast between the surfers and divers 'motivation and attitudes'. The 29.7% of surfers and only 4.8% of divers, were 'motivated' to surf/dive for spiritual reasons, had higher SEA scores as expected, but what was not expected was the extent of difference in explicit motivations between the activities. The percentage of surfers who surfed for spiritual motivation was similar to the category by Pearson (1979) that included spirituality as a 'motivation'. The key to this difference between activities may lie in the spiritual associations reported and reified in popular literature as part of the background of the activity of surfing (Derosier et al., 2005; Gabe, 2008; Melekian, 2005; Ormrod, 2007). In contrast, the popular literature for diving and spiritual motivations is very limited (Crowley, 2008; Moran, 1999; Vanessa, 2009; Walton, 2000). The motivation for both activities was mostly for fun and to enjoy/connect with nature.

It was hoped that the research would enable a test of Meyer et al.'s (2002) finding that females were more intrinsically motivated than males. Unfortunately, the limited number of female participants did not enable testing the impacts of 'gender' using the SEA, although this was looked at in the outliers.

Not surprisingly, the 'spiritual tradition' antecedent factor played a large role in the SEA. This was the most dominant antecedent factor. The 'religion practised', 'belief in God', and the Intrinsic Spirituality Scale all played roles either in the surfers or divers SEA scores. The surfers surveyed 'currently practised more religion' or general spirituality than the divers, had higher 'belief in God', and dependence on God, as determined through the Intrinsic Spirituality Scale. The majority of surfers and divers did not 'currently practice a religion', but did have a spiritual experience during their activity. They also had a higher percentage 'belief in God' than 'religion currently practised', thus indicating that the participants were more spiritual than religious.

5.3.2 Setting Components

As Heintzman (2010) identified, 'being in nature' is a key component to having a spiritual experience. The definition of what this means is really left unknown and varies in Heintzman's (2010) research from a backyard to, as Fredrickson and Anderson (1999) declare, that it must be a bona fide wilderness, meaning a pristine environment. Heintzman (2010) did qualify that it must have two items to be considered 'being in nature', extent and fascination. Extent is the natural ecosystems presences that can captivate participants, help
illicit exploration, and help them to see their connection with the expansive world. Fascination is more about self-reflection inspired via items such as vistas, clouds, and the sun. Whereas Fox (1997), declared that a wilderness is free from urban stress and human made objects. As discussed in section 2, marine wilderness is considered by most definitions to include non-consumptiveness and protected areas.

Addressing Heintzman’s (2010) considerations, for surfing and diving, both activities foster extent as they take place in natural ecosystems, none of the locations were human-made breaks or reefs. Comments under the favourable category identified that participants found fascination, commonly listing the sun, clouds, and overall beauty of the area. Regarding Fredrickson and Anderson (1999), and a pristine environment, this is debatably not a possible qualification as most of the world has been touched by the hand of humans, who usually leave their presence know in some way or another. The marine wilderness definitions of wilderness provide an interesting basis for qualification. Both activities are inherently non-consumptive, but in New Zealand, diving has a consumptive side (spear fishing, shellfish and lobster gathering) that was reported only at Motunau. All other sites were non-consumptive. The protection of sites, although desired by many participants, is legally not present, except for the newly protected Manu Bay, (December 2010, New Zealand Coastal Policy Statement identified a number of specific surfbreaks that should be protected for their national significance) one of the surfing locations for surveys, and Tutukaka which is in a protected Marine Reserve area where diving surveys were located. Regarding Fox’s (1997) wilderness definition, being away from urban stress was successfully achieved by the divers as being underwater even if close to urban stresses, removed the stresses from having an impact on the divers. The same cannot be said for surfers where urban stresses such as road, parking lots, buildings, were very close to all surf locations, also placing them near human made objects. One surf survey location New Brighton required the surfers to dodge the fishing lines and a pier that cuts through the break. Both activities were never completely away from human made objects, as surfers need a board and divers need equipment.

Overall, do both activities meet Heintzman’s (2010) loose definition of 'being in nature', yes, as he even defines this as being possible in a backyard. But do the activities meet the criteria set out further on in Heintzman’s (2010) account of what 'being in nature' could mean? Yes, at one location for each activity, Manu Bay and Tutukaka. As the SEA scores did
not correlate for surfing to the site, it is evident that a bona fide wilderness is not necessary. Areas classified as urban recreation areas, which would include most of the surf sites, can too provide a spiritual experience. These urban areas do meet the criteria set out by Heintzman (2010) as well as the criteria of being non-consumptive and protected (one site in legally, and others in surfers desire). One surfer accounted that the water washes the stress away despite being in an urban recreation area of New Brighton. As for diving, it is always a wilderness activity as it is away from all urban stress and human made objects, excluding gear and shipwrecks, even if in close proximity to urban stress due to being underwater. Despite this, the scuba divers had less of a mean SEA score. On these facts and the SEA scores, it is evident that 'being in nature' by Heintzman (2010) is too loosely defined to develop as a criteria and that when analysed against wilderness literature, it is evident that urban recreation areas are just as conducive to a spiritual experience as wilderness areas, away from terrestrial land.

The second setting factor that Heintzman (2010) identified was 'being away'. This entails being away from what is considered the participant’s everyday life. This can be partially described as an inherent part of being in nature. Most humans do not live in a wilderness setting and so by 'being in nature' they are also away from their everyday life. Heintzman (2010) identified that being away also entailed not having the time and energy constraints that the participants’ normal lives held. For scuba divers, the nature of diving has time limitations for safety measures and many of the surfing participants verbally expressed that they had to hurry to make it to work after the surf. So the time constraints seemed to permeate both activities. Occasionally a surfer would have as much time in a day to surf, as they wanted, say on their day off from work or a weekend, but most humans have life commitments that interceded into the activity.

The energy constraints that are exhibited in everyday life are not present in surfing. The paddling and energy expressed can be, depending on conditions, extensive. Contrary to this, diving has a different type of exertion, it does not require tremendous physical exertion usually, it actually is more advantageous to swim slowly to see more, but the exertion comes from the physical effects of breathing straight oxygen. So the diver while swimming very little, as partial safety measure to stay close to the boat, does still become physically exhausted. Other items listed as part of being away include absence of: technology, pollution, everyday routine, busy city, ‘busyness’, and obligations of everyday life. Scuba
dive and make a break from routine, busyness, the city, and everyday life, but it is heavily laden with technology and participants do encounter pollution underwater. Several divers reported that they enjoyed diving because it was a break from their everyday obligations such as their wives. Surfers also reported that they encountered pollution and they deal with the technology of the board and wetsuit, but it is also away from routine, busyness, and everyday life obligations. As discussed previously, most surfing does not occur away from urban areas.

The last setting factor Heintzman (2010) identified was 'place processes'. An accurate appraisal of the site conditions was not able to be determined, and participants' responses varied so greatly, especially for the surfers. It is possible that while the survey stated meters that surf respondents confused it with feet height, as well as reporting how the waves felt to them. Someone that was inexperienced might feel that the waves were larger than they were due to inexperience. Surfers' 'place processes' were not correlated with the SEA due to such inconsistencies and because it became apparent that certain breaks are suited to certain size waves. So bigger was not always better, thus not allowing for proper analysis of these conditions. Divers, on the contrary, appeared more accurate as the responses from divers on the same dive gave very similar reports on conditions, which did not correlate with the SEA. Even though the place processes and locations did not correlate with the SEA, it is difficult to distinguish between 'place processes' and place bonding. While the 'place processes' did not for divers correlate with the SEA, many divers put down locations that they were diving at that were spiritual to them, thus indicating that 'place processes' must attract the participants to the location to do their activity. A polluted, no surf, dangerous location would not attract participants from either activity. So while the location did not correlate with the SEA, it is possible that all locations surveyed were spiritual locations to many of the participants through 'place processes', place bonding, the participation in the activity, and openness of their mind to spirituality.

The participants did locate a wide range of locations (Appendix C) that they felt a spiritual connection to. Appendix C is grouped into categories (see section 4.6.3). Many of the locations were local places that the participants used for their activity or where they grew up. If this is representative of the wider surfing community, then given that surfing breaks and dive sites can be found in many parts of New Zealand, it is conceivable that much of New Zealand’s coastline would be identified. The participants proved that spirituality could
exist in a variety of locations, for different types of people, and for a variety of place bonding reasons (place identity and place belongingness). While a few indicated all of New Zealand, most participants indicated locations that they had a special connection with. This connection, such as growing up in a location, could happen anywhere for people, thereby indicating that spiritual connections are more than just about location and personal openness of one's mind to the spiritual connection via place belongingness, see Figure 10.

Figure 27 Number of Participants that Identified a Site as Spiritually Significant

5.3.3 Recreation Components

Heintzman (2010) highlighted several areas within the category of 'recreation components': the 'activity', 'free time', 'solitude', 'group experience', and 'facilitation'. The difference between the diving and surfing SEA scores indicates that as Heintzman (2010) suggested, "the type of recreation activity can influence spirituality" (Heintzman, 2010, p. 79).
Heintzman (2010) also argued that the type of activity that was spiritual to each person varied from individual to individual, but none of the participants were asked how the particular activity they were surveyed after doing, compared for spirituality with other activities. To help explore this issue the comparison of the two activities is shown in Table 12. The two activities have several variables (e.g., equipment issues, accident rates, buddies, mental tasks, level of experience, adrenaline) that differ, but may contribute to the experience of the participants and overall rating for the dive or surf.

The 'recreation factor' that recorded difference in SEA responses was equipment issues. For surfers the highest percentage who recorded equipment issues were the low outliers; of those surfing low outliers (31%) had equipment issues. For divers and surfers in the high outliers, the lowest equipment issues were experienced (divers 25% and 9% surfers). This suggests that equipment issues distract from a possible spiritual experience.

Despite having an arguably large accident rate for both activities, neither showed a relationship with the SEA or seemed to hinder the participants' outlook on the activity to limit their spiritual connection. Another item that may detract from the possible spiritual experience in scuba diving is the need for 'buddies'. Having a buddy, while providing a sense of ease in knowing you are not alone if something goes wrong, does leave the diver never truly being alone in nature. It also provides the mind with tasks (e.g., being distracted by the need to care for you buddy, concern over depth, oxygen levels, location relative to the boat) that could lead to an inability to immerse yourself spiritually in the moment in the way that surfers can. This is where level of experience could become a factor as these concerns (and addressing them) become second nature to an experienced diver, but to a new diver it would be mentally consuming tasks. However, there was no correlation between experience and SEA scores. Despite having a buddy, the whole group of divers reported a mean (22.8%) felt solitude, which when compared with surfing (37%) is not that much lower (see Table 10 and 11).

Despite the considerable wilderness literature indicating that solitude was a major factor in a spiritual experience (Fox, 1997, 1999; Fredrickson & Anderson, 1999; Heintzman, 2009, 2010; Hollenhorst et al., 1994; Stringer & McAvoy, 1992), this research did not indicate a correlation of 'solitude' with the SEA. The balance between there needing to be 'solitude' and a 'group experience' as expressed by Heintzman (2010) and Stringer & McAvoy (1992) seems inherent in surfing, but neither related to the SEA, neither did 'facilitation' for divers,
which is not necessary for the surfers. ‘Facilitation’ played no role, as almost all divers were very happy with the dive instruction, despite some receiving little to no instruction. This may be due to a fear that the dive instructors/captains would see the surveys despite being notified of confidentiality.

In summary, the inherent natures of these two activities have similarities but have differences that have helped highlight possible distinctions in SEA scores. The activity of scuba diving is not an adrenaline producing activity, except in rare cases or with the new divers. Rare cases might be an encounter with a shark, which will cause diving to become an adrenaline producing activity in most people, but overall it is not the thrill seeking activity that surfing can be. Although this was not tested, this difference between the two activities may be one of the reasons (along with the others found) that the surfers mean SEA score was higher. More research needs to be done to determine exactly the relationship between adrenaline and spirituality. When adrenaline is combined with all the other factors listed above for the activity, it leads to an overall rating for the dive/surf. The overall rating for the dive/surf was lowest for the low outliers of divers and surfers, while the highest rating was for the high outliers. The overall rating for the dive did correlate with the SEA scores. This suggests that although the individual characteristics of the surf/dive did not correlate, the combination of them all did show a relationship.

5.3.4 Recognition of Spiritual Experience

If, as Driver et al. (1991) argued, people sought out leisure activities because of the spiritual nature of the leisure activities, then this would explain the importance attached to their surfing and diving experiences by those spiritually inclined. In hindsight, it would have been useful to have sought the participants' views on how significant the spiritual component was in choosing this activity over others, and how free they were to choose the activity given time and resource constraints and other commitments. However, in the absence of such data all that can be said is that the participants did recognise that they had a positive personality change because of participation in their activity. In part, this may have resulted from the spiritual experience and its nature would have contributed to, and essentially is dependent on, a positive personality change. This change was confirmed by most of the participants (see 4.4.1 for surfing and 4.4.2 for diving). The fact that the participants recognised this effect signifies that this is more than just a minor personality change. It is a significant change.
Interestingly, the participants were also able to identify the reasons that the feeling disappeared. ‘Stress’ and ‘re-entering the real world’, confirm the fact that ‘being away’, is a component that can contribute to having a positive personality change and/or spiritual experience. The participants also took different approaches as to the length of time that the feeling lasted. Some identified time frames, while others signified that it meant it was time for the next surf/dive. The time frames indicated, correspond with Heintzman’s (2010) outcome of ‘short term spiritual experiences’ and ‘leisure-spiritual coping’. The ‘long term spiritual well being’ and the role that repeated experiences of their activities play in maintaining that can be seen in the participants’ responses to the question posed that the more they surf/dive the more they feel the personality change, as well as the response that the positive personality change fades when it’s time for another surf/dive.

5.4 Framework of Spirituality-Paradigm-Advocacy Relationship

A framework linking spirituality and advocacy is created through the Ajzen and Fishbein (2005) model of the Theory of Planned Behavior. This model showed that individual characteristics led to three categories of factors: behaviour beliefs, normative beliefs, and control beliefs, when followed and combined lead to intention toward the end behaviour, which in this case is advocacy for the environment. The key to this model is that the factors lead to intention, which may or may not lead to actual behaviour. The individual factor that this thesis starts with is a spiritual experience, as influenced by the items that have previously been discussed from Heintzman (2010), 'antecedent', 'setting' and 'recreation' components. Having discussed above the Heintzman factors that led to most participants having a spiritual experience of varying degrees next will be a discussion of the three categories of behaviour, normative, and control beliefs as they relate to advocacy for the environment (see Figure 28 and 29).

5.4.1 Affects of having a Spiritual Experience: Behaviour Beliefs

Having had a spiritual experience as a result of these activities, the participants exhibited behaviour beliefs as a result of this spiritual experience. As previously mentioned, the participants identified the behaviour beliefs that the surf/dive led to a positive personality change, and that the more they participated in their activity the more the change occurred. Other behaviour beliefs include the link with the activity and advocacy for the environment for divers. Divers believed that the activity led them to advocacy for the environment.
Unfortunately, due to placement of this question on the surfing survey at the very top of the page more than half of the participants missed the question, making it not testable. Divers also found that diving created a greater connection to the environment.

### 5.4.2 Ecological Paradigms: Normative Beliefs

Dunlap et al. (2000) indicates that the New Ecological Paradigm shapes intentions leading to particular environmental behaviour. The surfers and divers surveyed had an overwhelmingly pro-ecological environmental paradigm score in the high or medium range categories. This is not surprising when the New Zealand culture of pro-ecological education and marketing campaigns are taken into account, and a positive public environmental perception was found in the latest report on the public perceptions of New Zealander’s on the environment (Hughey, Kerr, & Cullen, 2008). New Zealand markets itself as a “Clean Green” place for tourists, and in many ways is one of the leading countries in the environmental movement (Yale, 2010).

There was little difference between the surfers and divers or in the scores for the different paradigms, with attitudes indicative of a ‘Nature Balance’ paradigm being the strongest for both groups. The closeness of scores for the variety of different pro-ecological paradigms is difficult to explain and limits the utility of the NEP as a predictor. Having mixed views and paradigms, can lead to mixed behaviour toward the environment. However, the high pro-ecological views shown in the NEP suggested that there would be a tendency toward advocacy (Winter (2007)) and the survey results confirmed this. The lack of relationships of the NEP with other factors suggests that this pro-ecological paradigm is a cultural belief system for these two quite different recreational groups.

### 5.4.3 Advocacy: Control Beliefs

Both activities showed a higher NEP score led to a higher correlation with advocacy for the environment. For divers a mean NEP score of 60.5 was for those that were involved in advocacy and non-participants in advocacy had a mean NEP score of 52.1. By comparison, surfers recorded, a 62.7 NEP mean score for the participants in advocacy and a score of 56.1 for non-participants in advocacy. This also is in line with research done by Luzar et al. (1995) and Schultz & Oskamp (1996), regarding the positive relationship with the NEP and people’s behaviour. Overall, neither activity was overwhelmingly active in advocacy for the environment; in fact, (58.3% divers and 65% of surfer who did not participate) indicated that
they did not know how to advocate for the environment. Participants in both activities did not feel they knew how to advocate, leaving them with a lack of control over advocacy. The participants, however, believed that their activity led to advocacy. The divers, who had larger dive organisation participation, were highly involved in clean-ups, which while pro-ecological action it did not qualify as advocacy for the environment. This is the prime method of stewardship that dive organisations participate in. Surfers, as well, tended to list activities that while pro-ecological, were actions of stewardship, not advocacy. This tends to indicate that most participants did not know the difference between stewardship and advocacy. A definition of advocacy could have been added to the survey, which might have improved responses.
Figure 28: Surfers' Spiritual Relationship with Advocacy

- **Activity** - Surfing
- **Setting Factors**
  - **Ask**
  - Spirituality
  - Intrinsic
  - Religion
  - Belief in God
- **History and Circumstances**
  - Comparison to other surfs
  - Spiritual tradition
- **Belief in God**
- **Religion Practiced**
- **Intrinsic Spirituality**
- **Scale**
- **Spirituality**
- **Intrinsic**
- **Religion Practiced**
- **Belief in God**

**Behavioral Beliefs**
- **Behavioral lead to advocacy**
- More they are led to advocate
- More participant takes action
- More participant change occurs
- More the participant change is seen
- More the participant change is perceived

**Normative Beliefs**
- **Norm**
- **Subjective Norm**

**Control Beliefs**
- **Control**
- **Beliefs**

**Perceived Recreation Factors**
- **Recreation**
- **Factors**

**Being Away**
- **Evidence**
- **Spiritual experience**
- Determined by spiritual experience assessment
- **New ecological paradigm** - 58.75 mean equals a high score indicating pro-ecological paradigms

**Controlled Beliefs**
- **Controlled**
- **Beliefs**

**Activity** - Surfing
- **Controlled**
- **Beliefs**

65% of participants did not believe that they knew how to advocate for the environment.

**Advocacy**
- More they are led to advocate
- More participant takes action
- More participant change occurs
- More the participant change is seen
- More the participant change is perceived

27% involved environmental advocacy for the environment.

**Environment**
- **Environment**
- **How to advocate for the environment**
- **Believe that they knew**

**Behavioral**
- **Behavior**
- **Toward**
- **Attitude**

**Intention**
- **Intention**

**Norm**
- **Norm**

**Subjective Norm**
- **Subjective Norm**

**Perceived Behavioral Control**
- **Perceived Behavioral Control**

**Behavioral**
- **Behavior**
- **Toward**
- **Attitude**

**Intention**
- **Intention**

**Norm**
- **Norm**

**Subjective Norm**
- **Subjective Norm**

**Perceived Behavioral Control**
- **Perceived Behavioral Control**

**Behavioral**
- **Behavior**
- **Toward**
- **Attitude**

**Intention**
- **Intention**

**Norm**
- **Norm**

**Subjective Norm**
- **Subjective Norm**

**Perceived Behavioral Control**
- **Perceived Behavioral Control**

**Behavioral**
- **Behavior**
- **Toward**
- **Attitude**

**Intention**
- **Intention**

**Norm**
- **Norm**

**Subjective Norm**
- **Subjective Norm**

**Perceived Behavioral Control**
- **Perceived Behavioral Control**
Figure 29 Scuba Divers Spiritual Relationship with Advocacy

Attitude Toward the Environment

Behavioral Beliefs

Behavioral Intention

Subjective Norm

Perceived Control

Environmental connectedness with the dive leads to a greater personal spirituality change. The more the participant diving leads to a positive personal spirituality change.

New ecological paradigms: Score mean 53.85 indicates a high ecological paradigm. 32.5% of participants involved in advocacy for the environment.

Spiritual experience determined by: BEHAVIOURAL BELIEFS

NORMATIVE BELIEFS

CONTROL BELIEFS

32.5% Involved in environment advocacy

Attitude toward the environment, recreation activity - scuba diving.

Recruitment factors: being in nature, being away.

Setting: overall rating of the dive - scuba diving activity.

Factors: socio-demographics, education and history and circumstances.

Comparisons: to other dives - spiritual tradition.

Spiritual tradition: intrinsic spirituality, comparison.

Normative beliefs:

Behavioral beliefs:

Perceived control for the environment: 58.3% of participants did not believe they knew how to advocate. 32.5% of participants involved in advocacy.
5.5 Implications of Research

Previous research literature on recreation, natural and spiritual experience has placed a heavy emphasis on spirituality and leisure activities within the wilderness, but has failed to address the spirituality of both marine and urban environments through recreational activities, the existence of marine wilderness, the spiritually specific motivations of surfers and divers, the links between spirituality, ecological paradigms, and advocacy for the environment, and the importance of place bonding being intertwined with spirituality and leisure activities.

This research has shown that both marine and urban marine environments can lead to a spiritual experience; that location is not the only factor that affects spirituality. None of the sites surveyed were heavily contaminated, polluted, or had other negative factors that would take away from the site; therefore be it marine wilderness or urban recreation all locations seemed to be viable options for spiritual experiences as shown from the SEA scores. The participation at polluted sites would be limited at best, indicating by the large participation at the sites surveyed that they did possess some intrinsic quality or 'place processes' that were a draw to participants. Many participants identified the locations that were surveyed as spiritual locations. Previous research done thus far is lacking in identifying the generally that marine area can be an area of wilderness that is arguably just as powerful spirituality, as a terrestrial wilderness. This research is one of only a few known that explicitly state spirituality as its own motive for participating in the activities. The result of having a spiritual experience can lead through the factors of normative, behaviour, and control beliefs to intention to advocate and then advocacy. The lack of participants' knowledge on how to advocate for the environment, leads one to believe that if the perceived level of control over the behaviour was increased so might the level of advocacy. The same could be true of continued campaigns to improve the pro-ecological paradigm for New Zealand, which the NEP pro-ecological paradigm has shown to have a direct link with increased advocacy. Little can be done without the consideration of place bonding, as this has been shown to be intertwined with spirituality and leisure activities. It has been identified that place bonding involves both the location and the individual; while this research has also shown that the leisure activity involved also is part of the equation leading to a spiritual experience (see section 2.1.5).
5.6 Summary

When analysing the outliers for each activity certain factors presented themselves that while they may have not correlated with the SEA, they appear to play a role in the outlier scores. Both activities had a few similarities in the low outliers. The surfers and divers showed that 'spiritual tradition' was a factor for the low scores. Items such as low Intrinsic Spirituality Scores, lack of a 'currently practised religion', not 'believing in God', and lack of spiritual 'motivation' all were indications of reasons for the low SEA score. Each activity had a few other factors specific to each activity that was discussed more in-depth above that came into play. When it came to the high outliers, both activities were ruled by 'spiritual tradition' and spiritual 'motivation'. When it came to 'fear', it played a dual role that either inhibited or enhanced depending if the participant overcame the 'fear' or if the 'fear' manifested into reality.

Both surfing and scuba diving did have varying degrees of spiritual experiences that when combined with the NEP, or normative belief, behaviour beliefs, and the perception of control over environmental advocacy, led to an intention to advocate. While links between high NEP scores and advocacy led to increased advocacy, very little advocacy was actually done. Through the Theory of Planned Behavior it is possible to see the limiting factors toward advocacy. These results showed high behaviour beliefs toward advocacy, high normative beliefs, and low control beliefs. Thus indicating that through improved control beliefs the increase in intention could happen, which may lead to advocacy for the environment.

As literature indicated, and in line with that, this research has shown that the location, individual, and activity are all factors that affect the possibility of a spiritual experience. Implications of this research are vast as this is a beginning on a very broad and intricate possibility of research topics.
Chapter 6
Conclusion

6.1 Introduction
This final chapter will review the original research questions and draw conclusions in relation to them. It will then summarize the major argument of the research, comment on the implications for theory, and suggest future research considerations.

6.2 Research Questions
This research investigated whether recreational users in the marine environment, namely surfers and scuba divers, have spiritual experiences while participating in their activities, identified factors that might influence this experience, and determined if this spiritual experience led to environmental advocacy. As there is little research exploring the relationships between these leisure activities and spirituality and in connection to environmental advocacy, this study has the potential to inform policy makers when developing coastal management plans.

Specifically, the following specific research questions were identified:

- How often do surfers and scuba divers have a spiritual experience while participating in their activity?
- What factors influence that potential experience?
- Is there a relationship between spiritual experiences occurring within the activities, ecological paradigms, and advocacy for the environment?

The existence in popular culture of stories emphasising the spiritual dimensions of surfing and diving formed a basis for assuming that spiritual experiences occurred for members of these groups, but it was not clear if this was a minority of people. Nor was it clear whether such experiences led to or strengthened pro-ecological worldviews and subsequent advocacy action. The methodology adopted was therefore driven by the need to establish some degree of generalisation from the research. Consequently, a quantitative survey approach, using predominantly Likert scale questions and combining relatively recently developed measures of spirituality, ecological attitude and dominant ecological paradigms
was utilised. The focus of the research on surfing and diving spirituality and the combination of these methods to explore this phenomenon are novel features of the research. So also was the modification made to the spirituality measuring tool to enable spiritual experiences to be assessed. When researching spirituality a working definition of spirituality was created, based on literature reviewed, to mean a relationship with a power greater than oneself, the interpretation of which was individual to each person. Spirituality differed from religion in that it subsumes religion. When dealing with natural resource management and spirituality the difference between a sacred site and a spiritual site was that a sacred site was often associated with a religious event, historically, for example, Bethlehem. Where as a spiritual site can be anywhere a person has spiritually place bonded with a site, as shown by this research. The basis for measuring spirituality was the Daily Spiritual Experience Scale, as originally developed by Underwood, but modified to have a less ‘religious’ feel and to make it specifically applicable to post-leisure activity measurement. This was the Spiritual Experience Assessment (SEA) tool applied in this research.

Such an approach has inherent limitations in terms of depth and the demonstration or proof of causal connections, and those resulting from the nature and size of the surveyed population (74 surfers, 83 divers, mostly non-Maori New Zealanders 18 years or older). In the latter regard, it was notable that relatively few women participated in either activity, but the samples appeared to represent the levels of participation in both activities in the groups surveyed. However, within the context of a Master's Degree thesis, these limitations were considered acceptable and the results were able to be analysed using standard statistical techniques and tests of significance. The results of the research were then discussed through the lens of Heintzman (2010) and drawing on Ajzen & Fishbein's (2005) ‘Theory of Planned Behavior’.

The results showed that most surfers and divers experienced a spiritual experience while participating in their sport. The factors identified by Heintzman (2010) showed little correlation with the SEA or NEP. A few factors did show correlations especially in the spiritual tradition area, as would be expected. There was a pro-ecological response to the NEP by those participating in both activities. While surfers and divers did not show a direct link between the SEA and advocacy, the connected can be directly found through the provided modified version of the Theory of Planned Behavior. The participants indicated
that the activities led them to advocacy as well as other behaviour beliefs such as that they believed they had experienced a positive personality changes. While the participants believed that the activity led to advocacy there was a significant portion of both activities that indicated they did not know how to advocate for the environment.

In terms of the first research question, the results demonstrated that not only were spiritual experiences significantly present among both groups’ experiences of participating in their activities, but also for many surfers it was the spiritual connection associated with surfing that was a motivation for participation in the activity. Surfers had a much higher mean SEA score than divers. The reason for this higher SEA score for surfers can be explained by the second research question. As addressed through the model of Heintzman (2010), antecedent, setting, and recreation factors were investigated. The antecedent factor of spiritual tradition played a significant role in the SEA scores. The setting factors brought to light how important it was to be away from the participants’ everyday lives and that place bonding was an inter-connected with spiritual connection to a site. The recreation factor highlighted that there are differences between activities based on SEA scores. Addressing the third question regarding ecological paradigms and advocacy, both activities showed that the higher the NEP score, the more involved the participants were with advocacy. When the NEP scores were utilised through the lenses of the ‘Theory of Planned Behavior’, the NEP (normative beliefs) combined with the behavioural beliefs that the participants indicated, and the control beliefs; these three factors led to intention to advocate. However, while this led to strong intentions to advocate, few actually did advocate and, amongst the divers, this appeared to be diverted into stewardship rather than advocacy.

6.3 Conclusions Regarding Theories

Heintzman’s (2010) conclusion that spiritual experiences in the wilderness require the individual (antecedent conditions), the site (setting factors), and the type of activity (recreation factors), is supported by this research. While not all of the factors that Heintzman (2010) listed within each category correlated with a spiritual experience, the overall concept of the three categories did.

The individual is more likely to experience a spiritual experience if they are open-minded toward spirituality. The setting of the site, brought to light several issues with previous research, which has focused on wilderness as the source of spiritual experiences. Whether
the marine areas considered in my research are wilderness or not is somewhat moot, as the participants reported spiritual experiences. The need for marine wilderness did not show to be necessary in this research, as urban recreation areas were just if not more conducive to spiritual experiences.

The concept of place bonding was intertwined with this research in such a way as to indicate the possibility of spiritual connection through all types of place bonding. The differences between the two activities, one submerged, one on top of the water, and both essentially non-consumptive, surfing being more of an adrenaline activity versus diving, all support Hammit et al.’s (2006) view that the type of recreational activity does have an effect on the spiritual connection to a site.

The Theory of Planned Behavior provided some insight on how to improve the enhanced achievement of the goal of motivation of advocacy for the environment. The continued education of the public on how they can advocate may lead to improve level of intention and thereby advocacy. It was confirmed that through behavioural and normative beliefs, the intention (to advocate) is relatively high, but still there was low advocacy rates. This indicates that the lack of knowledge on how to advocate might be the limiting factor for some participants.

6.4 Future Research

Future research needs to be undertaken on many areas that were highlighted by this research. Methodologically, there is a need for additional research on the quantitative measurement of the SEA, and its applicability for other leisure activities, as well as, the adaption of the SEA to a pre and post measurement scale. Substantive research, applying the methodology used here, to other marine leisure activities to determine if it is just surfing and diving that has spiritual experiences. Similarly, there is a need to test in other countries with different socio-cultural paradigms and biophysical locations and issues. Literature and past research would indicate that the wilderness is a vast source of spiritual experiences but what about consumptive activities, such as fishing, or activities that do not immerse the participant within the natural environment, such as tennis. The link between leisure and advocacy requires additional research, especially in relation to the role of organisationally or facilitation dominated activities and those that are more individually oriented with self-facilitation to help isolate certain factors such as facilitation, solitude, free time, and group
experience. Policy makers, environmentalists, and many participants in the activity would find it useful to turn intentionality into advocacy action in order to help protect the very locations where the activities take place. The link between advocacy and the spiritual connection requires further delineation between place bonding and leisure activity spirituality. The role of place bonding ‘belongingness’ appears to be more ambiguous than expected, especially given the difficulty in identifying specific places of high spirituality from the surveys and the potential difficulties this might pose for prioritising protection of surfing and dive spots on spiritual grounds. This research merely scratches the surface of possibilities in this field as discussed with the potential for future research.

6.5 Summary

International treaties, declarations, and conventions have recognised peoples’ relationship with the environment, but this has largely been in terms of indigenous peoples and specific historically important locations. They do not preclude, however, recognising that non-indigenous and relatively recent arrivals may have spiritual relationships with the environment. Originally, spirituality was subsumed within the word culture since Indigenous people’s spirituality and culture are often intertwined. The movement is to now explicitly state spirituality separate from the word culture. As International treaties, declarations, and conventions can be one influence of countrywide legislation the importance of the human-nature relationship has been recognised in many countries, such as Peru, where the world's first spiritual park has been established. An example of a movement that enabled on spiritual reasons for protection to be recognised is the National Surfing Reserves in Australia, where one of the sites has been declared a part of Australia’s spiritual and cultural heritage. This international and countrywide explicit movement towards recognition of spirituality as a benefit of natural resources was one of the starting points for this research.

This research has demonstrated that spirituality is an important component of surfing and diving experiences, and these are two activities with very short histories largely dependent on technological developments and lifestyle changes over the last century. Recognising now that leisure activities such as surfing can help facilitate a spiritual experience and lead to advocacy for the environment raises significant policy issues.

The explicit expression of spirituality may be necessary so that all values can be included in public policy. This may mean the explicit inclusion of new stakeholders in the natural
resource management arena. There is also the need to recognise, manage, and protect the spiritual benefit that natural resources provide. This protection can be enhanced through increased advocacy for the environment. As the environment is advocated for, more protection is likely to occur protecting and enhancing the ability to participate in leisure activities.

While the complete understanding of the phenomena of a spiritual experience is not possible, as it lies in the realm of the intangible and subjectively personal, it is necessary to recognise that the phenomena of spiritual experiences are able to be measured in terms of their occurrence and the effect they have on the people for whom this is a reality. An understanding of spiritual experiences resulting from marine and other resource-based leisure activities, through research such as this, is needed in order to develop plans to implement and monitor public policies, which maintain the quality of the leisure activities and protect this newly recognised natural resource.

In order to maintain the potential for people to participate in activities that promote spiritual health, and to further protect the environment through increased activity resulting from an increase in advocacy, it is necessary to implement policies to protect these natural resources upon which these activities rely. The path for policy makers to follow for the inclusion of humans' spirituality as part of public policy has some precedents already established to follow. Public policy could start with the inclusion of the surfers and divers as applicants to be given the ability to submit to the RMA via spiritual reasons and adding to the RMA the inclusion of all peoples' spirituality as an area deserving of protection.
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Name=lincoln1&version=1.0

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Friends and Community of Ngawha v Minister of Corrections CA216/02. (2002).

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Appendix A

Surveys

Scuba Diving - Environmental Values and Spiritual Survey

SECTION 1 - ABOUT YOURSELF

1. Please indicate if you are male or female by ticking the appropriate box.
   - Male
   - Female

2. Please indicate which age category is appropriate.
   - 18 - 24 years
   - 25 - 29 years
   - 30 - 34 years
   - 35 - 39 years
   - 40 - 44 years
   - 45 - 49 years
   - 50 - 54 years
   - 55 - 59 years
   - 60 - 64 years
   - 65 - 69 years
   - 70 - 74 years
   - 75 - 79 years
   - 80 - 84 years
   - 85 - 89 years
   - 90 - 94 years
   - 95 - 99 years
   - 100 + years

3. Please indicate which country you live in:
   - New Zealand
   - Australia
   - Other (Please specify) ____________________

4. Please indicate your highest level of completed education:
   - Primary School
   - Secondary School
   - Vocational/Trade
   - University
   - Postgraduate
   - Other (Please specify)_____________________

5. What is your ethnicity (You may check more than one box):
   - Asian
   - European
   - Pacific
   - Maori
   - Pakeha
   - Other (Specify)__________

SECTION 2 - Diving

6. How many years have you been certified?
   - 0-1 years
   - 2-3 years
   - 4-5 years
   - 6-10 years
   - 10+ years

7. Approximately how many dives have you done?
   - 1-10 dives
   - 11-20 dives
   - 21-50 dives
   - 51-100 dives
   - 100+

8. What certifications do you hold? (Tick ALL that apply)
   - Open Water
   - Adventure Diver
   - Advanced Diver
   - Rescue Diver
   - Dive Master
   - Other specialty areas (Please specify)________________________________________________
9. The motivation or reason that you dive is: (Tick ALL that apply)

- Stress relief
- Connection/Enjoy Nature
- Fun
- Connection with family and friends
- Skill Development/learning
- Escape Personal Pressures
- Introspection
- Spiritual Connection
- Spear Gun Shooting or Hunting and Gathering
- Other (Please Specify) ____________________________________________________________________

10. Have you ever had a diving accident?

- Yes
- No

11. Do you belong to any Dive organisations? (Please specify) ____________________________________________________________________

12. Would you like to be a member of a Dive organisation? (You will not be contacted by anyone regarding this)

- Yes
- No

---

### Section 3 - Spiritual Background/Beliefs

This survey uses the word “God” to represent a spiritual deity, but please replace the word “God” with anything that feels more suited to YOUR spiritual beliefs. This may be higher power, spirit of the universe, Buddha, or any other wording that you believe to be consistent with your beliefs.

13. What religion, if any, were you brought up with?

- None
- General Spirituality
- Bahá’í
- Buddhism
- Christianity
- Daoism
- Hinduism
- Jainism
- Judaism
- Islam
- Shinto
- Sikhism
- Zoroastrianism
- Other (Please Specify) __________

14. What religion, if any, do you practise now?

- None
- General Spirituality
- Bahá’í
- Buddhism
- Christianity
- Daoism
- Hinduism
- Jainism
- Judaism
- Islam
- Shinto
- Sikhism
- Zoroastrianism
- Other (Please Specify) __________

15. Do you believe in God or a higher power, something that is “larger than human”?

- Yes
- No
- Not Sure

16. Circle the number that represents your level of feeling towards one end of the sentence completion or the other.

A. In terms of the questions I have about life, my spirituality answers

<table>
<thead>
<tr>
<th>no questions</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>absolutely all my questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Growing spiritually is</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>more important than anything else in my life</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>of no importance to me</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>C. When I am faced with an important decision, my spirituality</th>
</tr>
</thead>
<tbody>
<tr>
<td>plays absolutely no role</td>
</tr>
<tr>
<td>is always the overriding consideration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Spirituality is</th>
</tr>
</thead>
<tbody>
<tr>
<td>the master motive of my life, directing every other aspect of my life</td>
</tr>
<tr>
<td>not part of my life</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>E. When I think of the things that help me to grow and mature as a person, my spirituality</th>
</tr>
</thead>
<tbody>
<tr>
<td>has no effect on my personal growth</td>
</tr>
<tr>
<td>is absolutely the most important factor in my personal growth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F. My spiritual beliefs affect</th>
</tr>
</thead>
<tbody>
<tr>
<td>absolutely every aspect of my life</td>
</tr>
<tr>
<td>no aspect of my life</td>
</tr>
</tbody>
</table>

---

**Section 4 - This Dive**

17. Dive site: ________________________________________________________________

18. Would you consider current conditions to be:

- [ ] Excellent
- [ ] Good
- [ ] Fair
- [ ] Poor

19. Would you consider visibility conditions to be:

- [ ] Excellent
- [ ] Good
- [ ] Fair
- [ ] Poor

**Section 4 - This Dive Continued**

**20. Circle the number that best corresponds to your experience**

A. After or during this dive, I feel my awe or amazement over God's creation in nature:

- to be the same as pre-dive | 0 1 2 3 4 5 6 7 8 9 10 |
- to be significantly increased |

B. After or during this dive, I feel

- completely thankful and appreciative of the experience | 10 9 8 7 6 5 4 3 2 1 0 |
- no change in my level of appreciation |

C. After or during this dive, I feel
<table>
<thead>
<tr>
<th>Peace, joy or a new happiness that I did not have before</th>
<th>10 9 8 7 6 5 4 3 2 1 0</th>
<th>The same level of peace, joy and happiness as before</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. After or during this dive, I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No greater connection with God or a Higher power</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>I feel completely connected with God or a Higher Power</td>
</tr>
<tr>
<td>E. After or during this dive, I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A completely new &quot;go with the flow&quot; attitude</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>The same level of &quot;go with the flow attitude&quot; as pre-dive</td>
</tr>
<tr>
<td>F. After or during this dive I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No increase in the clarity of the purpose to my life</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Complete clarity to the purpose of my life</td>
</tr>
<tr>
<td>G. After or during this dive I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A new feeling of complete acceptance of myself and others</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>The same level of acceptance of myself and others as pre-dive</td>
</tr>
<tr>
<td>H. After or during this dive I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The same level of selfishness or unselfishness, as I had pre-dive</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>A new feeling of being completely unselfish</td>
</tr>
<tr>
<td>I. After or during this dive I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A new feeling of complete strength to face my life</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>The same level of strength to face my life as pre-dive</td>
</tr>
<tr>
<td>J. After or during this dive I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The same level of love for myself and others</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>A new feeling of complete love for myself and others</td>
</tr>
<tr>
<td>K. After or during this dive, I feel my place in this world is the same as pre-dive</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>Is completely understood</td>
</tr>
<tr>
<td>L. After or during this dive, my motivation to help preserve nature increased dramatically</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>Did not change</td>
</tr>
<tr>
<td>M. After or during this dive I feel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A racing mind, full of thoughts</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>A quiet mind, peaceful</td>
</tr>
</tbody>
</table>

20. Circle the number that best corresponds to your experience

N. After or during this dive I feel: |

| The same disconnection of level or connection I felt before the dive with everything | 0 1 2 3 4 5 6 7 8 9 10 | I feel a new feeling of total connection with everything |
O. After or during this dive I feel:
the same level of harmony or acceptance my life as pre-dive

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<th>1</th>
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I feel a new feeling of complete harmony or acceptance of my life

P. After or during this dive I feel:
everything is taken care of by God or a Higher Power

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<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
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</table>

I have to take care of everything

Q. After or during this dive I feel:
a new feeling of complete patience and tolerance

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<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
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the same level of patience and tolerance

R. After or during this dive I feel:
the same level of kindness, giving and willing to help as I had pre-dive

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<th>0</th>
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<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

A new feeling of being completely kind, giving, and willing to help

S. After or during this dive I feel:
the same level of courage to face life as pre-dive

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<thead>
<tr>
<th>0</th>
<th>1</th>
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<th>8</th>
<th>9</th>
<th>10</th>
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</thead>
</table>

A new feeling of complete courage to face life

T. After or during this dive I feel:
the same level of love for God or my Higher Power as I did pre-dive

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
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<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

A new feeling of complete love for God or my Higher Power

Do you agree or disagree with the following statements:

21. I feel a positive personality change from pre-dive to post dive:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Agree

22. The more I dive the more I notice a personality change that happens with each dive.

<table>
<thead>
<tr>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
</table>

Disagree

23. The activity of diving creates a greater connection with me and the environment.

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Agree

24. What was your overall rating of this dive experience?

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<tr>
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<th>3</th>
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<th>7</th>
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<th>10</th>
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</thead>
</table>

Amazingly good experience

25. How does this dive location rate compare to other places you have been diving?
26. How did you feel about the explanation of the dive and instructions given by the dive master/boat captain?

27. The activity of diving leads me to advocacy for the environment.

28. How involved are you in advocacy for the environment?

29. Despite having a buddy, did you feel alone while diving, solitude?

30. Did you feel that you had enough free time to explore things you wanted to look at?

31. Did you get the feeling that this was a group activity?

32. Before the dive did you have any fear or anxiety about the dive, if so what was the fear about? (Equipment or buddy issues, general fear or anxiety, fear of sharks, any other fears)

33. Did you have any issues with the dive such as equipment issues, issues with your buddy, or other issues that took away from the dive experience? If so, please state.
34. Is there a marine/coastal area that you have a spiritual connection to in New Zealand? (Please specify location, list as many as you feel connection with. If needed, list more on the back of the survey. Please be as specific as possible)

A. Where (City/Name of Area)__________________________________________________________________________
   Why__________________________________________________________________________

B. Where (City/Name of Area)__________________________________________________________________________
   Why__________________________________________________________________________

C. Where (City/Name of Area)__________________________________________________________________________
   Why__________________________________________________________________________

35. What factors influenced this dive to make it favourable or unfavourable?

Favourable Factors________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

Unfavourable Factors____________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________

36. After a dive, if you feel more spiritual or better, how long does this last and why do you think the feeling disappears if it does?
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
### Section 5 - Environmental Beliefs

#### 37. Do you agree or disagree that: (Circle only ONE number)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Mildly Disagree</th>
<th>Unsure</th>
<th>Mildly Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We are approaching the limit of the number of people the earth can support</td>
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<td>3. When humans interfere with nature it often produces disastrous consequences</td>
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<td>4. Human ingenuity will ensure that we do NOT make the earth unlivable</td>
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<td>8. The balance of nature is strong enough to cope with the impacts of modern industrial nations</td>
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<td>9. Despite our special abilities humans are still subject to the laws of nature</td>
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<td>10. The so-called &quot;ecological crisis&quot; facing humankind has been greatly exaggerated</td>
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<td>11. The earth is like a spaceship with very limited room and resources</td>
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<td>5</td>
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<td>12. Humans were meant to rule over the rest of nature</td>
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<td>5</td>
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<td>13. The balance of nature is very delicate and easily upset</td>
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<tr>
<td>14. Humans will eventually learn enough about how nature works to be able to control it</td>
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<tr>
<td>15. If things continue on their present course, we will soon experience a major ecological catastrophe</td>
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<td>5</td>
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</tbody>
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Section 6 - Advocacy

38. Do you advocate in any way for the environment? (Tick all that apply)

☐ No, If not, is it because you are unaware of how to help?  ☐ Yes  ☐ No
☐ Yes, through _____________________________________________ organisation
☐ Yes, I make submissions to council/environment court on behalf of the environment
☐ Yes, Other (Please specify)_______________________________________

39. If you are involved in advocacy what type of work for the environment have you done?

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

If there is anything you would like to add on diving and spirituality feel free to continue on the back to write any comments you would like.
SECTION 1 - ABOUT YOURSELF

1. Please indicate if you are male or female by ticking the appropriate box.
   - Male
   - Female

2. Please indicate which age category is appropriate.
   - 18 - 24 years
   - 25 - 29 years
   - 30 - 34 years
   - 35 - 39 years
   - 40 - 44 years
   - 45 - 49 years
   - 50 - 54 years
   - 55 - 59 years
   - 60 - 64 years
   - 65 - 69 years
   - 70 - 74 years
   - 75 - 79 years
   - 80 - 84 years
   - 85 - 89 years
   - 90 - 94 years
   - 95 - 99 years
   - 100 + years

3. Please indicate which country you live in:
   - New Zealand
   - Australia
   - Other (Please specify) ____________________

4. Please indicate your highest level of completed education:
   - Primary School
   - Secondary School
   - Vocational/Trade
   - University
   - Postgraduate
   - Other (Please specify)_____________________

5. What is your ethnicity (You may check more than one box):
   - Asian
   - European
   - Pacific
   - Maori
   - Pakeha
   - Other (Specify)__________

Section 2 - Surfing

6. How many years have you been surfing?
   - 0-1 years
   - 2-3 years
   - 4-5 years
   - 6-10 years
   - 10+ years

7. Approximately how many times do you surf in an average month?
   - 0-1 surfs
   - 2-4 surfs
   - 5-7 surfs
   - 8-10 surfs
   - 10+

8. What type of surfer would you consider yourself?
   - Beginner
   - Weekender
   - Amateur
   - Professional

9. The motivation or reason that you surf is: (Check ALL that apply)
   - Stress relief
   - Connection/Enjoy Nature
   - Fun
   - Connection with family and friends
   - Skill Development/learning
   - Escape Personal Pressures
   - Introspection
   - Spiritual Connection
   - Other (Please Specify)____________________________
10. Have you ever had a surfing accident that may have impacted your view of surfing in a negative manner?
☐ Yes  ☐ No

11. Do you belong to any Surf organisations? (Please specify)________________________

12. Would you like to be a member of a surf organisation? (You will not be contacted by anyone regarding this)
☐ Yes  ☐ No

---

**Section 3 - Spiritual Background/Beliefs**

This survey uses the word “God” to represent a spiritual deity, but please replace the word “God” with anything that feels more suited to YOUR spiritual beliefs. This may be higher power, spirit of the universe, Buddha, or any other wording that you believe to be consistent with your beliefs.

13. What religion, if any, were you brought up with?
☐ None ☐ General Spirituality ☐ Bahá’í ☐ Buddhism ☐ Christianity ☐ Daoism ☐ Hinduism ☐ Jainism
☐ Judaism  ☐ Islam  ☐ Shinto  ☐ Sikhism  ☐ Zoroastrianism  ☐ Other (Please Specify)_________

14. What religion, if any, do you practise now?
☐ None  ☐ General Spirituality  ☐ Bahá’í  ☐ Buddhism  ☐ Christianity  ☐ Daoism  ☐ Hinduism  ☐ Jainism
☐ Judaism  ☐ Islam  ☐ Shinto  ☐ Sikhism  ☐ Zoroastrianism  ☐ Other (Please Specify)_________

15. Do you believe in God or a higher power, something that is "larger than human"?
☐ Yes  ☐ No  ☐ Not Sure

16. Circle the number that represents your level of feeling towards one end of the sentence completion or the other.

A. In terms of the questions I have about life, my spirituality answers

<table>
<thead>
<tr>
<th>No questions</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>Absolutely all my questions</th>
</tr>
</thead>
</table>

B. Growing spiritually is
<table>
<thead>
<tr>
<th>more important than anything else in my life</th>
<th>10 9 8 7 6 5 4 3 2 1 0</th>
<th>of no importance to me</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. When I am faced with an important decision, my spirituality plays absolutely no role</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>is always the overriding consideration</td>
</tr>
<tr>
<td>D. Spirituality is the master motive of my life, directing every other aspect of my life</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>not part of my life</td>
</tr>
<tr>
<td>E. When I think of the things that help me to grow and mature as a person, my spirituality has no effect on my personal growth</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>is absolutely the most important factor in my personal growth</td>
</tr>
<tr>
<td>F. My spiritual beliefs affect absolutely every aspect of my life</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>no aspect of my life</td>
</tr>
</tbody>
</table>

**Section 4 - This Surf**

17. Surf site: _________________________________________________________

18. Would you consider conditions to be:
- Clean Surf
- Messy Surf
- Choppy Surf Conditions
- Flat Surf Conditions
- Stormy Surf Conditions

19. What was the height of the swell?
- 0-9 m
- 1.0 - 2.9 m
- 3 - 4.9 m
- 5+ m

**Section 4 - This Surf Continued**

20. Circle the number that best corresponds to your experience

A. After or during this surf, I feel my awe or amazement over God's creation in nature:
- to be the same as pre-surf | 0 1 2 3 4 5 6 7 8 9 10 |
- to be significantly increased |

B. After or during this surf, I feel completely thankful and appreciative of the experience | 10 9 8 7 6 5 4 3 2 1 0 |
- no change in my level of appreciation |

C. After or during this surf, I feel
<table>
<thead>
<tr>
<th>Question</th>
<th>Description</th>
<th>10 9 8 7 6 5 4 3 2 1 0</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>peace, joy or a new happiness that I did not have before</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>the same level of peace, joy and happiness as before</td>
<td></td>
</tr>
<tr>
<td>D. After or during this surf, I feel:</td>
<td>no greater connection with God or a Higher power</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>I feel completely connected with God or a Higher Power</td>
</tr>
<tr>
<td>E. After or during this surf, I feel:</td>
<td>a completely new &quot;go with the flow&quot; attitude</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>the same level of &quot;go with the flow&quot; attitude as pre-surf</td>
</tr>
<tr>
<td>F. After or during this surf I feel:</td>
<td>no increase in the clarity of the purpose to my life</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>complete clarity to the purpose of my life</td>
</tr>
<tr>
<td>G. After or during this surf I feel:</td>
<td>a new feeling of complete acceptance of myself and others</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>the same level of acceptance of myself and others as pre-surf</td>
</tr>
<tr>
<td>H. After or during this surf I feel:</td>
<td>the same level of selfishness or unselfishness, as I had pre-surf</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>A new feeling of being completely unselfish</td>
</tr>
<tr>
<td>I. After or during this surf I feel:</td>
<td>a new feeling of complete strength to face my life</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>the same level of strength to face my life as pre-surf</td>
</tr>
<tr>
<td>J. After or during this surf I feel:</td>
<td>the same level of love for myself and others</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>A new feeling of complete love for myself and others</td>
</tr>
<tr>
<td>K. After or during this surf, I feel my place in this world is the same as pre-surf</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>is completely understood</td>
<td></td>
</tr>
<tr>
<td>L. After or during this surf, my motivation to help preserve nature increased dramatically</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td>did not change</td>
<td></td>
</tr>
<tr>
<td>M. After or during this surf I feel:</td>
<td>a racing mind, full of thoughts</td>
<td>0 1 2 3 4 5 6 7 8 9 10</td>
<td>a quiet mind, peaceful</td>
</tr>
</tbody>
</table>

20. Circle the number that best corresponds to your experience

N. After or during this surf I feel:  
the same disconnection of level or connection I felt before the surf with everything | 0 1 2 3 4 5 6 7 8 9 10 | I feel a new feeling of total connection with everything |

O. After or during this surf I feel:
Do you agree or disagree with the following statements:

21. I feel a positive personality change from pre-surf to post-surf:
   | Disagree | Agree |
   | 0 1 2 3 4 5 6 7 8 9 10 |

22. The more I surf the more I notice a personality change that happens with each surf.
   | Agree | Disagree |
   | 10 9 8 7 6 5 4 3 2 1 0 |

23. The activity of surfing creates a greater connection with me and the environment.
   | Disagree | Agree |
   | 0 1 2 3 4 5 6 7 8 9 10 |

24. What was your overall rating of this surf experience?
   | Not a good experience | Amazingly good experience |
   | 0 1 2 3 4 5 6 7 8 9 10 |

25. How does this surf location rate compare to other places you have been surfing?
   | Best site ever surfed | Worst site ever surfed |
   | 10 9 8 7 6 5 4 3 2 1 0 |

26. The activity of surfing leads me to advocacy for the environment.
   | Agree | Disagree |
   | 10 9 8 7 6 5 4 3 2 1 0 |

27. How involved are you in advocacy for the environment?
   | Never involved | Always Involved |
   | 0 1 2 3 4 5 6 7 8 9 10 |

28. Despite having other surfers around, did you feel alone while surfing, solitude?
   | Yes | No | Not Sure |

29. Did you feel that you had enough free time to surf how you wanted to surf?

☐ Yes  ☐ No  ☐ Not Sure

30. Did you get the feeling that this was a group activity?

☐ Yes  ☐ No  ☐ Not Sure

31. Before the surf did you have any fear or anxiety about the surf, if so what was the fear about? (Equipment, big waves, general fear or anxiety, fear of sharks, any other fears)

__________________________________________________________________________________________
__________________________________________________________________________________________
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32. Did you have any issues with the surf such as equipment issues, issues with other surfers, or other issues that took away from the surf experience? If so, please state.

__________________________________________________________________________________________
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33. Is there a marine/coastal area that you have a spiritual connection to in New Zealand? (Please specify location, list as many as you feel connection with. If needed list more on the back of the survey. Please be as specific as possible)

A. Where (City/Name of Area)__________________________________________________________________________
   Why____________________________________________________________________________

B. Where (City/Name of Area)__________________________________________________________________________
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34. What factors influenced this surf to make it favorable or unfavorable?

FavourableFactors__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
35. After surfing, if you feel more spiritual or better, how long does this last and why do you think the feeling disappears if it does?

Section 5 - Environmental Beliefs

36. Do you agree or disagree that: (Circle only ONE number)

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<tr>
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<th>Strongly Disagree</th>
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**Section 6 - Advocacy**

37. Do you advocate in any way for the environment? (Tick all that apply)

- [ ] No, if not, is it because you are unaware of how to help?  
- [ ] Yes  
- [ ] No

- [ ] Yes, through _____________________________________________organisation
- [ ] Yes, I make submissions to council/environment court on behalf of the environment
- [ ] Yes, Other (Please specify)_______________________________________

38. If you are involved in advocacy what type of work for the environment have you done?

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________

If there is anything you would like to add on surfing and spirituality feel free to continue on the back to write any comments you would like.
## Appendix B

### Survey Question Groupings

<table>
<thead>
<tr>
<th>Element or Factor Addressed via Survey</th>
<th>Number of Survey Questions for Scuba Divers</th>
<th>Number of Survey Questions for Surfers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Spiritual Experience via SEA</strong></td>
<td></td>
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<tr>
<td>Antecedent</td>
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<tr>
<td>History and Circumstance</td>
<td>#10, 13,14,15,25,32</td>
<td>#10,13,14,15,25,31</td>
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<tr>
<td>Motivation and Attitude</td>
<td>#9</td>
<td>#9</td>
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<tr>
<td>Socio-Demographics</td>
<td>#1,2,3,4,5</td>
<td>#1,2,3,4,5</td>
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<td>Spiritual Tradition</td>
<td>#13,14,15,16</td>
<td>#13,14,15,16</td>
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<tr>
<td>Place Processes</td>
<td>#18,19,24</td>
<td>#18,19,24</td>
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<tr>
<td>Setting</td>
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<tr>
<td>Recreation Component</td>
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<tr>
<td>Activity</td>
<td>#6,7,8,18,19,24,33,35</td>
<td>#6,7,8,18,19,24,32,34</td>
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<tr>
<td>Free Time</td>
<td>#30</td>
<td>#29</td>
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<tr>
<td>Solitude</td>
<td>#29</td>
<td>#28</td>
</tr>
<tr>
<td>Group Experience</td>
<td>#31</td>
<td>#30</td>
</tr>
<tr>
<td>Facilitation</td>
<td>#26</td>
<td>Not applicable</td>
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<tr>
<td>Location</td>
<td>#17</td>
<td>#17</td>
</tr>
<tr>
<td>Setting</td>
<td></td>
<td></td>
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<tr>
<td>Spiritual</td>
<td>#34</td>
<td>#33</td>
</tr>
<tr>
<td>Connection to Site</td>
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<tr>
<td>Recreation Component</td>
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<td></td>
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<tr>
<td>Activity</td>
<td>#21</td>
<td>#21</td>
</tr>
<tr>
<td>Positive personality change</td>
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<td></td>
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<tr>
<td>More participation leads to more positive personality change</td>
<td>#22</td>
<td>#22</td>
</tr>
<tr>
<td>Activity leads to advocacy</td>
<td>#27</td>
<td>#26</td>
</tr>
<tr>
<td>Length of Spiritual Feeling and why disappears</td>
<td>#36</td>
<td>#35</td>
</tr>
<tr>
<td>5. Control Beliefs</td>
<td></td>
<td></td>
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<tr>
<td>Ability to advocate for environment</td>
<td>#38</td>
<td>#37</td>
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<tr>
<td>6. Normative Beliefs</td>
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<tr>
<td>NEP</td>
<td>#37</td>
<td>#36</td>
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<td>7. Advocacy</td>
<td>#11,12,23,27,28,37,38,39</td>
<td>#11,12,23,26,27,36,37,38</td>
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</tbody>
</table>
Appendix C

Spiritual Sites for Scuba Divers and Surfers

**Spiritual Sites Indicated by Scuba Divers**

List of sites coastal/marine areas that scuba divers have a spiritual connection with followed by number of participants that named that location:

**Reason for Spiritual Connection**

1. **Home/Grew up there/ Holiday home**
   - Stewart Island - 1
   - Maketu - 1
   - Hatepe -1
   - Whangarei heads, Ocean Beach -1
   - Woolleys Bay -1
   - Coromandel Peninsula - 2
   - Pataua -1
   - Whangarei Harbour -1
   - Wellington -1

2. **Ashes of Family Member Spread There**
   - Hatepe -1 (same participant as listed under reason one)
   - Whakatane - 1

3. **Beauty/Untouched/Serene/Sacred**
   - Marlborough Sounds - 1
   - Island Bay -1
   - Great Barrier Island -1
   - Three Kings Island -1

4. **Good Dive Location**
   - South Coast -1
   - Tutukaka/Poor Knights - 1
   - Bay of Island - 1

5. **Miscellaneous**
   - Kaikoura - 1
   - St. Clair, Dunedin - 1
   - Catlins -1
   - South Coast -1
   - Tutukaka - 4
   - Island Bay -1
   - Matai Bay -1
   - Bay of Island -1
   - Wellington -1
   - Mahia Peninsula - 1
   - Raglan Coast - 1
6. No Reason Why Given
   Cape Foul - 1
   Haast - 1
   Stewart Island -1
   Browns Bay -1

**Spiritual Sites Indicated by Surfers**

List of sites coastal/marine areas that surfers have a spiritual connection with followed by number of participants that named that location:

**Reason for Spiritual Connection**

1. **Home/Grew up there/ Holiday home**
   Kaikoura -1
   Christchurch -1
   Waikuku Beach -1
   Raglan - 5
   Taranaki - 5
   Baylys Beach -1
   Northland -1
   Eastbourne Coastline, Wellington -1
   Sugar Loaf Islands, New Plymouth - 1
   Marokopa -1
   Tawharanui Peninsula - 1
   Gisborne - 1
   Hot Water Beach, Coromandel -1

2. **Ashes of Family Member Spread There**
   Sumner, Scarborough -1
   Taranaki -1

3. **Beauty/Untouched/Serene/Sacred**
   Kaikoura - 3
   Dunedin - 2
   Hickory Bay, Banks Peninsula - 1
   Raglan - 1
   Piha - 1
   Matakanaka Island -1
   Elliot Bay, Northland -1
   Loisel, East Cape - 1
   Opoutere, Coromandel -1
   Ruapuke - 2
   Whangamata - 2
   Manu Bay - 1
   Great Barrier Island - 1
   Karekare - 2
4. Good Surf Location
   Raglan - 3
   Sandy Beach, Northland -1
   Piha - 2
   Taranaki - 1
   Cape Palliser, Wellington -1
   Fitzroy Beach - 3
   Whangamata - 1
   Gisborne -1
   Mount Taranaki -1
   Every Surf Location -1

5. Miscellaneous
   Piha - 1
   Taranaki - 1
   Baylys Beach -1
   Shipwreck Bay - 1
   Whole Country -1
   Foreshore -1
   All coastal areas -1

6. No Reason Why Given
   Kaikoura -2
   St. Clair, Dunedin -1
   New Brighton, Christchurch -1
   Sumner, Scarborough - 1
   Hickory Bay, Banks Peninsula -1
   Gore Bay -1
   Makaraka, Gisborne -1
   Raglan - 1
   Taranaki- 1
   Bay of Islands -1
   Tawharanui Peninsula -1
   Great Barrier Island - 1