



THE UNDERSTANDING AND PRACTICE OF SUSTAINABLE SURF TOURISM

A comparative case study of Manly and Noosa, Australia

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Cover image: Author's own photo taken during fieldwork in Manly, November, 2019.

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Preface

This thesis was the last step I needed to take to graduate from the Master Tourism, Society and Environment. It combines one of my greatest hobbies, surfing, and a place I always dreamed of going to: Australia. Doing fieldwork in this amazing country has been a good choice and I am grateful for the experience and all the things I have learned. Doing research at the beach in Manly and Noosa really felt like a holiday! I hope you enjoy reading my master thesis as much as I did writing it.

It must be noted that the fieldwork for this thesis is conducted in October and November 2019, before the Covid-19 pandemic started. Therefore, all the data I obtained contains information that might not be up to date anymore, as the pandemic has much influence on the tourism industry. If and how the tourism industry will recover is uncertain, but I hope the findings of this research can in some way contribute to a sustainable (re)development of surf tourism.

Acknowledgements

Writing this thesis would not have been possible without the support, critical feedback and good ideas from my supervisor Emmanuel Adu-Ampong. I want to thank him for the guidance and all the feedback on my work and the thesis process, while giving me the space to make it my own research.

Furthermore, I would like to thank all the people I interviewed for their input and sharing their ideas and perspectives with me. Without your contribution, doing this research would not have been possible. I enjoyed the interesting conversations we had, sometimes at amazing places like the beach!

Also many thanks to my family for always supporting me in many ways, you mean a lot to me. Last I want to thank my friends, for supporting me, celebrating milestones together and for just being there. I want to specially thank Conrad for his great support and for joining me to Australia, making the fieldwork feel like an adventurous trip!

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Abstract

Surfing is a growing activity worldwide and it is intimately intertwined with tourism, as surfers are always in search of good waves. Surfing has become a significant part of the tourism industry on all geographical scales. Same as other tourism sectors, the increase of surf tourism causes various economic, sociocultural and environmental problems. To prevent unfavourable influences and to increase the value of surf tourism for local communities, a sustainable approach to the surf tourism industry is necessary. For a successful sustainable approach, a variety of stakeholders need to be involved in the process. This involvement is important as tourism development is a fragmented domain where collaboration and coordination between the many stakeholders in a tourism destination is needed.

The objective of this thesis is to get insight into the understanding and practice of sustainable surf tourism in Manly and Noosa, two surf tourism destinations in Australia. These case studies were chosen because they are popular surf tourism destinations and have many economic benefits from surf tourism. Furthermore, these places have good surf breaks and an important surf culture and history. As a basis for this research, literature about sustainable surf tourism, stakeholder involvement and ways to measure sustainable surf tourism in the form of different frameworks is reviewed. Surf tourism has three different impacts that are important for the sustainability: economic, sociocultural and environmental impacts. These three concepts, together with the concept of stakeholder involvement and the indicators for sustainable surf tourism derived from the Surf Resource Sustainability Index (SRSI), formed the basis for the conceptual framework. In this thesis, a qualitative, comparative case study approach is used. By conducting 12 interviews and doing observations and document analysis, insights about the sustainability of surf tourism in Manly and Noosa have been found.

Many of the surf tourism stakeholders find it difficult to practice sustainability, as they benefit from surf tourism and do not want the numbers to decrease. In general, the stakeholders agree that surf tourism in both Manly and Noosa is relatively sustainable at the moment. However, there are some challenges for the sustainability in the future. These challenges are mainly about the management of crowds due to an increasing number of surf tourists, targeting a higher yield segment of surf tourists and about future environmental impacts from surf tourism, locally as well as globally. There are some differences between the cases of Manly and Noosa, mainly related to the geographical location of these places. Manly is an urban area, while Noosa is located in a more natural area. This, together with the history of environmental activism in Noosa, makes that the stakeholders here are more active in protecting the surf breaks than the stakeholders in Manly. This research shows that the surf tourism stakeholders have an understanding of sustainable surf tourism, but that there are some challenges around the practice of it. Recommendations for further research and practice are given in the conclusion.

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1. Introduction

Surfing originated more than a thousand years ago in Hawaii as a work-based skill for fishermen, but soon evolved to a leisure activity. In 1915, surfing was introduced in Australia by the Hawaiian Duke Kahanamoku and the activity became more and more popular around the world (Fendt & Wilson, 2012). At the moment, the number of surfers and surf destinations is still growing, and surfing virtually takes place in every country with a surfable coastline (Sotomayor & Barbieri, 2016). Surfing as an activity is intimately intertwined with tourism, as surfers are always in search of good waves (Ponting & O'Brien, 2014). It has become a significant part of the tourism industry, on a regional, national and global basis (Fluker, 2003) and surf tourism is a rapidly expanding market segment of the wider sport tourism industry (Martin & Assenov, 2012). This makes that surf tourism has become a social phenomenon of sufficient economic, social and environmental significance to justify academic attention (Buckley, 2002a).

The sustainability of tourism is becoming a more important research field, as tourism activities can cause various economic, sociocultural and environmental problems (Tanguay, Rajaonson, & Therrien, 2013). Also surf tourism has to deal with these problems, caused by the increasing interest of local surfers, surf tourists and other stakeholders in coastal zones (Martin & Assenov, 2014b). Surf tourism can have a lot of positive impact on the economy of a local surf site (Hritz & Franzidis, 2018). However, increasing numbers of surf tourists can also cause crowding of surf breaks (O'Brien & Ponting, 2013). This increase of crowds affect the social constructs within a surfing community, which surf tourists often do not understand. This can cause dangerous situations and behavioural issues among surfers (Buckley, 2002a). Furthermore, surf tourism impacts the environment by causing environmental degradation (Buckley, 2002a). It is necessary to think about the sustainability of surf tourism to prevent unfavourable influences and to increase the value of surf tourism for local communities (Machado, Carrasco, Pinto Contreiras, Duarte, & Gouveia, 2018).

To successfully implement sustainability in a tourism destination, a variety of stakeholders needs to be involved in the process (Ponting, McDonald & Wearing, 2005). It is important to involve multiple stakeholders, as a tourism destination compromises many stakeholders who have diverse views and values of tourism development (Jamal & Stronza, 2009). However, it can be hard to include all key stakeholders as tourism development is a fragmented planning domain (Jamal & Stronza, 2009). Because of this fragmentation, it is important to include stakeholders in the tourism planning and development process (Byrd, 2007) and collaboration and coordination between stakeholders is needed (Adu-Ampong, 2017).

This thesis will focus on the way surf tourism stakeholders understand sustainable surf tourism and the practice of it in two different places in Australia: Manly and Noosa. Freshwater Beach, which is next to Manly Beach, is the place where Duke Kahanamoku introduced surfing in Australia in 1915. Therefore, Manly is recognised as the birthplace of Australian surfing. Manly has a lot of 'firsts' in the Australian surfing history, which makes Manly an important surf site. For example in the 1890's it was the first place where body surfing was recorded, it had the first surf lifesaving club in 1903 and the first board riding in 1910. Furthermore, in 1964 the first World Championships of surfing were held in Manly (Save the Waves, n.d.a). When it comes to the surfing history of Australia, Manly can be seen as a surfing heritage site (Saves the Waves, n.d.a). Surfing is part of the identity of Manly and it made Manly what it is today (Manly Daily, 2015).

Noosa also knows a long surfing history. In Noosa, there was a surf lifesaving club established in 1931, Noosa Life Saving and Surf Club. The history of surfing on surfboards started in Noosa in the 1950s, when some surfers started to discover the potential of the point surf breaks of Noosa. Noosa

soon had its own local surfing community and from 1969 they had a boardriding club that began hosting national and international surfing contests (Save the Waves, n.d.b). Noosa has five world class point breaks, as well as three consistent beach breaks. Three of the five points breaks are within the boundaries of Noosa National Park, which is a protected natural area. Noosa knows a long history of environmental activism against developers to maintain the unique coastal environment (Save the Waves, n.d.b).

Both Manly and Noosa are popular tourism destinations for surf tourists, and experience many economic benefits from surf tourism (Northern Beaches Council, 2019b; Tourism Noosa, 2016). Not only stakeholders in Manly and Noosa, but also Australia in general does have economic benefits from surf tourism. Surfing is therefore increasingly promoted by Australian tourism organizations such as Tourism Australia. They promote surfing as a typical Australian marine-based experience (Fendt & Wilson, 2012). Manly and Noosa are chosen as case study because they have good surfing conditions, an important surf culture and history and are popular destinations among surf tourists.

Literature about the sustainability of surf tourism and stakeholder involvement has formed the basis for this thesis. A qualitative case study approach is used to investigate the understanding and practice of sustainability of surf tourism in Manly and Noosa. In two months of fieldwork, interviews were conducted with different surf tourism stakeholders, and observations and document analysis were done. Several surf tourism stakeholders were selected to participate in the research to get a good overview of the perception of different stakeholders.

It turned out that the stakeholders have different views about the sustainability of surf tourism, but that they all understand what sustainability of surf tourism means. There are however in both places some future challenges for the practice of sustainable surf tourism.

1.1. Research objective and research question

The objective of this research is to get insight into the sustainability of surf tourism in Manly and Noosa, the difference between the cases, the way different surf tourism stakeholders are involved and the future challenges. This may lead to a better understanding of how surf tourism stakeholders understand sustainable surf tourism and about how sustainability of surf tourism works in practice in developed countries such as Australia. This could help surf tourism stakeholders think about the sustainability of their practices. The main research question is as follows:

How is sustainable surf tourism understood and practiced in Manly and Noosa?

In order to answer the main question, three sub questions are being formulated:

1. *How is sustainable surf tourism perceived by local surf tourism stakeholders in Manly and Noosa?*
2. *What are similarities and differences between the two cases?*
3. *What are the main challenges to the future sustainability of surf tourism?*

1.2. Thesis outline

This research is structured in five chapters. Chapter 1 is the introduction, which gives background information on the research topic, the objective of this research and the research questions. Chapter 2 presents a literature review, which focusses on the concepts that will guide this thesis. These concepts are surfing and surf tourism, sustainable tourism, sustainability in surf tourism, stakeholder involvement and measuring the sustainability of surf tourism. Three categories of sustainability in surf tourism are being discussed, as well as different frameworks to measure the sustainability of surf tourism. Next to that, the influence of the involvement and collaboration of stakeholders is being reviewed. The chapter ends with the conceptual framework and an operationalisation of the main

concepts. Chapter 3 explains the methodological decisions that are made in the research approach. It also provides a description of the case studies. The chapter ends with a critical reflection on the validity, reliability and limitations of the research. Chapter 4 shows the findings of the study. First the findings of both case studies are described, followed by a comparison of both cases. Chapter 5 presents a discussion of the findings. The discussion is followed by the conclusions of the study to answer the research questions and to discuss the limitations, the practical applicability and what the results mean for future research.

2. Literature review and conceptual framework

In this chapter, literature on concepts that are used to design the conceptual framework of the research are reviewed. First, the concepts of surfing and surf tourism are being introduced. Second, literature about sustainable tourism is being reviewed. Third, sustainability in surf tourism is being introduced by reviewing three different impacts that are fundamental to sustainable tourism. Fourth, the influence of the involvement and the collaboration of different stakeholders is being discussed. Fifth, an overview of different frameworks for measuring the sustainability of surf tourism and the relevance of them for this study is given and discussed. This chapter will conclude with a conceptual framework of the theories that will be used in this research and an operationalisation of these concepts.

2.1. Surfing and surf tourism

Surfing as a leisure activity originated from the Hawaiian islands. The first surfers were fisherman who surfed the waves with their boats to go back to the beach with their catch. However, surfing by fisherman soon evolved to a leisure activity. This leisure activity caught the attention of the world (Fendt & Wilson, 2012). Surfing is generally defined as *“the act of riding an ocean wave while standing on a surfboard”* (Martin & Assenov, 2012, p. 257), but also includes other aspects of wave riding, like riding on a ‘bodyboard’ (surfing while lying down on a small board) or ‘bodysurfing’ (surfing a wave without a board) (Martin & Assenov, 2012).

The surf culture and lifestyle became more mainstream during the middle of the twentieth century, via the image building of numerous surf magazines and books, films and other surf industry related marketing productions (Krause, 2012). The number of surfers is estimated to grow with 12-16% per year, and also the number of surfing destinations is growing. In 1997, surfing was practiced in 72 countries, and in 2015 this number of countries had risen to 164, including more than 9000 destinations (Hritz & Frazidis, 2018). Sotomayor & Barbieri (2016) state that surfing virtually takes place in every country with a surfable coastline. Surfing has become the second most popular global water-based leisure activity, after swimming (Fendt & Wilson, 2012). In addition, surfing has become a multi-billion dollar part of the global tourism industry. Millions of surfers travel around the world in search of the best surfing destinations (Fendt & Wilson, 2012). Within the sport tourism industry, the market of surf tourism is rapidly expanding (Martin & Assenov, 2012). Surf tourism has become a social phenomenon with enough significance to attain academic attention (Buckley, 2002a). Research about surf tourism has evolved in terms of quantity, but also in scope (Sotomayor & Barbieri, 2016).

There are several definitions of surf tourism in the literature. A commonly used definition of surf tourism is the following:

“An activity which takes place 40 km or more from the person’s place of residence, where surfing or attending a surfing event are the primary purpose for travel. Surf tourists stay at their destination for at least one night or can undertake their visit as a day trip” (Tourism New South Wales, as cited in Martin & Assenov, 2012, p. 258).

Martin & Assenov (in Teixeira, 2017) take this definition broader. According to them, surfing does not have to be the main purpose for travelling to be a surfing tourist. They make a subcategorization of surf tourists, which is depending on the level of motivation for surfing (Teixeira, 2017). They make a distinction between (Martin & Assenov, as cited in Teixeira, 2017, p. 10):

1. *Hard surf tourism*: performed by travellers with high motivation for surfing and an increasing level of skill;
2. *Soft surf tourism*: carried out by surfers traveling “with surfing as an objective, but not a primary motivation for his, or her travel”;
3. *Incidental surf tourism*: composed by the group of tourists who only feel the push to experience surfing while at the destination.

However, it still remains difficult to know the total scale of surf tourism at a surf site, as many surf sites are internationally known both for their surfing conditions, as well as for beach tourism in general or other forms of tourism (Buckley, 2002a). Buckley (2002a) provides an example of the islands of Oahu and Maui in Hawaii, which are destinations known by a wide variety of tourists. Surfing plays a very important role in these destinations, but surf tourism numbers make up only a small part of the tourism economy. Another example is that also tourists who do not surf, buy surf clothing and accessories in surf shops or interact with surfers on the beach (Buckley, 2002a). These tourists are involved in surf tourism, but are according to the definitions no surf tourists. According to Ponting (2008), the use of the words ‘surf tourism’ can include both surfers and non-surfing bystanders who are attracted by the action provided by surfers in the water or the visual aesthetic of the surf environment, as ‘surf’ implies nothing more than the presence of breaking waves (Ponting, 2008). In this research, the broadest definition of surf tourism is being used by including hard surf tourism, soft surf tourism, incidental surf tourism and the non-surfing bystanders who are interested in the surf, because the total impact of tourists that are interested in the surf breaks will be investigated.

2.2. Sustainable tourism

Since the definition of sustainable development by the Brundtland Commission in 1987, the concept of sustainable development has been widely applied to tourism, giving different definitions and applications of the concept (Ponting & O’Brien, 2015). One definition of sustainable tourism following the concepts of the Brundtland Report is: “*Tourism that takes account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities*” (CNPA, as cited in White, McCrum, Blackstock, & Scott, 2006, p. 3). This definition suits this research well, as it addresses the current and future impact of tourism, but also the needs of stakeholders.

There is both a synergy and a conflict in the relationship between tourism activities and their physical surroundings (Simpson, 2001). Simpson (2001) described the paradox it gives. Tourists satisfaction is being raised by environmentally pure destinations, which results in environmental pure destinations attracting more visitors. But more visitors pose a challenge to the environmental purity. This makes that a destination can be threatened by its own success (Simpson, 2001). Tourism also centres around an interaction between hosts and guests, and hosts get an economic reward for the consumption of their physical resources. Therefore, sustainability in tourism should include more than the protection of the environment. Economic and sociocultural issues should be equally considered alongside environmental concerns (Simpson, 2001). According to Hardy, Beeton, & Pearson (2002), this is not always the case. Often more emphasis is given to the effects of tourism on the environment and the economy, and less to the sociocultural impacts on communities. They also state that it is necessary that conceptualisations of sustainable tourism address all these effects to the same extent, in which stakeholder involvement could help (Hardy et al., 2002).

The research field of sustainable tourism is becoming more mature recently (Ruhanen, Moyle, & Moyle, 2019). Furthermore, sustainability is becoming more and more a critical policy focus across

the world (Martin & Assenov, 2014a). As tourism activities have caused various social, economic and environmental problems, sustainable tourism principles are becoming further integrated into strategic destination planning (Tanguay et al., 2013). However, Simpson (2001) describes that it is important to not see sustainability as a device to measure the appropriateness of a given tourist activity, but as an idealised global target that should be the aspiration of all forms of tourism (Simpson, 2001)

2.3. Sustainability in surf tourism

These notions of sustainable tourism are applicable to touristic activities such as surfing (Ponting & O'Brien, 2015). Surf sites increasingly have problems with the protection and sustainable management of the surf resources. This is caused by the increasing interest of local surfers, surf tourists and other stakeholders in the coastal zone and by the environmental, social and economic impacts of tourism (Martin & Assenov, 2014b). To develop surf tourism in a sustainable way, the needs of surf tourists have to be met whilst the current and future cultural, economic and environmental welfare of local people also need to be respected (Ponting & O'Brien, 2015). So, economic, sociocultural and environmental impacts have a fundamental impact on sustainable tourism (White et al., 2006). In the following, these impacts will be explained in the context of surf tourism.

2.3.1. Economic impact

Worldwide, surfing is practiced in many countries (in 2015: 164 countries) (Hritz & Franzidis, 2018). It is estimated that there are more than 20 million surfers worldwide. Surfing has seen a significant growth over the last twenty years and it even will become an Olympic Sport at the next Olympic Games (Arroyo, Levine, & Espejel, 2019). The surfing industry is estimated to be a multibillion dollar industry, led by companies such as Quiksilver and Billabong (Murphy & Bernal, 2008). Surf tourism is the fastest growing sector in the whole surfing industry (Hritz & Franzidis, 2018). It is however difficult to analyse the local economic impact of surf tourism, as tourism boards, the tourism industry and local governments have no accurate numbers on surf visitations, surf tourists spending and stay duration in general (Murphy & Bernal, 2008). There are only few destinations that have examined the importance of surfing to the economy (Hritz & Franzidis, 2018). But as surfing has evolved to a billion dollar industry, it is good to be aware of the local economic impacts and market importance of the activity (Murphy & Bernal, 2008). Lazarow (2007) states that the importance of the economic impact of surfing and surf tourism to different regions cannot be understated anymore.

The local economic impact of surf breaks is usually estimated through tourism revenue (Coffman & Burnett, 2009). There are two ways in which surfing may contribute to local economic activity. The first way is by stimulating activity in the region and the second is by attracting new activity to the region. For surfing, local activity includes the manufacturing and retail of surfboards, wetsuits, surfing accessories and services such as surfing lessons, board repair and lifeguarding (McGregor & Wills, 2016). Also using the surf image in market strategies can have benefits for the local economy of surfing areas. For example, several economic studies show that surfing events attract many people and provides increased income for the local economy of the hosting area (Murphy & Bernal, 2008). These are profits for the local economy on both short and long term levels. Short term profits are for example incomes from visitors spending. In the long term, events can enhance a region's image in national and international markets and this can contribute to tourism, businesses and investments (O'Brien, 2007). To estimate the potential impacts of surf tourism on the local economy of a surf break, an economic impact analysis can be conducted on the spending of surf market participants (Murphy & Bernal, 2008). Surfing has both market and non-market impacts. Market impacts of surfing are usually assessed by examining the amount of money surfers contribute to the local

economy through spending related to equipment, goods and services, based on gross expenditures. The non-market impact of surfing is harder to quantify, as non-market values generate substantial economic value beyond the expenditures generated by these resources (Lazarow, 2007).

Governments often think that coastal development is the answer to their economic needs, especially with tourism development. But with new coastal developments, existing markets like surfing can be overshadowed or even destroyed, while the governments do not know about the economic benefits of these existing markets. However, the economic benefits of surf tourism are beginning to be noticed and used in development plans of surfing areas (Murphy & Bernal, 2008). It is important to assess the economic impacts of surf breaks, as this shows the importance of conserving the surf breaks from environmental impacts which can be caused by coastal development (McGregor & Wills, 2016; Murphy & Bernal, 2008).

What is interesting, is that the research of Hritz & Franzidis (2018) found that the level of experience of a surfer, as defined by the number of years surfing, influences the spending pattern of the surfer. They spend more per day compared to surfers with less experience and lower skill levels. Furthermore, as the experience level increases, the surf tourists are more likely to visit the surf destination more often and the length of their stay increases (Hritz & Franzidis, 2018). Hritz & Franzidis (2018) state that closer examination of the surf tourists spending habits is needed, but that regardless of that, the more experienced surfer could be a highly attractive market segment that could have a positive economic impact on a destination (Hritz & Franzidis, 2018)

2.3.2. Sociocultural impact

With a significant growth of the popularity of surfing and the surf culture in many countries around the world, the value of surfing to society and the impact of surfing on people's lives and lifestyles has grown significantly the past decades (Lazarow, 2007). This value is not only economic, but also sociocultural: it brings people together, links generations, it provides avenue for outdoor based physical activity and surfing helps build and define towns and communities. These all are community goods that growing surfing numbers can bring to communities and locals (Lazarow, 2007). Furthermore, tourists who try surfing as part of a coastal holiday may be more likely to embrace surfing in the future (Lazarow, Miller & Blackwell, 2009).

As major surf destinations like places in Australia and the United States have high numbers of local surfers as well as surf tourists, any negative impact on the surf resources may have serious consequences for the local surfing population, surfing visitors and the local surf industry (Lazarow, 2007). In surf countries such as Australia and the United States, examples of problems are overcrowding and, as a consequence, behavioural issues (O'Brien & Ponting, 2013). Crowding is a complex social phenomenon, which depends a lot on the perspective of individuals (Buckley, 2002b). A common problem with crowding at surf breaks is that good surf destinations attract many surf tourists, but the more popular and crowded a surf destination becomes, the less attractive it gets for surf tourists because of the increasing competition (Dolnicar & Fluker, 2003). It is however hard to decide at which point a surf break becomes too crowded (Buckley, 2002b). Buckley (2002b, p. 429) suggests that a good indicator of crowding is: *"the ratio of the number of waves which the surfer is in a position to ride, but which are in fact taken or spoilt by someone else, set against the number of waves which that surfer does actually ride"*. This ratio is dependent on many factors that have to do with aspects like the break, the wind, the tide and the swell (Buckley, 2002b).

In addition to surf tourism in developed countries such as Australia and the United States, commercial surf tourism is taking place in remote areas of developing countries. In developing countries where the access to basic services, recourses and infrastructure is limited, the impacts of

surf tourism are even higher (O'Brien & Ponting, 2013). According to O'Brien & Ponting (2013), host communities in developing countries are left out of surf tourism developments and the benefits of it. One way in which local communities are left out is if a particular surfing resource is in short supply and the increasing demand from surf tourism drives prices above the range affordable to local residents, also the ones who are not involved in tourism (Buckley, 2002a). Bottom-up approaches, which includes cultural learning and exchange, can enhance community engagement (O'Brien & Ponting, 2013). Buckley (2002a) also mentions other social impacts for local communities. Divisions and conflicts are commonplace, and tourism can also produce cultural impacts through the commodification of traditional cultural activities (Buckley, 2002a). Furthermore, a tourism-based economy is much more vulnerable to external influences beyond the control of local residents (Buckley, 2002a). In general, it is the general influx of money that causes troubles in the host communities (Buckley, 2002a).

Outside of money related issues, there are also other things impacting surfing communities and surf culture. According to Buckley (2002a, p. 414), surfing is "*a competitive sport, a professional career, a recreational activity, a lifestyle, and/or an obsession*". This makes that social constructs within host surfing communities are very important, as they affect the behaviour of surfing tourists. As Buckley (2002a) put it: "*These perceptions are significant for surf tourism because surf tourists are surfers first and tourists second, so social constructs within the surfing community affect how surfers behave within the tourism industry*" (Buckley, 2002a, p. 414). In the waves, there is a strong behavioural code that decides who has priority on the waves. Some codes are known by nearly all surfers worldwide, but some are less widespread and specific to an area. Surf tourists are often not familiar with these (Buckley, 2002a). Furthermore, at sites that are very crowded these rules can break down due to overly greedy or frustrated surfers. Therefore, surfing at a crowded surf break can become "*a complicated game*" in which surfers position themselves in relation to other surfers and in relation to the next few waves (Buckley, 2002b, p. 429).

To maintain uncrowded surf breaks, Buckley (2002b) explores quota and permit systems that are based on a recreational capacity approach. However it is hard to find a practical operational system to allocate quota, as there needs to be a balance between a range of competing concerns like efficiency, equity, expense, flexibility and administrative feasibility. As this differs between countries and places, it is necessary to consider these systems at the scale of individual case studies (Buckley, 2002b).

2.3.3. Environmental impact

Surf tourism contributes to global and local environmental issues. Global environmental impacts of surf tourism are the same as the ones of the tourism sector overall: environmental impacts associated with increased transport, the production of consumer goods, increased consumption and the contribution to global environmental degradation (Buckley, 2002a). Especially transportation among surf tourists has a big impact on the environment. Many surfers are taking a plane to go on a surf trip. Nowadays people also go on shorter surf trips than in the past: a seven-day package deal to the Mentawai's in Indonesia is very common. These kind of trips have a very high ecological footprint (Butt, 2015).

Local environmental impacts, which are mainly occurring in developing countries, are also similar to those of the overall tourism sector. Examples of these impacts are pollution due to waste dumps and landfills, an increased water consumption and changes on the nearshore reefs and other marine ecosystems (Buckley, 2002a). On the other hand, tourism (including surf tourism) can also reduce the impact of other industries that have more local environmental impact than tourism. These

environmental benefits could potentially outweigh the environmental costs of tourism itself, by providing an economic and employment alternative to other industries (Buckley, 2002a).

Butt (2015) states that the effects of environmental degradation will probably be more profound on surfers than on other people, especially in more developed parts of the world. Surfers are more sensitive to environmental impacts like sea-level rise, coastal flooding, coastal pollution and storminess as according to the *author* “we spend our lives right there, on the coast – on the ‘front line’” (Butt, 2015, p. 200). In addition, waves are weather and climate dependent. So changes in weather and climate can ruin the waves (Butt, 2015). However, Butt (2015) describes that the ecological footprint of surfers is in general higher than of non-surfers due to the high amount of travelling. Because he states that travelling is an important part of the surfing culture, surfers need to be made aware of more sustainable travel options to decrease the impact they have on the environment (Butt, 2015).

2.4. Stakeholder involvement

Many sustainable tourism and ecotourism literature suggest that to be successful sustainable tourism destinations, a broad spectrum of stakeholders need to be involved in the tourism planning process (Ponting et al., 2005). The concept of stakeholders is becoming more important in tourism, as the organisational structure of a destination is perceived as a network of interdependent and multiple stakeholders and the quality of the hospitality and the tourism experience depends on the stakeholders of a destination (Waligo, Clarke, & Hawkins, 2013). The effect of stakeholders in the tourism planning process can be investigated by research to the perspectives and the involvement of stakeholders. By investigating the perspectives and involvement of multiple stakeholder groups, the interrelationship between relevant stakeholders and the obstacles to sustainable tourism development can be identified. The understanding of these views is very important for the sustainability of tourism developments (Towner & Milne, 2017).

Furthermore, tourism destinations must be approached as complex and dynamic planning domains, as it comprises multiple stakeholders who have diverse views on and values of development and different degrees of influence on the decision making process. There is also a lack of control by a group or individual (Jamal & Stronza, 2009). In addition, in international tourism destinations key stakeholders like tour operators are not always located at the destination itself. This makes the tourism development a fragmented planning domain (Jamal & Stronza, 2009), with interdependencies across geographical spaces (Adu-Ampong, 2017). Therefore, there is a need for inter-organisational relationships (Adu-Ampong, 2017).

There are different ways of stakeholder involvement. The type and extent of stakeholder involvement will much depend on the available time, resources and leadership (Byrd, 2007). The identification of the stakeholders is important, once the stakeholders are identified, they can be included in the tourism development process (Byrd, 2007). In tourism destinations with communities located within and around the destination, there are three types of knowledge important to involve in the planning process: scientific knowledge, indigenous (traditional) knowledge and local knowledge, for example about cultural heritage (Jamal & Stronza, 2009). An often reviewed subject in literature is the tension over the domination of scientific knowledge over local and traditional knowledge. Both stakeholder groups often have different values of a place and see problems in a different way (Jamal & Stronza, 2009).

Stakeholder theory describes the importance of the involvement of stakeholders. Byrd (2007) describe that the theory consists of three layers. The first layer is the descriptive aspect, which

describes the organization and its relationships to external organizations and agencies. The second layer is the instrumental aspect, that supports the first layer by predicting that if a specific task is performed, specific results will be achieved. The last layer is the normative aspect. This layer underpins that: *“The descriptive accuracy of the theory presumes that managers and other agents act as if all stakeholder interests have intrinsic value. In turn, recognition of these ultimate moral values and obligations give stakeholder management its fundamental normative base”* (Donaldson & Preston, as cited in Byrd, 2007, p. 7). The three layers of stakeholder theory indicate the need to identify and understand the interest of all stakeholders. The whole process can fail if even one stakeholder group is left out (Byrd, 2007).

In the tourism literature, there are two ways of thinking about stakeholder theory. The first idea is that an organization considers the interest of the stakeholders and base their policies and practices on the influence of the stakeholders (Byrd, 2007). The second idea is the concept of collaborative thinking. This implies that every stakeholder group should be considered without prioritizing one over another. With collaboration, stakeholders have the responsibility for the development of tourism within their community and the goal is to balance the power between all involved stakeholder groups (Byrd, 2007).

To have positive outcomes in tourism developments, it is important for stakeholders to share information and decisions related to the tourism planning and development process (Adu-Ampong, 2017). Collaboration and coordination is necessary for problems and issues that are faced by society and cannot be solved by individuals, but need to be tackled together by key stakeholders of a problem domain (Adu-Ampong, 2017). Furthermore, collaboration and coordination between stakeholders in tourism planning and development processes is needed because of the high level of fragmentation in the tourism industry (Adu-Ampong, 2017). Collaborative planning can be difficult and takes a lot of time. But on the other hand, Yuksel, Bramwell, & Yuksel (1999) describe that collaborative planning can also be justified, as it potentially can *“avoid the costs of conflicts in the long term, it is more politically legitimate, and it can build on the store of knowledge and capacities of the stakeholder”* (Yuksel et al., 1999, p. 351). To make collaborations work, Byrd (2007) states that: *“Stakeholders need to be made aware of the other interests in the community so that they can understand the reasoning behind tourism policies and developments”* (Byrd, p. 12). However, a problem with the involvement of stakeholders could be that a legitimate stakeholder may be not willing to participate in the collaborative process, for various reasons. To get them in the process, power alone is sometimes insufficient. Therefore, Mitchell, Agle, and Wood (1997) identify that stakeholders need three relationship attributes: power, legitimacy and urgency. Stakeholders need to recognise their power, they must be willing to use it and they must feel the urgency to do it (Jamal & Stronza, 2009).

For the sustainable development of surf tourism, it is important to look at the inclusion of stakeholders, as *“stakeholder involvement must be included in any successful sustainable tourism development plan”* (Byrd, 2007, p. 12). Therefore, in this research the involvement of the perspectives of different stakeholder groups and the collaboration between them will be investigated.

2.5. Measuring the sustainability of surfing

As surf sites increasingly have to deal with economic, sociocultural and environmental impacts and with the increasing interest in the coastal zone by surfers, tourists and other stakeholders (Martin & Assenov, 2014b), it is necessary to have a long term, strategic and formalised approach for surf tourism development and planning at surf sites. This is necessary to prevent unfavourable influences

and to increase the value of tourism for local communities (Machado et al., 2018). In the literature, different frameworks and indices are introduced. First, two different frameworks will be introduced and discussed. After that, the concept of surfing reserves and the procedure of becoming a surfing reserve is described.

2.5.1. Framework Analysis for Sustainable Surf Tourism (FASST)

One of the frameworks is the Framework Analysis for Sustainable Surf Tourism (FASST). FASST is a normative framework for analysing the sustainability of surf tourism development in developing countries (Ponting & O'Brien, 2014). The framework does not assess a surfing destinations in terms of the sustainability of the destination, but it uses sustainability as an ethical guiding principle to take into account the development of surfing destinations (Mach, 2014). Ponting et al. (2005) and O'Brien & Ponting (2013) initiated this framework by doing research in respectively Indonesia's Mentawai Islands and Papua New Guinea (Ponting & O'Brien, 2014). These cases were very different from each other, in terms of their governance, culture, history and geography. At the Mentawai Islands, surf tourism developed in an unregulated way. In Papua New Guinea on the other hand, the Surfing Association of Papua New Guinea has developed surf tourism in a regulated way with designating surf zones that each have their own management plan (Ponting & O'Brien, 2014). The goals of different destinations are however often the same: to manage surf resources in a sustainable way with maximum benefit for local stakeholders and governments.

The framework is based on four broad principles that help with the analysis of different cultural, geographical, political, policy and regulatory settings and are broadly applicable for management. The first three principles are derived from comparing surf tourism management practices in the Mentawai Islands with core ecotourism principles (Ponting et al., 2005). The fourth principle comes from O'Brien & Ponting (2013), who did research to surf tourism in Papua New Guinea. The four principles of the framework are as follows (Ponting & O'Brien, 2014, p. 388):

1. A distinct move away from economically neo-liberal approaches to development.
2. The need for formal, long-term, coordinated planning that recognizes limits to growth
3. Systematic attempts to foster cross-cultural understanding
4. Village-level surf-sport development

While the principles are interconnected, they can be placed into categories. Principle one relates primarily to economic sustainability, principle two to social and environmental issues and the last two principles to socio-cultural concerns (Ponting & O'Brien, 2015).

So while issues on geography, culture, governance and regulatory mechanism often vary among surfing destinations, they all want to manage surf resources in a sustainable way and for the maximum benefit of local stakeholders and government (Ponting & O'Brien, 2014). It can be said that the more the principles of FASST are incorporated in the management of a destination, the more sustainable a surf tourism will be (Ponting & O'Brien, 2015). The framework is best applicable to developing countries, as the framework is developed and further worked out in the context of developing countries (Ponting et al., 2005; O'Brien & Ponting, 2013). It is therefore the question how applicable the principles are to developed countries, such as Australia.

2.5.2. Surf Resource Sustainability Index (SRSI)

A second way to measure the sustainability of surf sites is with tourism sustainability indices. Sustainability concerns for surf sites are well documented in the literature. However, a data-driven index methodology related to surf site sustainability was missing (Martin & Assenov, 2014a). To

monitor the desirability of future tourism developments and evaluate destinations from the viewpoint of sustainability, an index for sustainable tourism can be helpful. The design of an index is a lengthy and detailed process and it requires the development of indicators which can measure and calibrate certain attributes. Indices are helpful by processing highly data-driven information for policy design (Martin & Assenov, 2014a). However, quantifying and measuring tourism sustainability with indicators is difficult due to the relative and multidimensional nature of it (Martin & Assenov, 2014a). Furthermore, it is difficult to give practical expression to a concept that is very broad and imprecise, such as sustainability (Tanguay et al., 2013). Due to this, there is no single set of indicators that can be universally applied to tourism destinations (Martin & Assenov, 2014a). There are however some indices developed that address the multidimensional nature of sustainability and allow for a more comprehensive evaluation of the sustainability of a destination and for a comparison of the destination characteristics in terms of tourism sustainability (Martin & Assenov, 2014a). They can make sustainable tourism a more concrete and operational concept (Tanguay et al., 2013). The Surf Resource Sustainability Index (SRSI) is one of these indices.

SRSI is a global model for surf site conservation and forms a conceptual framework for the measurement of the conservation aptitude at surf sites (Martin & Ritchie, 2019). The framework provides a set of building blocks which include qualitative and quantitative metrics. It includes twenty-seven indicators based on conservation aptitude, which are integrated in four indices (social, economic, environmental and governance) (Martin & Assenov, 2014b). The indicators were developed from primary resources, like prior experience, consultations with six key authors in the field of surf tourism, field observations and 89 semi-structured interviews with experienced surfers. Also secondary resources were used, like a systematic review of surf tourism literature from Martin and Assenov (2012). Furthermore, a study of the nomination and management criteria of National Surfing Reserves and World Surfing Reserves was done (Martin & Assenov, 2014a). The selection of the indicators was based on their importance for conservation in terms of use, integrity, quality, value and sustainability attributes (Martin & Assenov, 2014a). A description of each indicator is given in table 1.

Table 1: SRSI indicator descriptions. Source: Martin & Assenov, 2014b.

<i>Social indicators</i>
1. Clubs—Boardriders: Boardriders clubs can provide a level of organized communication and collaboration among surfers. In some cases, they are not-for-profit organizations which may provide custodianship of the site
2. Clubs—Lifesavers: Lifesaving clubs promote public water safety and site awareness, particularly for local youth. Clubs may be a sign of the benefit of surfers as surf lifesavers and indicate custodianship of the site
3. History: History provides context to the surf site background and culture and serves as a key factor in the argument for site recognition and protection, particularly when aiming for surfing reserve status
4. Public safety: A safe and secure atmosphere contributes to site integrity and attracts or detracts community use and participation accordingly
5. Social experience: As surf sites provide benefits in terms of health, well-being, destination awareness, and community spirit, these difficult-to-measure attributes are increasingly relevant (i.e. the human experience)
6. Socio-psychological carrying capacity: Use and satisfaction are strongly influenced by the number of surfers as well as the local ethics of surfers at the site. A high social carrying capacity may increase the argument for surf site conservation

7. Surf community: A strong surfing community can provide a social base and structure for surf site custodianship

8. Surf events: Surf events generate awareness of the surf site and the significance of surfing. Events may help to identify surfers and the surfing community as stakeholders of the resource and to facilitate communication.

Economic indicators

9. Surf amenity and infrastructure: Surf site amenities may provide convenience and safety and create awareness of the site, allowing communities improved interaction with the site; this may be particularly relevant to families with children

10. Surf events: Surf events create a focal point for economic impact assessment and stakeholder presence. The results of surf event economic impact studies are progressively of interest to stakeholders

11. Surf industry and commercial activity: Surf sites are increasing exploited in terms of surf-related enterprise, including surf-entrepreneurs and corporate interests. The surf industries and other commercial activities at the area form an economic hub which may provide an impetus for the protection of the site

12. Surf-related nonmarket values: Nonmarket values are not easily measurable in monetary terms (e.g. the value of surfers' beach visits, those who come to view the waves, or loss of recreational opportunities due to anthropogenic or natural environmental disasters, etc.), yet they are significant in terms of the broad economic implications of surf sites. Non-market values are increasingly relevant in the argument for conservation and protection

13. Surf tourism: Given the limited literature on the economic benefits and impacts surrounding domestic and international surf tourism in rural and urban environments, research in this area is foundational and significant for understanding the sustainable use of surf sites. Surf tourism is a key issue in surf site development and conservation planning

Environmental indicators

14. Biodiversity: The overall existence and health of flora and fauna are relative to the pressures from external forces and the estimated site resilience. While measuring biodiversity is scientific in nature, careful observation can prove to be an indication of the broad issues

15. Coastal engineering: Coastal engineering projects are a significant factor affecting the resource base with high potential to change the natural dynamics of the surfing area. While in some cases surf sites have been created as a result of various projects, there are surf sites which have been permanently altered or entirely destroyed. Pristine sites (altogether free from engineering projects) receive a high score

16. Eco-physical carrying capacity: Impacts on local flora and fauna, such as foot traffic over sand dunes, encroachment on bird nesting areas, surfers stepping on coral reefs, damage from boat anchorage, etc., are indicators of the site's aptitude to sustain human interaction and conservation

17. Hazards—Marine life: Marine life hazards are highly relevant to the human interaction with the resource and are inherent to conservation planning. While marine hazards may pose threats to site users, they are also a component to biodiversity

18. Hazards—Physical: Physical hazards at surf sites, such as dangerous rip currents or submerged rocks, are a public safety issue which, if identified, can be managed. Implications for addressing hazards may include intervention, such as signage or constructing fences above unstable cliff areas to protect visitors

19. Quality—Beach: The quality and integrity of the site are key indicators for the value, concern and custodianship at time of assessment. In terms of natural quality and conservation, visible human impacts and development are significant factors to be weighed along with other aspects of degradation, such as coastal erosion

20. Quality—Water: Water quality is a highly significant factor in the integrity and sustainability of surf sites. Issues may stem from surrounding watersheds, urban runoff and sewage, construction sites, agriculture, aquaculture, golf courses, industrial discharge, and the general levels of nutrients or bacteria including *Escherichia coli*

21. Surf type and quality: Wave types and overall wave quality include a number of aspects and considerations, including the diverse skill levels of surfers and interests of stakeholders. Therefore, the importance of this indicator may be influenced by subjective opinion. For example, easy-to-ride point breaks, fun beach breaks or dangerous barreling waves are of “quality” to distinct groups

Governance indicators

22. Beach and water safety: Beach and water safety are highly relevant to the sustainable use of the area. Beaches with lifeguard presence may have a higher degree of safety management, particularly in developed countries

23. Education and interpretation: The successful petition for conservation of natural sites is enhanced through the development and availability of information to stakeholders, including the public. The participation of the general public and various stakeholders in the education process is an indication of the conservation aptitude of the site. Edification may indicate the host community’s psyche and sense of place

24. Legislative status: The implications of legislative status are wide ranging and may be anchored to the indicator for “management”. Determining the conservation status is a key starting point and strong impetus for site conservation. Examples of legislation status for surf sites include national park, marine protected area, national surfing reserve, and world surfing reserve

25. Management: The implications of management include aspects of multi- and mixed-use areas alongside beach and ocean safety. Research literature indicates that conservation management is tied to planning, enforcement, and stakeholder engagement

26. Not-for-profit organizations: Not-for-profit organizations may help to identify, monitor, report, and support issues related to the integrity of the site and its usage. These organizations are an indicator of conservation aptitude as they signify stakeholder engagement (e.g. Surfrider Foundation). However, successes and failures must be determined jointly and in context

27. Public access: As conservation normally considers the interaction of stakeholders with the resource as a component to sustainability, the presence of entities or infrastructure inhibiting access (public, private, or governmental) is an indication of reduced conservation aptitude. In unique cases, limited or restrict access may perform a conservation role by limiting over-use of the site

The framework is multidimensional, which means that it appears in two layers. The indicators are the micro-level which forms the qualitative layer and is based on observation and description to which a value can be attached. The macro-level of the indices represents the combined indicator assessment and is numerical (Martin & Assenov, 2014a). By having this multidimensional, two-layered approach, third parties can cross-check the assigned indicator values relative to the qualitative data (Martin & Assenov, 2014a). Martin & Ritchie (2019) used the surf resource sustainability indicators to analyse weighted data from the case of Phuket, Thailand. They show that the use of quantitative, weighted data provides insights that would not be apparent from working with unweighted data.

The SRSI framework creates a standardised framework to study surf sites within different contexts and it focuses attention on the diverse interests, like stakeholder values and perceptions that are fundamental for surf site conservation. This is particularly at the indicator level (Martin & Assenov, 2014a). The goal of the development of the framework is having a standardisation of terminology for surf site conservation and evaluation, to address problems with the contradicting definitions in

conservation studies and it allows researchers and policy-makers from different field locations to communicate and exchange information and data in a better way. In this way it can provide an impetus to protect and manage surf resources for future use (Martin & Assenov, 2014a). Besides using the indicators in the SRSI framework, the qualitative assessments at the indicator level create also a comprehensive register of information which can be used by for example researchers, policy-makers and other stakeholders (Martin & Assenov, 2014a).

2.5.3. Comparing the frameworks

The four principles given by the FASST can be useful as guiding principles for sustainable surf tourism development. However, the principles are very focused on developing countries, and therefore less applicable on developed countries like Australia. The indicators of the SRSI framework are more suitable for this research, as they are standardised and suitable to study surf sites within different contexts. This makes it more useful to use in a study of a developed country. Furthermore, the register of information created by the indicators is useful for this research by giving a set of social, economic, environmental and governance indicators that can guide the conceptual framework. In this research, only the micro-level layer with the indicators will be used. Using the numerical, macro-level layer of indices is beyond the scope of the goal of this research.

2.5.4. Surfing Reserves

To formally recognise surfing sites, the concept of Surfing Reserve is designed. This recognition means an ongoing reservation and protection of surf sites for surfing, and where appropriate or possible assistance in the management and development of the area (Short & Farmer, 2012). It does not mean that a surfing reserve is protected from all the threats to the coast and the surf breaks, but, as Short & Farmer (2012) describe, *“they are a proactive step to recognise and preserve these sites before they become threatened or compromised”* (Short & Farmer, 2012, p. 2). To become a surfing reserve, a surf site needs to have a core of surfers that are closely related with the surf breaks, as they must feel that the surf breaks are worthy to recognise and protect (Short & Farmer, 2012).

As there are many differences between the quality of surf breaks, the iconic status of surf breaks and the surfing communities, there is a tiered level of surfing reserves developed: regional, national and world surfing reserves (Short & Farmer, 2012). Manly and Noosa are both first designated as a National and later as a World Surfing Reserve. Farmer & Short (2007, p. 1)) describe a National Surfing Reserve as follows:

“A part of the coastal environment recognised by the National Surfing Reserves-Australia and the local community for the quality and consistency of its surf and its long-term and ongoing relationship between the surf and surfers. It usually encompasses the beach and adjacent surf zone, but may include features of the marine and coastal zone, which intrinsically enhance aspects of the surfing experience, including structures such as surf clubs or localities such as the birthplaces of surfing in each state, or a place considered sacred by surfers for a particular reason.”

World Surfing Reserves were created in 2009 by Save The Waves Coalition, in association with National Surfing Reserves and the International Surfing Association, with the aim to identify surf sites that have a significant cultural, environmental, economic and community importance to an area. It is a way to protect and proactively encourage sustainable development (Ratten, 2019; Save The Waves, n.d.c).

To be considered as a World Surfing Reserve, a surf site is evaluated based on the surf quality and consistency, the environmental characteristics, the surf culture and history and the local capacity (Ratten, 2019). The following essential criteria need to be fulfilled (Short & Farmer, 2012, p. 2):

1. Exceptional quality and consistency of the waves, i.e. a world class surfing break;
2. A place considered sacred by surfers throughout the world;
3. Long-term usage of the beach and wave environment by local, national and international surfing community.

The size of a World Surfing Reserve depends on the quality and range of associated surf breaks, this can differ between the surf sites. But all should extend from the shoreline out at least 500 m seaward, to ensure that the breaks themselves are included in the World Surfing Reserve (Short & Farmer, 2012). The process of applying to become a World Surfing Reserve is broken down into five main phases: the nomination and application process, the selection process, the stewardship planning process, the official dedication and at last the ongoing management and evaluation of the World Surfing Reserve (Save The Waves, n.d.c).

2.6. Conceptual framework

The conceptual framework shows that based on the literature, surf tourism has economic, sociocultural and environmental impacts on a surf tourism destination. These three impacts have influence on the sustainability of surf tourism. Furthermore, the involvement and collaboration of surf tourism stakeholders influences the sustainability of surf tourism. These concepts are shown schematically in the conceptual framework in figure 1.

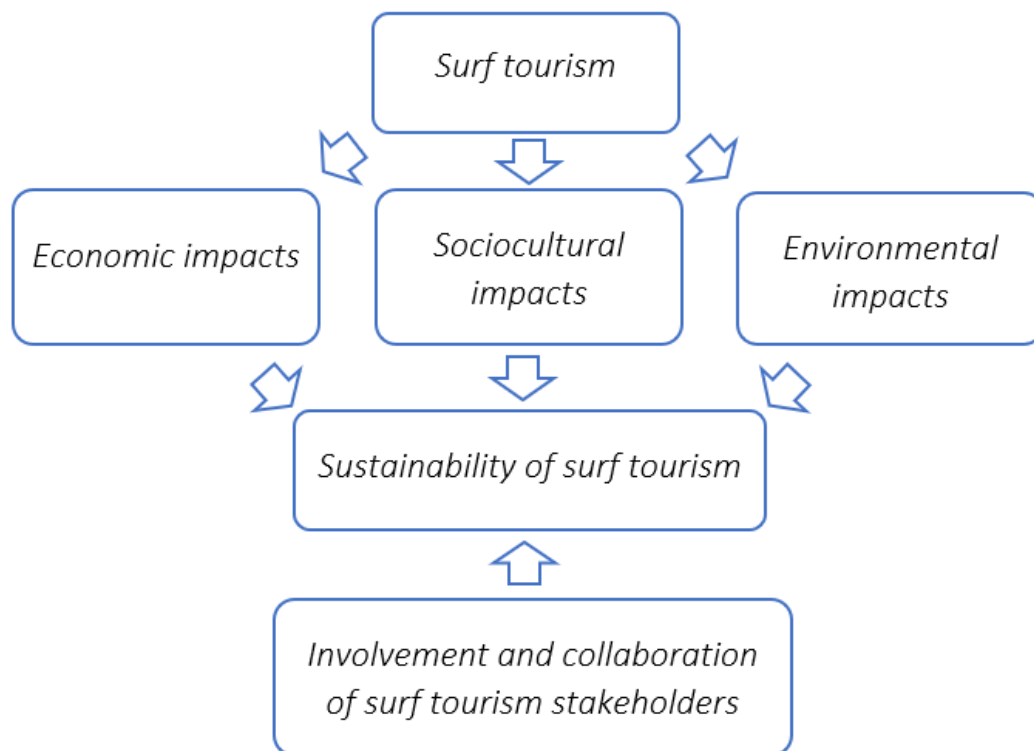


Figure 1: Conceptual framework

2.6.1. Operationalisation

As shown in the conceptual framework, economic impacts, sociocultural impacts, environmental impacts and the involvement and collaboration of surf tourism stakeholders influence the

sustainability of surf tourism. These impacts of surf tourism and stakeholders can be operationalised according to the literature (see table 2). The dimensions are derived from the literature about sustainable surf tourism, and the indicators are adapted from the qualitative indicators of the SRSI framework. In the last column of the table, the methods that are used to research the indicator are mentioned.

The first dimension of the impacts of surf tourism is economic impacts. Economic impacts are divided into the influence of local commercial activities, the impact of surf events, the impact of crowding and the impact of the legislative status of World Surfing Reserve on the local economy. The second dimension is sociocultural impacts, which includes the change of surf culture and the impact of this on the local community at a surf tourism destination, the historical influence of surfing on this place, the decrease of beach and water safety due to surf tourism, both for surfers and swimmers, and the impact of the legislative status as World Surfing Reserve on the community and culture. The third dimension is environmental impacts. These are operationalised as the impact on the (physical) quality of the beaches and surf spots, the water quality and the biodiversity, the impact of coastal and construction developments, the impact tourists have on the environment and the influence of the legislative status of World Surfing Reserve on the environment.

Also the influence of stakeholders on the sustainability of surf tourism is being operationalised. The first dimension is the view of stakeholders on the sustainability of surf tourism. Indicators of this dimension are their view on surf tourism and their view on sustainability. The second is the dimension of collaboration between stakeholders, including the interrelationship between stakeholders, the share of information and decisions between stakeholders, and the management of the collaboration among the stakeholders. The third dimension is the involvement of stakeholders, which is about the information and the participation of stakeholders in processes around the surf tourism. The fourth and the last dimension is the legislative status of World Surfing Reserve, which is about the use and the management of the legislative status by stakeholders. In table 2, an overview of the concepts, dimensions, indicators and methods is given.

Table 2: Operationalisation scheme

CONCEPT	DIMENSION	INDICATOR	METHOD
IMPACT OF SURF TOURISM	Economic impacts	Local commercial activity	Interviews, document analysis
		Surf events	Interviews, document analysis
		Overcrowding	Interviews, observations, document analysis
		Impact of legislative status	Interviews, document analysis
	Sociocultural impacts	Change of local surf culture	Interviews, observation, document analysis
		Influence of surfing history	Interviews, observations, document analysis
		Impact on local surf community	Interviews, observations, document analysis

		Impact of surf crowds	Interviews, observations, document analysis
		Decrease of beach and water safety	Interviews, observations, document analysis
	Environmental impacts	Impact of legislative status	Interviews, document analysis
		Impact on quality of beaches and surf spots	Interviews, observations, document analysis
		Impact on water quality	Interviews, observations, document analysis
		Impact on biodiversity	Interviews, observations, document analysis
		Impact of developments	Interviews, observations, document analysis
		Impact tourists on environment	Interviews, observations, document analysis
		Influence of legislative status	Interviews, document analysis
INFLUENCE OF STAKEHOLDERS	Stakeholder views on sustainable surf tourism	View on surf tourism	Interviews
	Collaboration between stakeholders	View on sustainability	Interviews
		Interrelationship between stakeholders	Interviews
		Share of information and decisions between stakeholders	Interviews
		Management of collaborations	Interviews
	Involvement of stakeholders	Information of stakeholders	Interviews, document analysis
		Participation of stakeholders	Interviews, document analysis
	Legislative status	Use of legislative status	Interviews, document analysis
		Management of legislative status	Interviews, document analysis

3. Methodology

This chapter explains the methodological decisions that were made in the research of this thesis. A qualitative research design was used, to explore and compare the perceptions of different surf tourism stakeholders in Manly and Noosa. This chapter will first give an explanation of the research design. Second, it will introduce the two case studies: Manly and Noosa. Third, an explanation of the used data collection methods will be given. Fourth, this chapter will describe the process of data analysis. Last, this chapter will discuss the validity, reliability and limitations of the research.

3.1. Research design

In order to achieve the research objectives, a qualitative research approach was used. The reason for using a qualitative approach is that qualitative methods can lead to an interpretive rendering of the phenomenon that is studied. This results in the generation of a conceptual model that is grounded in the data (Boeije, 2010). Furthermore, the findings of qualitative methods reflect the participants' perspectives. As a consequence, it is expected that the findings will have relevance for the field and can be transformed into interventions for practitioners (Boeije, 2010).

In this research, a comparative case study was done. The reason for choosing a case study as the research design is that a case study can combine different kinds of qualitative data collection methods while focussing on a specific area. To get an idea about how sustainable surf tourism works in practice in different places, a comparative case study was done. The two cases that are studied, Manly and Noosa, are in many ways different from each other, but have also similarities. Using these cases made it possible to see how sustainable tourism is understood and works in different places.

Both cases were purposively chosen. Manly was chosen because it can teach a lot about the development of surf tourism in an urban setting. Furthermore, Manly is important for the surfing history of Australia. Noosa was chosen for its high quality of waves which attracts many surf tourists. In addition, Noosa has a long history of environmental activism which influences (surf) tourism developments in Noosa.

3.2. Case study sites

The two case studies on which this research will focus, are Manly and Noosa in Australia. In the following paragraphs, their characteristics, the governance and the tourism sector will be introduced.

3.2.1. Manly

The first case this research will focus on is the case of Manly. Manly is a suburb of Sydney in the state of New South Wales, Australia (see figure 2 for the location of Manly). Manly is an important place for the history of surfing in Australia, as it is recognised as the birthplace of Australian surfing. In 1915, Hawaiian surfer Duke Kahanamoku gave a surf demonstration at Freshwater Beach, which is next to Manly. This was the start of modern surfing in Australia (Manly Council, 2012). Manly helped to shape Australia's sport and surf heritage and the iconic surfing lifestyle (Hay AM, 2012). When it comes to the surfing history of Australia, Manly can be seen as a surfing heritage site (Saves the Waves, n.d.a). Surfing is part of the identity of Manly and it made Manly what it is today (Manly Daily, 2015).



Figure 2: Location of Manly. Source: Sydney Visitors Bureau, n.d.

Governance

Manly is part of the Northern Beaches Council. This is a combination of the former councils of Manly, Warringah and Pittwater, that merged into one council in 2016 (Archived Manly Council, 2016). A map of the Northern Beaches Council including the location of Manly is given in figure 3. The population of the Northern Beaches is more than 266.000 people and the council includes more than half of all beaches in Sydney (Northern Beaches Council, n.d.a). The Northern Beaches are described as *“an extraordinary destination offering world-class beach and bushland experiences, with vibrant villages that reflect the contemporary coastal lifestyle.”* (Northern Beaches Council, 2019b, p. 3).

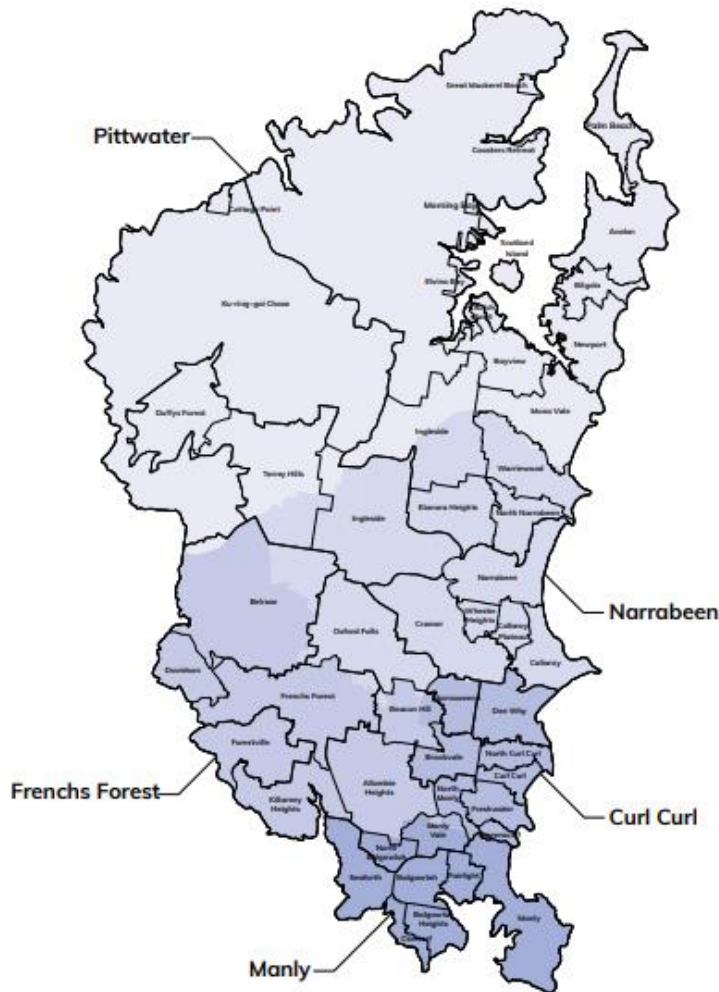


Figure 3: Map of the Northern Beaches, including Manly. Source: Northern Beaches Council, 2018.

The Northern Beaches Council is an important stakeholder in the development of tourism and the preservation and protection of surfing in Manly. They developed the Northern Beaches Community Strategic Plan 2018-2028, which is a roadmap for future developments in the Northern Beaches (Northern Beaches Council, 2018). Furthermore, they are developing a strategy for sustainable tourism, which will result in the Northern Beaches Destination Management Plan (Northern Beaches Council, 2019a).

Surfing Reserve

In 2010, Manly and Freshwater Beach were designated as a National Surfing Reserve. In 2012, Manly and Freshwater (see figure 4) also became a World Surfing Reserve. Manly and Freshwater Beach have been chosen as a NSR and WSR because of the strong surf culture and history, the support of surfing by the local community, the environmental characteristics and the consistent waves (Save the Waves, n.d.a). According to Save The Waves (n.d.a), *“Manly-Freshwater is the most surf-centred community in Australia”, as “on any day the number of people swimming, surfing or just walking the boardwalk all attest to a strong bond between the Manly and Freshwater communities and their beloved surf”.*

With the status of National Surfing Reserve and World Surfing Reserve, the surf conditions and surf heritage of the area should be protected, either in legislation or symbolically (Farmer, 2011). Being a

surfing reserve, the surf site is recognised as an significant surfing area and it recognises the close and longstanding link between surfing and the community (Farmer, 2011).



Figure 4: All the surf breaks of Manly-Freshwater World Surfing Reserve. Source: Save The Waves, n.d.a.

Tourism sector

Manly receives 2.6 million visitors on a yearly basis (NSW Government & Destination NSW, 2018). In 2016/2017, the total tourism sector in the Northern Beaches generated over 2.5 billion Australian dollar through direct and indirect sales. It is the fifth largest sector in the Northern Beaches (Northern Beaches Council, 2019b). The incomes includes spending's at local businesses such as hospitality, accommodation, entertainment and leisure (Northern Beaches Council, 2019a). Furthermore, it generated many employment opportunities with 13.880 direct and indirect jobs in the area relying on the hospitality and tourism sector (Northern Beaches Council, 2019a). The surf tourism sector of Manly consists of stakeholders like surf shops and rentals and surf schools.

3.2.2. Noosa

Noosa is situated in the state of Queensland in Australia and consists of several villages. Noosa Heads is where most tourists are staying, and is surrounded by bays, beaches, Noosa National Park and the river. Most of the surf spots are at Noosa Heads. At Sunshine Beach and further in the south are also some surf spots, same as north of Noosa Heads (Tourism Noosa, n.d.a). When talking about Noosa in this research, mostly Noosa Heads is meant. Noosa is part of the Sunshine Coast, an area in the South

East of Queensland, above Brisbane. Noosa is the most northern Shire of the Sunshine Coast. A map of the Sunshine Coast is shown in figure 5.



Figure 5: Map of the Sunshine Coast. Source: SunshineCoast.com, n.d.

The surf breaks in Noosa were first surfed in the 1950s, during that time some surfers started to discover the potential of the point surf breaks of Noosa (Save The Waves, n.d.b). Noosa has three beach breaks and five point breaks, of which three are situated in Noosa National Park. The other surf breaks are bordered by a mix of privately-held land and dedicated parkland, which falls under strict building regulations (Save The Waves, n.d.b). Noosa National Park is an area of more than 4,000 hectares and it is an important park for nature conservation, as it is home to several rare and threatened species. Noosa National Park is also an important tourist attraction of Noosa (Noosa Heads Queensland Australia, n.d.). The original Noosa National Park was created in 1939 (Save The Waves, n.d.b). In 1962, Noosa Parks Association, Queensland's first community-based conservation group, was founded to prevent a road being built along the coast. Since then, the Noosa Parks Association realised significant conservation wins and made sure that Noosa National Park is what it is today (Noosa Parks Association Inc., n.d.). Furthermore, Noosa is part of the UNESCO Noosa Biosphere Reserve. It is recognised as a Biosphere Reserve because of the diverse ecosystem (Tourism Noosa, 2016).

Governance

Noosa Shire Council is the council of Noosa. The council covers an area of 871 km² and has more than 54,000 inhabitants. Thirty five percent of the council is protected as either national park, reserve or conservation area (Noosa Council, n.d.).

Surfing reserve

Same as Manly, Noosa is designated as National Surfing Reserve (in 2015) and World Surfing Reserve (in 2020). Noosa was chosen to become a surfing reserve for its high quality waves, environmental characteristics, community support and surf history (Save The Waves, n.d.b). But the main reason Noosa is chosen, is for its best practice in coastal management and coastal protection (Noosa World Surfing Reserve, n.d.). As described on the website of Save The Waves: “the Noosa World Surfing Reserve is an exemplary coastal community dedicated to the preservation of their coastal and surfing resources.” (Save The Waves, n.d.b). Being a surfing reserve acknowledges Noosa’s status as an iconic surfing place and the history of environmental activism. The status of a surfing reserve can help Noosa with maintaining the focus on the protection of the coastline and the care for the marine biodiversity (Save The Waves, n.d.b). A map with the surf spots included in the WRS is shown in figure 6.

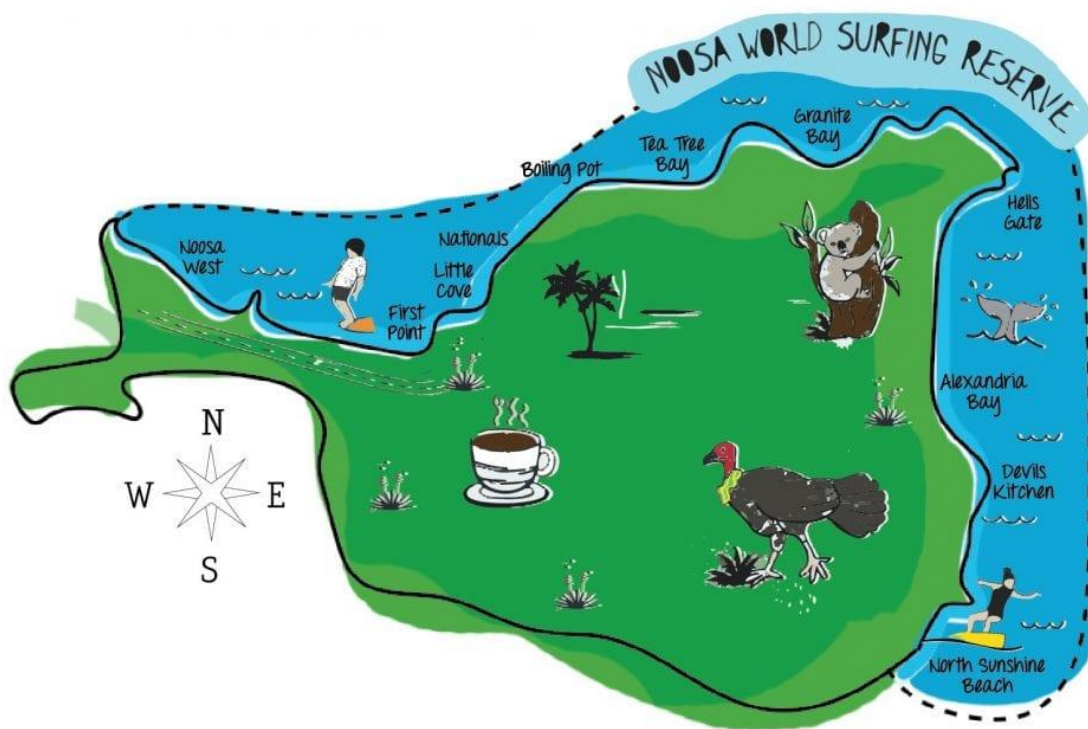


Figure 6: All the surf breaks of Noosa World Surfing Reserve. Source: Noosa World Surfing Reserve, n.d.

Tourism sector

Between 2015 and 2018, Noosa attracted an average of around 2.2 million visitors per year (Australian Government Austrade & Tourism Research Australia, 2018) and they expect this to rise to 2.9 million in 2022 (Tourism Noosa, 2016). Noosa has a constant flow of domestic and international visitors who come for the bays, beaches, the National Park and the surroundings (Tourism Noosa, 2016). The average spend of tourists between 2015 and 2016 was 899 million Australian dollars, and tourists spent on average 174 Australian dollar per night (Australian Government Austrade & Tourism Research Australia, 2018). In total, there were 1,084 tourism businesses in Noosa in 2018

(Australian Government Austrade & Tourism Research Australia, 2018). Tourism is Noosa region’s largest economic driver and it has benefits to the wider community. Furthermore, the tourism sector is the largest employer in the region (Tourism Noosa, 2016). The surf tourism sector of Noosa exists of stakeholders like surf shops and rentals and surf schools.

3.3. Data Collection Methods

3.3.1. Sampling of stakeholders

To select the interviewees, first a mapping of surf tourism stakeholders was created to give a complete overview of the surf tourism stakeholders in Manly and Noosa. After this, the most important stakeholder groups were identified. The most important stakeholder groups are: the (local) government, the surfing community and the surf tourism industry. Within these stakeholder groups, a list of possible stakeholders to interview was created. These stakeholders were contacted with the question if they would be interested in participating in the research by being interviewed. So, the interviewees were selected by purposive sampling, which aims to select participants who represent a wide range of perspectives and experiences (Boeije, 2010). Some other interviewees were selected with the ‘snowball’ method, which means that during an interview, the interviewee gave names of other interesting stakeholders who were subsequently approached (Boeije, 2010). An overview of the stakeholders that are interviewed and the stakeholder group that they fit in can be found in table 3.

Table 3: Overview of interviews and stakeholders

Interview	Case	Stakeholder	Stakeholder group
1	Manly	Surf shop	Surf tourism industry
2	Manly	Surf shop	Surf tourism industry
3	Manly	Surf school	Surf tourism industry
4	Manly	(Surf) hostel	Surf tourism industry
5	Manly	Northern Beaches Council	(local) government
6	Manly	Lifeguards	(local) government
7	Manly	Queenscliff Livesaving Club	Surfing community
8	Noosa	Surf shop	Surf tourism industry
9	Noosa	Surf shop	Surf tourism industry
10	Noosa	Surf school	Surf tourism industry
11	Noosa	Noosa Shire Council	(local) government
12	Noosa	Noosa World Surfing Reserve	Surfing community

3.3.2. Interviews

Interviews were used as one of the data collection methods, as interviews provide an opportunity to learn about a social situation through the perspective and experience of the participants, by sharing their stories, knowledge and perspectives on certain topics (Boeije, 2010). In total, 12 interviews were conducted with 15 different interviewees. In table 3, an overview of the interviewees per case study and per stakeholder group can be found. Most of the interviews were done face-to-face in Manly and Noosa. One interview was held by telephone and another one on Skype, as it was not possible to do these interviews in person.

The interviews were used to get in-depth information and were semi-structured. Semi-structured means that the interviews are not entirely pre-structured, but that only a list of topics and questions to be asked in the interview needs to be prepared (Boeije, 2010). For the interviews in this research, a list of topics and some questions was prepared. The topics were the same for every interview, but

the questions were slightly different for each stakeholder group. To compare the two cases with each other, it was important to keep the topics the same in the two cases. This was carefully taken into account during the interviews to make sure the findings would be as reliable as possible. The topics discussed were related to the sustainability of surf tourism, past (surf) tourism developments, future challenges around surf tourism and the collaboration between surf tourism stakeholders. The indicators of the Surf Resource Sustainability Index from the theoretical framework were used to guide the interview questions, and to guide the coding process of the interviews.

The 12 interviews represented all of the identified stakeholder groups in both cases (the surf tourism industry, the (local) government and the surfing community), which made it possible to take into account the perspectives of different stakeholders on the sustainability of surf tourism. The data obtained from these 12 interviews with different stakeholder groups in the two cases formed a sufficient basis for the findings, as the perspective on the different topics from all stakeholder groups were represented.

3.3.3. Observations

During the field work of the research, unstructured observations were done. With unstructured observations, the researcher enters the field with no predetermined notion about what exactly to observe, only with some ideas about what to observe (Mullhall, 2003). Observations are very useful to get to know more about the way people move, interact and use space, as this is part of how particular social settings are structured (Mullhall, 2003). In this research, unstructured observations were done at the beaches in Manly and Noosa. This is the place where surfing happens, so it is useful to look at the way surfers, surf tourists and other people move, interact and use that space. While doing observations, an observation guide based on the indicators of the Surf Resource Sustainability Index (see Appendix I) was kept in mind, to observe how sustainability indicators are visible in this space. During the observations, field notes about the behaviour and interaction of people, activities, the physical environment, special events and personal reflections were made. These field notes were processed immediately after the observations.

3.3.4. Document analysis

To get a better understanding of strategies that official bodies in Manly and Noosa are using to develop (surf) tourism in a sustainable way, tourism development documents were studied. At the moment, the Northern Beaches Council in Manly is developing a Destination Management Plan. The Destination Management Plan will be a strategic document that provides a framework to guide sustainable tourism over the next five years. It is based on collaboration with and consensus of the government, community and industry. The Destination Management Plan will align with the Community Strategic Plan 2018-2028 of the Northern Beaches Council (Northern Beaches Council, n.d.b). According to the Northern Beaches Council (n.d.b), *“The Plan will provide guidance to ensure that tourism continues to support the local economy and local amenity while considering and protecting the unique natural environment and cultural attributes of the Northern Beaches”*. Unfortunately, the Destination Management Plan was not ready for public exhibition at the moment of writing. For this research, the paper ‘Draft Key Directions for a Sustainable Visitor Economy’ is studied. This paper aims to inform the Destination Management Plan and sets out the draft destination statement and the experience themes that will shape the Destination Management Plan. These themes have emerged through annual visitor surveys, industry consultation, recent visitation data and an analysis of global and domestic trends (Northern Beaches Council, 2019b).

Tourism Noosa (the tourism marketing body of Noosa) has made a ‘Tourism Strategy Noosa 2017-2022’. The document was developed to guide sustainable tourism development and destination management in Noosa for the next five years (Tourism Noosa, 2016). This document was studied in

this research. Furthermore, the ‘Noosa Shire Local Economic Plan’ was studied, especially the part about tourism. The plan aims to “*broaden the economic structure of the local economy by achieving growth in ‘smart’ industry sectors that have high economic value and low environmental impact*” (Noosa Council, 2015).

3.4. Data Analysis

To be able to analyse the interviews and the observations, the interviews were transcribed and the fieldnotes of the observation were processed. To analyse the data from the interviews and observations, the method of coding was used. Boeije (2010) describes coding as a tool to create order in the data and to separate it into meaningful parts. To code the interviews, the coding program Atlas.ti was used. First, open coding was done to code the transcripts of the interviews and the field notes of the observations. As the qualitative assessments at the indicator level of the SRSI framework created a comprehensive register of information, the social, economic, environmental and governance indicators of the SRSI framework were taken into account while doing the open coding. Examples of codes created during open coding are codes like: ‘*Regulations for surf tourism*’, ‘*Rules for development*’, ‘*Spreading of crowds*’ and ‘*Marketing and communication tools*’. After open coding, connections were made between the codes, which made it possible to put the data together in new categories. This is called axial coding (Boeije, 2010). The examples of codes mentioned were, together with other codes, part of the following categories: ‘*Measures for sustainability*’, ‘*Surf tourism regulations*’, ‘*Teaching surf tourists*’ and ‘*Spreading of crowds*’. At last, selective coding was done. Selective coding means that connections are made between categories to make sense of the subject (Boeije, 2010). The four categories of the example were connected and formed a new, main category: ‘*Measures and regulations for sustainable surfing*’. This is one example of the main categories, in total ten final categories were created. These main categories can be found in table 4.

Table 4: Main categories of codes

Category 1	Surfing community, culture and heritage
Category 2	Negative impact surf tourism
Category 3	Benefits of surf tourism
Category 4	Behaviour of surfers
Category 5	(Worldwide) changes in surfing
Category 6	Cultural sustainability
Category 7	Environmental sustainability
Category 8	Future challenges
Category 9	Measures and regulations for sustainable surfing
Category 10	Role of stakeholders and cooperation

At first the ten main categories that came out of axial and selective coding were separately compared within the case studies. After comparing it within the case studies, both case studies were compared with each other. This formed a descriptive basis. These descriptions were further analysed and that analysis formed the interview results.

The documents of the document analysis were analysed by first selecting the most relevant parts of these documents. After selecting, these parts were read while keeping the indicators from the SRSI framework in mind. The most interesting findings from all the documents were saved and used to strengthen the findings from the interviews and observations. Because the documents read were all policy papers, the findings from the document analysis were mainly used to strengthen the interview findings received from the stakeholder group ‘(local) government’.

In the discussion chapter, the findings based on the analysis of the interviews, observations and documents were integrated with insights from the literature review and conceptual framework. This was done by linking the study's findings on sustainable surf tourism, the SRSI framework, stakeholder involvement and future challenges with the findings from the literature, giving the discussion a similar structure as the literature review. Arguments about how the findings were related or not related to the literature were discussed, to identify similarities, differences and coherence.

3.5. Validity and reliability

Boeije (2010) describes validity and reliability as two important indicators for the quality of a research. The validity is about being specific about what you set out to assess. There are three forms of validity: construct validity, internal validity and external validity (Boeije, 2010). Construct validity refers to whether the measure that is formulated for a concept, really does reflect that concept (Boeije, 2010). This means that all the questions you ask during an interview, should represent the concept you want to measure. In this research, all the interview questions were based on the operationalisation in paragraph 2.6.1, and were asked in order to get an answer on the research questions. During the interviews, questions were asked about the sustainability of surf tourism, (past) developments in surf tourism, challenges around surf tourism and the collaboration between stakeholders. A sample of the interview guides can be found in Appendix II.

Internal validity means that the results of the research are in line with what the researcher had set out. When conclusions are correct, this is taken as internal validity (Boeije, 2010). The internal validity can be increased by using different research methods (triangulation of methods). In this research, three different research methods (interviews, observations and document analysis) were used to base the conclusion on. This increased the internal validity. There are however also things that can threaten the internal validity of a research. When for instance a segment of the selected population cannot be reached and is therefore left out of the research, this is a threat to the internal validity (Boeije, 2010). In this research, no representatives of Manly World Surfing Reserve could be reached. This means that their perspective is not represented in the research, although this was the intention. Other than that, all the intended stakeholder groups could be reached.

External validity is about whether the results of a research can be generalised beyond the specific research context (Boeije, 2010). As this is a qualitative research, the generalisation in terms of representing a whole population is not possible. However, emphasis was put on the generalisation to other, similar cases. The external validity of this research was increased by comparing two cases with each other. By doing the same research in two different cases, the generalisation of the results was tested.

Reliability is about the consistency of the methods used in the research. This means that if the research methods are repeatedly used, this should lead to the same outcomes if nothing has changed the situation in the meantime (Boeije, 2010). In qualitative research, repetition of the research is hard to realise, as it is not possible to repeat the used methods under exact the same circumstances. Since there are no standardised data collection methods used, the reliability of this research is not high. There are however some aspects that made the reliability increase. In every interview, the same topics were addressed: sustainable surf tourism, (past) developments, challenges and collaboration between stakeholders. Therefore, the interview guide (see Appendix II) can be seen as reliable. Furthermore, the same research instruments (interview guide and observation guide) were used in both cases. This makes that the two cases can be compared with each other, as the research methods are stable. At last, the interviews were literally transcribed and Atlas.ti is used to analyse the interviews, which means that the interviews are analysed in a systematic way.

3.6. Limitations of the Research

This research has some limitations. The first limitation can be found in the comparison of cases. Stakeholders were meant to be interviewed from all identified stakeholder groups in both cases. However, it was not possible to get contact with someone who could represent Manly World Surfing Reserve as it seems that nobody is responsible for it anymore. Therefore, this stakeholder group was represented in Noosa, but not in Manly. This has limited the comparison of Manly and Noosa and threatened the internal validity of the research.

A second limitation has to do with the season in which the field work was conducted. The field work was conducted in the early spring and that is seen as low season for (surf) tourism in Australia. This especially influenced the interpretation of the observations, as the observed areas would have looked different during high season. During high season, there would have been many more surfers to observe. Especially in Noosa it would have been different, as during the field work there were not many waves, which made observing surfers harder.

Moreover, a third limitation is the lack of time. As it is a master thesis, there was a limited time for the research. The cases could have been studied more intensively if there was more time to carry out the research, with as result more extensive research findings. This could have been achieved by interviewing more stakeholders, doing more observations and analysing more documents.

This brings us to the last limitation, as more research to the same topic could have made the research findings more generalisable to a wider area. The research only focused on two case studies and the results were based on the characteristics of these cases. Each case is different, which makes that in order to study sustainable surf tourism in developed countries thoroughly, the same study should be carried out in different cases in Australia, or even in other developed countries. An increased generalisability beyond the specific research context would have increased the external validity of the research.

4. Findings

In this chapter, the findings of the study are presented. First the results of Manly and Noosa are described in separate subchapters, followed by a comparison of both cases.

4.1. Manly

4.1.1. Characteristics of Manly

Surfing in Manly is well developed as a tourism and leisure activity, which can be explained by the fact that Sydney is very close. Manly Beach is easy to reach by ferry, that goes directly from Sydney to Manly. Cities like Sydney and Brisbane have many inhabitants that surf, and there are also a lot of tourists that want to surf. According to one of the interviewees from a surf shop, Sydney is the “*surf city in Australia*” (Interviewee from a surf shop in Manly). Many tourists come to Manly to try surfing, often for the first time. Manly is a good place to try surfing for the first time because the waves are not as big as in other parts of Australia and as at other beaches near Sydney. This makes it a great place for beginners. An interviewee from a hostel told that there are many tourists that do not come especially for surfing, but when they see the locals surfing, they get interested in trying it.

It appears that tourism numbers (both surfing and non-surfing) increased a lot throughout the last 15 years. One interviewee thinks that between 2012 and 2016, tourism was increasing exponential every summer. The last two, three years, the increase was a bit slower, but the numbers are still growing. Also the council sees in their numbers that in the last 5 years, tourism numbers have not grown that significantly as the years before. In general, tourism numbers fluctuate a bit. In total, the whole Northern Beaches currently have three million visitors per year. The biggest group of tourists are day trippers, and most of them go to Manly by ferry. A minority of them rent or bring a surfboard, or take a lesson at the surf school. There are few tourists that come to Manly specifically for the waves, but there are more and more tourists who try surfing when they are in Manly, for example by taking a surf lesson at Manly Surf School.

The increase of surfing tourists and the changes in demographics in Manly are similar to the worldwide changes in surfing. Surfing in general is becoming quite a popular sport all around the world. There is a lot of pushing from the surf industry to open surfing to the mainstream. Surfing will even become a sport at the next Olympics (Arroyo et al., 2019). This increasing popularity makes that more people coming to Australia want to surf, as Australia is famous for its waves and because tourists know that in Australia surfing is such an accessible sport and activity.

To manage tourism in a sustainable way, The Northern Beaches Council is working on a Destination Management Plan. In the Destination Management Plan, five visitor experience themes play an important role. These are Urban Coast Culture, Nature, Arts and Creativity, Shared Heritage and Events (Northern Beaches Council, 2019b). The themes build upon the strengths of the area, tap into global tourism trends and reinforce the place brand of the Northern Beaches, which is ‘Altogether Extraordinary’ (Northern Beaches Council, 2019b). With this Destination Management Plan, they hope to promote sustainable tourism.

Manly has always been a surf town. According to some interviewees, almost everyone in Manly surfs, or has surfed in their life. This typifies the surf culture of Manly: it is an activity and culture in which almost the whole community is involved. Back in the 60’s or 70’s, Manly was probably one of the first big surfing towns. Surfing was the opposite from mainstream at that time, surfers were seen as ‘low lives’. After that time, surfing became more popular and today surfing is for everyone.

“I think everyone in Manly surfs, or probably have surfed in their life once or twice. So it is just really rooted in the community. It is very mainstream, also because I think surfing generally is becoming quite a mainstream sport all around the world.” (Interviewee from a surf shop in Manly)

So according to the interviewees, almost everyone in Manly is involved in surfing in a certain way and it plays a big role in the community.

“We love the environment, we love the beach, we love the water. Surfing and Manly goes hand in hand.” (Interviewee from Queenscliff Surf Lifesaving Club)

In addition, Manly has important surf heritage and the council tries to conserve this and brings some of this to the world by recognizing and promoting it. Surfing is part of the culture and identity of the Northern Beaches for already a long time. Freshwater Beach (next to Manly Beach) was the beach where surfing started in Australia. Duke Kahanamoku from Hawaii introduced the modern way of surfing, on a board, in Freshwater. Near Freshwater Beach, there is a statue of Duke Kahanamoku (see figure 7) to honour the history of surfing in Australia. Furthermore, the Northern Beaches Council placed some water taps with images and information about the history of Manly Beach along the North Steyne boulevard (figure 8).



Figure 7: Statue at Freshwater from Duke Kahanamoku to celebrate the surfing history of the Northern Beaches. Source: Author's own photo taken during fieldwork in Manly, November, 2019.



Figure 8: Drinking taps along the boulevard showing the heritage of the beach culture of Manly. Source: Author's own photo taken during fieldwork in Manly, October, 2019.

4.1.2. Crowding and behaviour

Almost all interviewees find crowding of surf breaks the biggest negative impact of surf tourism. It can get crowded in the water, especially on weekends and when the waves are good. Also during the summer and other holidays, Manly Beach and the surf breaks at Manly Beach are very crowded. Some interviewees mentioned that overcrowding in the water is a product of population as it is so close to Sydney. Being a surf spot close to a big city goes along with crowding from the city.

"It is crowded in the water, but that is just a product of population. Sydney is a big city which naturally grows, there are much people that want to surf." (Interviewee from a surf shop in Manly)

A way to cope with surfing crowds is the spreading of surfers. Some interviewees mention that spreading is still possible in Manly. But the question is if people want to go to other beaches than Manly Beach:

"Maybe there will be more spreading towards Freshwater for example, but people will be staying to come to Manly as it is easy to reach from the ferry." (Interviewee from surf school in Manly)

Some interviewees also think crowding is not much of a problem in Manly. One interviewee mentioned that although it might be overcrowded sometimes, surfing together with all the surfers still works, as everyone gives each other space.

The council has some measures to regulate the surfing crowds in the water. At Manly Beach, they only allow one surf school to operate. This way, they regulate the amount of surf classes in the water. Furthermore, in the Destination Management Plan they want to focus on the spreading of tourism from Manly to the whole Northern Beaches. The council will be working with local tourism operators to get tourists to other beaches by making those attractive to them. One thing the council

does to get an idea about the people on the beach and surfers in the water, is counting the number of people. The lifeguards are doing headcounts and the council is working on other methods to do the counting.

Crowding can bring some problems, that especially are experienced by local surfers. One negative implication of the increase of surf tourists is that there are more people in the water, which means that there are more people to share the waves with. This can be frustrating for surfers. However, most interviewees think that the tension between local surfers and surfing tourists is not that high in Manly as the local surfers in Manly are in general quite friendly, also towards surf tourists. According to the interviewees, this is because surfers in Manly are used to tourists and sharing waves with them.

“By living in Manly, people choose to share the space with tourists. If they don’t want to, they have to go live somewhere else.” (Lifeguard in Manly)

This is different at beaches in the Northern Beaches where there are less tourists, like North Narrabeen. Local surfers there are quite aggressive towards surfing tourists. Most interviewees think that local surfers need to deal with crowding by themselves, learning how to do this. They think this is not something that can be regulated by the council for example. According to them, surf culture is about sharing the sea. People are afraid that if you start to interfere in this, it will cause trouble.

A second problem is that many surf tourists in Manly are new to surfing and do not know the surfing rules and have no understanding of the sea. This can be dangerous.

“People that are new to surfing and to the place don’t know what they are doing. If you grow up here, you have an understanding of the area. If you just come here, you don’t have this understanding and that can be dangerous.” (Interviewee from a surf shop in Manly)

Also crowding of surfers can be dangerous, as this makes it easier for accidents to happen. Among local surfers there is a structure in the water for surfing, but surf tourists who are new to Manly do not know this structure. This causes chaos in the water and that is dangerous. Another example of a structure in the water are swimming areas. A concern for the lifeguards and beach patrols is to get surfers away from the designated swimming areas:

“What we have to do is continue letting the surf tourists and also general surfers know that they have to stay away from the designated swimming areas. But you do get a lot of tourists down here surfing that don’t know the rules or don’t understand the rules.” (Interviewee from Queenscliff Surf Livesaving Club)

At the surf school on Manly Beach, they teach their students the structure in the water so they know what they are doing when they are surfing. Furthermore, the interviewees think that the council needs to have more strategies to get the surfers following the surfing rules. An example of something that is already done are signs along the North Steyne boulevard that tell the surfing safety rules. The interviewees think that this kind of measures will help surfers to learn the surfing rules.

4.1.3. Cultural sustainability

The general opinion of the interviewees in Manly is that surf tourism does not have a high impact on the surf culture of Manly. According to one of the interviewees, surf tourists are not really affecting the surf culture of Manly, as tourists are part of the culture of Manly. Another interviewee mentioned that surf culture does not need to be protected, as the ocean is for everyone. That surfing is for everyone, is seen as an important value in surfing. Furthermore, the beaches are open to everyone and this is something that cannot be regulated. In Manly, the surf culture has changed a lot

since Duke Kahanamoku surfed in Freshwater for the first time and the interest in surfing and surf culture increased with the increasing popularity of surfing as an activity. This might explain why the interviewees in Manly think surf tourism does not really impact the surf culture. As one of the interviewees said:

“Surf culture has to change and it changes, the beach is more open to other surfers. For surfing, it is the same as with other cultures. It changes.” (Interviewee from a surf shop in Manly)

The Northern Beaches Council has made a Key Directions Paper which explains five ‘Experience Themes’. Two themes that important for the surf culture are ‘Urban Coast Culture’ and ‘Shared Heritage’. These themes recognises the important cultural heritage of surfing and are associated with the designation of Manly-Freshwater as a National and World Surfing Reserve (Northern Beaches Council, 2019b). The themes will help to shape the Destination Management Plan of the council. The council will use the Destination Management Plan for the planning and development of the future of tourism and as they say, they want to *“strike a balance between conservation and sustainability with the aim to strengthen the visitor economy”* (Northern Beaches Council, 2019b, p. 1).

In addition, with increasing surf tourism numbers, people from all over the world with different cultures are coming to Manly. This gives both locals and tourists a chance for cultural exchange and to broaden themselves, as they get to meet other cultures while surfing. This is seen as a valuable cultural exchange by some of the interviewees.

4.1.4. Economic sustainability

One of the benefits of surf tourism for Manly is that the incomes from surf tourism help the local economy. Surf shops sell a lot of surfboards, wetsuits and surf accessories (especially during high season), it creates jobs for people (for example surf instructors) and tourists bring money to Manly by spending it in shops, restaurants and cafes. Furthermore, Manly stages major surfing events. Last year, consultants did an economic evaluation of the Vissla Sydney Surf Pro. Around 90.000 spectators came to the 10 day event, with over half coming from outside the local area. The visitors spent on average 31 Australian Dollar per day. The evaluation model estimated that the event directly contributed 2.3 million Australian Dollar gross value add to the local economy of the Northern Beaches (Interviewee from Northern Beaches Council). Furthermore, such events raise the profile of Manly by promoting Manly as (surfing) destination, which also probably will increase surf tourism in Manly. So, surfing events and surf tourism have a positive impact on the local economy of Manly.

But once people are coming to an area and tourism becomes a business model, it is hard to stop tourism developments. The same is happening at other tourism destinations in the world. Once an area has something that attracts people, the number of visitors will increase and more tourism developments will take place. According to some interviewees, some people are not really thinking about sustainability and the environment, as surf tourism causes economic incomes. They are afraid that this will cause problems:

“There will only be more and higher buildings that are spread on a wider area. Only the beach cannot become bigger, so only will become more crowded. Look at Gold Coast for example, more and more is being built there and it becomes more and more crowded.” (Interviewee from the surf school in Manly)

Many interviewees therefore mentioned that surf tourism developments should be limited. One of the interviewees thinks that the community is not actively trying to promote surf tourism themselves, as this would only cause more crowding in the water than that there already is and this

is not something that the local communities want. It is the local council and businesses who want tourists to come to Manly, as they bring money which is favourable for the economy of Manly.

One of the findings of the council from their research for the Destination Management Plan is that while visitor numbers are growing, the contribution of visitors to the local economy is not profuse. They are less than in the rest of Sydney. So in terms of sustainability, the council thinks that it would be a good idea to try and encourage not necessarily more tourism, but rather encourage tourists to stay longer and spend more.

“We should particularly target tourists who are likely to spend more in the local area and have special interest in art, nature or surfing and other recreation.” (Interviewee from Northern Beaches Council)

In the draft Destination Management Plan, they want to develop strategies to attract higher spending visitors. Furthermore, the local council mentioned that (surfing) tourism needs to be more spread out over the year, as there is a problem with seasonality.

“I think there are issues with seasonality, so particularly businesses in Manly have highlighted the very strong summer, but they cannot really break even the rest of the year.” (Interviewee from Northern Beaches Council)

Spreading of tourists over the year also would be good for crowding, as that will take away the pressure from peak times.

4.1.5. Environmental sustainability

According to several interviewees, Manly does not have many environmental issues. There is one environmental issue that was mentioned during one of the interviews, which is the impact of increasing surf tourism on the crab populations. In the past, there used to be a lot of crabs on the beach and in the water, but now surf tourism is increasing, they are not there anymore. Furthermore, tourists sometimes litter the beach. However in general, Manly Beach is very clean.

“Tourists have sometimes parties on the beach and don’t clean the place afterwards. They also litter the beach in general, they are not that clean as locals.” (Lifeguard in Manly)

Something that are some of the stakeholders in Manly are concerned with, is the sustainability of the (worldwide) surf industry. Worldwide, there is much going on around sustainability in the surf industry, especially around the use of more sustainable materials.

“There are surfboard makers that are making surfboards out of recycled resin, recycled wood, recycled blanks. And there is a wetsuit company that is making wetsuits out of natural rubber, rather than normal neoprene that comes from oil, or lime stone which is still a fossil fuel. So people are starting to understand this thing.” (Interviewee from a surf shop in Manly)

There is a lot of potential and its getting more attention, as surfing is a sport with a direct connection with nature.

“There is a lot of potential, because obviously it is a sport that involves the sea and the nature, so everyone understands that protecting the area is fundamental.” (Interviewee from a surf shop in Manly)

There are many companies that are starting to make surfboards out of recycled materials or wetsuits out of natural rubber, so people are beginning to think about the environmental impact. But obviously these new markets will be more expensive and especially tourists and beginners (the main

group in Manly) are mainly trying to spend less on surfing gear. Furthermore, it is not the best choice for everyone:

“There are some recycled boards but unfortunately to get the right amount of performance, durability and quality on a surfboard, you have to stick to the fiberglass or EPS, which comes from oil.”

(Interviewee from a surf shop in Manly)

People are becoming more conscious about it, but it is in an early stage. The council has been working with local surfboard shapers on sustainability of the products they use for the surfboards. This is something interesting that is going on locally. But this is maybe not really interesting for tourists, as tourists are mostly hiring (cheap) boards or bringing their own.

4.1.6. Involvement and collaboration of stakeholders

The surf tourism stakeholders in Manly mentioned during the interviews that they have some contact with other surf tourism stakeholders. With whom the stakeholders are in contact, differs per stakeholder. Most of the surf tourism operators mentioned that they do not really have contact with other surf tourism operators. The council mentioned that they work together with some local surf shops and surf operators to promote their services on the ‘Hello Manly’ website and in the Visitor Information Centre. The council also involved several surf tourism stakeholders in the surveys that were conducted for the Destination Management Plan. Furthermore, the council has contact with for example organisers of surfing events about permits and with the surf school to give approval to operate on Manly Beach. None of the interviewees had contact with the people behind Manly National and World Surfing Reserve. In general, the stakeholders think the surf tourism stakeholders are friendly towards each other, and the collaboration is more broad and not really collaborative.

4.2. Noosa

4.2.1. Characteristics of Noosa

Noosa has a well-developed surf culture. Surfing has been part of the culture of Noosa since the late 1950’s. Since that time, Noosa really has become a longboard surf destination and the longboard surf culture is quite strong. In surfing, there is a difference between longboards and shortboards. As the names tell, there is a difference in size. Furthermore, longboards are great for smaller waves that break more gently. Shortboards are used when the surf is larger and more powerful. Surfers will often choose the best board for the conditions (Hulke, 2019). The longboard culture goes back to the early days of surfing, when surfers spend long times at the beach and in the water and has not really changed over the years. The longboard culture is all about coming together at the beach and riding some waves. Because of this, the longboard culture is often seen as laid back or ‘soulful’. The shortboard culture is more performance orientated (Hulke, 2019). This is also acknowledged by the stakeholders in Noosa:

“Surf culture is about enjoying the surf and each other’s company, it is not only about catching waves.” (Interviewee from a surf shop in Noosa)

The longboard culture of Noosa is visible in for example the annual Noosa surfing festival that has been organised in March for already more than 20 years. The surfing festival also represents a longboard competition from the World Surf League. The laid back vibe of the longboard culture has a lot of influence on Noosa as a town. The laid back vibe is also visible in the vision of the ‘Tourism Strategy 2017-2022’ of Tourism Noosa (2016, p. 3), which is: *“To be recognized as Australia’s most relaxing, desired and sustainable tourism destination.”*

Noosa is a place that is popular for both surf and non-surf tourists. There is a lot of tourism, but many of the visitors are also non surf tourists. Noosa is differs from for example Byron Bay, where many

young tourists are coming and staying for a longer period of time. Tourism in Noosa is a bit more upper market, which means that the surf tourists differ from surf tourists in places where many backpackers come. Backpackers are more being found in places with a lot of activities and parties. In Noosa, there are not many activities and parties:

“In Noosa, you can see it’s quiet. People live here, work, surf, morning and afternoon and then they go back home.” (Interviewee from the surf school in Noosa)

In Noosa, many of the visitors are families staying in hotels or surf tourists that come specifically for the waves. The families come to Noosa for the National Park and the beaches. Attracting upper market, high yield segment tourists is part of the strategic priorities of the ‘Tourism Strategy 2017-2022’. With attracting high yield segments, they intend to grow the economic contribution of tourism to the region and tourism operators (Tourism Noosa, 2016).

There is a dataset about surfing in Noosa, collected by students that follow the course ‘surfonomics’ at the University of Sunshine Coast which is taught by one of the committee members of Noosa World Surfing Reserve. The data shows that Noosa is getting more surfers, and that the demographics has changed over the years. The overall age has risen, probably because Noosa has become more famous for its longboard waves (even though Noosa has waves for all kinds of surfers). Furthermore, the number of woman surfing has increased very much.

“There are girls surfers everywhere, often outnumbering the guys. I don’t see that in too many other places that I surf.” (Interviewee from Noosa World Surfing Reserve)

Noosa has a reputation that when the surf breaks are working (during cyclone season, starting in December), the waves are as good as any point break in Australia in terms of quality of waves. According to one of the interviewees, it is one of the Mecca’s for surfing in Australia. Furthermore, it is the last reasonably consistent surf spot on the east coast before the Great Barrier Reef starts. This means that it is one of the most Northern surf spots and that the water is warmer and the weather is better than at other surf spots in Australia. What also makes Noosa so popular as a surf place, is that the wind during summer is perfect for the point breaks. At the more southern surf spots, the condition of the waves is not ideal during the summer due to the wind. So in Noosa, they can have a great surf which works all day throughout the summer. These good surfing conditions attract many surfers from all over the world, who come specifically for the waves.



Figure 9: The Headland of Noosa National Park and its surf breaks. Source: Surfer Today, 2020.

In the beginning of 2020, Noosa was designated as a World Surfing Reserve. Noosa already was a National Surfing Reserve. From 2015 on, the committee behind Noosa World Surfing Reserve started working towards becoming a World Surfing Reserve. At the end of 2017, they were chosen as the 10th World Surfing Reserve. In two years of time, they worked on creating the Stewardship Program (that they were required to create before they would get the status) and in the beginning of 2020, Noosa became a World Surfing Reserve. Becoming a World Surfing Reserve was very much about recognizing the history of surfing and surfing culture in Noosa, which they think played an important role in shaping Noosa as town.

Noosa does not have many construction developments, because the council has stringent rules about for example the height of buildings and a ratio of gardens and walkways. That makes Noosa not an easy place to develop. As a result there are not many buildings 'staring' at you when you are in the water, as can be seen in figure 9 and 10. Furthermore, the Headland of Noosa became a National Park around fifty years ago. This protection means that this part of Noosa is never going to be developed. To achieve this, there has been half a century of environmental activism in Noosa. According to the interviewee of Noosa World Surfing Reserve, becoming a World Surfing Reserve can be seen as an extension of that history of environmental activism.



Figure 10: Noosa Main Beach. On the left: Noosa National Park. On the right: some complexes, but no buildings are higher than the ones on this picture. Source: Author's own photo taken during fieldwork in Noosa, November, 2019.

4.2.2. Crowding and behaviour

When the waves are good, the surf breaks of Noosa can get very crowded. This is especially the case at the summer holiday, because around that time the waves are usually good and many surfers have time to come to Noosa. Being a World Surfing Reserve will probably attract even more people to Noosa, as it gives worldwide publicity. The council is concerned about the increase of population in the Southeast corner of Queensland. On the Sunshine Coast for example, they expect an increase of the population with 200.000 people over the next couple of decades. That means that there will be more people in driving distance to Noosa, which means that when the waves are good, more people will drive to Noosa to surf. According to the council, this increase of surfers could be problematic for the crowding in the water. According to most of the interviewees, crowding is already a problem during peak times. But the interviewees who gain economic benefits from surf tourism find it hard to say anything about the crowding issues, as they benefit from the increase of surf tourists. Most of them said that they just deal with it themselves, by finding places to surf away from the crowds.

“For me, it is not really affecting me to be honest because personally, I like surfing away from people. I go to the stretch of sand over there” (Interviewee from the surf school in Noosa)

However the point breaks in the National Park are still the most attractive surf breaks, also for many local surfers.

“As a local there are times of the year when I simply avoid the surf or you know, trying to find a wave out on the open beaches rather than the points. But I’m addicted to point surfing, so if there’s any hint of a wave at the points I usually end up there anyway.” (Interviewee from Noosa Council)

Fortunately Noosa has many good surf breaks in a row, so crowds are able to spread out. This spread is already visible as more people are willing to walk to the points further away when the surf breaks are crowded, such as to Granite Bay:

“Twenty years ago, you’ve got have Granite just to yourself and a few mates, but that’s no longer the case. Because it is so crowded at the easy to reach points, the people are more inclined to keep walking to try and find a less crowded surf. That means that it’s crowded all the way out to the very end now.” (Interviewee from Noosa Council)

There are times when it is so crowded, it is *“beyond sustainable”* according to the council (Interviewee from Noosa Council). If there are really good waves, people come from everywhere to surf in Noosa.

“We had a couple of days like that earlier in the year where it was just unconscionably crowded, and where professionals were hiring jet skis to take them onto the wave early so they can get around the crowds. And when it gets like that, it gets basically dangerous.” (Interviewee from Noosa Council)

So, to make sure that the increase of surf tourists will be sustainable, the interviewees find that crowds need to spread. It is however uncertain if spreading still will be possible in the future as it is already crowded at the less popular spots. The interviewee from the council mentioned that they are struggling with finding ways to protect the surf breaks from overcrowding:

“I’m not sure that if there is a means to protect them. I don’t know how you could, you know, charge a ticket fee or significantly prevent some of the people who want to surf from surfing on particular days. I’ve never been able to work out a way that we could do that.” (Interviewee from Noosa Council)

One of the interviewees mentioned the potential of wave pools, which are pools that create an artificial wave. These might help spreading the crowds in Noosa in the future. One thing what the council does with a significant impact, is letting surf schools get a permit. They only allow one surf school on Noosa Main Beach. In this way, they can limit the number of surf classes and regulate who is operating and where they are operating. This is really important as this impacts the amount of people that are learning to surf and on other people using the beach.

“If the council didn’t control it, it would be a free for all of surf schools and that would be chaos.” (Interviewee from Noosa Council)

A consequence of crowded surf breaks are behavioural issues among surfers. In general, surfers get more aggressive if surf breaks are crowded, often because they are annoyed by beginners. According to the interviewees, surfers in Noosa are most of the time friendly, also towards surf tourists. This might be explained by the fact that there are many ‘older’ longboard surfers.

“Because most of the local surfers are older longboarders, that lends a certain attitude which is a bit more relax, a lot less aggressive.” (Interviewee from Noosa Council)

Most of the interviewees think that local surfers in Noosa are more friendly than in other places in Australia. One of the interviewees even mentioned that:

“Locals embrace new people coming to Noosa. This is very different than in other places.”
(Interviewee from a surf shop in Noosa)

Next to the high amount of longboard surfers, the friendly attitude of local surfers might be because Noosa is a small town with a small surfing community.

“You tend to know much of the faces in the surf and everyone is pretty friendly towards each other.”
(Interviewee from Noosa Council)

But during the summer holiday and other busy times, it can also be different in Noosa. During peak times, some interviewees experience problems with the behaviour of surfers.

“I always look forward to when the holidays ends so that we can get back to the more relax style of surfing here in Noosa.” (Interviewee from Noosa Council)

Noosa World Surfing Reserve is trying to address the behavioural issues during these times. One of the major roles of Noosa World Surfing Reserve is trying to make everyone understand that more surf tourists are coming, and that surfing, due to increasing crowds, is going to get harder for everybody. They are trying to tell surfers that:

“It’s no good sitting out at the line-up, abusing visitors, telling them: you know, I’ve lived here for forty years or something, this is my break, so go away, or use words with that effect. That attitude is nothing. Because they’re not going to go away, and you’re just going to ruin your own enjoyment of the amenity.” (Interviewee from Noosa World Surfing Reserve)

Noosa World Surfing Reserve thinks that there needs to be a cultural behavioural change among surfers. People need to understand that they are all in this together and there needs to be some sort of balance between the desirability of surfing the best waves and the desirability of being out and catch a few waves.

“It means that, maybe you’ve got to settle for fewer waves every time you have a surf. Maybe you are going to have to learn to be happy with ten instead of twenty waves, maybe you’re going to have to learn to surf big grey waves, or even see grey waves, because there are fewer people on that break, maybe you’ve got to change the whole way you think about surfing, so that you can have more personal enjoyment, and everybody else can, you know, fall in the line.” (Interviewee from Noosa World Surfing Reserve)

Addressing these behavioural issues will take a long time, but even if there will be a 10% improvement, it will already be good. At the moment, Noosa World Surfing Reserve is making use of a whole range of marketing and communication tools to help making a behavioural change by surfers. One example of this is distributing posters and flyers with the surf code. On these posters and flyers they describe:

“How to behave in the water, where to sit, where to paddle out, don’t take this wave because this guys are already on it and so on.” (Interviewee from Noosa World Surfing Reserve)

These posters are being distributed to all surfboard rentals, surf shops, surf schools and some hostels and hotels. Furthermore, they would like to have signs at the beaches, which explain the surfing rules and desired behaviour in several of the more popular foreign languages. But the council has stringent rules about beach signage, so it is not sure if this will be implemented. The information is also shown on several websites. This way, they try to transmit these messages to let a behavioural change in the surf community happen.

“And I think it’s not going to be easy, but I think we’re making a pretty valued attempt to get people starting to think about these issues.” (Interviewee from Noosa World Surfing Reserve)

Another negative consequence of crowding in Noosa is parking issues. There are few parking places close to the beach, which makes that on a busy day, not all surfers are able to park their car close to the beach. This means that people have to walk a long way to get from their cars to the beach. This can also cause behavioural issues.

“By the time that they walk from along their way and get to the surf, they will be very aggressive and angry, and that will cause problems in the water.” (Interviewee from Noosa World Surfing Reserve)

So, measures should be taken to solve these issues. The interviewee from Noosa World Surfing Reserve thinks that for example getting bus services from carparks further away to and from the beach can be a possible measure. This also happens in the ski and snowboard world. Another example of a solution is that people come by scooter or e-bike, which takes less space to park. Altogether, there also needs to be a change in mindset about getting to the beach.

4.2.3. Cultural sustainability

As described earlier, Noosa has a strong longboard surf culture and that has a lot of influence on Noosa as a town. But some of the interviewees think that the surf culture is changing in Noosa, which is a consequence of the changes in surf gear. In the past, everyone surfed on longboards. Now there is a bigger variety in shapes and sizes of boards and fins, which makes that also surfers in Noosa are trying other boards. This has impact on the longboard culture, as longboarders are no longer the only ones in the water and surfing is not only about catching a few waves with some friends anymore. In addition, the worldwide increasing commercialisation of surf culture has impact on the surf culture in Noosa:

“Over the last few decades, advertisers have used surfing as a symbol for a certain type of lifestyle, a certain sort of attitude. You can obviously see the changes in surfing style and surfing equipment in Noosa.” (Interviewee from Noosa Council)

On the other hand, some other interviewees think that the longboard culture is still in place. There are many longboarders and the surfers are in general older than average. The high amount of older people surfing is characteristic for the longboard culture, as people surfing on a longboard are in general older than average surfers. So this is a sign that Noosa is still famous for its longboard waves. Furthermore, one interviewee mentioned that crowding due to the increase of surfing tourists will not really have an impact on the surf culture, as surf culture is more than only catching waves: it is also about coming together. So it still will exist even if, due to crowding, people can catch less waves. Therefore, some of the interviewees think that the increase of numbers of surfers will not have much influence on the surf culture in Noosa.

Many interviewees find it important to protect the surf culture. The longboard surf culture is attempted to be protected by for example the Noosa Festival of Surfing and shops like Noosa Longboards. The Noosa Festival of Surfing is an annual 9 day festival and includes (longboard) surfing competitions, as well as surfing exhibitions and the promotion of the surfing culture of Noosa with for example movies, music and art (Finley, 2019).

4.2.4. Economic sustainability

The value of Noosa as a surfing destination is very high, because of the outstanding waves that attract many surf tourists. Furthermore, Noosa has benefits from the worldwide increase of popularity in surf tourism, as this makes more and more people interested in the waves of Noosa.

Surf tourism is economically important for surf shops and surf schools in Noosa, as they get their incomes from the surf tourism economy. The interviewees from the surf shops and surf schools are therefore happy with surf tourists, and see the increase of surf tourism in general as something positive.

“There are no negatives about surfers coming to Noosa, it helps the local economy.” (Interviewee from a surf shop in Noosa)

The database from the ‘surfonomics’ course of the University of Sunshine Coast plays an important role in helping surfing operations with planning their businesses around the data about the waves of people coming to Noosa.

“They are preparing data on who surfs where, for how long, how many times a week do they go surfing, what breaks do they like to surf, what’s their history, how long have they surfed, what kind of boards they are at, and this database is growing dramatically.” (Interviewee from Noosa World Surfing Reserve)

In addition, the data shows the inhabitants of Noosa that surfing, because of Noosa’s high value as surfing destination, is economically important for the broader community of Noosa, and not only for surfers. Surf tourists also make use of facilities like hotels, shops, restaurants and bars, which have a positive impact on the economy of Noosa. Furthermore, tourism is a key employing sector in Noosa (Noosa Council, 2015).

To benefit from the economic advantages from tourism but to also develop tourism in a sustainable way, Tourism Noosa (2016) wants to focus on ‘value over volume’, by targeting high-yielding visitors. This will increase the spending of tourists, but not the crowding of tourists. The ‘Tourism Strategy 2017-2022’ *“clearly identifies key opportunities for the destination to further grow the benefits from tourism, simultaneously promoting economic, social and ecological sustainability of the region”* (Tourism Noosa, 2016, p. 6).

4.2.5. Environmental sustainability

There are some environmental issues in Noosa that have influence on the surf breaks. One of them is sand pumping, which can change the surf breaks. Sand pumping happens quite often in Noosa, to try to address erosion issues. It is done by the council, by contractors of the council or in some cases by private individuals. Additionally sand is sometimes dumped and this has resulted in all kinds of long term damage to the surf breaks and is not helping the nature either, as sand pumping is.

Furthermore, there are some environmental issues with the river. One of them is the reduction of biodiversity in the river. There are for example fewer fish and oysters, which affects the marine environment. The river also has bad erosion in many parts, and they do not know how to fix that. Moreover, silting is creating all kinds of issues, for example the disruption of fish migrations. To summarise, there are definitely some issues, but they are all ‘first world issues’ according to the interviewees. If you go for instance to Central America or Asia, environmental issues around surf breaks could be much worse. In Noosa, they are basically just trying to prevent worse issues from happening, rather than trying to fix it after it happened.

Environmental sustainability is also about the amount of plastic and other waste people leave behind. Only a couple of years ago, surf schools for example would leave plastic bottles behind at the beach when they left. Now they have clean-ups and use reusable bottles.

“It has taken a long time to seep into the consciousness, but there’s a whole range of environmental issues and sustainability issues that I think most of the operators are now considering.” (Interviewee from Noosa World Surfing Reserve)

Becoming a World Surfing Reserve creates opportunities to provide leverage where it is required by taking a position on environmental issues regarding Noosa, as the Noosa World Surfing Reserve committee has the position to protect the surf breaks if necessary.

“If for example the council into the future decides to do some dredging or introduce an artificial reef, or you know, change the nature of the surf breaks, then the World Surfing Reserve would be in a position to be able to try and influence the outcome.” (Interviewee from Noosa Council)

The Noosa World Surfing Reserve committee works together with the council and other authorities on taking into account the quality of the waves in (environmental) decisions.

Also the history of environmental activism and being a National Park means that the surf breaks that are situated within the National Park will be protected from environmental changes. It also means for Noosa World Surfing Reserve that they do not have to fight all these environmental battles to protect the surf breaks and the nature around it, as they have already been fought. But they still have to maintain them and make sure that it does not go backwards.

“We have to make sure Noosa remains a great place for surfers to come and enjoy the waves.” (Interviewee from Noosa World Surfing Reserve)

The importance of the natural areas is also recognised in the ‘Tourism Strategy 2017-2022’, as the strategy advocates for the Noosa Biosphere Reserve and for a balance between nature conservation and industry (Tourism Noosa, 2016). Noosa wants to profile itself as a sustainable tourism destination. One of their strategic priorities is to *“Establish benchmarked sustainable tourism criteria aligned with the Global Sustainable Tourism Council criteria”* (Tourism Noosa, 2016, p. 3).

4.2.6. Involvement and collaboration of stakeholders

Most of the stakeholders mentioned that they work together with other surf tourism stakeholders. Especially Noosa World Surfing Reserve is a binding factor between the stakeholders. They distribute posters and flyers with the surf code among surf operators and inform them about this topic. Furthermore, the Noosa World Surfing Reserve committee has representatives of almost every major stakeholder group in the sport and culture of surfing in Noosa, as well as representatives from outside the surfing perspective. This makes that the contact of Noosa World Surfing Reserve with other stakeholders is very well. The council supports the establishment of Noosa World Surfing Reserve and is also represented in the committee. Furthermore, the council has contact with people like organisers of surf events to provide permits. They have some contact with surf tourism operators when it is required, but in general there is not much collaboration. The surf tourism stakeholders in Noosa find that operations are respectful and friendly towards each other. Most of the interviewees think that this is because Noosa is a small (surfing) community.

4.3. Comparing Manly and Noosa

4.3.1. Comparison of characteristics

A big difference between Manly and Noosa is that Manly is part of Sydney, a big city and Noosa is not part of any city. In cities like Sydney, there are much tourists and because of the location at the coast also much surf tourists. According to one of the interviewees, Sydney is even the surf city of Australia. Manly attracts many tourists, especially day trippers coming by ferry from Sydney. Some of them hire or bring a surfboard, but this is only a small part. Noosa is a small town. Tourism in Noosa

is a bit more upper market and Noosa is a place where many families go on holidays. Most of the tourists come for the nature in Noosa National Park and the beaches of Noosa. This difference becomes evident by looking at the amount of (tourism) developments. In Manly, it is likely that more buildings are going to be developed the coming years, as cities grow gradually. Noosa has not much construction developments, also because the council has stringent rules for buildings. Noosa is not an easy place to develop, as part of Noosa is a National Park. This part of Noosa is never going to be developed and makes it also difficult for other developments in the surrounding areas. Furthermore, Tourism Noosa, the marketing body of Noosa, has a high focus on making Noosa a sustainable tourism destination (Tourism Noosa, 2016).

Another difference between Manly and Noosa is the kind of surf tourism it attracts. Manly is a great place for beginners, as the waves are not that challenging as in other parts of Australia. Therefore, many tourists come to Manly to try surfing. There are not many experienced surfers that come to Manly only for surfing, as the waves are not special enough. In Noosa, surfers are coming specifically for the good waves. Noosa has the reputation that when the surf conditions are good during cyclone season (starting in December), it is the best point break in Australia in terms of quality of the waves. Furthermore, during summer the wind is perfect for the surf breaks. At other surf spots further in the south, the wind is less good for the waves during summer. So in Noosa, there are good waves which works all day throughout the summer. This attracts many expert surfers.

Interviewees in both Manly and Noosa gave different answers to the question whether tourism numbers are increased. Some think the increase of tourism numbers was exponential while some think the numbers fluctuate or have not grown significantly. One of the interviewees in Noosa mentioned also that the amount of tourists in Noosa depends on factors like the economy of Australia, the economy of the rest of the world and the weather. But in general, the interviewees see an increase of tourism and surf tourism numbers. Both places saw a change in the demographics of surfers. In Manly, they see a wider spread of ages surfing and an increase of women. In Noosa there are much 'older' people in the water over the last years, probably because Noosa has become more and more famous for its longboard waves, which attracts older surfers. Also the number of female surfers increased in Noosa.

Although in both places surfing played an important role in the history, the history of surfing itself is different. Manly played an important role in the surfing history of Australia, as it was one of the beaches where surfing started in Australia. Duke Kahanamoku introduced the modern way of surfing in Freshwater, which is next to Manly Beach. This important surfing heritage is part of the identity of the Northern Beaches. Surfing has been part of the community of Noosa since the 1950's, so not as long as in Manly.

Also the surf culture is different. Manly has always been a surf town, most of the interviewees think that almost everyone in Manly surfs or has surfed in their life. According to one of the interviewees, *"Manly and surfing goes hand in hand"* (interviewee from Queenscliff Surf Lifesaving Club). Noosa is also known for its surf culture. Similar to Manly, most of the interviewees said that almost everyone in Noosa lives for surfing. But during the years, it became famous for its longboard culture. This longboard culture is very important for Noosa. As the interviewee from Noosa Council states: *"the longboard culture delivered a great deal of the attitude Noosa has to the environment and to its lifestyle"*. It also resulted in the Noosa Surfing Festival each year in March for already more than twenty years, and a longboard competition from the World Surf League.

Manly and Noosa are both designated as a World Surfing Reserve. Manly was dedicated as a World Surfing Reserve in 2012, mainly for its surfing heritage values. According to the website of Save The

Waves (n.d.a), Manly-Freshwater *“is the most surf-centred community in Australia – no other beaches can boast such history, popularity and consistent quality surf”*. However, the interviews showed that the dedication of Manly as World Surfing Reserve is not really playing a role in Manly anymore. According to one of the interviewees, most people in Manly do not even know Manly is a World Surfing Reserve. It only was a topic around the time of the dedication, but now it is not used for any purposes. Also the interviewees of the council could not say more about it. The only visible sign of the fact that Manly is a World Surfing Reserve, is a sign next to Manly Beach (see figure 12). Noosa is dedicated as a World Surfing Reserve in the beginning of 2020. So in Noosa, it is a big topic at the moment. Becoming a World Surfing Reserve was very much about recognising the history of surfing, the surfing culture and the high quality waves of Noosa. Also the dedication to the preservation of the natural and coastal resources of the local community played a role in becoming a World Surfing Reserve. Noosa knows half a century of environmental activism to protect the nature for developments. In a way, becoming a World Surfing Reserve is an extension of that history of environmental activism. According to the website of Save The Waves (n.d.b), Noosa World Surfing Reserve is *“an exemplary coastal community dedicated to the preservation of their coastal and surfing resources”*. So, both cases are a World Surfing Reserve because of different reasons. In Noosa, it is currently more a topic than in Manly. This can be because Noosa just became a World Surfing Reserve, as in the beginning of Manly becoming a World Surfing Reserve, this was a topic too. But another explanation can be that the history of environmental activism in Noosa makes that using the status of World Surfing Reserve is seen as ‘logical’ and will also be used in the future, more than in Manly.



Figure 11: The only sign that remembers that Manly is a National and World Surfing Reserve. Source: Author's own photo taken during fieldwork in Manly, November, 2019.

4.3.2. Crowding and behaviour of surfers

Both in Manly and Noosa they experience crowding during weekends, holiday periods and other times when the waves are good.

“Noosa is already a very popular destination without adding surfing to it, but if you add surfing to the mix, it can get very crowded at obviously peak holiday times.” (Interviewee from Noosa Council)

Overcrowding has different impacts on Manly and Noosa. The big amount of beginners surfing in Manly can cause dangerous situations, as beginners in general do not really know what to do when they are surfing and often have no understanding of the area. Among locals, there is a structure in the water, but surf tourists and especially people who are new to surfing do not know this structure and cannot follow it. This causes chaos in the water and that can be dangerous. In Noosa, it gets especially crowded when the waves are really good or during the summer holiday. As Noosa is known for its outstanding waves, people come from all places when they hear that the waves are good. These are mainly more experienced surfers, so the problems around crowding vary from Manly because of the differences in the kind of visitors that come to surf. But crowding can still cause dangerous situations in Noosa.

Another difference is that Manly Beach is a city beach of Sydney, and Noosa is a town. But both places have many surfers coming for a day, in Manly from Sydney and in Noosa from places like the Sunshine Coast. So in the sense of crowding, both places have day trippers coming from another area.

Furthermore, both places have possibilities for spreading these crowds. Although the physical conditions of the surf breaks are in both places very different (in Noosa mainly point breaks in a National Park around the Headland and in Manly beach breaks along a long beach), both places still have surrounding beaches that are not crowded. It is however the question if people are willing to spread, as the popular surf breaks are better to reach than other ones. In Noosa, they already see that the surf breaks further away are getting more crowded. In Manly, the council wants to work on the spreading of crowds to other beaches.

To sum up, Manly and Noosa have some similarities around crowds and the spreading of them. But they also have differences in the type of crowds. However, they use the same type of measure to make surfers aware of the (local) surfing rules and behavioural rules: they teach them to the surfers. Examples of this are paying attention to the surfing rules and water safety during the surfing lessons of the surf schools and making signs, posters and flyers that explain the surfing rules. In both cases, they find teaching these rules important as the behaviour of surfers is not always good. But almost all the interviewees in both cases think that the locals are in general friendly, also towards surfing tourists. In Manly, they think this is because surfers are used to surf together with tourists. This is different from other places in the Northern Beaches, where there are less surf tourists. Here, people are more aggressive towards tourists. In Noosa, they think the locals are friendly towards surf tourists because of the longboard culture. Longboard surfers have in general more laid back vibe, and have a less competitive attitude while surfing. One interviewee even called Noosa *“the friendliest surf town”*. They are however less used to surf tourists, so when it gets crowded, some mention that people can get aggressive. Noosa World Surfing Reserve finds it important to make people aware of the fact that the number of surf tourists will increase and that the surfers need to deal with this. They hope to communicate this message to the local surf community. In Manly, most of the interviewees believe that people need to learn to deal with increasing crowds by themselves.

4.3.3. Cultural sustainability

In Manly, the general opinion is that surf tourists are not really affecting the surf culture of Manly. This is because they think that the ocean is open to everyone. Furthermore, everyone in the community is part of the surf culture and surf tourists are also just part of the surf culture of Manly. Furthermore, change is part of surf culture as *“for surfing, it is the same as with other cultures: it changes.”* (Interviewee from a surf shop in Manly)

In Noosa, the situation is different. Noosa has a strong longboard surf culture and most people think that this culture needs to be protected. There are different attempts to protect the longboard surf culture in Noosa, by for example the Noosa Surfing Festival and shops like Noosa Longboards. But in Noosa, they also acknowledge that surf culture around the world is changing, and that Noosa is just part of that. In Noosa, this is especially visible in the surfing gear that is used:

“The way surfboards are and the way people wanted to surf on those days changes. Especially in the old times, people surfed on big boards, just more chilling surf, and now you have all different shapes and sizes and fins, things are just different.” (Interviewee from a surf shop in Noosa)

What is interesting, is that the idea about the change of surf culture in Manly is also shared by some stakeholders in Noosa. They think that tourism will not affect the surf culture much, as *“surf culture is about enjoying the surf and each other’s company, it is not only about catching waves”* (Interviewee from a surf shop in Noosa). Therefore, the interviewees think that the crowding of surfing tourists will not really affect the essence of the surf culture. This is interesting, as surf culture is directly related to and created by surfers. So maybe the essence of surf culture will not change, but a change of the current surf culture would be possible.

So people in Manly and Noosa think differently about some aspects of surf culture and how it should be protected from the influences of tourism. This difference can be explained by the differences in surf culture. In Manly, they have a long surfing history, but also a long history of tourism. So tourism always has been part of Manly and is therefore maybe also part of the surf culture. Furthermore, in Manly the general opinion is that surfing is for everyone and that the whole community is part of the surf culture of Manly. The surf community in Noosa is much smaller than in Manly and they are less used to surf tourists. Furthermore, the surf culture is centred around longboarding and they see the urge to protect this special kind of surf culture. With a small surfing community, it can also be easier to come up with means to protect the culture. This can also explain why in Noosa the surf culture is supported by events (initiated by the surfing community) such as the Noosa Surfing Festival, and in Manly the council mainly takes care of the surf culture in their Destination Management Plan.

4.3.4. Economic sustainability

Both in Manly and Noosa, surf tourism has economic benefits for the local economy. It brings incomes for surf shops, surf rentals and surf schools, it creates jobs and surfing tourists are also spending their money in shops, hotels, restaurants and cafes. The interviewees from the surf shops and schools mentioned that they find it hard to say anything about the negative impacts of surf tourism, as the benefits for them are high. Manly and Noosa also both have economic benefits from surfing events. This kind of events have much benefits for the local economies of Manly and Noosa, but also raise the profile of the places as surf destination. This will cause more surf tourism, which will benefit the local economy even more.

Noosa World Surfing Reserve is working together with the University of Sunshine Coast on a dataset about cycles of surf tourists coming to Noosa. The data can help surf operations with planning their businesses around this. In this way, they hope to get an idea about the amount of surf tourists. In

Manly, many people are a bit worried about the increase of tourism developments that will happen when the popularity of surfing increases.

“There will only be more and higher buildings that are spread on a wider area. Only the beach cannot become bigger, so only will become more crowded.” (Interviewee from the surf school in Manly)

One of the things the Northern Beaches Council wants to work on, is to attract not necessarily more tourists, but encourage tourists to stay longer and spend more. In the Destination Management Plan, they will come with ideas about how to attract more affluent visitors. In Noosa, attracting higher yield tourism is also an important priority in the ‘Tourism Strategy 2017-2022’. However, in Noosa it is more about expanding this market, as the tourism market of Noosa is already more upper market. In Manly, they want to start attracting these tourists.

It seems from the interviews that in Manly, they are a bit more sceptical about surf tourism developments than in Noosa. This might be explained by the fact that Manly in general is more touristic than Noosa. Furthermore, in Noosa it is not possible to make many more developments, as a large part of Noosa is a National Park and cannot be developed. Therefore, in Noosa it will never be as busy with tourists as in Manly. This can make that the downsides of increasing surf tourism are not weighed up against the economic benefits of it.

4.3.5. Environmental sustainability

Both the interviewees in Manly and Noosa do not think there are major environmental issues that are impacted by surf tourism or have an impact on surf tourism. But there are some small issues. In Manly, one interviewee for example mentioned that the crab population has decreased the past years, possibly caused by surf tourism. Furthermore, the lifeguards mentioned that there are some problems with tourists making a mess of the beaches. In Noosa, there are several small environmental issues: the reduction of biodiversity in the river, erosion in the river, sand pumping to address erosion issues and sand dumping. These are all issues that can possibly have an impact on the surf breaks. But as one of the interviewees said, these are all rather ‘first world issues’.

“I think we’re basically just trying to make sure nothing bad happens. Rather than trying to fix it after it happened.” (Interviewee from Noosa World Surfing Reserve)

Also littering and the amount of plastic bottles used by tourists used to be a problem in Noosa. But this is getting better, and people are becoming more conscious about this. Surf schools do clean-ups and use more and more reusable water bottles.

In Noosa, becoming a World Surfing Reserve comes up with opportunities to provide leverage where it is required for taking a position on environmental issues surrounding Noosa. As World Surfing Reserve does not really play a role in Manly anymore, it is the question of whether there is someone who makes sure that the surf breaks are protected from environmental changes, as they do in Noosa. Maybe in Manly it is not really necessary to have a body that protects the surf breaks, as there are not really environmental issues at the moment. But it is the question who will protect the surf breaks if there will be an issue in the future. Manly does not have as much of an extensive history of environmental activism as Noosa has. This can explain why in Noosa, they find it more important to have a body that can protect the surf breaks. Maybe even more important, is that most of the famous surf breaks of Noosa are situated in Noosa National Park. This makes it more ‘logical’ to protect them.

4.3.6. Involvement and collaboration of stakeholders

In both Manly and Noosa, surf tourism stakeholder have contact with each other. In Manly, they do not work together much, but are just friendly towards other stakeholders.

“That is the sort of collaboration for these businesses, more broadly.” (Interviewee from Northern Beaches Council)

What is different in Noosa, is that Noosa World Surfing Reserve is a binding factor between the stakeholders. Most stakeholder groups are represented in the Noosa World Surfing Reserve committee and they have contact with surf operators about the spreading of their messages. Also the Noosa Council is represented in the committee and supported the establishment of Noosa World Surfing Reserve. In Manly, there is no contact with people behind Manly National and World Surfing Reserve and such a binding factor is missing. What is also different in Noosa, is that Noosa is a small (surfing) community. This makes that most of the stakeholders know each other personally.

“Everyone gets along great, as we are also sharing waves together.” (Interviewee from a surf shop in Noosa)

Some surf tourism stakeholders have contact with the local council, but in both cases this contact is limited. Most of the contact is for instance about giving permits for events and surf schools to operate. In Manly, the council also promotes businesses through their promotion channels. Furthermore, they involved several stakeholders in their research for the Destination Management Plan. In Noosa, promotion is the task of Tourism Noosa, the tourism marketing body of Noosa. They work together with all kind of tourism related businesses to promote their services and give these businesses a chance to network.

5. Discussion

In this chapter, a reflection on the findings of the study will be given, considering the theoretical and conceptual framework in chapter 2. The focus of the discussion chapter will be on critically discussing the link between the research findings and literature about sustainable surf tourism and the involvement of stakeholders.

5.1. Sustainable surf tourism

Considering theories about sustainable surf tourism, this research has been looking at the understanding and practice of sustainability in two different surf tourism destinations in Australia, to see how sustainable surf tourism is understood and practiced in the two cases. According to the literature, surf sites and other tourism destinations have to deal with economic, sociocultural and environmental impacts when surf tourism numbers are increasing and stakeholders get interested in the benefits of this increase (White et al., 2006; Martin & Assenov, 2014b). In this research, these three impacts on the sustainability of surf tourism were operationalised into different indicators. In the following, literature about these impacts will be critically compared with the findings of this research, and the added value of this research relative to the existing literature is identified.

5.1.1. Economic impacts

In the findings of this study, it is clearly visible that surf tourism in Manly and Noosa has economic impacts. In both places, surf tourism numbers are growing due to the worldwide rising of interest in surfing. This increasing interest in surfing is acknowledged by Murphy & Bernal (2008), who state that surfing is growing significantly worldwide, which is proved by becoming an Olympic Sport at the next Olympic Games (Arroyo et al., 2019). This growth of numbers of surf tourists causes increasing incomes for the local economies of Manly and Noosa. According to Murphy & Bernal (2008), it is difficult to know the exact economic impact of surf tourism, as destinations have no accurate numbers on surf tourism. This is also the case in Manly and Noosa. There are numbers of tourism in general, but not many about the amount of surf tourists. However, local surf operators experience increasing economic benefits in Manly and Noosa, which means that the interest in surfing is increasing in both places. Furthermore, in Noosa they get more and more information about surf tourists through the data from the 'surfonomics' course from the University of Sunshine Coast. So the experience of an increase in surf tourism and economic benefits is there, and in Noosa it is even going to be backed up with data. According to the literature, this awareness is important for the sustainable development of the surf tourism economy (Murphy & Bernal, 2008). Being aware about the amount of tourists coming, the characteristics of tourists and their spending patterns can help destinations with making marketing plans that specify on what kind of tourists they want to attract in order to develop their surf tourism economy in a sustainable way. This awareness can give destinations guidance in future developments.

What for example is interesting, is that in Noosa, the main tourism target group is tourism from a high yield segment. In Manly, they also want to put more focus on this target group. They think that in order to decrease the impact of tourism, this is a good objective as it can mean having the same incomes, with a lower amount of tourists. Hritz & Franzidis (2018) found in their research on the spending of surf tourists that more experienced surfers spend more per day than less experienced surfers. Furthermore, experienced surfers are more likely to visit the surf destination more often and stay longer. This is interesting looking at Manly and Noosa. Manly attracts many beginning surf tourists, while Noosa attracts more experienced surfers. This is in line with the current situation of tourism in general, and could provide insight in the best surf tourism target groups to attract in marketing plans, for Manly but also for other surf destinations.

Besides surf tourism in general, surf events have a substantial influence on the local economy of Manly and Noosa. Manly has many surf events, among which the Vissla Sydney Surf Pro. This event already brings much money into the local economy. Noosa has the Festival of Surfing, which is also a huge event with considerable incomes. O'Brien (2007) describes that the incomes from such events have both short and long term effects. On the short term there are visitor spending, and on the long term there is an enhancement of the regions image, which indirectly contributes to the local economy. From the findings it appears that Manly and Noosa are also aware of both these impacts.

5.1.2. Sociocultural impacts

Also sociocultural impacts of surf tourism are visible in Manly and Noosa. One of the biggest impacts of increasing surf tourism numbers, accompanied by the increase of local surfers, is crowding of surf breaks. According to O'Brien & Ponting (2013), this is a common problem at surf breaks in developed countries such as Australia. Also in Manly and Noosa, crowding is one of the biggest impacts of surf tourism, if not the biggest. Crowding can have consequences for local surfers, surf tourists and the local surf industry (Lazarow, 2007). A common problem that was not addressed by the stakeholders in Manly and Noosa, is that the more crowded a surf destination becomes, the less attractive it gets for surf tourists (Dolnicar & Fluker, 2003). It is interesting that the stakeholders see the downside of more crowds, but are not aware of this paradox. If Manly and Noosa in the end becomes less attractive due to the crowds, the economic incomes of surf tourism the surf tourism stakeholders get will also decrease. This is something which surf tourism stakeholders should take into account, also when thinking about the sustainability of their own incomes. Furthermore, crowding is impacting the social constructs of a host surfing community, as there are strong behavioural codes in surfing which decide who has priority on a wave. Some of these are worldwide, but some more local (Buckley, 2002a). In Manly and Noosa, there are problems with surf tourists that do not understand the social constructs. This can cause dangerous situations, as well as behavioural issues among surfers. However, the surf tourism stakeholders have no clear answer on solving this issue, except for spreading the crowds. Buckley (2002b) states that in surfing, crowding is maybe even a more complex issue than in other forms of outdoor recreation.

In the literature, not much is written about crowd management in surf destinations. In other forms of outdoor recreation and adventure tourism, such as rafting and kayaking, a quota, permit and booking system is considered or even introduced to cope with crowding (Randall & Rollins, 2013; Buckley, 2002b). Buckley (2002b) found however that it is hard to find a practical operational system to allocate quota at surf breaks. This is something the surf tourism stakeholders in Manly and Noosa agree on, they cannot imagine a system that would work for surfing as they see the sea as something that is open for everyone. However, the maximum amount of surf schools that can operate at the beach implemented by the councils of Manly and Noosa to limit the amount of surf classes in the water can be seen as a small step in the direction of a quota. As crowding turns out to be one of the biggest problems around surf tourism in Manly and Noosa, it could be interesting to explore possibilities for a system to manage the amount of surfers. As the situation can differ very much between countries and places, Buckley (2002b) states that it is necessary to consider systems at the scale of individual case studies. Other visitor management tools which are for instance used for tourism in wilderness parks are zoning, restrictions on particular equipment and activities and education (Buckley, 2000). These are all tools that could be considered in Manly and Noosa to make the surf breaks less crowded and safer.

Another sociocultural impact of surf tourism is that the surf culture of Manly and Noosa is changing due to increasing surf tourism. Most of the local stakeholders however do not see this as a threat, as this change is just part of how the surf culture is. In Noosa, they try to protect the longboard surf

culture, as the worldwide increase of popularity of surfing is changing this longboard culture. But what seems striking, is that they try to do this with the commodification of the longboard culture. Noosa is promoted as a longboard surf site, by shops like Noosa Longboards and the Noosa Festival of Surfing. For Noosa the commodification is however a way of keeping the culture alive. Most of the stakeholders do not think that increasing surf tourism and crowding has impact on the surf culture, as surf culture is more than only surfing. In addition, tourism has always been part of surfing, and is therefore part of the surf culture. Therefore, putting the focus on the longboard culture seems a good idea.

Surf tourism has not only negative sociocultural impacts on surf sites. According to Lazarow (2007), the value of surf tourism is not only economic, but it also brings people together, links generations, provides avenue for outdoor based physical activity and it helps building and defining towns and communities. These positive impacts are also acknowledged by the surf tourism stakeholders, it appears from the interviews that some of them enjoy for example the cultural interaction between tourists and locals and that the increasing popularity of surfing is good for people's health. It turns out that beside the negative influences, surf tourism is also seen for its positive impacts. This is an important notice about the perspective of the surf tourism stakeholders on surf tourism, as seeing the positive impacts can determine the way the stakeholders think about the sustainability and the future of surf tourism.

5.1.3. Environmental impacts

The surf tourism stakeholders in Manly mentioned that there are almost no direct environmental issues. In Noosa, there are some environmental issues like sand pumping which is done to address erosion issues, sand dumping and a decrease of biodiversity. According to the stakeholders, these are however only little concerns and in general, the focus is rather on preventing that something might happen that has an environmental impact. According to Buckley (2002a), prevention of environmental impacts is often the main strategy in developing countries. The environmental concerns in Noosa are relatively small compared to the environmental impact surf tourism often has in developing countries, especially on small islands. Buckley (2002a) describes the environmental impacts of surf tourism on small islands like the Indo-Pacific Islands. Some are specific for surf tourism, but many are also applicable for island tourism in general. These are impacts like an increased water consumption, an increase of waste dumps which can cause pollution of drinking water and eutrophication of marine ecosystems from sewage discharge (Buckley, 2002a). This difference in problems between developed and developing countries acknowledged by the literature is also acknowledged by the surf tourism stakeholders in this research, as they see the problems they have as 'first world problems'. Furthermore, looking at the environmental indicators of the SRSI framework, surf tourism has relatively little environmental impact on the surf breaks of Manly and Noosa.

What is not clearly a finding of the research, but what is much emphasised in the literature, is that due to travelling, the environmental footprint of surfers is often higher than that of non-surfers (Butt, 2015). In the two cases, apparently the surf tourism stakeholders do not see this as an environmental threat. However, Butt (2015) states that surfers probably are more directly affected by environmental problems due to climate change, like sea-level rise, coastal flooding, storminess and coastal pollution, as they are directly in contact with the sea. It is therefore an interesting finding that the stakeholders do not see this as an environmental impact, or do not see the threat at all. Maybe it is something they do not think of, or they do not link the transportation of surf tourists with surf tourism impacts.

5.2. Stakeholder involvement

The findings show that the surf tourism stakeholders have different perspectives on the sustainability of surf tourism. In general, they all agree that surf tourism must change to be more sustainable, but on the other hand, especially surf operators, find it hard to see the negative impacts because of the economic benefits. This is in line with what Jamal & Stronza (2009) describe, that multiple stakeholders have diverse perspectives and values of a place. But this also means that in some aspects, the stakeholders find it hard to acknowledge the negative impacts of surf tourism, like crowding or the impact of the transportation of surf tourists. They come up with ideas about spreading the tourists, but not with structural solutions as they might harm their businesses. They care about it, but at the same time do not want to change the increasing benefits they experience. This focus on the economic benefits seems not sustainable.

It also seems that different stakeholders see different problems. Therefore, Jamal & Stronza (2009) state that all stakeholders need to be involved as every stakeholder group is important according to the stakeholder theory. To come to sustainable solutions, problems that occur should be tackled together. In Noosa, the Noosa World Surfing Reserve committee is taking care of this. The committee consists of representative of almost all important stakeholder groups, to make sure that every stakeholder group is involved. Together, they try to tackle problems around surfing. In Manly such a body does not exist. However, the council tries to include surf tourism stakeholders in decision making processes, for example by including their perspective in the research for the Destination Management Plan. But this is not the same as what the Noosa World Surfing Reserve committee does in Noosa. According to the literature, it is important to include as much stakeholders as possible as this is also beneficial for the long term. It can make that stakeholders understand the reasoning behind tourism policies and developments (Byrd, 2007). So according to the literature, to make surf tourism especially in Manly more sustainable, all stakeholders should be involved in a more active way in the planning processes than they currently are.

To involve stakeholders in the process, Mitchell et al. (1997) identify three relationship attributes that are important: power, legitimacy and urgency. The importance of these attributes could explain why there are differences in the use of the status as World Surfing Reserve and in the involvement of stakeholders in Manly and Noosa. That the status of World Surfing Reserve is not used actively in Manly, might be because stakeholders in Manly do not feel the urgency to protect the surf breaks as they do in Noosa, as they do not see direct threats. In Noosa, they do feel this urgency because of the environmental awareness that plays a central role among the people in Noosa. Furthermore, because of the history of environmental activism, stakeholders in Noosa recognise the power they have to protect the nature in Noosa. In Manly, there is not such a history and stakeholders might therefore not feel this power. This lack of feeling of urgency and power makes it difficult to involve stakeholders in the sustainable development and protection of the surf breaks. To make the stakeholders more aware of sustainability of surf tourism and involve them in the World Surfing Reserve, the stakeholders need to see the power, legitimacy or urgency of it.

5.3. Future challenges

The findings about the economic, sociocultural and environmental impacts of surf tourism in Manly and Noosa and the involvement of stakeholders point out some challenges for the future sustainability of surf tourism in Manly and Noosa. One of the biggest impacts of surf tourism is the increase of crowds at the surf breaks. If surf tourism will keep increasing at this rate, issues could occur in the future. Except for spreading the crowds to other surf breaks and less popular seasons, the surf tourism stakeholders have not really a solution for this. But this is something the stakeholders need to worry about, as the surf destination can become less attractive for surf tourists

if it is too crowded (Dolnicar & Fluker, 2003). Coming up with structural solutions for this problem is one of the major future challenges for Manly and Noosa and other popular surf tourism destinations.

According to the literature, it is important for the sustainable development of the economy of a surf destination to become more aware of amount of surf tourists and the economic benefits they bring to the destination (Murphy & Bernal, 2008). In this way, insight in the economic impact of surf tourism can be created and that insight could help a destination to come up with sustainable solutions by weighting the pros and cons of increasing surf tourism numbers and making marketing plans. This is a future challenge for Manly and Noosa. To fully know the economic impact of surf tourism, local research on the spending of surfers, both the market and non-market impacts, need to be done. In Noosa they already get information about this through the data from the 'surfonomics' course at the University of Sunshine Coast. In Manly, it will be a challenge to get more data on this.

A future challenge for Noosa is the protecting of the longboard surf culture and all the positive impacts this culture has on the community. It turned out from the findings that the stakeholders not really know if changes in the surf culture are good or bad. However, the surf tourism stakeholders in Noosa find it important to protect the special aspects of the longboard surf culture of Noosa.

Beside negative impacts, surf tourism also has positive impacts on surf destinations. The importance of these positive impacts is acknowledged by Lazarow (2007) as a major value of surf tourism. The positive impacts also show how sustainable surf tourism should look like. In Noosa for example, one of the stakeholders mentioned that surfing and surf culture is about enjoying the surf and each other's company, and not only about surfing waves. This is an important note for the understanding of sustainable surf tourism: surf tourism should be about enjoying the surf, and if this is not possible because of increasing surf tourism numbers, it is not sustainable.

Another future challenge, both for Manly and Noosa, is to make sure (local) environmental issues will not harm the surf breaks. The strategy in developed countries is mainly preventing that something might happen, and that strategy is enough at the moment for Manly and Noosa (Buckley, 2002a). In Noosa the World Surfing Committee has the ability to stop developments that might harm the surf breaks if this is needed. It is good that there is such a stakeholder in Noosa, as changes to for example marine ecosystems can have a negative impact on a surf break (Buckley, 2002a). In Manly, the council is taking care of this, but it is not sure if the surf breaks will be protected if needed. Therefore it is a challenge to make sure that stakeholders see the urgency, legitimacy and their power to do this if necessary. The same goes for seeing the environmental problems that are indirectly caused by surf tourism, such as the transportation of surf tourists which relates to climate change (Butt, 2015). It is a challenge to make the surf tourism stakeholders aware of the threats of this, also on the local level.

A last challenge for the future shown in the findings is the involvement of stakeholders, which is very important for sustainable solutions around problems (Byrd, 2007). Surf tourism stakeholders find it hard to acknowledge the negative impacts of surf tourism, as they have benefits from surf tourism. But by understanding the reasoning behind sustainable tourism policies and development, they could maybe create more understanding (Byrd, 2007).

5.4. SRSI and FASST

Many of the social, economic, environmental and governance indicators from the SRSI framework of Martin & Assenov (2014b) that are used to develop the research tools of this research are visible in the findings. For example, the history of surfing and the surf culture is in both places very important for the recognition and protection of the surf sites, as is also stated in one of the social indicators

(Martin & Assenov, 2014b). Furthermore, both in the social and economic indicators, surf events are marked as important for a surf site (Martin & Assenov, 2014b). Manly and Noosa both host big surfing events with much economic incomes and recognition for the place as a surf site. The surf tourism stakeholders acknowledge the importance of these events. Also, both cases have an active surfing community with a high social carrying capacity, which is seen as a social indicator for surf site conservation, as conservation should be carried among the community (Martin & Assenov, 2014b). When looking at the indicators, Manly and Noosa seem sustainable surf sites. However, there are some indicators that need attention from the surf tourism stakeholders. They could for instance work together in a better way, as is stated in one of the economic indicators: *“The surf industries and other commercial activities at the area form an economic hub which may provide an impetus for the protection of the site”* (Martin & Assenov, 2014b, p. 132). In line with this, stakeholders could benefit from getting more information and education about sustainability:

“The successful petition for conservation of natural sites is enhanced through the development and availability of information to stakeholders, including the public. The participation of the general public and various stakeholders in the education process is an indication of the conservation aptitude of the site. Edification may indicate the host community’s psyche and sense of place” (Martin & Assenov, 2014b, p. 133).

In Noosa, the World Surfing Reserve committee is working on this, but in Manly, this is something that should have more attention. Also, the legislative status of Manly as National and World Surfing Reserve could be used more effectively. Even though it is maybe not necessary at the moment, it could possibly be useful in the future as a *“strong impetus for site conservation”* (Martin & Assenov, 2014b, p. 133).

So it turns out that the indicators of the framework works well as a guiding tool for measuring the sustainability of a surf site. Many of the economic, sociocultural and environmental impacts on the sustainability of surf tourism that became visible in the findings are recognised by the indicators of the framework. But there are some additions that could be made, as a result of this research. For example, in the framework more attention could be paid to the role of increasing surfing crowds on the sustainability of a surf break, as this is one of the main problems according to the findings. In this way, surf tourism could not only be an economic indicator as it is now, but also a social indicator. Furthermore, the sustainability of the transportation of surfers could have a clearer role in the environmental indicators. In the findings, it became clear that most surf tourism stakeholders are not really aware of this impact. But eventually, it will also have impact on the local level. So to conserve a surf site, this should also get some attention.

Looking at the FASST, the second principle *“the need for formal, long-term, coordinated planning that recognizes limits to growth”* (Ponting & O’Brien, 2014, p. 388), is important looking at the sustainability of surf tourism in Manly and Noosa. In Manly and Noosa there is a need for coordinated planning that recognises limits to growth, as crowding of surf tourists is one of the biggest problems of surf tourism. This need to be regulated in a certain way, involving all of the important stakeholders. As expected, the other principles from the framework are less applicable to the findings as they focus on issues that are not really in place in Manly and Noosa.

6. Conclusion

6.1. Research questions

In this research, the sustainability of surf tourism in two different case studies, Manly and Noosa, is investigated. The objective of the research was to get insight into the sustainability of surf tourism in Manly and Noosa, both understood and practiced, the differences and similarities between the cases, the way sustainable surf tourism is perceived by different surf tourism stakeholders and the future challenges. This could lead to a better understanding of the sustainability of surf tourism in developed countries like Australia and help surf tourism stakeholders with implementing sustainability in the future. In the following chapter, the main research question will be answered. But to do so, first the three sub questions need to be answered.

1. How is sustainable surf tourism perceived by local surf tourism stakeholders in Manly and Noosa?

Looking at surf tourism, most of the local surf tourism stakeholders find it positive that surf tourism numbers in Manly and Noosa are growing as it benefits the local economy. This is especially positive for surf tourism operators like surf shops and surf schools, but also for the local council and others of the local community, as surf tourists also spend money in for example hotels, shops and restaurants.

However, the surf tourism stakeholders also see the downside of the growing numbers of surf tourists. They experience more crowding of surfers at the surf breaks, which has several implications. Crowding of surfers can cause dangerous situations as surf tourists do often not know the local surf breaks and its structures and sometimes do not know the surfing rules. This is especially problematic in Manly, as there are many surf tourists trying to surf for the first time because of the waves suitable for beginners. To tackle these problems, surf tourists need to be made aware of the surfing rules and structures. This is something surf schools can teach their students, but also signs, posters and flyers explaining the rules can help. In Manly, there are signs along the beach and in Noosa, the Noosa World Surfing Reserve committee is distributing posters and flyers. Furthermore, crowding can cause aggression among surfers. In both Manly and Noosa they experience more aggression among surfers when it is crowded, but most of the stakeholders in both cases do not think it as problematic as at some other surf sites around the world. In Noosa, they try to address these behavioural issues by making people aware that surf crowds are not going to decrease and that they have to accept that it will become busier. In Manly and Noosa, seasonality has much influence on the crowds of surfers. There is a clear high season during holidays, especially the summer holiday. During high season, crowding is much worse than at other times. To make the crowding of surfers more sustainable, the surf tourism stakeholders believe that crowds need to be spread. Both in Manly and Noosa, the stakeholders think that there are possibilities to spread the crowds to less popular surf spots, or surf spots further away from the centre. It is however the question if surfers are willing to surf at less popular surf spots. In addition, spreading of surfers from the high season to the lower season would be an option. However, this is not always possible as surf tourism is dependent on the quality of waves, and especially in Noosa, the waves are best during high season.

What is important for both Manly and Noosa, is the local surf culture. The stakeholders have different opinions about the influence of increasing surf tourism numbers on the local surf culture. Manly knows a long history of surfing, but also a long history of tourism. Therefore, some stakeholders think that surf tourists are part of the surf culture. The general perspective on surf culture in Manly is that the whole community of Manly is part of it and that surf tourists are not a direct threat to that. In Noosa, the surf culture is all about longboard surfing. The longboard surf culture has many positive impacts on Noosa as a town, such as the laid back vibe. They try to protect this surf culture by organising events like the Noosa Festival of Surfing, but most stakeholders do not

think the increase of surf tourism numbers is a direct threat to the surf culture as the surf culture is more than only surfing waves. However, some of the surf tourism stakeholders state that the longboard surf culture is also about enjoying the surf and to be sustainable, surf crowds should not stand in the way of this enjoyment. In this way, increasing surf tourism numbers could be seen as a threat for the way surfing and surf culture in Noosa is practised.

In Manly, surf tourism does not have many environmental impacts at the moment. In Noosa, there are some environmental issues that impact the surf breaks, such as sand pumping which is done to address erosion issues, sand dumping and a loss of biodiversity. In both cases the stakeholders agree on the importance to protect the surf breaks for current and future environmental issues, but also on the fact that the environmental issues are rather small at the moment compared to other surf tourism destinations. In Noosa, Noosa World Surfing Reserve is specifically working on these issues, as they have the ability to stop developments harming the surf breaks if necessary. Manly is also a World Surfing Reserve, but as far as is known in this research, nobody is working specifically on these subjects.

2. What are similarities and differences between the two cases?

Manly and Noosa have one important thing in common: they are places in which surfing plays an important role in the community. Manly has a longer history of surfing than Noosa and is a very important place in the surf history of Australia. But also in Noosa, they have already been surfing for over seventy years. Both places experience an increase of surf tourism. The increase of surf tourism is in line with the worldwide increase of the popularity of surfing and the surf culture. The increase of surf tourism has local economic benefits for both places, but they experienced also the same issues during peak times: crowding and behavioural issues. Therefore, both places need to spread the surf tourists over different surf spots and make surfers aware about how to behave when the surf spots are more crowded. Another similarity of the two places is that the surf culture has much influence on the local communities. They have different ideas about protecting the surf culture, but stakeholders from both places do not think that surf tourism has much influence on the local surf culture.

There are also differences between Manly and Noosa. Manly is a suburb of Sydney, and therefore has many day trippers coming from Sydney. Noosa attracts more families and upper market tourism. Also the kind of surf tourists are different. In Manly, there are mainly beginners while in Noosa, many more experienced surf tourists come specifically for the quality of the waves. Furthermore, Manly is very developed and a typical urban area. Noosa on the other hand is a very natural area, thirty percent of the council is National Park, reserve or conservation area. Also many of the surf spots are situated within Noosa National Park. This difference can also explain the different attitude Manly and Noosa have towards the protection of the surf spots. Although both places currently do not have any major environmental issues impacting the surf spots, Noosa is more active in the protection of the surf breaks than Manly. In Noosa, Noosa World Surfing Reserve is actively protecting the surf spots against any future threats. Noosa knows a long history of environmental activism, which makes that becoming a World Surfing Reserve can be seen as an extension of this. Manly is also a World Surfing Reserve, but it seems like this is more to acknowledge the surfing heritage of Manly. So, Manly and Noosa have different approaches of using the status of World Surfing Reserve.

3. What are the main challenges to the future sustainability of surf tourism?

At the moment, surf tourism in Manly and Noosa is increasing. This causes increasing economic income for the local community, as surf tourists spend their money at for example (surf) shops, hotels, restaurants and cafes. At peak times like holidays, the crowding of surfers is worse than during low season and it can cause various problems like dangerous situations and behavioural

issues. The surf tourism stakeholders are worried that if surf tourism keeps increasing, the crowding will not be sustainable anymore. This gives some challenges, which will be explained in the following.

The first challenge is the crowding and behaviour of surfers. The surf tourism stakeholders think the surf crowds need to be spread, because too much crowding will cause dangerous situations. The crowds should be spread to less popular surf spots, but it is the question if people want to go to other surf spots. This is something the stakeholders do not yet know how to tackle. Surfers also should be made aware that they have to deal with more crowds. Instead of being aggressive, they need to accept that they can take less waves. This awareness can be created by bodies like Noosa World Surfing Reserve, who is already doing this.

The second challenge is to focus on the attraction of a high yield segment of (surf) tourists in Manly and Noosa to increase the economic incomes from tourism, but not the number of tourists. In Noosa, this is already the main target group while in Manly, focusing on this target group could be a solution to the problems they experience with the group of low spending tourists. Furthermore, attracting more experienced surfers could provide more incomes, as experienced surfers are likely to spend more money on their surf trip than beginners. This is also mainly a challenge for Manly, as they receive many beginning surfers.

The third challenge is the protection of the local surf culture. This is however mainly a challenge for Noosa. In Noosa, they want to protect the longboard surf culture as this culture is very important for Noosa as a town. In Manly, the surf tourism stakeholders think that the change of surf culture is just a normal aspect of a culture and they do not see the protection of surf culture from (worldwide) changes as a future challenge. In Noosa, this perspective is shared by some stakeholders, but as the longboard surf culture is also about the enjoyment of the surf, surf tourism numbers should not stand in the way of that.

The fourth and last challenge is to make sure the surf breaks are protected from local and global environmental impacts where possible. In Noosa, the Noosa World Surfing Committee is taking care of the protection of the surf breaks for local environmental issues like sand pumping. In Manly, there is not really a body that protects the surf breaks at the moment, but the stakeholders also do not see the urgency to do that. Furthermore, global environmental issues like climate change could offer challenges for surf tourism, as surf tourists are part of the problem due to travelling but also directly face the consequences as surfing is a nature based activity. It will be a challenge to make surf tourists aware of this.

Based on the answers of the sub-questions, it is possible to answer the main research question:

How is sustainable surf tourism understood and practiced in Manly and Noosa?

In both Manly and Noosa, many of the surf tourism stakeholders are aware of the challenges around the sustainability of surf tourism. However they find it hard to practise sustainability, as many of the surf tourism stakeholders benefit from surf tourism. In conclusion, the thinking about sustainability is present, but there are some challenges around the practice of it. In Manly, the local council is mostly responsible for sustainability around surf tourism. In Noosa, beside the local council there also is the Noosa World Surfing Reserve committee that has a high awareness of sustainability. They want to protect the surf breaks, and therefore think a sustainable approach to surf tourism is needed.

It seems that in Noosa, there is more awareness about the protection of nature and the surf breaks. This makes sense, as Noosa is a more natural area and many of the natural areas of Noosa are protected. Thinking about protection and sustainability is therefore quite established among the

stakeholders in Noosa. Manly is an urban area, situated close to Sydney. The urge for protecting the area is less than in Noosa, which causes a different attitude towards protection and sustainability. The same can be said about the protection of the surf culture. In Manly, surfing is an activity for the whole community and therefore seen as mainstream. The stakeholders do not find it necessary to protect the surf culture, because surf culture is seen as something that just changes, same as all cultures. In Noosa, they want to protect the longboard surf culture, as this is something special for Noosa and defines the community. They see more urgency in protecting this special surf culture than in Manly, where the surf culture is more mainstream. So, the difference in geographical location and type of surf culture explains the different attitude towards protection and sustainability in Manly and Noosa.

Most stakeholders agree that in general, surf tourism in both Manly and Noosa is fairly sustainable at the moment. There are however some challenges for the sustainability in the future, mainly around the crowding of the surf breaks and the problems caused by crowding. At the moment, most of the time the crowds are not causing many problems, but the stakeholders are worried that if the amount of surf tourists increases and are not spreading to other areas, it will not be sustainable anymore. To conclude, surf tourism in Manly and Noosa is at the moment understood as sustainable, but the surf tourism stakeholders also understand the future challenges around sustainable surf tourism. Coming up with practical solutions for these challenges is however hard for some of the stakeholders, as they also benefit from the economic incomes of surf tourism and do not want this to change. Therefore, the practice of it gives some challenges.

6.2. Limitations

To get to these findings, different research methods have been used. Interviews, observations and document analysis have been done to investigate the sustainability of surf tourism in Manly and Noosa. The choice for these methods have however affected the conclusions. Choosing for unstructured observations affected the research as the observations are very much influenced by the perspective of the researcher, so this might have influenced the findings of the research. This is also applicable to the document analysis, as the documents were analysed by the researcher which means that it might be influenced by the perspective of the researcher.

Furthermore, the amount of case studies influences the generalisability of the research. Because the research only was conducted in two case studies, it is hard to say anything about other places. The findings of Manly and Noosa do not have to be the same as at other surf sites. Therefore, the choice to research only two case studies influences the generalisability of the findings.

At last, the choice to do interviews with surf tourism stakeholders had much influence on the findings and affected the conclusions the most. As only 12 (7 in Manly and 5 in Noosa, see table 3 for an overview) interviews with 15 stakeholders were conducted, not all stakeholders are represented in the findings. Therefore, this research does not give a representative overview of how all the stakeholders think about the sustainability of surf tourism. Effort has been made to make the representation of both cases as good as possible, but still the amount of interviews decreased this representation. For a better representation of all stakeholders, more interviews should be conducted. Furthermore, considering to do a quantitative research with for example surveys could make the representation better.

6.3. Future research

To have a better view on the sustainability of surf tourism in different places, it is important to do more research to this subject in more places. This could be done in places that are similar to Manly or Noosa, which would give more data about the sustainability of surf tourism in a case with specific

characteristics. This would increase the generalisation of the results. It could also be possible to do the same research in more different places, to get an overview about how sustainability of surf tourism works in different places.

Furthermore, it could be interesting to do research on one specific part of sustainable surf tourism, like crowding. As it turns out in the findings, crowding is one of the biggest impacts that increasing surf tourism numbers have in surf destinations. In the literature, there is little written about crowd management and other solutions for surf destinations. This is a subject that could be researched more thoroughly.

Another suggestion for future research would be to take a closer look at the influence of the collaboration of surf tourism stakeholders on the sustainability of surf tourism. In this research, the results about stakeholder collaboration were not strong enough to say much about the extent of stakeholder collaboration and its influence on sustainability. It would be interesting to do more research to this.

A last idea for future research is to take a closer look at the World Surfing Reserve designation of surf sites. In Noosa, it turned out that Noosa World Surfing Reserve plays an important role in the understanding and practice of sustainability of surfing and surf tourism in Noosa. It would be interesting to do more research on the influence of the designation of a place as World Surfing Reserve on the sustainability of surf tourism. In Manly, the designation did not play a role at all. So it also would be interesting to look at the different impact that such a designation has on places.

6.4. Practical applicability

By doing research to the sustainability of surf tourism, a better understanding is created about how sustainability of surf tourism is understood, what it looks like in practice and what the future challenges are. This understanding could help other surf tourism destinations by making the destinations aware of the consequences of surf tourism and about possible solutions to these consequences. This can positively influence the challenges surf tourism destinations experience. Furthermore, it could help policy makers in surf tourism destinations with implementing ways to make surf tourism more sustainable by taking into account the challenges around sustainable surf tourism in their policies.

6.5. Reflection on the future applicability of the findings

As mentioned in the preface, the fieldwork was conducted before the start of the COVID-19 pandemic. At the moment of writing, the tourism industry looks totally different than during the period of fieldwork. There is almost no international tourism possible, beaches are closed or slowly opening again and many countries are still in a lockdown. This has a huge impact on surf tourism. While writing down the findings, it was weird to think that the described impacts did actually not exist at that moment. It is likely that the tourism industry will never be the same as before, as tourism destinations have now the opportunity to change their tourism practices into more sustainable ones (De Bellaigue, 2020). Especially in places where the high amount of tourists caused problems, the lack of tourists during the pandemic can be used as an eye-opener and a starting point of solving structural problems around tourism (De Bellaigue, 2020).

This makes the future of worldwide tourism, including surf tourism, very uncertain. When looking at Manly and Noosa, many question marks can be placed around the future of them as surf tourism destination. When will international surf tourists come again? Will the amount of surf tourism increase at the same rate as before the pandemic? Or will the focus be more on domestic travelling? What is the effect of the absence of (international) surf tourists on the local economy of Manly and

Noosa? Maybe locals will appreciate the waves without surf tourism crowds again, and surf tourism stakeholders will see the value of this. Or they start seeing the urgency to protect the local surf culture and the local environment. Maybe this is the right time for Manly to focus on attracting more affluent tourists that bring high yields and come up with a solid plan for this. Maybe people will (re)discover surf destinations closer to home and do not see the necessity anymore to fly to Australia for a surf trip, which will influence the global environmental impact of surf tourism.

Who knows what will change. Tourism Noosa already identified on their website that the 'Tourism Strategy Noosa 2017-2022' is no longer relevant in the current situation. They are therefore developing a new strategic vision for the rebuilding of tourism after COVID-19 (Tourism Noosa, n.d.b). It is likely that more places will reconsider their tourism strategies in the redevelopment of tourism, which could give opportunities for sustainable solutions.

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Appendix I Observation guide

Unstructured observations

Location: beaches of Manly and Noosa

Goal: to get an idea of the setting and the sustainability of it

Method: making fieldnotes (on paper, on phone or mental notes), working these notes out after observation

Points to focus on during observations

Social indicators

- Presence, visibility and role of boardriding clubs on the beach
- Presence, visibility and role of surf lifesaving clubs on the beach
- Presence, visibility and role of surfing community on the beach
- Presence and visibility of surf history at or around the beach
- Visibility of safety on the beach
- Number of surfers on the beach (overcrowding)
- Difference between local surfers and surf tourists (if visible)
- Local ethics of surfers at the site (behaviour)

Economic indicators

- Presence and quality of surf amenities and infrastructure
- Presence of surf industries and other commercial surf activities and role of it
- Number of surf classes on the beach and in the water
- Presence of surf events or surf event advertising

Environmental indicators

- Overall existence of flora and fauna on and around the beach
- Interaction of surfers with flora and fauna on and around the beach
- Presence of coastal engineering projects
- Management of physical hazards (like currents, rocks etc.) by interventions such as signage or constructing
- Quality of the beach (natural quality, visible human impacts, visible developments on the beach, degradation)
- Water quality (surrounding watersheds, urban runoff and sewage, construction sites, agriculture, aquaculture, golf courses, industrial discharge, general level of nutrients or bacteria)
- What kind of waves and the quality for different levels of surfers

Governance indicators

- Beach safety due to lifeguards
- Visibility of education about conservation of natural sites
- Visibility of the legislative status as WSR or NSR
- Presence and role of NGO's
- Public access of the beach and the area around it (inhibiting access: public, private or governmental)

Appendix II Sample of interview guide

Introduction

This research is conducted as part of my Master Thesis for the Master Tourism, Society and Environmental at Wageningen University in the Netherlands. The research is about the sustainability of surf tourism in Manly and Noosa and the perspectives of stakeholders on this. As Manly/Noosa has good surfing conditions and a strong surfing culture and history, it is interesting to look at the protection of Manly/Noosa as surf site and the sustainable development of surf tourism. As *[stakeholder]* is one of the important stakeholders in surf tourism, I will ask you some questions about your view about surf tourism and sustainability in Manly/Noosa, the developments and challenges around surf tourism and the collaboration with other stakeholders. The interview will be about 30 minutes to 1 hour. If you are okay with it, I will record the interview. The recordings will be transcribed and used for research purposes only and will be only accessed by me. Additionally, I will make notes during the interview. The information you provide in the interview will be kept strictly confidential and your name will not be associated with responses in the final Master Thesis. In some cases, direct quotes may be used, but your name will not be linked to them.

I would like you to sign a consent form about your participation in the research.

Sustainable surf tourism

1. How are you involved in surf tourism?
2. How long have you been involved in surf tourism?
3. What is your opinion about surf tourism?
 - Why do you think that?
 - Did your opinion change over time?
4. How do you understand sustainable surf tourism? What does it mean to you?
5. According to you, how sustainable is surf tourism in Manly/Noosa at the moment?
 - What is sustainable/not sustainable?
 - Experience with sustainable surf tourism

Past developments

1. Do you think the number of surfers (in general) in Manly/Noosa increased in the past years?
 - If yes:
 - How can you see this/based on what do you conclude this?
 - Why do you think it has increased?
 - What kind of implications does this have for the surf spots in Manly/Noosa?
2. Do you think the amount of surf tourists in Manly/Noosa increased in the past years?
 - If yes:
 - How is this visible in Manly/Noosa?
 - Why do you think it has increased?
 - What kind of implications does this have for the surf spots in Manly/Noosa?
3. Do you think the amount of surf facilities has increased in the past years?
 - What kind of changes?

- How did it changed?
4. Are there environmental/physical changes that are visible at the surf resources?
 - If yes: what kind of changes?

Challenges

1. How does the (increasing) commercialisation of surfing looks like in Manly/Noosa?
 - To what extent is it becoming more commercialised?
 - What are implications of the commercialisation?
2. What are consequences of increasing surf tourism for the surf culture of Manly/Noosa?
3. How do you think that the surf heritage of Manly/Noosa can be protected in the future?
 - Legally/symbolically
 - Importance for community
 - Importance for Australia
4. How is Manly/Noosa dealing with overcrowding of surf resources?
 - Overcrowding by local surfers/tourists: how does it look like?
 - Management of overcrowding
5. How is the local community involved in surf tourism?
 - Positive/negative benefits
 - Financial benefits
 - Improvements of involvement?
6. Do you know if there are physical aspects/certain species endangered due to surf tourism?
 - What aspects/species?
 - Why?
7. How can the physical conditions and certain species of/at the surf spots in Manly/Noosa be protected from negative influences of surf tourism?
 - Legally
 - Action
8. Is it possible to protect surf breaks from surf tourists? In what way?
9. How do you see the future of surfing (with increasing surf tourism numbers) of Manly/Noosa?

Collaboration between stakeholders

1. Which are the other organisations/bodies involved in surf tourism in Manly/Noosa?
 - What is their role?
2. Which other surf tourism organisation do you have the most contact with in your day-to-day activities?
 - What kind of contact?
 - How intensive?
3. How is the collaboration with other surf tourism stakeholders?
 - Cooperation
 - Sharing information
 - Making decisions together
4. What are some of the challenges you face in working with other organisations?
 - Cooperation
 - Sharing information
 - Making decisions together

Closing

Thank you very much for participating in this research. Do you want to have the results of this research if it is finished?