City of
Mount Gambier

MOUNT GAMBIER REGIONAL SPORT AND RECREATION CENTRE

ATTACHMENT C - SUPPORTING DOCUMENTS

Community Benefits of Victorian Aquatic and Recreation Centres

Technical Report for Aquatics and Recreation Victoria

April 2014

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Dr John Tower
Chief Investigator
April 2014

Photo on the cover was provided by ARV.

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Executive Summary

Introduction

Aquatic and recreation centres (ARCs) are a crucially important contributor to the wellbeing of Australians. They provide people with an escape from the pressures and tensions of daily life, lead to improved levels of physical and mental health, and build up strong social networks and relationships (Howat, Alikaris, March, & Howat, 2012; SGS Economics and Planning, 2010). While ARCs are considered valuable assets to the community, construction and management of ARCs are generally unappealing for the private sector because of the low financial return on the investment. Consequently, it has become the responsibility of government to invest public monies to ensure these facilities are built, maintained and capable of meeting their communities' needs. While the research shows that society benefits - both directly and indirectly - from the services delivered by ARCs, and that they justify the cost involved (SGS Economics and Planning, 2010), there is limited research to determine the benefits these centres bring to their surrounding communities.

The purpose of this research was to identify the scope and scale of the community benefits that come from the operations of ARCs (there was also a subsidiary aim regarding a critical review of the research process that is not discussed in this Executive Summary). For the purposes of this study, community benefits have been confined to cover both economic significance and social benefits. Economic significance relates to the size and nature of financial activities of ARC (Stynes, 2001 cited by Crompton, 2010). Social benefits relate to capacity of the ARCs to address the needs of their local community and the social connection that the users gained from their participation in the ARC programs and services.

Research Method

The research was based on six case studies of ARC operations in Victoria. For each case study the data collection regimes included i) a review of existing documents including centre goals / vision statements, income and expenditure statements, and budgets; ii) interviews with centre managers, central service providers and a small business manager (n = 9); and iii) surveys of current users at the centres (n = 1373). The combination of qualitative methods (document review and interviews) with quantitative method (survey) provided a range of relevant data that contributed both descriptive insights about the ARC operations and quantitative outcomes associated with centre participants' usage of the centres.

The six ARCs case studies covered a cross-section of different settings. The study included four Melbourne metropolitan cases, including a centre based in an inner urban setting, two middle urban settings and an outer suburban setting. Two regional Victorian ARCs were based in regional cities that act as a regional hub for outlying communities. The combination of the six case study settings provided a cross section of different geographic locations and demographic characteristics.

Key Findings

The research has produced a wealth of data that provide a range of insights about the operations of ARCs and the benefits provided in their local communities. The details from the research are provided in the Technical Report. This Executive Summary provides the key social and economic benefits findings.

Social Benefits

The review of the centre goals and vision statements clearly identified the intention of the centres to address the needs of the local community. These needs related to providing health and fitness services, community development and inclusion of all members of the community. The data indicates that the centre users are getting beneficial health and fitness outcomes and there are some elements of community connection that are associated with their use of the centres.

Health and Fitness Outcomes

ARCs exist to address the health and fitness needs by providing a range of health and fitness services that are designed to "inspire people to live healthier lives and enjoy the powerful benefits of physical activity" (centre goal statement). The survey results indicate a positive rating of the healthy outcomes that centre users gain from their involvement in the activities in the centres. The centre users participate in a variety of moderate and vigorous physical activity that exceeds the normal physical activity patterns of most Australians. The survey respondents also indicated that they felt their use of the centre helped them to remain healthy, have fewer sick days and be more productive in work / life.

The Travel Cost Method (TCM) was used to identify the value that centre users associated with their use of the centre. The TCM provides a value associated with the use of a facility or service. It is based on the cost involved in getting to and using the facility. The cost and time of getting to the venue and using the venue provides a measure of the value of consumption. This study has used the TCM developed by Sport and Recreation Victoria (SGS Economics and Planning, 2010). The calculation of the TCM indicated that individuals get a value of nearly $48 for each visit to the centre. The average value of approximately $38 million per centre in this study indicated the important contribution that ARCs make in their local community. These figures indicate that for every dollar spent to deliver the services (excluding capital expenses) there is a $7.60 benefit.

Although it is clear that ARCs have an important contribution to the health and fitness of their local communities there is some evidence that questions the necessity of ARCs. If the survey respondents' ARC closed, they indicated that they were likely to diminish their level of physical activity. However, the respondents also indicated that they were more likely to pursue physical activity elsewhere if their ARC was not available. This does not reflect actual behaviour but it does provide some insights regarding the necessity of ARCs. Users of ARCs may be among those who would pursue physical activity regardless of the availability of the centre.

Community Development and Inclusion vs. Economic Outcomes

The goal and vision statements from the ARCs made it clear that they had a role to help to develop community connections and to include all members of their communities in their activities. These intentions were also reflected in the comments from the interviews. However, the review of the financial statements indicated that minimal resources were actually allocated to community development programs (average across the six centres was 0.5% of expenditure) and to include specific population groups of the community (average across the six centres was 1.3% of expenditure). Centre managers indicated that they intend to pursue these goals but "we don't have enough resources [to] support those initiatives." There is a "juggle between community and commerce" that seems to be skewed towards the economic expectations.

Although the budgets do not reflect a large financial commitment to community development and inclusion of specific population groups of the community, most centres do provide a range of services to address these goals. Programs, such as the YMCA Open Doors Program, address issues of disadvantage and community development. In fact, some centres run a number of community fund raising activities that build connections among centre users and provides funds to support disadvantage sectors to be involved in centre programs. However, these types of activities are not usually reflected in the ARCs' regular financial statements.

Community Connections / Social Capital

An important goal of the ARCs was to provide programs and services that connected the community. One of the centre goals specifically said, "Strengthen communities by bringing people together to experience the joy of belonging". The focus on the elements of social capital in the centre questionnaire provided some insights regarding the nature of social capital that was gained by the centre users. A scale in the questionnaire identified five factors associated with social capital constructs.

The three social capital constructs of Safety, Trust and Acceptance / reciprocity were rated relatively highly by the survey respondents. Friends and Volunteer / involved were rated low by the respondents. This indicates that respondents felt safe at the centre, trusted others in the centre and were willing to accept others in their program and provide assistance to others. But, they did not see the centres as a place to make friends or to be involved as a volunteer. The overall rating of social capital was neutral. The data suggests that ARCs are not making a large contribution to their community's social capital.

Although the overall rating of social capital was neutral this analysis is limited because so little is known about how other community groups and programs respond to similar measures. What are the levels of social capital that are generated by users of libraries, infant welfare centres, youth groups, senior citizen centres, sport clubs, etc.? Similar research needs to be conducted in complementary

community settings to identify some overall levels of social capital and to better understand the ratings for the different social capital constructs. However, there were some groups of respondents who did tend to have higher ratings of the social capital constructs.

Value of group activities

The respondents who participated in group fitness and exercise classes, and swim club / squad training were more likely to have higher ratings of the social capital constructs. Involvement in group activities reflected how ARC users were more connected with each other and able to make connections that would generate social capital outcomes. The group classes may also reflect the role of a leader in bringing people together. Although there is no evidence about the role of the leader, it is an element of group classes that warrants more attention and research. ARC users who participate in other popular activities like Gym / health club, Aquatic education and Lap swimming were likely to be less involved with other people and to be more focused on their individual activity.

If ARCs want to focus more on building community connections, then they may want to consider how staff in the centre interact with the centre users and how they encourage centre users to engage with other customers.

Economic Significance

The indicators of economic significance were determined through the document review, interviews, the survey and the calculation of TCM figures. Very conservative figures were used in the calculation of the ARC economic activity to make sure the value of any of the operations were not inflated.

Most Important Programs

All but two of the centres reported a small surplus from their operations. The four key sources of ARC income were Aquatic education, Class / group exercise, Health club / gym membership and Recreational swim which generated over 84% of the centre income. The main expense was staff that accounted for over 53% of the expenditure. The four programs that generated the main income only required 25% of the expenditure to deliver. This illustrates how profitable these main services are. Besides the program delivery the other major expenses were Administration and management (21.1%) and Operations covering energy, water, maintenance and equipment (16.8%).

Economic Activity in the Local Community

The centres are an important service provider in their local community. Within the local councils the ARCs were the equivalent of two to four per cent of council income and two to five per cent of the council expenditure. One central service interviewee indicated that the ARC service contract was the second biggest contract for the council.

Within the ARCs, the data also indicated the importance of their local economic activity. Over 70% of the survey respondents indicated that the centre was in their local community. ARC managers'

postcode analysis of members indicated that over 80% were from the local area. Centres also indicated that much of their expenditure was in the local community. Most of their staff lived locally and they contracted local services whenever possible. ARCs are important contributors to the local economy.

The interview with a small business also indicated the importance of ARCs for their business. The ARC part of his operations was responsible for 75% of the business that had a turnover of between five and ten million dollars. They employed over 40 staff and are based in two capital cities with no other local or regional offices. Not only do the ARCs make an important contribution to the local community but their operations are also important for small businesses in the state.

Health Benefits / Value

As indicated earlier the TCM was used to calculate the benefit attributable to the users' participation in ARC activities. Although it is not a pure economic benefit the TCM demonstrates the utility of ARC participation. The outcomes of the TCM indicate that the centre users value the visit at almost $48 per visit and the centres average almost $38 million of value to their local communities.

Conclusion and Practical Implications of the Research

The findings from this research provide some insights about ARC operations and benefits provided to their communities that have not been previously identified. The main conclusions and implications from the research are:

- The centre users participate in a variety of moderate and vigorous physical activity that exceeds the normal physical activity patterns of most Australians. This makes an important contribution to participants' health.
- Most centre users may be among the truly dedicated physical activity participants so there would be value for ARCs to attract a wider range of users, especially from disadvantage sectors of the community.
- The ARC goals / vision express a desire to address the social and community development activities in their operations but there may be economic impediments and limited resources to pursue these goals. ARCs need to review these goals and their operations to determine how they can make the social aspects of their operations a larger part of their main activities.
- ARCs contribute to local social capital but it tends to not be particularly strong. ARC management may need to review how they interact with their customers to facilitate the development of community connections.
- ARCs are important economic entities in their local communities. They provide:
    - Facilities, programs and services for their local residents
    - Employment for local residents
    - Employment for local contractors
- ARC activities are important contributors to the local community. Users value their visit to the centre at almost $48 per visit and the centres provide an average $38 million of benefits. The

centres generate a return of $7.60 value for every dollar of expenditure. The value of their operations needs to be better recognised by the wider community and political decision makers.

Overall, the research has identified that ARCs are making important community and economic contributions to their local communities.

1. Introduction

Leisure and aquatic and recreation centres (ARCs) are a crucially important contributor to the well-being of Australians. They provide people with an escape from the pressures and tensions of daily life, lead to improved levels of physical and mental health, and build up strong social networks and relationships (Howat, Alikaris, March, & Howat, 2012; SGS Economics and Planning, 2010). While ARCs are considered valuable assets to the community, construction and management of ARCs are generally unappealing for the private sector because of the low financial return on the investment. Consequently, it has become the responsibility of government to invest public monies to ensure these facilities are built, maintained and capable of meeting their communities' needs. While the research shows that society benefits - both directly and indirectly - from the services delivered by ARCs, and that they justify the cost involved (SGS Economics and Planning, 2010), there is limited research to determine the benefits these centres bring to their local communities.

The purpose of this research was to identify the scope and scale of the community benefits that come from the operations of ARCs. It also had a subsidiary aim of exploring a rigorous method for collecting relevant data that could be applied in larger research projects. This research explored six case studies of ARC operations in Victoria. For each case study a series of data collection regimes were undertaken. They involved (i) an exploration of existing documents, including centre goals, vision statements, income and expenditure statements, and budgets; (ii) interviews with centre managers and key staff; and (iii) surveys of current users at the centres. The data collection was designed to provide insights about the community benefits that were attributed to the ARC activities and the economic significance of their operations in their local community. For the purposes of this study, community benefits have been confined to economic and social benefits. Health and environmental benefits were not included in the research brief.

The economic benefits accruing to the local community were investigated by reviewing the centres' goal / vision statements and comparing these intentions with the budget allocations and final 'spend'. Interviews with the centre managers were conducted to illuminate the goal / vision statements, and to clarify the interpretation of the budget analysis and spending patterns. The economic significance of the centre operations was additionally investigated by analysing first, the sources of income streams, and second, the levels of expenditure that occurred within the local community. Economic significance relates to the size and nature of financial activities of local government aquatic and recreation centres (Stynes, 2001 cited by Crompton, 2010). The survey of centre users also investigated the economic activity related to their use of the ARC.

The community social benefits were based on the review of the centres' documents and the interviews of with the range of centre managers and other key stakeholders. The survey of centre users was used to identify the nature and level of social benefits, with a major focus on social capital constructs that are associated with participation in centre activities.

The analysis of the method required to investigate the community benefits of ARCs involved a critical appraisal of the steps that were required to complete this study. The potential to replicate and expand this study beyond the current six case study settings is also explored.

Section 2 of this report provides a summary of relevant background information and provides a model to identify the potential benefits from ARCs. Section 3, the Methods section, explains the mixed method design that was used to explore the range of benefits attributed to the delivery of ARC services. Section 4 provides an overview of the results from the qualitative data (document analysis and interviews) and the quantitative data (ARC user survey). The main findings indicate there is limited clarity regarding how much ARCs commit to delivering community benefits and the economic significance of ARC activities is an important part of their local community. Section five discusses the research in the social and economic benefits of ARC services. The Conclusion provides a summary of the main findings and clearly identifies that ARCs deliver important community benefits in their local area.

2. The Scope, Scale and Socio-Economic Significance of Aquatic Recreation Centres- Literature Review

The purpose of this section is to document what is currently known about the aquatic and recreation industry sector. Initially, the explanation of this and the sport and recreation industry will be provided within a leisure benefits theory context. This theory (Driver, Brown, & Peterson, 1991) is explained by providing a framework for the economic, physical and mental aspects of what ARCs deliver. ARCs have a key role in the community to provide a place for physical activity and community cohesion. Finally, an explanation of the current understanding of the economic analyses that have been conducted for the sport and recreation industry is provided. This review of literature firstly explains the concepts that are used to inform the research, and secondly, demonstrate why a focus on the community benefits of ARCs warrants attention.

2.1 Defining Aquatic and Recreation Centres

An important issue about the aquatic and recreation industry sector is the lack of clarity regarding definition of centres, and the types of facilities that are provided. A local community's unique needs are usually the driving force for the design and development of its ARC but the motives for ARC design and development are not clear (this question is being investigated in a complementary study). Within the industry it can be very difficult to come up with a single term that accurately describes all aquatic and recreation facilities. For the purpose of this study the term aquatic and recreation centre (ARC) was used to encompass the six aquatic and recreation facilities that were involved in this research.

Academic papers over the years have described ARC's by many different names including: sport and recreation facility (Sach & Moodie, 1988; SGS Economics and Planning, 2010), indoor swimming centres (Hole & Elkington, 1988), public leisure centres (Tower, 1991a, 1991b), aquatic and indoor recreation facilities (Jeavons & Marriott, 2002), public aquatic centres (Howat et al., 2012; Howat, Crilley, & McGrath, 2008; Howat, Murray, & Crilley, 2005), multi-purpose leisure facilities (MPLF) (McDonald, Stewart, & Dingle, 2011, 2014), public sports and leisure centres (Centre for Environmental and Recreation Management, 2010) and aquatic leisure venues (Marriott, 2012). The inconsistency of naming of the facilities has left the industry with no clearly defined descriptors, and creates significant confusion when researching and comparing data.

To add to the existing confusion that exists in the analysis and naming of ARCs there is inconsistency within the Australian Bureau of Statistics (ABS) regarding the collection of data about the sport and recreation industry. In recent years there have been three changes in the statistical parameters of measurement for facilities that would include ARCs. In 2010 ARCs came under health fitness centres and gymnasia, in 2011 they were changed to structured facility such as gym, public pool or court, and in 2012 indoor and outdoor facilities have been divided into two separate sections, so ARC facilities

could fall in either the indoor sports and fitness centres or the outdoor sports facilities. This makes it challenging for annual analysis of the centres, especially for activity participation rates or industry-based data. Therefore a knowledge gap appears regarding the number of people that use ARC facilities in Victoria and elsewhere. For the purposes of this study an ARC is defined as a community venue that provides a pool with fitness and active recreation facilities.

2.2 Employment in ARCs

In broad terms, only 1% of the Australian population works in the sport, exercise, and physical recreation industry, and, of that 1%, only a relatively small proportion is employed in ARCs. At the same time, the industry is growing rapidly, between 2006-2011 there was an increase of 21% in people employed in the sport, exercise, and physical recreation industry. Overall, the sport and recreation industry has witnessed remarkable growth considering there was an 11% growth in total Australian employment the same period (ABS, 2012f).

In 2012 Fitness instructors comprised the single largest employee cohort within the sport and recreation industry with 21,514 workers. The next largest employee group was swim coach and swim instructor, with 10,279. There were, in addition, 3,581 sports centre managers and 3,542 lifeguards employed within Australia in 2012 (ABS, 2012f). The ABS data about employment is complemented by Emery, Crabtree, and Kerr (2012) who identified through their study that health and fitness was the most frequently advertised of sports - specific management position with 27% of advertisements followed by swimming (8%), golf (2%) and football (2%).

The ABS's 2012 sport and recreation statistical overview (ABS, 2012f) figures need to be treated with caution for a number of reasons. First, they include all employees within the sport, exercise and physical recreation community, and do not distinguish between employers who operate in the public sector, and employers who operate in the private sector. As a result, the ABS figures provide only an overview rather than accurate employment rates within ARC facilities. Second, they include not only people in full time positions, but also people employed on a part-time and casual basis. Over half (55%) of persons employed in sport and physical recreation occupations worked part-time (i.e. less than 35 hours), with 30% working 15 hours or less.

In line with the prevalence of part-time work, the average/mean weekly income of employees that work within an ARC is relatively low by overall industry standards, with just over 19% receiving less than $200 per week. Around 60% of persons employed in sport and physical recreation occupations received a total weekly income between $200 and $999, while 20% received $1,000 per week or more. In addition, sport, exercise and physical recreation attracts a high percentage of younger workers, with the sport and recreation industry being one of the highest employers of people aged between 15 and 24 years (ABS, 2012f). This contrasts the Emery, et al (2012) data that indicated that

starting salaries in the sport management industry (marginally different to the broader ABS industry sector) were higher than the average graduate salary.

2.3 ARC Facilities Used

Recent surveys show that 4.5 million Australians – which accounts for 27% of Australia's adult population – have participated in some type of gymnasium-based exercise or fitness program (Australian Sports Commission, 2012). As a point of contrast, less than three per cent of Australians play Australian-rules football, while just over four per cent play soccer (Australian Sports Commission, 2012). While many more Australians work out in gyms than play competitive team sports, it is very difficult to ascertain specific details for usage within ARC's. In order to get an understanding of the importance that ARCs play in the community, there is a need to get as much information out of the resources that are available.

The ABS provide a good starting point for estimating ARC usage, and although the 2012 ABS statistics does not subdivide its data into states, the figures for 2010 provide illuminating insights. First and foremost, 78% of participants used facilities for engaging with either organised sport activities or non-organised sport activities. Just over 65% of participants used facilities for organised sport, while 38% of participants used facilities for non-organised sport. When the 'type;' of facility used was identified, it was found that 55% of all Victorians undertook some form of sport, exercise or physical recreation activity in a structured facility such as a gym, public pool, or court. (ABS, 2010a)

Local government recreation facilities play a significant role in providing these services to the surrounding community. In 2010, the ABS reported that in Victoria more than 1.5 million people over the age of 15 use recreation facilities in order to pursue a range of leisure activities. The ABS has also reported that over 57% of people that participate in both organised and non-organised sport and physical recreation do so within an indoor sports and fitness centre.

Although the data lacks precision it is clear that ARCs are an important industry sector in the delivery of sport, exercise and physical recreation activities. This reinforces the need for this research to investigate the local community benefits associated with ARCs.

2.4 Spending on ARC Construction

Data indicates that leisure centre and facility construction is high and increasing. Table 2.1 provides a summary of some of the key data associated with the construction of ARCs. These figures identify the steady increase in the value of engineering construction over a four-year period.

Table 2.1 Construction figures for leisure centres

	2005 – 06	2007 – 08	2008 – 09	2009 - 10
Value of engineering construction activity for recreation projects (excluding landscaping)			$997.5m	$1,342.9m
Value of engineering construction activities for recreation (excluding landscaping projects) by the private sector	$410.1m	$375.3m	$457.5m	$660.7m
Engineering construction activity for recreation projects (including landscaping)		$1,781.4m	$2,134.4m	

(ABS, 2009)

Overall, the range of ABS data indicate that there is an increase in the levels of employment, a high Victorian usage of the facilities and there is a high level of increased investment in the construction activities for the sport and recreation industry. This growth demonstrates the value of the industry but little is known about the benefits delivered by ARCs.

2.5 Leisure Benefit Theory and the Contribution of ARCs

Research into leisure benefits has expanded rapidly over the past 30 years, thanks mainly to the pioneering work undertaken in the 1980s by Driver, and his determination to understand all the benefits that leisure can offer, not just the personal benefits that an individual receives. Driver (1986) subsequently developed a theory that there are four types of benefits that can be achieved from leisure, They are:

1. Personal benefits
2. Social benefits
3. Economic benefits
4. Environmental benefits

With these four concepts in mind Driver organised a leisure benefits workshop in which the text *Benefits of Leisure* (Driver et al., 1991) was developed. With over 57 authors at his disposal, Driver set to “fill the information gap” (p. ix), they broke open the benefits research and reassembled it as a multi-faceted, multi-disciplinary construct. They not only identified things like economic efficiency and

productivity, but also included areas such as (1) physiological improvement (e.g., health benefits, self identity, recreation of mentally ill, spiritual, learning benefits and developmental benefits), (2) psycho-physiological measures, (3) sociological factors (expanded leisure time, family bonding, and quality of life) and (4) environmental progress (environmental benefits and human leisure).

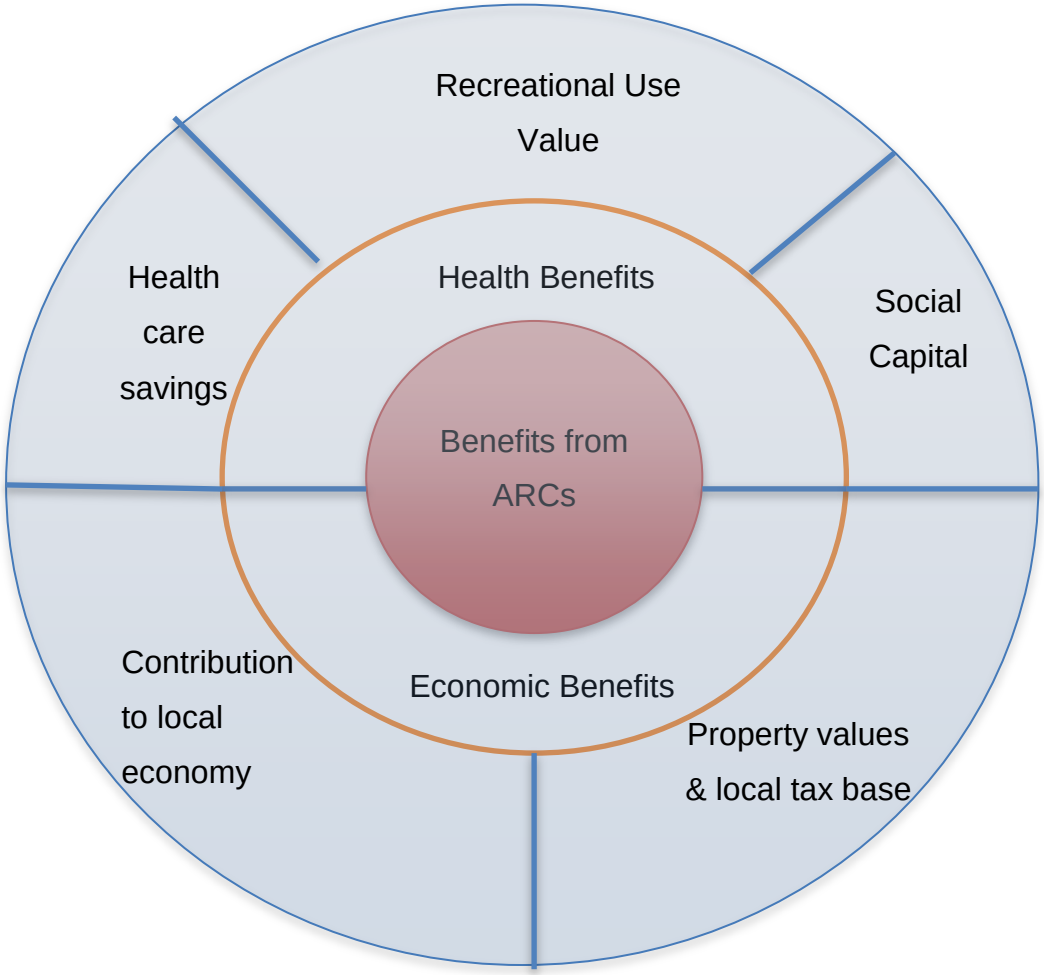
For this study, the researchers have adopted a narrow set of parameters. First, leisure benefits will include only 'community benefits', which means that the beneficiaries of the services will not only be the facility 'members' but also members of the local community. This will include local contractors and suppliers that benefit from an ARC within the community, and, additionally, the extent to which ARC participation may contribute to the local community's social capital.

With respect to the state of Victoria, there are two reports that document the benefits of ARCs in the community. The first was undertaken by Jeavons and Marriott (2002), who focused on the physical and psychological benefits people gain from attending an aquatic indoor recreation facility, while the second was completed by Howat et al. (2012) which addressed the health and personal benefits of an Australian public aquatic facility. While both of these reports highlight health and psychological benefits that an ARC delivers to individuals, there is no reference to the community benefits that these centres provide for their local community. Neither of the articles focus on the economic or community benefits of the ARCs, Howat et al. (2012) did propose that future "research could consider the economic benefits of physical activity at public aquatic centres" (p. 16). Grieve and Sherry (2011) do discuss the benefits of a single centre but these benefits tend to be more focused on only the individuals that participate in the centre's activities. This limited treatment to the full array of leisure benefits that potentially arise from the use of ARCs constitutes a major gap in the research, and reinforces the need for this research project, particularly regarding broader economic and community benefits.

A more holistic model for analysing the potential benefits arising from the operations and activities of ARCs has been developed by Crompton (2012). This model works on the assumption that the benefits arising from ARCs can be distilled into two types, which are economic benefits on one hand, and health benefits on the other.

Economic benefits can take two forms. The first form involves the direct contribution to the local community by way of employment, income and expenditure. The second form involves the impact on property values, and the contribution it makes to local tax collections. The health benefits are multi-faceted by including not only the likely improvement in individual – and by extension, community – health, but also the anticipated improvement in psychological health and social connectedness. The terms 'health care savings', 'recreational use value', and 'social capital' were used to focus and put attention on these outcomes. An adapted version of the Cromption (2012) Leisure Benefit Model is illustrated in Figure 2.1.

Figure 2.1 – Potential benefits from ARCs (Crompton, 2012).



2.5.1 Health Benefits

The health benefits from ARCs are broadly defined, and provide health care savings, recreational use value and social capital outcomes. Each of these benefits is discussed in more detail below.

2.6.1.1 Health Care Savings

While the benefits of leisure and physical activity have been well documented, it is the trends of inactivity that are causing concerns for not only the Victorian government but for all countries throughout the world. Physical inactivity has been identified as the fourth leading preventable cause of death (Australian Institute of Health and Welfare, 2012; Howat et al., 2012; World Health Organisation, 2010). The World Health Organisation (2010) has said, "that physical inactivity is the principal cause of approximately 21-25% of breast and colon cancer burden, 25% of diabetes and approximately 30% of heart disease" (p. 10) and has significantly contributed to the high rates of obesity that currently exist. These statistics match trends that are causing concerns in Australia.

In order to get an understanding of the amount of money that is spent on health services in Australia, economists completed a comparison between the amount of money spent on health care by working out the Health Care Spend to Gross Domestic Product (GDP) ratio. This compares a country's spending on health as a percentage of its spending on all goods and services. Australian Institute of Health and Welfare (2012) confirms that Australia experienced a rise in health care spending over the past decade "from 7.9% in 1990-2000 to 9.4% in 2009-10" (p. 468). While inactivity is not the only health problem that drains Australia's health care system, the Australian Health Survey shows that inactivity plays a big role. In 2011-12 there were 63.4% of Australians over the age of 18 years considered overweight or obese (2012a), and 25.3% of children between the ages of 5 to 17 years (2012c). In 2011-12, 4.0% of the Australian population (875,400 people) had type two diabetes (ABS, 2012b) and 4.7% of Australians or one million people had heart disease (ABS, 2012e).

Along with higher inactivity disease rates, Australia also sees a rise in sedentary rates with almost 60% of Australians aged 15 and over that do not undertake sufficient physical activity to confer a health benefit. The proportion of people with insufficient levels of physical activity has increased with age, with 80% of women aged 75 and over not undertaking sufficient physical activity (Australian Institute of Health and Welfare, 2012). This is of great concern for federal and state governments particularly because of Australia's aging population. In 2008, Medibank Private found that an estimated "16,178 Australians die prematurely each year due to physical inactivity" (2008, p. 1). The Australian Health Promotion Association (2013) has reported that obesity costs Australia $120 billion per year.

In 1999 the U.S. Department of Health and Human Services released a report that confirmed that physical activity was essential to remaining healthy but in deference to previous thoughts, they confirmed that while vigorous exercise would provide better health outcomes, moderate exercise would still provide healthier communities. From this, the minimum recommendations were developed, suggesting that "people of all ages need to include a minimum of 30 minutes of physical activity of moderate intensity (such as brisk walking) on most, if not all, days of the week" (United States Surgeon Generals report (USSG), 1996, p. 6).

With the rise of health care becoming an issue for governments around the world, reports and recommendations have been completed on a world scale (World Health Organisation, 2010). The Australian government (or agencies within) has completed a range of reports to address these issues. The reports include *The Cost of Illness attributable to Physical Inactivity in Australia* (Stephenson, Bauman, Armstrong, Smith, & Bellew, 2000), *Be Active Australia: A Framework for Health Sector Action for Physical Activity 2005–2010* (The Strategic Inter-Governmental forum on Physical Activity and Health (SIGPAH), 2005), and *Australia's Health 2012* (Australian Institute of Health and Welfare, 2012). To show the concerns governments have for the communities, a strategic plan has also has been developed by the Victorian Government (Department of Human Services, 2006). While all of these reports highlight the problems of inactivity, such as the diseases inactivity directly related to and

the benefits physical activity can have on the individual and the community, all five reports have taken a different approach. The World Health Organisation (WHO) and Be Active Australia have taken a recommendations approach, with WHO completing physical activities by age, and Be Active Australia is building a framework for different settings including health services, child care, schools and workplaces. Stephenson et al. (2000), have taken a unique approach, in calculating the economic cost of individual diseases associated with inactivity and estimating their burden on the health care system. The Department of Human Services (2006) (a Victorian government program) received a $57.5 million grant aimed at improving the health and activity patterns of Victoria. The program aims to implement programs such as Kids 'Go for your life', Seniors 'Go for your life', 'Go for your life' Flagship Bicycle Program and Healthy Start Kitchen Gardens.

Crompton (2012) calculated that there would be a significant reduction in health care costs by increased physical exercise. There would be a savings of $US351 for each person aged under 65 years that exercised and those that do not; and $US702 savings for those who exercised aged over 65 years. Although the savings in health care costs would be different in Australia compared to USA, it is safe to assume that increased levels of physical activity will have both a health benefit that is associated with an economic benefit.

At the Victorian state level, Jeavons and Marriott (2002) highlighted that 75% of participants within an ARC attend to obtain physical fitness. Howat (2013) has identified that health and fitness is the most important benefit of ARC users and it also has the highest level of achievement. At a very specific level Grieve and Sherry (2012) report community benefits such as increased accessibility, social cohesion health and fitness opportunities for the stakeholders of a particular venue. This limited research demonstrates ARCs' capacity to make a significant contribution to the community's health and fitness. The understanding of these benefits is evolving and this research contributes further to this understanding.

2.6.1.2 Recreation Use Value

Recreation use value is a concept used to allocate a financial value to a recreation experience. It is most commonly used in outdoor recreation settings where a value is used to provide a willingness of the consumer to pay for an experience that does not always have a direct financial price. It has been used by US federal agencies such as the US Army Corp of Engineers, Bureau of Reclamation, and the US Environmental Protection Agency (Loomis, 2005). Although the metrics from recreation use value have not been applied to ARC usage, there is potential for some of these very general values to be applied to ARC usage.

Measuring physical activity levels through application of participation rates

In Victoria over 2009–10 there were 1.1 million people over the age of 15 years that participated in sport and physical recreation over a 12-month period. Victorian participation rates are also consistent with the Australian rates in that the participation rate of Victorians decreases as they age. At the age

of 15-17 years there are over 83% of males that participate in sport and physical recreation, while at the age of 65 years and over there are half as many males that are participating in any form of sport and physical recreation, at 46.6% of participants. Females are more consistent in participation over the different ages with participation of 73.5% at 18-24 years, a drop of just over 20% to 49.7 for people aged over 65 years (Australian Bueau of Statistics (ABS), 2010b). The drop in paricipation for older Adults is quite significant as currently 13.5% of Victoria consists of people over the age of 65 years (ABS, 2010b).

The most popular form of exercise by Victorians is walking, closely followed by aerobics/gym and swimming (ABS, 2010a). Swimming and diving were the most popular sport/activity for girls and soccer for the boys (ABS, 2012d).

Local government recreation facilities play a significant role in providing these services to surrounding communities. In 2010, the ABS reported that more than 1.5 million Victorian people over the age of 15 use recreation facilities in order to pursue a range of leisure activities. As previously stated, the ABS has identified that over 78% of people that participate in both organised and non-organised sport and physical recreation do so within a recreation facility that has a gym, public pool, or court. These statistics tend to be very broad and do not give specific details as to the participation rates of Victorian ARC's. Nonetheless, they do suggest the importance of ARCs in the delivery of physical activity opportunities in Victoria.

Availability Value

While there are many members of the community that do not actively use the ARC's within their community, SGS Economics and Planning (2010) and Crompton and Marsch Darcy Partners (2011) suggests that these members put economic value on of the 'option of using them'. With the assistance of SGS Economics and Planning (2010), Sport and Recreation Victoria found some of the values that Victorian non-users put onto recreation facilities, are:

- People value having the option to use the facility
- The value a person who will never use the facility places on its existence knowing that it will yield general community benefit, and that it exists for future generations
- Cultural and heritage values associated with facilities. Some facilities can become icons for a community.
- Amenity and environmental benefits such as outdoor fields provide a break in urban areas, provide resting space for fauna. They can potentially have some impact on air quality and hence reduced heat build-up (p. 14).

2.6.1.3 Social Capital

The benefits of social capital have been recognised and explored by many researchers and politicians

over many years to gain an understanding of its role in the community (Coleman, 1988; Doherty & Misener, 2008; Driscoll & Woods, 1999; Putnam, 1995; Tonts, 2005; Zakus, Skinner, & Edwards, 2009). Most of the discussion of social capital that relates to this study has focused on its connection with community sport and the potential for volunteers to gain from their contributions (Auld, 2008). There is little that has investigated the role of social capital in community leisure facilities and no research has been found that relates to community participation in ARCs.

When social capital is attributed to public goods (or in this case ARCs), the investment into the community can be manifested in different forms depending in the primary benefit that the individual is trying to achieve. Coleman (1988) explained that while mothers may not be directly involved within activities with the public structure (e.g., do not have a membership, but their children do) they will experience a 'subset' benefit of the social capital that is surrounding the facility, through social interaction and involvement through association. This is explained by Putnam (2000), when he states

> In terms of social capital and civic engagement, it is important that members are truly active and involved, and not merely holding nominal memberships of groups that do not facilitate such engagement. Social capital, therefore, is not present or reflected in the membership per se, but the ways in which the membership is used to secure benefits for the individual or group. Thus, the degree of social inclusion and connectedness cannot be measured via the proxy of membership, but rather the qualities of an individual's social networks and their access to individual and collective resources.
> (Putnam cited in (Hoye & Nicholson, 2009, p. 445)

Skinner, Zakus, and Cowell (2008), take more of a psychological view and believe that social capital extends from the need to belong to something. By becoming a member an individual has made a personal investment and therefore has created an identity and a sense of belonging. While the complexities of these explanations may cause debate amongst researchers, they highlight the social, emotional and psychological benefits that the presence of public goods (or ARCs) can give to the community, in a time when community connectedness is declining or communities are getting the feeling of 'bowling alone'.

Current research on social capital in sport is still in the process of being developed and understood. Australian state governments and agencies have taken significant interest in the benefits that social capital can bring to their communities. Table 2.2 lists the range of government bodies, and states and territories within Australia that have produced some documents that identify the strengths that along with sport and recreation, social capital can bring to their communities when developing strategic plans for the future.

Table 2.2 Government department and agencies that have produced documentation on social capital

State or Territory	Produced by	Name of document	Reference
South Australia	Government of South Australia – Office for Recreation and Sport	Trends in Recreation in Sport	(Australia, 2011)
Western Australia	Department of Sport and Recreation WA	The Value of Sport and Recreation	(Governement of Western Australia, 2013)
	Department of Sport and Recreation WA	Sport and Community Cohesion in the 21st Century: Understanding linkages between sport, social capital and the community	(Atherley, 2006)
New South Wales	Department of Arts, Sport and Recreation	Sport and Recreation Community Building	(Larkin, 2008)
Tasmania	Department of Sport and Recreation Tasmania	The Value of Sport and Physical Recreation in Tasmania	(Muller, Wadsley, Adams, Arthur, & Felmingham, 2010)
Victoria	Department for Victorian Communities - Sport & Recreation Victoria	Sporting Capital: Changes and challenges for rural communities in Victoria: Centre for Applied Social Research	(Driscoll & Wood, 1999)
	Sport and Recreation Victoria	Community Sport Counts: Local Sport and Recreation in Victoria, Regional Survey Summary Report 1	(Sport and Recreation Victoria, 2004)
Australia	Australian Bureau of Statistics	Sport and Social Capital	(ABS, 2006)

Measurement of social capital

The measurement of social capital remains a vexed issue with unclear guidelines regarding what social capital is and the best approach for its measurement. Nonetheless, there is sufficient research to identify the nature of the constructs that constitute social capital and previous research has successfully measured the impact of these constructs within community settings. For the purposes of this study the contribution of volunteering, friendship, trust, safety, diversity and reciprocity were used to identify the levels of social capital at ARCs (Brown, 2008; Onyx & Bullen, 2000; Putnam, 2000; Tonts, 2005; Zakus, et al., 2009). This research investigated the role of social capital among ARC users to explore if the constructs could be attributed to involvement in activities at ARCs.

2.7 Economic Value

According to Crompton (2012) the main economic benefits of local recreation services are based on the contribution to the local economy and the impact on property values and the local tax base. Surprisingly, little research has been done regarding the economic significance of ARCs in their local communities.

2.7.1 Contribution to local economy

As has been detailed above there are major health and social benefits for members of the community to not only participate but to be involved in some form of sport and or physical recreation. In terms of establishing the contribution to the local economy this study examined the 'beneficiaries' that are influenced through the use of the ARC. Most of the previous studies regarding the contribution to the local community have been based on economic impact of events and activities because of the economic contribution to a community that can be attributed to visitors from outside of the community, especially for events (Crompton, 2010). The focus for understanding the local economy contribution is based on the principles of economic significance that relate to the size and nature of financial activities associated within a local community (Stynes, 2001 cited by Crompton, 2010).

Through the use of 'beneficiary analysis', this study aimed to get an understanding of the ARCs economic contribution to the local economy by analysing the employment of local staff, the sourcing of local supplies, and the employment of local contractors. Through this analysis, the research project gained a better understanding of just who was benefitting from the operations of the ARCs, and on what scale.

2.7.2 Property value and local tax base

Research has shown that parks and recreational areas can have a positive effect on property land values (Crompton, 2001; Harnik & Welle, 2009; Pros Consulting, 2012), especially in regional areas. While throughout these studies there are inconsistencies within the range of values that these open spaces can provide for the local community, in general most studies agree that there is some form of revenue benefit to be gained from the development and maintenance of public access areas (Nicholls & Crompton, 2005). While there is no current research that has been completed on ARC facilities and land value, ARCs provide similar benefits to the public such as health benefits and social capital. Could the presence of an ARC within a community influence the buying habits of the local residents and therefore have an influence on land value within their municipality? While this is not in the scope of this research there is certainly significant opportunity for this to be completed within another study.

2.7.3 Economic and Financial Analysis

Through a stringent analysis of the economics and leisure literature it has become very apparent that researchers agree on the importance of economic analysis to ensure that governments or event

organisers make informed decisions when spending public monies (Christie, 1999; Hone, 2005; Stabler & Ravenscroft, 1994). Many articles suggest how an economic analysis should be undertaken, but they also question the reliability of different multipliers or maybe suggesting that multipliers may have been 'borrowed' from other sectors (Crompton, 2010; Gibson, McIntyre, MacKay, & Riddington, 2005). The Travel Cost Method (TCM) is an established approach that has been used to estimate the economic value of recreation (Moore & Driver, 2005; Worboys, Lockwood & DeLacy, 2005).

Travel Cost Method (TCM)

The value of recreation experience is often a challenging benefit to quantify. The TCM is an established approach that is used to measure economic value associated with public expenditure in recreation services. In most instances the TCM has been used to measure the economic value of outdoor recreation services. It has been used to measure value in settings such as national parks, ski resorts, urban parks, and reservoirs (Worboys, et al. 2005). The TCM has been used in a range of international settings to value the recreation use of park usage in Spain (Juarez & Canete, 2013); outdoor recreation demand in Greece (Latinopoulos, 2014) and a national forest park in Iran (Sohrabi, Yachaschi, Oladi, Teimouri, & Latifi, 2009). The TCM has been used by a range of public agencies in a variety of economic settings and has received limited criticism because it is based on the expenses of the recreation consumers (Moore & Driver, 2005). There is limited application of the TCM to recreation services beyond the outdoor recreation setting.

The TCM provides a value that gets attached to the use of a facility or service. It is based on the cost involved in getting to and using the facility. The cost and time of getting to the venue and using the venue provides a measure of the value of consumption. This factor has been included in studies undertaken by SGS Economics and Planning (2010), Sport England (2010) and Access Ecomonics (2009). While all three studies provide different methods of analysis, they have some common estimation tools, and they have been incorporated into this study. For this study the researchers have used parts of the travel cost method developed by Sport and Recreation Victoria (SGS Economics and Planning, 2010). The formula for the travel cost is as follows:

> *Travel cost method = total revenue for facility (or total visits multiplied by admission fee) + (average travel time and in facility time for participants) multiplied by a time value (placing a dollar value on the time people use in getting to and using facility)*
> Example: TR + AT x TV =?

The TCM provides a benefit figure that is attributable to the users participating in the centre activities. It assumes that facility users value their time and their pursuit of activities in the centre is made instead of some other pursuit. The combination of the revenue for the centres (TR), amount of time to travel to and use the centre (AT) and the value of the users time (VT) provides a figure that represents the health benefits from the use of the centre (SGS Economics and Planning, 2010). Considering there has been limited economic analysis completed on ARC's and this formula has been

successfully adapted to the leisure industry within Victoria, it adds consistency to analysis and provides comparable data.

It is important to emphasise that this research is not an economic impact study. Crompton (2010) defined an economic impact study as the financial change that is attributed to visitors from outside the community. An economic impact study provides measures of the new money that is introduced to a community due to a particular event or activity. Instead, this research is an economic significance analysis that shows the size and nature of the economic activity associated with the operations of local government aquatic and recreation centres (Stynes, 2001 cited by Crompton, 2010).

2.8 Summary

Through conducting this literature review, there are a number of themes that have been highlighted that demonstrate that there is a deficiency in the amount of research that has been conducted on ARC facilities. Users of an ARC are likely to be part of a healthier community, have lower health care costs, and contribute to civic pride and social capital. Through using ARCs the communities are benefiting by being healthier, fitter, stronger with more people being physically attractive to self and others, more productive, less prone to absenteeism, and more alert and confident.

While the literature is very clear on the benefits that ARCs can bring to the community, it is also very evident that there is a lot of confusion within the industry in identifying, defining and contextualising the role that ARCs play within the community. This can be seen at all levels through local government, government agencies and industry representatives, with a need for industry alignment and collaboration.

3. Research Method

This project has utilised a mixed method approach for the research. This approach was adopted because it allowed the researches to get a broader understanding of the complexities and diversities that are involved from both a management and customer perspective. For this study the researches felt that it was important to secure detailed advice from centre managers that provided candid and detailed commentary on their purpose and goals. Qualitative methods are the best way of securing this type of information, which additionally illuminates the meaning of the statistical results by adding a narrative understanding to the quantitative results (Hesse-Biber, 2010, p. 6). Moreover, the limitations of one method can be compensated by the strengths of the other method (Creswell, 2009; Creswell & Plano Clarke, 2011), through using a "weakness minimisation typology" (Nastasi, Hitchcock, & Brown, 2010, p. 310), which will ensure legitimacy and ensure validity throughout the study.

Throughout this study the qualitative and quantitative methods worked independently. This allowed for the results of the separate sets of results to play an equal role within the research project. The methods were implemented sequentially but the results from the methods were not reliant on each other (Creswell, 2009; Creswell & Plano Clarke, 2011; Nastasi et al., 2010). Once the analysis of both sets of results was completed the data were analysed in the final interpretation "through comparing and synthesising the results" (Creswell & Plano Clarke, 2011, p. 67).

The research project aimed to explore the scope and scale of the benefits that accrue to local communities from the operation of ARCs located in the vicinity. The study focused on (1) the economic significance of the operations of the ARC and (2) their social significance.

3.1 Case Selection

The six ARCs for this research were purposely selected to enable the researchers to "learn more about a specific setting or phenomenon" (Sharp et al., 2012, p. 37). Particular attention was paid the ARCs locations, to ensure a geographic spread of ARCs across Victoria. The study included four Melbourne metropolitan cases, including a centre based in an inner urban setting, two middle urban settings and an outer suburban setting. Two regional Victorian ARCs were based in regional cities that act as regional hubs for outlying communities. The combination of the six case study settings provided a cross section of different geographic locations and demographic characteristics so the insights gained from the analysis included a diversity of Victorian settings. This provided scope to compare and contrast the data from the different settings. In order to maintain confidentiality the six facilities will be identified through the use of alphanumeric pseudonyms: C1, C2, C3, C4, C5 and C6.

3.2 Qualitative Design

Throughout the qualitative research a case study method was adopted as it allowed the research to

explore the ‘how’ and ‘what’ questions which focus on contemporary activities (Yin, 2012). The aim of understanding the community significance of the ARCs explored ‘how’ the centres manage their economic activities, and how these facilities benefit their community; and the second aim of establishing a method of collecting and analysing the economic data addressed ‘what’ approaches are most effective for gaining insights about ARCs economic activities. Veal (2011) explained that case studies are effective when i) there is a capacity to put the people and organisations in their social context, ii) there is scope to use multiple methods, iii) the number of cases provide a manageable data collection approach within limited resources, and iv) the data collection strategy allows the researchers to adapt the research strategy as the research proceeds. These four points were applicable to this research.

3.2.1 Data Collection and Analysis

Through the qualitative strands of this study the research used document analysis and semi - structured interviews, in order to get a better understanding of the managers perspective and determine the beneficiaries and how they benefit from the ARCs. The semi-structured interviews allowed for flexibility and allowed the interviewer to diverge from the structured questions in order to encouraged the informant to express their beliefs and feelings beyond the limitations of the predetermined questions (Edwards & Skinner, 2009; Minichiello, Aroni, & Hays, 2008; Sarantakos, 2005). The general interview schedule is provided in Appendix 1.

In order to ensure validity was achieved, “multiple sources of evidence” (Yin, 2009, p. 42) were gathered. Documents included relevant ARC budgets and strategic plans. These documents provided insights about the details of expenditure and income within the centres and have been used to inform the more detailed analysis based on interviews with relevant ARC staff and related individuals involved in the delivery of ARC services. The combination of the document review and interviews identified the range of economic activity associated with the ARC operations and contributed to the identification of key features that can be explored in a larger follow-up study.

Initially the budget and strategic plan documents were reviewed to provide insights about the ARCs economic activities and what the ARCs were trying to achieve. The approach for analysing the data was based on the four stages of data coding explained by Gratton and Jones (2004). First, the documents were reviewed and open coding was conducted with relevant data assigned a code or category. Through the data analysis it was discovered that different ARCs have different budget structures and information so it was important to recognise relevant codes to identify the different economic activities and goals that the ARCs were trying to achieve. Secondly, the open codes undertook the process of axial coding to identify relevant categories. Thirdly, data was further reviewed to identify patterns and explanations within the codes. The fourth stage involved selective coding to illustrate the analysis and explain the economic activities and what the ARCs were trying to achieve. The outcome from the document analysis identified common categories to explain the economic activity and the ARCs goals and therefore identified gaps in the data that needed to be explored further in the interview stage.

The interview analysis also used to the four stages of i) data coding, ii) axial coding, iii) further review of the data to identify patterns and explanations of the ARCs economic activity, and iv) selective coding to identify cases that illustrate the analysis and explain the range of economic activities (Gratton & Jones, 2004). The final analysis subjected the data to a review to identify the policy implications of ARC operations. Insights about the economic activity of ARCs were identified to highlight the significance of their economic activity in their local communities.

3.3 Quantitative Design

Within the quantitative strand of the study the questionnaire was deemed the most effective research approach to i) gather information in a succinct, easily understandable form; and ii) gather data about a number of research questions (Veal, 2011). This approach also provided the range of responses that were required from a variety of participants in a relatively cost effective way.

3.3.1 Data Collection

The questionnaire had four main sections to gain information about a) respondents usage of the centre and levels of physical activity; b) the level of the respondents' community connection (social capital); c) the level of the respondents' economic activity associated with their use of the centre; and d) demographic characteristics of the respondents. These four sections included a range of items that acted as independent variable and dependent variables. The combination of nominal and ordinal data provided the researches with the opportunity to apply several categories to the statistical analyses (Singh, 2007). A copy of the questionnaire is provided in Appendix 2.

The two main sections of dependent variables are section B, connection with the local community, and section C, economic activity. The items in section B were based on items from previous studies that have been used to measure social capital. Concepts that contribute to levels of social capital include volunteering, friendship, trust, safety, diversity and reciprocity (Brown, 2008; Onyx & Bullen, 2000; Putnam, 2000; Tonts, 2005; Zakus et al., 2009). The items for section B of the questionnaire have been adapted from these studies and applied in the context of ARC participation.

The items in section C were based on a range of complementary research that has investigated the economic significance of sport and leisure services. The project reference group also reviewed draft versions of the questionnaire and provided comments and suggestions for items to be included. The travel cost method draws on principles of what people are willing to pay for a recreation experience (Clawson & Knetsch, 2011; SGS Economics and Planning, 2010). Consequently a set of variables were included that would allow for the calculation for travel cost analysis.

Sections A and D of the questionnaire were based on a number of standard questions that have been used in previous studies of leisure centre usage that can be applied in this research (Howat et al., 2012). The use of these items has assisted in the comparison with a few of the other studies that have investigated leisure centre usage.

3.3.2 Respondents

The respondents for the questionnaire were recruited via two complementary approaches. An online version of the questionnaire (developed on Qualtrics software) was distributed to ARC members and users who were registered on the centre's database. A paper-based questionnaire was distributed by members of the research team among on-site users of the centres to gain a range of different respondents who use the centre at different times.

Initially, a pilot study of the questionnaire was conducted with users of ARCs who were not among the population to be used in the research. This pilot study was used to determine the viability of the range of questions, assess the time it takes to complete the questionnaire and adjust the wording of the questions to make sure the language was appropriate.

The online respondents were invited to participate in the research by each of the six centres' management team. These participants included health club (gym) members and registered program members such as learn to swim families. These members were contacted via email and social media such as Facebook to invite them to participate in the online survey. Only adult members, i.e., 18 years or older were invited to participate in the research. Although the online questionnaire was designed to differentiate among the six centre respondents, there was a technical mistake that prevented the respondents from three of the centres to be identified. Nonetheless, the sample size from each centre did allow for a range of relevant analyses.

The second group of respondents were the users who visit the centre on a day when the research team were visiting the centre. Data were collected at a morning and afternoon session on one weekday at each of the centres. These respondents were recruited to participate through a request from a research team member at the centre, and via a notice to complete the survey at the main reception desk. Generally, the research team invited different centre users to complete the questionnaire before or after they participated in their activities. A box for completed questionnaires was provided at reception. Only adults, i.e., 18 years or older were invited to complete the questionnaire.

3.3.3 Respondents selection

Across the six ARC centres, there was a sample size of around 200 respondents. The sample was reviewed and the data screened to determine if it was suitable for a range of statistical tests. There were enough respondents from each centre to compare users from the different centres and their associated geographic locations. Pallant (2011) indicated that a sample of 100 or more participants is not likely to have any power issues. When relevant, the statistical effect size, e.g., partial eta squared, was calculated to determine the relative size of the differences between mean scores or the levels of variance between dependent and independent variables.

A technical error in the on-line data collection created an inconvenient circumstance whereby the on-line respondents from centres C2, C5 and C6 were combined into the same data set. There was no

opportunity to reallocate these respondents to their respective centres so they have been allocated to users of centre C7. This is an inconvenient outcome but does not significantly compromise the integrity of the research.

3.3.4 Analysis

The data was reviewed to determine if it met the necessary assumptions for a range of statistical procedures could be conducted, e.g., principal components analysis for the social capital variables. Cronbach alpha analysis was also conducted with the scales to determine the reliability of the items in the scales.

Correlation analysis was used to test the association between scale items. For example, frequency of visits (item 1) was explored to see how this correlates with the ratings of the social capital items or the economic activity items.

Statistical techniques to compare groups (T-tests, ANOVA or MANOVA) were used to determine if there were differences among the respondents for their ratings of different items. For example, a t-test was conducted to determine if there are differences in the ratings of the different items between the members who complete the online questionnaire and the casual users who complete the printed copy of the questionnaire; or, the main activity was used as an independent variable to determine if there were different ratings for levels of social capital or economic activity.

3.4 Making Sense of the Data

Both of the analyses were completed separately and then further explained in the Discussion section. Section four provides the key details from the qualitative research (section 4.2) and quantitative research (section 4.3). More specific details are also provided in the appendices.

4. Results

This section of the report will focus on the results from the data collected from both research methods. Section five will provide more of the critical analysis of the data in the context of the research aims.

The results provide i) a summary of the sample providing an overview of the six centres, ii) details from the qualitative data that includes a summary of the goals / visions of the six centres, financial summary data about centre income and expenditure, a municipal analysis of the centres' operations, economic significance of centre activities, and centre engagement with other community organisations; iii) summary of the quantitative data that includes descriptive and inferential statistics; and iv) insights about the data collection process that can be applied to future research.

4.1 Summary of the sample

The research was based at six ARCs in Victoria. Four of the centres were based in metropolitan Melbourne, i.e., one in inner urban, two in middle suburban, and one in outer suburban settings. Two centres were based in regional Victorian towns. The centres all provided a range of aquatic and recreation services such as multiple pools (lap swimming pool, leisure water spaces, learn to swim pool and some had therapeutic pools), fitness gyms, fitness classrooms, and some had sport courts. The six ARCs were the bases for the qualitative and quantitative research. All six centres were owned by a local council with five centres managed by an outside service provider and one centre was managed by staff directly employed by local government.

4.1.1 Qualitative research sample

Each centre provided documents regarding their annual financial statement that covered the operations of the centre, and a business / strategic plan that outlined what the ARC was trying to achieve. These documents were reviewed by the research team and discussed with the six centre managers to confirm the interpretation of the documents was accurate.

Interviews were conducted with centre managers (one respondent was an acting manager), two interviews were conducted with respondents from a central service provider that supported the ARCs in their area, and one respondent was from a commercial organisation associated with ARC operations. All of the interview respondents have many years of experience in the management of ARCs, ranging from several years as a centre manager and years of experience in ARCs at lower levels of responsibility. Most respondents also had experience at more than one centre in Victoria. Table 4.1 provides a summary of the individual interview respondents.

Table 4.1 Interview respondents

Number of respondents	ARC industry sector
Two	Central services provider associated with ARC management
Six	Centre managers
One	Commercial business associated with ARC operations

4.1.2 Quantitative research sample

The questionnaire (refer to Appendix 2) was conducted at each of the six centres. Online versions of the questionnaire were distributed by each centre to their centre membership, learn to swim clients and via the centre's Facebook followers. Each centre also had members from the research team spend a day at the centre to collect on-site printed versions of the questionnaire. The on-site data was collected on only one day of the week with a focus on a morning (9 to 11am) and afternoon (4 to 6pm). The on-site sessions had a quota target of gaining up to 50 respondents in each session.

A total of 1,653 responses were collected to make up the total sample. The on-site questionnaires provided 602 responses and the on-line questionnaire generated 1051 responses. The total sample was screened to identify respondents that did not answer all the questions. Respondents that did not answer ten or more questions were eliminated from the total sample leaving a final sample of 1,373 respondents. Some of the key information about the respondents is provided in Tables 4.2 to 4.7.

Table 4.2 Main program / activity

		Frequency	Percent	Valid Percent	Cumulative Percent
	Learn to swim	240	17.5	17.7	17.8
	Lane (lap) Swimming	141	10.3	10.4	28.2
	Gym/health club	423	30.8	31.1	59.4
	Group fitness / exercise classes	293	21.3	21.6	80.9
	Leisure swimming	51	3.7	3.8	84.7
	Aqua exercise classes	115	8.4	8.5	93.2
	Swim club / Squad training	13	.9	1.0	94.1
	Other - please list	80	5.8	5.9	100.0
	Total	1358	98.9	100.0	
Missing	System	17	1.2		
Total		1373	100.0		

The three most popular activities among the respondents were Gym / health club (31.1%), Group fitness / exercise classes (21.6%) and Learn to swim (17.7%). The popularity of these items reflect the main income sources (see Section 4.2.2.).

Table 4.3 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	403	29.4	29.8	29.8
Valid	Female	946	68.9	70.0	99.9
	Total	1351	98.4	100.0	
Missing	System	24	1.7		
Total		1373	100.0		

There are many more female than male respondents. This may be a function of the users of the centres because females are more likely to use indoor fitness facilities than men, especially for aerobics / fitness where women have a 10% higher level of participation than men (Australian Sport Commission, 2012). Anecdotally, there also appeared to be many more women completing the learn to swim surveys than men, especially during the morning session. It would be useful to compare this data with the gender profile of the centres' membership data.

Table 4.4 Age

		Frequency	Percent	Valid Percent	Cumulative Percent
	18 to 19 years	29	2.1	2.2	2.2
	20 - 29 years	175	12.7	13.0	15.1
	30 - 39 years	294	21.4	21.8	36.9
	40 - 49 years	291	21.2	21.6	58.5
Valid	50 - 59 years	196	14.3	14.5	73.1
	60 - 69 years	265	19.3	19.7	92.7
	70 - 79 years	87	6.3	6.5	99.2
	80 + years	11	.8	.8	100.0
	Total	1348	98.2	100.0	
Missing	System	25	1.8		
Total		1373	100.0		

There are three main age groups of respondents. The 30 – 39 years (21.8%), 40 – 49 years (21.6%) and 60 – 69 years (19.7%) groups account for over 63% of the respondents. The age distribution does provide a wide range of respondent ages. However, when these statistics are compared to the age distribution for Victoria's population they show a higher level of age groups in the 30 to 69 year

age groups. Part of this difference with the Victorian population is explained by the fact that nobody less than 18 years was included in the sample.

Table 4.5 Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single, never married	205	14.9	15.3	15.3
	Married / partnered	981	71.4	73.0	88.2
	Single / divorced	121	8.8	9.0	97.2
	Prefer not to say	35	2.5	2.6	99.9
	Total	1344	97.8	100.0	
Missing	System	31	2.2		
Total		1373	100.0		

Most respondents are married / partnered (73.0%). This figure is much higher than the Victorian average for marital status of 49.1% of the population that were married (ABS, 2013).

Table 4.6 Highest level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	9	.7	.7	.7
	Secondary School	282	20.5	21.3	21.9
	VET / TAFE certificate / Diploma	357	26.0	26.9	48.8
	University degree	361	26.3	27.2	76.0
	Post graduate university degree	318	23.2	24.0	100.0
	Total	1327	96.6	100.0	
Missing	System	46	3.4		
Total		1373	100.0		

The education level of the respondents is much higher than the Victorian average. Over 75% of the respondents have an education level beyond secondary school. The sample has a much higher level of qualification than the Victorian figure for the population which was 59% for those who have a non-school qualification (ABS, 2013) This trend of higher educational levels of ARC users was also identified by Tower and Harrison (1991). It appears that ARCs are attractive health and fitness destinations for people with higher levels of education.

Table 4.7 Range of respondents from the six centres

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	C1	118	8.6	8.6	8.6
	C2	118	8.6	8.6	17.2
	C3	189	13.8	13.8	31.0
	C4	249	18.1	18.1	49.1
	C5	94	6.8	6.8	55.9
	C6	113	8.2	8.2	64.2
	C7	492	35.8	35.8	100.0
	Total	1373	100.0	100.0	

The spread of respondents across the six centres is relatively equal and does provide sufficient data from each of the centres for a range of comparisons. It should be noted that centre C7 is a combination of the on-line questionnaires from centres C2, C5 and C6. For the purposes of this study there will be minimal analysis of the differences among the six centres but further analysis could be conducted if deemed necessary.

Overall, the sample characteristics illustrate that these respondents are not a cross-section of the Victorian population. There are many more female than male respondents, there are more married / partnered respondents and they are more educated than the Victorian averages.

4.2 Qualitative results

The qualitative research was based on the documents and provided by the six ARCs and interviews with a range of key stakeholders. These documents included financial statements about their annual operations and business / strategic plans that outlined what the ARC was trying to achieve. Interviews were conducted with a range of key informants to confirm the researchers' interpretation of the documents and to explore a range of issues related to the operations of the centres. Data was also reviewed from public websites regarding the information about each municipality that related to the operations of the ARCs.

4.2.1 Summary of goals / visions for the six centres

Each of the six centres provided documents about the centre's goals or strategic plan (some centres provided several documents) and an overview of annual financial activity. The documents were all presented in different formats and covered a range of different goals or visions of what they were trying to achieve. The centres indicated that in most instances, they developed a plan that was based on the needs of their local council. The plans needed to "align with the Council plans" (C1). The financial activity documents were also all provided in a different format with different activities and allocations that suited each centre's operations. The lack of a consistent approach for how the goals /

vision / plan of the centres' operations and the financial data presented challenges to how this research could be applied on a wider scale. This matter is discussed further in Section 4.4.

The overall purpose of why local council's provide ARCs was captured by one of the central service respondents:

> the key driver which is really embedded in Council's vision if you like is a healthy and connected stronger community. So the driver for providing these facilities is as a hub for that to occur. So they are meeting places. They are places for people to form relationships with people. They are places for people to get fit or fitter or to generally maintain or improve their health. And there's all those other benefits of being in a place where you have a sense of belonging. Where you have a sense of activity and you are part of the community. So they are not designed for any particular age group or level of fitness. They really are in many ways a microcosm of the whole community. And I think that's why – no I know that's why we provide them, to ultimately improve the health of the community and provide an opportunity for people to be connected. (Central Service respondent)

Table 4.8 provides a summary of what the centres wanted to achieve. The goals/ vision statements were presented to the managers in the interviews to review and confirm that the statements adequately captured what they were trying to achieve in their own operations. The goals / vision statements were clustered into two categories related to Outcomes or Internal activities with ten main themes (the Economic theme was included in both categories).

Table 4.8 Goals / Visions of ARCs

Category	Theme	Statements
Outcomes	Quality (includes Customer service)	"To provide the highest quality aquatic, entertainment, fitness and recreational services" (C6). "Facility presentation kept at the highest possible level" (C1). "Constantly improve member and guest service & communication" (C1) "To be a centre of customer service excellence" (C6)
	Industry leader	"To simply be the best multi functional leisure facility in Australia. The market leader that other leisure centre businesses model themselves on." (C6) "be a Global Centre of Excellence" (C2)
	Target markets – inclusion	"will continue to actively target local groups and leaders with a view to creating programming opportunities for all residents, regardless of their ability to pay for essential health and wellness services" (C2) ""To provide … to all market segments within the [geographic area] and beyond" (C6)
	Community development	"Increase participation and access to community development programs and services" (C1) "Strengthen Communities by bringing people together to experience the joy of belonging" (C3)
	Health / physical activity	"Inspire people to live healthier lives and enjoy the powerful benefits of physical activity" (C4)
	Economic	"Build the financial capacity that enables us to contribute positively to our communities" (C3)
	Environmentally sustainable	"Reduce our environmental footprint" (C3) "Commit to environmentally sustainable practices." (C1)
	Staff culture	**"**We have strong people committed to our mission, skilled in their area of contribution and reflective of the communities we serve." (C5)

		"Staff feel recognised for their effort, professionalism and contribution." (C1)
Internal	Economic	"Strengthen the financial stability that enables us to achieve our Vision" (C2)
	Safety	"promote a safety culture through education, awareness and procedures" (C1) "Provide the safest environment for staff, volunteers and participants (C3)

The explanation for each of the themes is:

- Quality (including Customer service) relates to wanting to provide a high level of service to the customers and to provide excellent customer service.
- Industry leader relates to statements regarding the centre being recognised as providing services that are among the best in the industry. This recognition included an Australian context, "To simply be the best multi functional leisure facility in Australia" (C6); and to be recognised at the local level, "We are recognised as an innovative charitable organisation that works with communities and partners" (C5).
- Target markets – Inclusion relates to the centres' desire to serve all members of the community, "To provide access to all" (C6). This theme also incorporates the desire to accommodate members of the community who may be disadvantaged, "Build community support for our work with people experiencing disadvantage" (C2).
- Community development relates to the centres activities that are designed to build connections, "Strengthen community by bringing people together to connect, to experience belonging" (C2). This theme is closely related to the inclusive elements of the Target market – Inclusion theme. Some of these activities related to volunteer activities and fund raising efforts to support the inclusion of centre participants who came from a disadvantaged background.
- Health / physical activity relates to the centres' intention to encourage a healthier community through involvement in activities, "Inspire people to live healthier lives and enjoy the powerful benefits of physical activity" (C4).
- Economic (Outcome) relates to the centre's intention to make a positive contribution to the economic activity of their community. It is interesting to note that some of the centres included goals from their council that included a desire to be part of "a prosperous modern economy" (C4).
- Environmentally sustainable relates to the desire to have a minimal impact on the environment.
- Staff culture relates to the intention for the centres to have staff who are committed to the values of the centres and feel recognition that their efforts are valued.
- Economic (Internal) relates to the intention to be financially responsible so the centre can afford to provide services to their community, "Build the financial capacity that enables us to contribute positively to our communities" (C3)
- Safety relates to the desire to have a work environment for staff that is safe, "Continue on with developing a strong robust OH&S culture" (C5) and for to make sure the centres' activities are safe for the users.

It is important to note that all centres did not address all the themes in the documents that were reviewed. Some of the themes had many more statements from the centres and some of the themes, e.g., Staff culture, only had a few statements from two of the centres. More detailed information about the goals / vision statements are provided in Appendix 3.

The interviews with the centre managers indicated that the summary included all the goals that they were trying to achieve, “some of our goals are specific to our centres, but across the board, they’re all pretty similar things to what we are trying to achieve.” (C2) One manager indicated that although the ten themes adequately captured what they do, that there were also some activities that related to the work of volunteers and fundraising. This focus is captured in the Community Development theme so it was added as an extra focus in that theme.

One centre’s plan provided a statement from the Council indicating the benefits they expected from the operation of the centre. The breadth of these benefits warrants attention because they included personal benefits (esteem, fitness, leadership development and health), community benefits (reduced medical expenses, strengthening community connections and pride), economic benefits (economic generators such as sponsorship and employment opportunities), and environmental benefits (habitat protection and raising environmental awareness) (C2). These four benefits provide a useful focus for the operation of ARCs and fit well with the benefits discussion provided in Section 2.

The review of the documents did not assess if the centres were achieving all of these goals. The review of each centre’s achievements is beyond the scope and resources of this research. However, the interviews did discuss what the centres were trying to achieve and the beneficiaries of their activities. For instance, a central service respondent indicated that the ARC was achieving its goals and providing benefits to the community. The achievements of ARC goals were measured by customer feedback, mystery shopper reports, facility performance and the limited number of complaints.

4.2.2 Financial summary of centres’ income and expenditure

Each of the centres provided financial details about their operations. Each set of data was reviewed and the budget items were allocated to categories of income and expenditure that could be applied to all six centres. The focus on the budget was based on the principles of Wilson and Keers (1987) who explained that the budget is a tangible expression of the objectives of the organisation. The financial commitment that an agency makes to various activities is a good indication of how important it considers those activities. The purpose of this analysis was to identify the main sources of income so the centres’ operations could be compared and an overall average could be calculated. In a similar manner the expenditure for each centre’s activities was also determined. A key analysis for the expenditure was the identification of staff related costs and non-staff costs.

Table 4.9 provides the summary of each centres’ sources of income. It is important to note that there are likely to be some discrepancies among the budget category allocations due to each centre providing a unique budget that was open to different interpretations. For instance some centres had a specific dry program based on various services while others had this income allocated to Facility rental income. Nonetheless, the interviews with the managers indicated that this allocation of the centre income into the different categories was an accurate explanation of their income sources, “it is

pretty right" (C1); "most of them are ok" (C2). There were a few minor adjustments that were required from the budget allocations but the income sources, particularly the major ones, were accurate.

The main sources of income were Aquatic education programs, Class/ group fitness programs, Health club membership and Recreational swim programs / entry. The average of these four main sources of income accounts for 84.4% of the total income. Even though there are different allocations of some funds, these four income areas are the top four sources of income for five of the centres with only C3 having a higher level of income for Community Development programs (4.3%) compared to the income for Class / group fitness (3.9%). The overall income for the six centres was $31.85 million.

It is worth noting that when the Target market – Inclusion goal is taken into account, there is very little income that is allocated to this area. The managers were asked if they received any grants or extra funding for the programs and most indicated that there were no grants to support most of their programs. Some centres received grant money for specific program activities, e.g., special funding for a "victims of sexual assault class", aquatic education for new arrivals, and some funding from the local councils to support access activities and equipment / materials such as a pool cover. Although the impact of the grants is relatively small in an overall budget the grants provide a catalyst for some programs to proceed, "we get funding to support that program. [If we didn't get the funds the program] definitely wouldn't run" (C2).

It also worth noting that a number of centres' community development activities were not reflected in their financial operations. Some centres operated fundraising activities, such as the YMCAs Open Doors program, that were designed to raise funds to support a variety of community activities. Some centres run an access program where they support economically disadvantaged members of the community. These programs are supported by the centres that run fundraising activities such as a Trivia Night:

> "we've got a Trivia Night next month and that's all of the Centres helping out and selling tickets. … We get a few tables organised. We also help with the setup and help with the actual event and things like that. Yeah and it's up to us to sell as many tickets to our members and we have staff teams as well." (C1).

These community activities were able to generate additional funds that were then allocated by centre management to support disadvantaged individuals to participate in the normal programs and activities. The exclusion of this fundraising and allocation of funds to support disadvantaged sectors from the formal budget reflects the difficulty of trying to understand all the activities of the centres based on their budget data.

Although the fundraising activities are an important aspect of the centres' capacity to support specific access programs, the funds are either not included in the financial planning documents or they are so small that they don't register as a reportable source of funding. There appears to be some

Table 4.9 – Summary of income allocations

	Centre 1	Centre 2	Centre 3	Centre 4	Centre 5	Centre 6	Average
Total income - $millions	6.2	2.0	6.3	4.6	5.5	7.1	5.3
Income	%	%	%	%	%	%	%
Access / specific population programs	1.2	0.8	3.0	3.0	3.8	0	2.0
Administration	0.01	0.0	0.0	0	0.01	0.03	0.0
Aquatic education programs	20.6	17.3	19.7	31.0	22.9	18.6	21.7
Café / food & beverage	0	4.1	6.6	1.0	0.4		2.4
Childcare	1.4	1.0	0.8	0.6	0.4	0.7	0.8
Class / group fitness programs	3.2	15.7	3.9	18.0	16.7	2.4	10.0
Community development			1.3	0	0.0		1.4
Dry programs		10.4	1.1		1.1		4.2
Facility rental income	0.3	3.5	2.5	2.0	0.1	0.9	1.6
Fundraising				0			0.0
Health club membership	57.5	17.9	49.6	20	26.5	56.0	37.9
Health services	0.7		1.3				1.0
Merchandise	1.5	1.3	1.4	2	1.3	2.8	1.7
Recreational swim programs	8.2	23.6	7.4	14	18.9	16.6	14.8
Clubs dry facilities	0						0.0
Schools Programs	3.0	3.3	1.4	8.0	3.2	2.1	3.5
Spa, steam & sauna	2.8				4.5		3.7
Staff		2.9					2.9
Total*	100.4	101.8	100.0	99.6	99.5	100.1	

*Some total figures are not exactly 100 because of rounding of some decimals.

inconsistency between the goal of inclusion and the centres' capacity to generate funds to support these programs. The allocation of funds to these programs is also quite limited when the expenditure allocations are reviewed. The intention of what the centres are trying to provide and their actual program delivery do not appear to complement each other. The following comments reflect the intentions of why a service deliverer operates:

> [Community development -] "that's the fundamental reason why we're in it. So the [service provider] is fundamentally in this space around a community development outcome. So it is for the community and part of the community, and the [service provider] being the operator or the vehicle to try to engage with and deliver on

> those programs. So local government, largely building and the [service provider] is coming in as the provider, but you know, it's far more to us than just a program of delivery in the activity. It's the connection with people, an involvement of people in the development of those programs and services that is critical.

However, the following comment reflects the dilemma centre managers face:

> To me the hardest part is just, again, at the [service provider] you've got two bosses, you know, you've got the Council and you've got that. And then you want to run your Centre as well as possible and they keep moving the goal posts a little bit. As much as the synergy all their missions are meant to align. When it comes down to it Council is after access, community focus. I mean at the City of […], it's still that seat with their driver in there. The [service provider], at the end of the day you're work for them and you've got a contract and there's a bottom financial line and it's juggling the balance between community and commerce, you know, you put your Centre;
> INT: Yeah, having that whole, you know, the business expectations versus the social expectations and it's a juggle.
> RSPD: Yeah, what's the balance there; yeah, you still show your financial viability at the same time as you're getting out – and these programs cost money to go out and you can't expect the return to equal. So in [our centre], we've been really quite financial for the last period but as you go through these tenders and you put in the best price scenario, that gap is closing and closing. (C5)

The review of the centre expenditure also highlighted the complexity of their operations. The allocation to the community goals was not always reflected in the budget figures. Appendix 4 provides a summary of the financial allocations for all six centres with information about staff and non-staff expenditure for each item. Table 4.10 provides the summary of the average expenditure for the budget items. The total expenditure for all the centres was $29.759 million.

The complexity of the expenditure budget items reflects the same challenges as the interpretation of the income items. There was limited commonality among the six centres regarding how they organise and allocate the relevant financial expenditure items. Some centres had budget allocations for some items, e.g., café / food & beverage or cleaning, but other centres had these activities but it was not listed in their budget.

The largest expenditure area was Administration / management with an average of 21.1% of total expenditure. This item included a range of different items such as office operations, central administration and management staff costs, insurance, fees, etc. Appendix 4 illustrates that there is quite a range of costs allocated to this item. C5 had 32.5% of its expenditure allocated to this area while the lowest centre allocation was C2 with only 12.4% of its expenditure allocated to this time. The importance of expenditure on staff costs is reflected by the 9.6% of expenditure allocated to staff on costs.

It is interesting to note that the program delivery expenditure is relatively low. Aquatic education (7.3%), class / group fitness (5.8%), health club membership (4.5%) and recreational swim (7.6%) have a total of 25.2% of the expenditure allocated to their delivery. The expenditure levels contrast with the income these programs generate (over 84%). The profit levels of these programs is quite

high and these programs support the relatively high levels of administration / management and operational expenses.

Table 4.10 Summary of expenditure allocations

Expenditure items	Average for six centres (%)
Access / specific population programs	1.3
Administration / management	21.1
Aquatic education	7.3
Café / Food & beverage	*5.3
Child care	3.0
Class / group fitness	5.8
Cleaning	*1.2
Clean Contractors / Waste removal	1.1
Community Development	0.5
Contractors	*2.6
Dry programs	*0.7
Facility rental	*0.3
Health club membership	4.5
Health Service	*0.3
IT	*0.4
Marketing	2.8
Merchandise	1.1
Operations	4.9
Oper energy	5.5
Oper equipment	0.9
Oper maintenance	2.8
Oper water	1.1
Recreational swim	7.6
Safety / risk management	0.5
School aquatic programs	*0.7
School / club	*0.2
School program	*1.4
Staffing admin & customer service	6.0
Staff on costs	9.6
Swim, spa & sauna	*0.1
Telecommun.	0.4
Depreciation	*2.7

* Average figure has limited number of centres for this calculation

The expenditure on areas like access /specific population programs and community development activities illustrate a low level of commitment to these objectives. Only 1.8% of the expenditure is allocated to programs and services that are clearly targeted at particular groups that may fit with the inclusion and disadvantaged goals. The manager comments reflected that some of these programs, such as aqua aerobics were usually targeted at older adult groups but these activities were grouped with the class / group fitness programs. The capacity to work closely with community groups to address issues of disadvantage warrants further attention and is discussed in more detail in Section 4.2.5.

It is also worth noting that expenditure related to the funds allocated to support disadvantaged participation is not part of the main expenditure budget (see previous comments about fundraising) but the income would be included as part of the main sources of funding. For instance the special fundraising budget would be used to support an economically disadvantaged family's children to participate in the 'learn to swim program'. The main budget would not identify this expenditure as part of their regular operations but the income for this payment would just be included as part of the learn to swim program. If centres want to clearly identify how they support the disadvantaged sectors of the community, then they may need to review how they manage their budgets to make these activities part of their normal budget processes.

The analysis of the budget items was complicated and has not provided clear outcomes by which clear conclusions could be made. Further analysis was required. An analysis of the centre operations needed to take more than budget analysis into account to understand how ARCs were providing benefits to their communities and to determine the economic significance of their operations. The interviews with centre managers was a good process for gaining the detailed insights but the labour intensity of doing the interviews makes the expansion of the research to many more centres a rather daunting task. The challenge of the data analysis is discussed further in Section 4.4.

4.2.3 Municipal analysis of centre operations

Each centre's financial and user data was analysed regarding how they are situated within their municipality. Table 4.11 provides the information from this analysis.

All the centres have an important but small percentage when compared to the overall municipal income and expenditure. The percentage of municipal income ranges from two to four per cent; and their relationship to municipal expenditure is from two to five per cent. A central service respondent indicated that the management of the ARCs in their municipality were "next to the waste management contract, it is the biggest contract that the Council has. And my understanding is possibly next to City of Sydney it would be the biggest one in the country. It's quite sizable."

Table 4.11 Municipal analysis of centre operations

	C1	C2	C3	C4	C5	C6
Total income $ million	$6.205	$2.009	$6.343	$4.647	$5.525	$7.121
Total expenditure $ million	$5.032	$2.543	$5.749	$4.744	$4.643	$7.048
Percentage of municipal income	2%	3%	4%	3%	4%	2%
Percentage of municipal expenditure	2%	5%	3%	3%	3%	2%
Income per resident	$24.58	$54.13	$39.85	$30.18	$40.48	$33.10
Expenditure per resident	$21.07	$68.49	$36.11	$30.80	$34.02	$32.76
Income per municipal Km^2	$15,134	$4,674	$105,721	$663,946	$690,625	$5,711.09
Expenditure per municipal Km^2	$12,972	$5,914	$95,812	$677,694	$580,342	$5,652.36
Income per centre visits	$5.75	$5.02	$7.22	$8.05	$6.94	$7.12
Expenditure per centre visits	$4.92	$6.36	$6.55	$8.22	$5.84	$7.05

The figures that reflect a general consistency across all six ARCs are the income and expenditure per centre user. The income per visit ranged from $5 to $8 and the expenditure per visit ranged from $4.92 to over $8. The centres provided figures regarding the total number of visits they have on an annual basis. It would be useful to know how many different people are included in the overall visitations but the centres were not able to provide this level of detail so the total centre visits was used for this analysis. It would be an interesting analysis to explore how these figures relate to the Social Economic Indicators For Area (SEIFA) ratings for each municipality but this is beyond the resources of this study.

C2 is the one centre that stands out regarding a number of its features. It is one of only two centres that had higher expenditure than income. It also had a much higher level of income and expenditure per municipal resident. C2 also had much different figures per resident and municipal km^2. These figures reflect the lower relative population of this municipality and the larger area that it covers. However, C2 is similar to the other ARCs regarding its relationship to municipal income and expenditure and regarding centre usage. Further research should consider the financial capacity of ARCs to generate income and their expenditure regarding the municipal population and its overall area.

4.2.4 Economic significance of centre activities

One of the key considerations for this study was to explain the economic significance of ARCs in their local community. The data in Table 4.11 makes a start to some of this analysis but it is more important to consider how much of the income and expenditure is generated within the ARC's

municipality. Ideally, the centre should be able to report how much of its income and expenditure relates to the residents of the municipality that owns the centre. None of the centres were able to provide this level of analysis but, they were able to identify some data that related to how their income and expenditure related to their centre catchment. All the centres provided a general catchment analysis based on a radius of several kilometres from their centre. Several of the centres were located near the boundary of their municipality so their catchment extended beyond municipal borders.

Income

Income was explored regarding the catchment for centre members, aquatic education participants, recreational swimmers and schools that used the centre. The nature of the data was mixed with some centres providing a postcode summary of health club members and aquatic education participants, while other centres simply provided estimates in the interview. The centre interviews provided an indication of the users of the centres.

The figures for memberships indicated that over 80% of the catchment was local residents:

- "Eighty three percent come from literally that [3km radius] catchment zone." (C5)
- "So 89.64% of our membership is from the [municipality] and that's including our Aquatic Education program". (C1)
- "generally people will travel to you within twelve minutes of where they live or work. So it is very much population based." (C2)

If an 80% figure is used to calculate the health club membership income from locals then the contribution would range from ~ $287,000 from the smaller centre to ~ $3,190,000 at the larger centre. Similar figures would also be attributed to the aquatic education programs. The small centre would have income of ~ $278,000 and the large centre would have income aquatic education local income of ~$1,060,000. One centre indicated that its aquatic education program had a catchment that "would be sitting at almost ninety two per cent from the local area". (C5).

There are some poorly defined figures for the catchment analysis and not all the centres could provide accurate data about this. For some of the user groups the managers do not have "the measurements on those because - the waters get a bit muddied." (C5) "It doesn't capture any casual usage. We don't take any of that detail" (C1).

Schools reflect a similar trend of local usage. "We don't have many that would come outside of the [municipality]. As an a bit of anomaly from last year we had a few from the [neighbour municipality] because a facility up there closed for a year or something" (C1). But, others indicate that school users come from further afield (C4). It is clear that the centres are catering for their local residents.

Substantial levels of the income are generated from the local residents who use the ARCs. Assuming that 84.4% of the income comes from the four main areas of aquatic education, class / group fitness, health club membership and recreational swim, and there is a local catchment of at least 80% then the local residents generate the majority of the income. The ARCs generated at least 68% of their

income from local residents. This figure does not take the recreational swimmer into account and this is also likely to be mainly local residents. The figures for the level of income from local residents may be higher but this conservative estimate indicates that the ARCs are definitely serving their local community.

Expenditure

The data provided about expenditure is similar to the local residents' contribution to income. Expenditure was explored regarding the resident location of centre employees, location of staff training, marketing activities, contractors, and other services such as energy providers and maintenance services.

Staff costs average 53.4% of expenditure for the six centres with the specific staffing costs ranging from a high of 60.1% of the total expenditure to a low of 47.7% of the expenditure. The data about the residence of the staff are not precise but the centre managers did provide some general figures. The range of local staff went from an estimate of 90% (C6) to "Seventy percent I would say are within a three kilometer radius and then I'd say an eighty percent in a five kilometer radius." (C5) A third respondent indicated that "75% live in [municipality]" (C1). It appears that most staff (especially the casual staff) live in the local catchment for the centres.

Other payments such as staff training, marketing activities and other contract services use local providers when possible. However, there is quite a variance among the respondents regarding how much of this would actually be. The centre managers were unsure about how much they allocated to local providers. Where possible, the centres have used local providers.

> "Predominately local. When you look at some things like rubbish and sanitary etc., they are national companies etc., so [service provider] has group purchasing that is in place where possible, you know photocopy machines and all that sort of stuff, supplies…, but when it comes to electricians and that type of thing yep, they're definitely local. We have great relationships with those guys because we need things fixed fast, obviously when we deal with the public and something is not working we call them in." (C1)

The other aspect of the economic significance of the ARC activities related to the relationship with the local councils. The councils often had preferred suppliers for various services and the centres chose to use these providers when possible. When the managers were asked about a formal policy regarding a preference for local providers there was no policy in place:

- "I wouldn't say there was a policy but you know if you are looking at using a contractor, you want to go local because you want someone who is actually available for you." (C2)
- "I try to work on the same system that the Council uses." (C5)

The data is indicative that the income is coming from the local residents and there is a significant amount of the expenditure that remains in the local community. It may be relevant for the ARC managers and the local councils to review their practices to more accurately track the expenditure to identify more accurate insights about the spending patterns.

Commercial activity associated with ARCs

As indicated in Table 4.1 an interview was also held with a commercial organisation manager whose business was closely associated with the operations of ARCs. A range of commercial organisations, such as office suppliers, IT services, water treatment and plant maintenance, fitness equipment and services, rubbish removal, cleaning services and hospitality services, provide materials and services to ARCs. Some of these businesses have only a small part of their overall operations associated with ARCs while other businesses only exist to provide services and materials to ARCs.

The business manager that was interviewed had been in business of working with ARCs for over 20 years and the ARC part of his operations was responsible for 75% of the business that had a turnover of between five and ten million dollars. They employed over 40 staff and are based in two capital cities with no other local or regional offices. He indicated that with the increasing size and complexity of ARCs with values exceeding $40 million, that "more Councils are saying we will deal with your directly in terms of the […] because we can't afford to have someone else taking responsibility for that."

It was not within the resources of this research to determine the overall commercial financial connections of ARC operations but this one interview does demonstrate that one business does have a substantial amount of its operations associated with ARCs. It is likely that a more thorough analysis of the business connections would identify a range of economic activity in the commercial world that are part of the economic activity of ARCs.

4.2.5 Centre engagement with community organisations

One of the indicators of the ARCs commitment to inclusion and community development was the nature of the engagement they have with other community organisations. It was assumed that a strategic engagement with other community organisations would illustrate their arrangements to collaborate to address areas of need in their community. The centre managers were asked to comment on their collaboration with community groups.

The importance of the centre managers working with other community groups was reinforced by the following comments from the central service providers:

> There's an expectation that they will work in and out of the four walls. So it's part of being involved with the broader community and it is largely determined by the manager. And like it's part of the performance appraisal, what work are you doing in this space and a development plans will include; it sort of plays to their strengths and their interest and I guess the demographic profile says well gees, there's a large multicultural community growing in [municipality] so we're starting to do some more work around women's only swimming for example. So it's very much demographic and interest based.

> there are a range of other programs that provide for people that might have difficulty accessing facilities, say specific disability groups, whether they be physical, intellectual or psychiatric disability related, we have a range of

> connections with various other organizations that provide services for clients dealing with those sorts of issues and we have strong connections. And that's part of the expectation of the contract.

One of the central service providers also indicated that the ARC managers needed to have five new community group connection and relationships per year.

This expectation was reinforced by some of the managers:

- "We attempt to [collaborate] in particular with our Council partner, different departments within Council." (C1);
- "A lot of it is needs based … The [organisation] brand is quite strong and diverse so we do a lot of things that people will know. We do youth services and stuff like that so they come to us looking for opportunities to partner." (C2)

However, the capacity to collaborate was limited by a range of practicalities:

- "It comes down almost to a point to the quality of the coordinator of the programs and stuff like that." … "there's not a coordinated approach, it's very much ad hoc specific. I suppose that's where we are trying to get better" (C5)
- "One thing that we don't do very well here but we use to do very well at my last facility was our relationships with disability groups" … "there wasn't any other choice there. There was some historical relationships as well. … [Collaboration] It is something on our plan to do that but we haven't yet." (C1)

Although there is an intention to work in collaboration with community groups there are limitations based on the skills of the staff, the level of initiative and there are financial implications regarding their operations. Collaboration is not always seen as a part of the core business of the centres,

> We do not have enough resources to support those initiatives. It is whether we have enough resources to actually partner and resource these initiatives, because our primary purpose is to run the facility. (C2)

Sometimes the financial implications limit what the centres are able to achieve.

Some partnerships and programs are able to proceed because funding is available.

> The [health group] partnership will result in some income coming in but it's probably fairly cost neutral going out. I guess what I am trying to say is that these partnerships here is we don't form them to make a buck. (C1)

The funding is not a key factor and as indicated before the centres are only able to receive a small number of grants to assist them with new program developments.

Some centres indicated that they could do more and that they are not proactive when it comes to developing these types of programs and activities. In some instances time is the key to establishing a profile in a community, being part of the network and building relationships with community groups to address particular needs. However, some managers struggled to identify community groups that were partners in program delivery. It wasn't until they were probed and reflected on their activities that they were able to identify collaborators.

Although collaboration was seen as a challenge and was not always viewed as part of the core business there were a number of successes:

- "Mental illness, yes, we're quite strong with that and that's generally done through [community group]" … "The fundraising that we did through the swimathon, which was our major fundraiser and we raised about thirteen thousand in February for that. The business case is for an aquatic program because it has to be, that was one of the stipulations but you know, it's for mental illness and stuff like that." (C5)
- "We have had some key partnerships with specific schools and we have a few development programs such as youth mentoring that we were doing." (C2)

Other respondents indicated they were working with Council on the Ageing for their older adults programs, schools in their communities, as well as different welfare services. Collaboration is part of the ARCs operations but there seems to be a capacity to be more strategic in how they work with community organisations as they balance the challenge of running the centres, remaining financially viable and addressing the needs of the disadvantaged sectors of the community.

4.2.6 Community safety – Aquatic education programs

One of the issues that was identified during the research was the contribution that the centres make to community safety through their 'learn to swim programs'. The financial analysis indicated that learn to swim programs generated an average of over 20% of the centre income and was also a significant expenditure area. However, these figures do not reflect the community safety benefit that is generated by assisting people to be able to swim.

Table 4.12 provides a summary of the number of participants that are in each of the centres' aquatic education programs. The capacity of these centres to provide learn to swim for over 17,000 people is a significant contribution to community safety that needs to also be recognised as a contribution that the centres make to the community.

Table 4.12 Aquatic education participation

	C1	C2	C3	C4	C5	C6	Total
Number of aquatic education participants	3644	1300	2922	2240	2655	4716	17477

4.3 Quantitative results

The quantitative survey was based on a sample of 1,373 respondents who provided data about their usage of the centre, their connections with the local community, insights about the economic activity associated with the use of the centre and some demographic data. The sample profile explained in

Section 4.1 indicated that the sample was not representative of the Victorian community. There were more females than males, they had a higher level of being married / partnered and they had a higher level of education. This sample profile is similar to other studies of ARC users (Tower & Harrison 1991). ARCs do not tend to attract an even cross-section of their local community. It should also be noted that the data collection was based on a convenience sample with only those who agreed to participate in the research and the data being collected on a few days of a week. In particular, the data were collected in mild spring weather conditions so there were less than the normal amount of leisure swimmers that would be expected during the hot summer season. Future studies should consider conducting the survey at different times of the year to get a more representative sample of users. Nonetheless, the quantitative data provided a sound basis for understanding users' attitudes and practices regarding their usage of the centres.

Initially, the quantitative results will discuss the pilot study where the questionnaire was tested to make sure the questions were able to collect the required data. This is followed by the discussion of the key usage of the centre, the centre users' connection with the local community and the users' economic activity associated with their use of the centre. A range of statistical procedures have been completed with the data. The information regarding the statistical analysis is provided in Appendix 6 and only the results from the analysis is provided in the body of the report.

4.3.1 Pilot study

A pilot study was conducted to make sure the questionnaire would be able to achieve the expected outcomes. The pilot survey was used to:

- check that the wording of the questionnaire was clear;
- check that the sequence of the questions were logical and clear;
- check the completion time of the questionnaire;
- check the administration of the questionnaire (both printed copies and the on-line version);
- allow analysis of some of the key questions to make sure appropriate statistical procedures could be undertaken.

The pilot study collected data from a community ARC that was not part of the study (the on-line version) and from undergraduate university students who had used community ARCs (the printed version). The pilot study provided a sample of 87 respondents. The pilot study data was tested to determine if it provided a normal distribution and a number of statistical procedures were able to be successfully be completed with the data.

The wording of a number of questions was identified as being problematic and so adjustments were made to some of the wording. The community connections questions were analysed and it was determined that they did function as an effective scale. The economic scale questions did not function as an effective scale and there was some repetition of issues that were explored so a number of questions were eliminated to minimise the repetition. The variables used to determine the Travel Cost Method for calculating the benefits associated with the use of the centre were tested and were

deemed to be effective for the analysis. Overall, the pilot study determined that the questionnaire was robust and would be an effective tool to collect the required data.

4.3.2 Usage of the centre

The questionnaire provided data about the respondents' usage of the centres, their level of community connection, the economic activity associated with the centre and their demographic profile (explained in section 4.1.2). The main areas of interest relating to the research aims are discussed in the following two sections. This section provides some comments regarding the respondents' usage of the centre to identify the programs / activities used, levels of physical activity and the importance of the centre for their physical activity participation. All the details for the descriptive statistics are provided in Appendix 5 where specific data for each of the questionnaire's variables are provided.

Programs and activities used by respondents

A number of the variables explored the respondents' usage patterns at the centres. Details were collected about frequency of visit (Table A5-1), length of use of the centre (Table A5-2), main program / activity (Table A5-3), all the program / activities at the centre (Table A5-4), time spent at the centre (Table A5-5), whether the centre was in their municipality (Table A5-6) and the time it takes to travel to the centre (Table A5-11). The key points from these questions are:

- Over 50% of respondents come to the centre three or more times per week (Table A5-1)
- Most of the respondents (58.6%) have been coming to the centres for 2 years or more (Table A5-2)
- The main activities at the centres are gym / health club (31.1%), group fitness / exercise classes (21.6%), learn to swim (17.7%), lane (lap) swimming (10.4%) and aqua exercise classes (8.5%) (Table A5-3).
- The eight most used activities at the centres were:
    - Gym / health club (54.0%)
    - Group fitness / exercise classes (40.9%)
    - Lane (lap) swimming (36.3%)
    - Leisure swimming (31.7%)
    - Learn to swim (24.5%)
    - Socialising with others (24.2%)
    - Café (21.3%)
    - Aqua exercise classes (16.1%) (Table A5-4)
- Most respondents spend between 60 and 90 minutes at the centre (Table A5-5)
- Most respondents live in the municipality of the centre (72.3%) (Table A5-6)
- Most respondents travel less than 15 minutes to get to the centre (78.7%) (Table A5-11)

This data reinforces some of the information from the economic information discussed in Section 4.2.4. The usage pattern data reflects that the main sources of the centre income are reflected in these usage patterns, most respondents live in the municipality of the centre, and most respondents are relatively close to the centre (travel less than 15 minutes). It is interesting to note that although the

fitness oriented activities of the gym, group exercise, lane swimming and learn to swim are the main activities for attending the centres, other activities such as leisure swimming, socialising and using the café are also very popular.

Levels of physical activity

Question seven asked respondents to indicate their level of physical activity in a variety of settings. Details about respondents' frequency of moderate to vigorous activity are provided in Table A5-7. The following are some of the key points about their activity:

- Nearly 60% of respondents take part in moderate to vigorous physical activity three or more days per week, whereas 12.2% of respondents participate in physical activity less than once a week
- Over 70% of respondents walk for exercise one or more days per week
- Almost 75% of respondents engage in exercise other than walking one or more days per week
- Gardening is not a regular physical activity with 55.8% of respondents working in the garden or yard less than once per week
- Most respondents (57.9%) never engage in physical activity at work

These figures indicate that the respondents are participating in moderate to vigorous levels of physical activity on a regular basis. The regularity of their physical activity and the length of participation (most spend between 60 and 90 minutes at the centre) indicate that most of the respondents are gaining the recommended levels of physical activity of an average of 30 minutes per day. The users of aquatic and recreation centres are much more active than the general community (Australian Institute of Health and Welfare, 2012).

The figure of 12.2% of respondents participating in moderate to vigorous physical activity less than once a week was explored further to determine whether this was a particular group of respondents. It was found that 73 of the respondents who indicated they participated in physical activity less than once a week were learn to swim respondents. They represented 40.9% of the respondents who never pursued physical activity and 47.4% of respondents who participated monthly but not ever week. A Chi-square test for independence indicated a significant association between main activity and levels of physical activity participation. These low participation respondents were mostly parents / carers of young children who were supervising their children during learn to swim lessons. This may indicate an opportunity for the centres to target these carers to become more engaged in other centre programs.

Importance of the centre

Question nine asked respondents to rate the relative importance of the centre for them to pursue physical activity (Table A5-8). The mean scores were relatively positive with a mean score of 3.26 (on a five point scale of strongly disagree (1) to strongly agree (5)) for the statement, "If I could not come to this centre I would not participate in as much physical activity"; and a mean score of 3.68 for the statement, "If I could not come to this centre I would do physical activity somewhere else." The mode (most frequently selected response) for both statements was 4 (Agree). This tends to suggest that the

unavailability of the centre would diminish the levels of physical activity but respondents also showed an intention to pursue their physical activity elsewhere.

Differences between the ratings of the impact of not coming to the centre were analysed using a paired samples t-test. The paired samples t-test is a measure of the statistical validity of the differences in terms of the responses to two questions (Pallant, 2011). There was a statistically significant difference for the two mean scores with the higher mean score for the intention to pursue physical activity somewhere else. The data suggests that although the respondents were likely to reduce the level of physical activity if they could not come to the centre, they are more inclined to pursue physical activity elsewhere. This is an important finding and will be discussed further in Section 5.

4.3.3 Centre users' connection with local community

Question 10 was designed to gain insights about the respondents attitudes regarding the level of agreement with a range of issues related to their connection with the local community. Table 4.13 provides the summary of the variables ratings data with the relative rank of each item.

The variables that have the highest rating were:

- I feel safe when at this centre
- Most people in my activities at this centre can be trusted
- Most people at this centre can be trusted
- The diversity of people at this centre makes the centre culture better
- When a stranger joins my activity or class, I try to make them feel welcome.

The relatively high rating of these variables indicates some positive attitudes about their use of the centre. Respondents feel safe, they have levels of trust at the centre and they appreciate diversity of other users of the centre.

The variables that had the lowest ratings were:

- I like to help at the centre by being a volunteer
- I like to be involved by helping to organise community activities at the centre
- Being a user of the centre encourages me to be a member of different community organisations
- I talk regularly with my centre friends outside of the activities at the centre
- I like to attend extra activities at this centre besides my main program / activity

The relatively low rating of these variables indicates that respondents had little appreciation of their capacity to help by being a volunteer, did not extend their friendships beyond the centre and tended to be focused mostly on their main program / activity.

The key themes of these variables were volunteering, friendship, safety, trust, appreciation of diversity and reciprocity. The pilot version of the questionnaire tested the suitability of these variables to

function as a scale. A Cronbach alpha was used to test the scale reliability and this test indicated a high level of reliability.

The scale also needed to be tested for the full set of data and a principal components analysis was conducted to identify if the factors such as volunteers, friendship, safety, trust, appreciation of diversity and reciprocity could be calculated. The principal components analysis was used to determine if the list of 18 distinct variables could be reduced to a more parsimonious list of factors that could be used for subsequent analysis.

Table 4.13 Community connection variable ratings

	N	Mean	Mode	Rank	Standard Deviation
I feel safe when at this centre (9)	1373	4.34	4	1	1.496
Most people in my activities at this centre can be trusted (12)	1362	4.04	4	2	0.719
Most people at this centre can be trusted (11)	1370	4.02	4	3	0.714
Most people can be trusted (10)	1369	3.79	4	4	0.829
The diversity of people at this centre makes the centre culture better (13)	1365	3.79	4	4	0.785
When a stranger joins my activity or class, I try to make them feel welcome (16)	1362	3.77	4	6	0.754
I am wiling to help centre users when they need assistance (7)	1371	3.64	4	7	0.949
I am willing to help others because in the long run they will help me (15)	1363	3.63	4	8	0.783
I like being exposed to different people's lifestyles at this centre (14)	1365	3.61	4	9	0.814
I feel like part of my local community by participating at this centre (17)	1364	3.45	4	10	0.955
I have made friends through my participation at this centre (18)	1363	3.28	4	11	1.112
I have friends at this centre that will help me when necessary (5)	1370	2.92	4	12	1.179
I meet with friends from this centre away from the centre (6)	1371	2.71	2	13	1.230
I like to attend extra activities at this centre besides my main program / activity (2)	1369	2.76	3	14	1.071
I talk regularly with my centre friends outside of the activities at the centre (8)	1369	2.70	2	15	1.187
Being a user of this centre encourages me to be a member of different community organisations (3)	1367	2.53	3	16	0.999
I like to be involved by helping to organise community activities at this centre (4)	1370	2.21	2	17	0.882
I like to help at this centre by being a volunteer (1)	1368	2.19	3	18	0.928

Principal components analysis

Initially the variables in the community connection scale were reviewed to determine their suitability to conduct principal components analysis (PCA). The data was deemed to be suitable for PCA.

After a number of iterations of PCA a four-factor solution was determined. The four factors and their variable items were:

- Volunteer / involved comprising:
    - I like to be involved by helping to organise community activities at this centre
    - I like to help at this centre by being a volunteer
    - Being a user of this centre encourages me to be a member of different community organisations
    - I like to attend extra activities at this centre besides my main program / activity
- Trust comprising:
    - Most people at this centre can be trusted
    - Most people can be trusted
    - Most people in my activities at this centre can be trusted
- Friends comprising:
    - I meet with friends from this centre away from the centre
    - I talk regularly with my centre friends outside of the activities at the centre
    - I have friends at this centre that will help me when necessary
    - I have made friends through my participation at this centre
- Acceptance / reciprocity comprising:
    - I like being exposed to different people's lifestyles at this centre
    - The diversity of people at this centre makes the centre culture better
    - I am willing to help others because in the long run they will help me
    - When a stranger joins my activity or class, I try to make them feel welcome
    - I feel like part of my local community by participating at this centre

The scale used these four factors with the 16 variables as the basis for further analysis. It was also decided to include the safety variable, “I feel safe when at this centre” as a fifth variable for inclusion in the scale. A reliability analysis was conducted on this scale and produced a Cronbach Alpha score of 0.852 indicating a high level of reliability. The reliability of the scale would have increased if the variable about safety was removed but this was considered an important issue to explore so it was included in the analysis. The four factors and the safety variable were used for the following analyses. Table 4.14 provides the mean scores for each of the four factors, the safety variable and the overall level of community connection.

The mean scores for the safety variable, the four community connection factors and the total community connection indicate that the respondents have low levels for the Volunteer & involvement, and the friends factors. The highest community connection variables relate to Safety (4.34), Trust (3.95), and Acceptance / Reciprocity (3.65). The rating of the Total for the community connection

variable (3.28) is in the neutral category with a score close to the rating of 3 (neutral). These results suggest that ARCs do not create high levels of community connection. This matter will be discussed further in Section 5.

Table 4.14 Mean scores for factors for community connections

	N	Mean	Std. Deviation	Adjusted mean*
I feel safe when at this centre	1373	4.34	1.496	4.34
Total Volunteer & Involvement	1362	9.6938	3.08838	2.42
Total Trust	1360	11.8529	1.96934	3.95
Total Friends	1358	11.6230	3.99290	2.91
Total Acceptance Reciprocity	1356	18.2581	3.01358	3.65
Total Factor SC	1340	55.7478	9.15874	3.28
Valid N (listwise)	1340			

* Adjusted mean score converts the Factor Mean score to reflect the 1 (strongly disagree) to 5 (strongly agree) scale.

A number of analyses were conducted to determine if there were different ratings of the community connections variables based on a number of independent variables such as main activity / program, gender, age, marital status, level of education and each centre.

Difference between main activity groups

A one-way between groups multivariate analysis of variance was performed to investigate main activity differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the main activity that respondents pursued (Q4). There was a statistically significant difference among the main program / activity groups for all of the dependent factors.

The safety variable was rated the lowest by the Learn to swim respondents. The other respondent groups had similar scores. The strength of this difference was quite high.

The four factors of Volunteer / involved, Trust, Friends and Acceptance / reciprocity had significant differences among the main program / activity options. Inspection of the differences in the mean scores for these variables indicated that respondents whose main program / activity were Group fitness / exercise classes, Aqua exercise classes, Swim club / squad training and Other had higher mean scores for the rating of the four factors. This result indicates that groups of respondents who participate together are more likely to have a higher level of social capital than those who participate in more individually oriented activities. This result will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of the main program / activity on the total score for the community connections scale. There was a statistically significant difference for the different groups but the strength of the differences was small. The two

groups that had higher mean scores were the respondents whose main program / activity was Group fitness / exercise classes and Aqua exercise classes. This reinforces the higher levels of community connection for those involved in the group class activities. The impact of the group classes on the levels of social capital will be discussed further in Section 5.

Differences between gender

A one-way between groups multivariate analysis of variance was performed to investigate gender differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' gender (Q20). There was a statistically significant difference among the main program / activity groups for all of the dependent factors.

The inspection of the mean scores for all the dependent variables indicated that females rated all the community connection variables higher than male respondents. The strength of the differences between males and females was strong. Females are rating the community connection variables higher than males. This will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of gender on the total score for the community connections scale. There was a statistically significant difference but the strength of the difference was quite small. Females had a marginally higher overall score for the Total Community Connections variable. This reinforces the higher levels of community connection for females. The impact of gender on the levels of community connection will be discussed further in Section 5.

Differences among age groups

A one-way between groups multivariate analysis of variance was performed to investigate age differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' age (Q21). There was a statistically significant difference among the main program / activity groups for all of the dependent factors.

The safety variable was rated the highest by the 18 to 19 year group. The other age groups had similar scores. The strength of the difference was strong indicating that age group had strong difference in how the safety variable was rated.

The four factors of Volunteer / involved, Trust, Friends and Acceptance / reciprocity had significant differences among the age options. Inspection of the differences in the mean scores for these variables indicated that respondents in the 18 to 19, and 50 plus age groups had higher mean scores for the rating of the four factors except for Friends which had higher ratings for the 18 and 19, and 60 plus age groups. This result indicates that the youngest respondents and the older respondents have

higher levels of community connection than the other age groups. This result will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of age on the total score for the community connections scale. There was a statistically significant difference for the different groups but the strength of the difference was quite small. The groups that had higher mean scores were the respondents aged 18 and 19, and 70 to 79 years. This reinforces the higher levels of community connection for the younger and older respondents. The impact of age on the levels of community connection will be discussed further in Section 5.

Differences among marital status groups

A one-way between groups multivariate analysis of variance was performed to investigate marital status differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' marital status (Q22). There was a statistically significant difference among the main program / activity groups for all of the dependent factors.

The inspection of the mean scores for all the dependent variables indicated that there were no consistent trends for the marital status groups. Table 4.15 illustrates the mean scores for the different groups. The single / divorced and prefer not to say respondents had the lowest rating for the Safety variable but had the highest rating for the Volunteer & involvement factor. The strength of the difference was strong indicating that much of the differences in the ratings for these community connection factors is explained by the respondents' marital status. The variety of ratings for the marital status analysis does not provide any useful insights that help to distinguish one marital status group for their rating of community connections variables.

Table 4.15 Ratings for the marital status for the community connection variables

	Your marital status	Mean	Std. Deviation	N
I feel safe when at this centre	Single, never married	4.34	.696	202
	Married / partnered	4.36	1.733	956
	Single / divorced	4.24	.659	121
	Prefer not to say	4.00	.750	33
	Total	4.33	1.523	1312
Total Volunteer & Involvement	Single, never married	9.8366	3.26111	202
	Married / partnered	9.6109	3.04542	956
	Single / divorced	10.1901	2.95046	121
	Prefer not to say	10.3939	2.73792	33
	Total	9.7188	3.06741	1312

	Single, never married	11.8614	2.09016	202
	Married / partnered	11.8713	1.91034	956
Total Trust	Single / divorced	11.6529	2.04006	121
	Prefer not to say	11.3636	2.19115	33
	Total	11.8369	1.95859	1312
	Single, never married	11.5396	4.08990	202
	Married / partnered	11.5858	3.96951	956
Total Friends	Single / divorced	12.1983	3.92772	121
	Prefer not to say	11.0606	3.42727	33
	Total	11.6220	3.97268	1312
	Single, never married	18.1980	3.10198	202
	Married / partnered	18.2615	2.95350	956
Total Acceptance Reprocity	Single / divorced	18.3636	3.17017	121
	Prefer not to say	17.3636	2.95612	33
	Total	18.2386	2.99737	1312

A one way between groups analysis of variance was also conducted to explore the impact of marital status on the total score for the community connections scale. There was no statistically significant difference among the marital status groups. This tends to reinforce the inconsistency from the previous analysis of the marital status differences on the five dependent variables.

Differences among levels of education groups

A one-way between groups multivariate analysis of variance was performed to investigate highest level of education differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' highest level of education (Q23). There was a statistically significant difference among the main program / activity groups for all of the dependent factors.

The inspection of the mean scores for all the dependent variables indicated that there were no consistent trends for the level of education. Table 4.16 illustrates the mean scores for the different groups. The higher levels of education tended to have higher ratings for the Safety variable whereas, the University and Post-graduate respondents tended to have higher ratings for some of the other factors. The strength of these difference was quite strong indicating that much of the differences in the ratings for these community connection factors is explained by the respondents' education level. The variety of ratings for the education level analysis does not provide any useful insights that help to distinguish one education level group for their rating of community connections variables.

Table 4.16 Ratings for the education level for the community connection variables

	Your highest level of education	Mean	Std. Deviation	N
I feel safe when at this centre	Primary School	4.22	.667	9
	Secondary School	4.27	.628	277
	VET / TAFE certificate / Diploma	4.27	.659	345
	University degree	4.39	.592	357
	Post graduate university degree	4.44	2.907	311
	Total	4.34	1.524	1299
Total Volunteer & Involvement	Primary School	10.2222	2.22361	9
	Secondary School	9.9386	3.06686	277
	VET / TAFE certificate / Diploma	9.8000	3.24001	345
	University degree	9.6078	2.96662	357
	Post graduate university degree	9.4887	2.93462	311
	Total	9.7052	3.05170	1299
Total Trust	Primary School	12.0000	2.06155	9
	Secondary School	11.8556	1.98383	277
	VET / TAFE certificate / Diploma	11.4986	1.96499	345
	University degree	12.0168	1.76411	357
	Post graduate university degree	12.0354	1.96962	311
	Total	11.8491	1.92750	1299
Total Friends	Primary School	12.3333	2.95804	9
	Secondary School	12.4946	4.02224	277
	VET / TAFE certificate / Diploma	11.6087	3.83230	345
	University degree	11.4090	3.85127	357
	Post graduate university degree	11.1961	4.12742	311
	Total	11.6490	3.96789	1299
Total Acceptance Reprocity	Primary School	18.1111	2.47207	9
	Secondary School	18.1949	2.82424	277
	VET / TAFE certificate / Diploma	18.1565	2.98131	345
	University degree	18.2409	3.00808	357
	Post graduate university degree	18.3473	3.18995	311
	Total	18.2333	3.00107	1299

A one way between groups analysis of variance was also conducted to explore the impact of education level on the total score for the community connections scale. There was no statistically significant difference among the education level groups. This tends to reinforce the inconsistency from the previous analysis of the education level differences on the five dependent variables.

Differences among the different centres

A one-way between groups multivariate analysis of variance was performed to investigate differences among the six centres and the combined on-line respondents (C7) in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' centre setting. There was a statistically significant difference among the main program / activity groups for all of the dependent factors.

The inspection of the mean scores for all the dependent variables indicated that there were no consistent trends for the different centres. C2 and C3 tended to have higher ratings for the Safety variable whereas, C2, C3 and C6 tended to have higher ratings for some of the other factors. The strength for all these difference was quite strong indicating that much of the differences in the ratings for these community connection factors were explained by each of the centres. There may be some issues regarding the ratings of the community connection variables among the different centres but it is not possible to discuss these differences without compromising some of the issues regarding confidentiality. It is sufficient to know that all the centres do not have the same ratings of the community connection variables. This will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of the centre on the total score for the community connections scale. There was a statistically significant difference but the effect size of the difference was quite small. The groups that had higher mean scores were the respondents from C2, C3 and C6. This reinforces the previous analysis where these centres also tended to have higher ratings.

Summary of the users' connection with the local community

A number of important results were identified in the analysis of Section B of the questionnaire that explored issues related to respondents' connection with their local community. These results will be discussed further in Section 5. The following is a summary of the key findings from this analysis:

- Principal components analysis identified four main factors that were associated with the community connections scale. The components were:
    - Volunteer / involved (four variables)
    - Trust (three variables)
    - Friends (four variables)
    - Acceptance / reciprocity (five variables)
- The four factors and the individual variable safety were used as the basis for understanding respondents' community connections.
- The Safety variable and two factors of Trust and Acceptance / reciprocity were rated the highest community connection constructs by the respondents.

- Respondents whose main program / activity were Group fitness / exercise classes, Aqua exercise classes, Swim club / squad training or Other had higher ratings for the community connection factors.
- Females had higher ratings of the community connection constructs than males.
- The youngest and the older respondents have higher levels of community connection than the other age groups.
- There were differences among the six centres' ratings of the community connection constructs but further analysis of this data would compromise the confidentiality of the centre identities.

4.3.4 Centre users' economic activity

The third section of the questionnaire collected data about the respondents economic activity associated with their use of the centres. Initially a series of attitude questions asked the respondents to rate a number of considerations about their use of the centre and the benefits they gain from their centre usage. Other questions explored specific economic activity associated with the time of travel, value they attach to their use of the centre and some of the secondary spend aspects of their use of the centre. The details for this data are provided in Appendix 5, Tables A5-10 to A5-19. Data from these questions also provide the opportunity to calculate a figure for the Travel Cost Method to provide a measure of the economic value associated with respondents' use of the centres. Each of these considerations warrant some focused comments in this section.

Attitudes about activity at the centre

Question 10 requested the respondents to rate their level of agreement (strongly disagree – 1, to strongly agree – 5) for eight statements. Four of the statements related to their economic activity, one question was about travel to the centre and three questions related to the benefits they gained from their use of the centre. Details of the ratings for each of these items are provided in Table A5-10. Some of the key findings for these questions are:

- The centres provide reasonably priced programs (M=3.86) and the costs of the programs are not a constraint on their use of the centre (M=2.44).
- There is a tendency for respondents to purchase specialist clothes / shoes for their use of the centres (M=3.35)
- The respondents were neutral for the payments at the centre with a mean score of 3.09 indicating a neutral response for their payment of usage / membership fee at the centre.
- Respondents indicated it was easy for them to travel to the centre (M=4.18).

These findings indicate that the respondents have positive attitudes about the costs and travel associated with their use of the centres.

Three questions asked the respondents to rate the nature of the benefits they experience through their use of the centre. Again, their responses were very positive. Respondents indicated that their participation at the centre:

- Helps them to remain healthy (M=4.29)

- Helps them to have less sick days (M=3.67)
- Helps them to be more productive in work / life (M=3.94).

These results demonstrate that the respondents associate very positive outcomes with their use of the centres. However, it must be noted that these are their attitudes and there are no measures in the research to actually measure their level of health, the amount of sick days or their levels of productivity. Nonetheless, it is important to note that respondents' ratings reflect very positive attitudes about what they gain through their use of the centres. This is an important insight that will be discussed further in Section 5.

Secondary spend

A range of questions explored respondents' usage of the centre café, merchandise shop and merchandise away from the centre. As previously mentioned, the respondents expressed an attitude that they needed to purchase specific clothing / shoes to participate in activities at the centre. The following points provide more detail regarding their use of café and merchandise services. The details for these questions are provided in Tables A5-13 to A5-19.

- Most respondents (34.2%) indicated it costs them $15 to $25 per week to participate at the centre per week. There are 29.9% of the respondents that indicated it cost them more than $25 per week to participate at the centre (Table A5-13).
- Most respondents (53.6%) do not use the café / food and beverage services at the centre. Only 30.4% of the respondents use the café / food and beverage services once or more per week (Table A5-14).
- Although 53.6% of the respondents indicate they do not use the café only 30.1% indicate they never spend money at the café. The spend at the café is relatively low with most respondents (40.4%) indicating they spend between $0 and $5 (Table A5-15).
- Most respondents (67.3%) do not purchase any merchandise at the centres. Those that do purchase merchandise at the centres do so less than once a month (20.6%). There appears to be quite limited use of the centres' merchandise services (Table A5-16).
- Similar to the café arrangements, 67.3% of respondents indicate they do not purchase merchandise at the centres, only 47.4% of respondents indicate they never spend money for merchandise at the centres. Most respondents spend between $0 to $15 (15.5%) or $15 to $25 (14.9%) on merchandise at the centre (Table A5-17).
- Respondents indicate they do purchase merchandise at other shops for their use of the centre. Only 19.1% of respondents indicate they do not purchase any merchandise to use at the centre. The frequency of these purchases is quite low with 53.5% indicating they purchase merchandise to use at the centre less than once per month.
- Most of the merchandise purchases away from the centres are more than $30 (50.7%).

This range of financial information provides some useful insights about the economic activity associated with the use of the centres. Some of this information complements some of the figures

from the centre income and expenditure data about the relatively low level of financial activity associated with the centre café and merchandise. This will be discussed further in Section 5.

Travel Cost Analysis

The travel cost method (TCM) was introduced in Section 2.7.3. This approach provides a monetary value associated with the use of the centre based on the total revenue for the facility plus the average travel time and in the centre time for participants multiplied by a value associated with the time to travel to and use the centre. SGS Economics and Planning (2010) used the TCM as a measure of the health benefits associated with the participants' use of the centre. The data from a range of the inputs to this study were used to calculate the travel cost value associated with the use of the centres (conservative or lower limits for each option were used for each calculation).

- Total Revenue (TR) was based on the total income of the six centres as provided in Table 4.10.
    - TR = $31.85 million
- Average travel (AT1) time was based on data from Table A5-11 (the lower limit for each option was used except five minutes was chosen for 0 to 10 minutes to provide a conservative estimate of travel time)
    - AT1 = 9.3 minutes
- Average time (AT2) in the centre was based on data from Table A5-5 (the lower limit for each option was used except the first option where 30 minutes was chosen (most respondents would not spend less than 30 minutes at the centre).
    - AT2 = 57.3 minutes
- Value associated with the time to travel to and use the centre (TV) was based on the date from Table A5-12 (the lower limit was used for each option except the first option where $5 was selected)
- TV = $7.1

(31,850,000 + 9.3 + 57.3 x 7.1 = 226,135,468)

The centres provide over $226 million value to the six communities in which they operate. This figure represents a value of $47.80 per centre visit (the six centres had a total of 4,731,003 annual visits) and an average of $37.69 million dollars per centre. The data also indicates that the six centres get an overall return of $7.60 of value per dollar of expenditure. The TCM provides an indication of the direct health benefits attributable to participation in sport (SGS Economics and Planning, 2010). This approach has identified some clear economic benefits that are attributable to the activities of the centres. This will be discussed further in Section 5.

Summary of centre users' economic activity

The data gained from the economic activity questions provides a range of very positive messages.

- Respondents have a positive attitude about the cost of their involvement in the centres

- Respondents believe that their involvement in centre activities helps them to be healthy and more productive
- Secondary spend items such as the café and merchandise are part of the centre experience but it is not a large amount of funds from either the respondents or the centre budget perspectives.
- The Travel Cost Method (TCM) was used as an indication of the health benefits associated with the participants use of the centres. The TCM analysis indicated:
    - The six centres in the study generated over $226 million of value.
    - This value represents nearly $48 per centre visit
    - The average value per centre in this study is ~$38 million
    - The average value per dollar of expenditure is $7.60.

4.4 Insights about the data collection process

An underlying aim of the research was to critically analyse the research process with the intention to make recommendations about how to replicate this research beyond the current six case study settings. There is a range of considerations that warrant some discussion.

The research that has been completed for this technical report has required more resources than originally planned. Consequently, it has taken much longer than the original proposal. The analysis of the planning documents and the financial statements was very labour intensive. The lack of a consistent approach for how the goals / vision / plan of the centres' operations was presented challenges how this research could be applied on a wider scale. Each centre plan required a focused effort and it would be difficult to replicate on a wider scale. The ten themes could be used as a checklist survey to determine what individual centres were trying to achieve but this type of analysis would be relatively superficial and may not provide meaningful insights. Identifying the community benefits that ARCs were trying to achieve would be superficial if their own goals / visions were not taken into account.

There was limited commonality among the six centres' budget reports that was used to understand how they organise their financial activities. Each centre's budget needed to be individually reviewed and the interpretation of their financial activities needed to be confirmed by an interview with each centre manager. This was very labour intensive and reflected the complexity of the financial analysis. However, the nature of the analysis of the financial activities was an important aspect of identifying the economic significance of their activities in their local communities.

The interviews with the centre managers demonstrated the challenge of collecting data regarding the impact they have in their local community. Some of the managers did not readily have information about where their different user groups came from and they were not conscious of how their expenditure impacted at a local level. The data could be retrieved from databases but it was not something the centre staff did as part of their regular analysis. Centre staff would be required to provide this type of information. Although some respondents recognized the value of this analysis it

would be another level of data analysis that they do not currently pursue. Getting many centres to engage in this type of analysis may be problematic.

There are also challenges regarding how well the centres are addressing their goals / visions. The indicators to determine if the centres are achieving their customer service, target market / inclusion, community development, health / physical activity, etc. goals are not well determined. Although it is beyond the purposes of this study, identification of a process to assess the goal / vision achievements would be a key outcome for further research to identify.

This study has demonstrated the value of investigating the community benefits of ARC operations. There are both community benefits and indicators of economic significance associated with the activities of ARCs.

The collection of data from each of the six centres' users proceeded very well but also had mixed response rates. The respondent data is based on a convenience sample and is not fully representative of the wider ARC users. The data was collected at one point in time rather than over a period of days and times of the year. Different seasonal conditions are likely to attract different respondents to the centres. There are likely to be more leisure swimmers and learn to swim classes during the warmer months (particularly in Victoria). There is also likely to be some differences in usage patterns at various ARCs if they have indoor and outdoor pools. The approach to sampling warrants more attention in future research.

The level of cooperation and support provided by the centre management also warrants some attention. Some of the centre managers were very responsive and embraced the research project and other centre managers were much less supportive. It seems that the nature of the support provided by centre management was a function of their commitment to conduct research. Some centres informed their staff about the research and encouraged staff to inform the centre guests to complete questionnaires, while other centres provided limited information to staff and their was little encouragement for centre guests to participate in the centre surveys. There was also a matter of some centres having too much research being conducted at their centre and survey fatigue may have been an issue. Nonetheless, the research team were made to feel welcome when they visited the centres and the study was able to generate a reasonable range of respondents that have provided a wealth of data.

Future research to investigate the community benefits and economic significance of ARCs on a larger scale, particularly at a national level, will need to be much better resourced and have more consistent support and cooperation among the participating centres. This study was always viewed as a pilot study to determine what we could learn. There is a lot of fundamental data that provides useful insights about ARCs' operations. This data has demonstrated that ARCs do provide community

benefits and are an important economic entity in the activities of their local communities. The key findings and implications of these findings are discussed in the following Section.

5. Discussion

Section 4 provided a range of results from the data collected from a variety of sources. Much of that data speaks for itself regarding the insights it provides about ARC operations and so it will not be repeated or clarified further here. In fact there are insights about a range of ARC operations that warrant discussion but are not within the resources of this project to discuss (e.g., the data about secondary spend and the budget information tends to reinforce the low level of performance from the café and merchandise activities of the ARCs). The focus for this discussion is on the research aims of the community benefits and economic significance of the ARCs and the subsidiary aim of exploring the method so a larger study can be planned and developed in the future.

5.1 Community benefits

The review of the centre goals and plans clearly identified that the centres were provided to address the needs of the local community. These needs related to providing health and fitness services, community development and inclusion of all members of the community. The research has shown that centre users are getting beneficial health and fitness outcomes and there are some elements of community connection that is associated with their use of the centres. The ARCs are also providing a range of services that demonstrate their capacity to provide quality services and to be industry leaders. The centre programs that produced the most income were aquatic education, health club membership, class / group fitness and recreational swim programs. These programs are successful and are meeting the needs of the ARC users. However, the review of the budget for the community development and inclusion goals reflected a somewhat different scenario. There was limited evidence that these programs addressed the community development and inclusion goals. In fact, the ARC expenditure data illustrates that very little funding was allocated community development or access / specific population programs. These issues warrant further discussion.

5.1.1 Health and fitness outcomes

ARCs exist to address the health and fitness needs by providing a range of fitness and health services that are designed to “inspire people to live healthier lives and enjoy the powerful benefits of physical activity.” (C4). The questionnaire respondents reflected a very positive rating of the healthy outcomes that they gain from their involvement in the activities in the centre. The centre users participate in a variety of moderate and vigorous physical activity that exceeds the normal physical activity patterns of most Australians. Most importantly, the centre users indicated that their activities at the ARCs helped them to remain healthy, have fewer sick days and be more productive. Although these actual benefits cannot be verified, the fact that the centre users have this personal perception is an important outcome. The ARCs are providing programs, facilities and services that are contributing to the health benefits (particularly reducing obesity) that the government and organisations such as the Australian Health Promotion Association (2013) are calling for.

The travel cost method (TCM) calculation also demonstrated that the centre users were getting an important health benefit from their use of the centre. The calculation of the TCM indicated that individuals get a value of nearly $48 for each visit to the centre. The overall annual health benefit of nearly $38 million per centre in this study indicated the important contribution that ARCs make in their local community. The $7.60 of value for every dollar of centre expenditure is a good return from the expenditure in the centres. The combination of the users attitude about the benefits they gain and the TCM outcomes are key outcomes of the research.

Although it is clear that ARCs have an important contribution to the health and fitness of their local communities there is some evidence that questions the necessity of ARCs. If the survey respondents' ARC closed they indicated that they were likely to diminish their level of physical activity. However, the respondents were more likely to pursue physical activity elsewhere if their ARC was not available. This does not reflect actual behaviour but it does provide some insights regarding the necessity of ARCs. Users of ARCs may be among those who would pursue physical activity regardless of the availability of the centre. The fact that the centre exists, provides them with a convenient setting to pursue their health and fitness activities but the ARC may not be essential for them to pursue these interests. There are a number of Victorian ARCs that are closed for major renovations from time to time, so it would be useful research to monitor centre users physical activity changes during the closure to see what does happen when a centre closes.

There is clear documentation that the majority of Australians are not achieving satisfactory levels of physical activity to be healthy and fit (Australian Institute of Health and Welfare, 2012). This research demonstrates that ARCs do have an important role in the delivery of health and fitness programs and activities. However, the profile of the respondents demonstrates that they tend to have much higher than normal levels of post-secondary education. This tends to indicate that they have a higher socio-economic status than average Australians. The majority of community members do not use ARCs. Research is required to understand why a wider cross-section of the community do not use ARCs and what constraints prevent them from participating in the programs and activities of ARCs.

5.1.2 Community development and inclusion vs. economic outcomes

The central organisations involved in the delivery of the ARCs in their communities make it clear that they exist to meet the needs of their local communities. [Community development] – "that's the fundamental reason we're in it." The other central organisation interviewee recognised that the key drivers were health and creating a connected community. These goals are fundamental to the central organisations but there may be a 'disconnect' between these goals and what is managed and delivered at the centre level. Although the centre managers are willing to embrace the principles of providing community development and inclusion benefits they are not always able to deliver. Statements from centre managers such as, "We don't have enough resources to support those initiatives", and "it is something that is in our plan but we haven't yet" reflect the "juggling between the community and commerce". This is not to suggest that the centres are not addressing a range of

community development needs and inclusion initiatives but it is more about the size of these commitments.

A range of the centres are involved in the management of programs and activities that do support disadvantaged sectors of the community to be involved. However, it is interesting that these initiatives are not part of the budget. Programs like a YMCA Open Doors program does a range of useful things such as mobilising centre users to fund raise and using the funds to support disadvantaged access but these programs are run outside of the normal budgeting systems. The Open Doors contribution to a community member is recorded as part of the normal income even though the payment is generated via an Open Doors contribution. If centres do want to demonstrate their commitment to community development and inclusion goals, then they may want to adjust their budgets to reflect their contributions via the main budget system. If Wilson and Keers (1987) principle that a budget is a tangible expression of the objectives of the organisation is applied, then more may need to be committed and / or included with the centre budgets to demonstrate the ARC's capacity to address their community development and inclusion goals.

Another aspect of the ARC activities that was explored was the nature of ARC engagement with other community organisations. Although there was an expectation that ARCs will "work in and out of the four walls", there is only limited capacity for the ARC staff to pursue these initiatives. The impression from the interview data was that centres recognise the value of being involved in community collaboration but it was not always a priority. Two statements, "there's not a coordinated approach" and "we don't have the resources to support those initiatives" provided useful insights about the capacity and intention for the ARCs to be engaged with other community groups. Managers were able to explain some useful collaborations but it did not appear to be strategic and part of their mainstream operations. One central organisation indicated that it was an expectation that the ARC make five new community contacts per year but the nature and outcome from those contacts was not particularly strategic. Most of the managers did indicate a capacity to work closely with their Council partners. Partnerships and collaboration are often viewed as key approaches to addressing the needs of specific groups but this was something that needed more attention by the ARCs.

5.1.3 Community connections

An important goal of the ARCs was to provide programs and services that connected the community. One of the goals specifically said, "Strengthen communities by bringing people together to experience the joy of belonging" (C3). The sense of creating community cohesion and connections is an important part of what ARCs are expected to achieve. Governments have dedicated policy initiatives designed to create and support social capital outcomes through their programs and services. The programs and services delivered by ARCs are expected to contribute to these outcomes but no evidence has been found that demonstrates if and how they may achieve the social capital outcomes. The focus on the elements of social capital in the centre questionnaire provided some insights regarding the nature of social capital that was gained by the centre users.

The research developed a scale to measure social capital based on the constructs of volunteering, friendship, trust, safety diversity and reciprocity. Analysis of respondents' ratings identified four factors of Volunteers / involved, Trust, Friends and Acceptance / reciprocity. Safety was also included in the scale analysis as a single variable to capture this dimension of the ARC experience. The three social capital constructs of Safety, Trust and Acceptance / reciprocity were rated relatively highly. The two social capital constructs that were rated low were Friends and Volunteer / involved. The overall rating of the social capital scale was neutral. There are elements of social capital that are achieved but overall, the data indicate that many respondents do not achieve social capital outcomes through their involvement at ARCs.

The respondents who participated in group fitness and exercise classes and swim club / squad training were more likely to have higher ratings of the social capital constructs. Involvement in group activities reflected how ARC users were more connected with each other and able to make connections that would generate social capital outcomes. The group classes may also reflect the role of a leader in bringing people together. Although there is no evidence to suggest the role of a leader, it is an element of group classes that warrants more attention and research. ARC users who participate in other popular activities like Gym / health club, Aquatic education and Lap swimming were likely to be less involved with other people and to be more focused on their individual activity.

If ARCs want to focus more on building community connections, then they may want to consider how staff in the centre interact with the centre users and how they encourage centre users to engage with other customers. The capacity for ARCs to support social capital outcomes is possible but the evidence suggests that social capital is more likely to be generated when ARC users are more engaged by centre staff through direct service delivery rather than individual oriented activities.

Gender was a variable that influenced the level of social capital. Females had higher ratings for the social capital constructs. The trend for females to rate the social capital constructs higher may be a gender based issue but may also be a function of the type of activity they participate in. Females are more likely to participate in the group exercise classes that also have higher ratings for the social capital constructs. Further research and analysis is required to determine the relative role of gender and the type of main activity influence on social capital.

The two age range clusters of the youngest group and the older groups have higher ratings of the social capital constructs. The age range of 20 to 49 years had lower ratings of social capital. The reason for this is not known but it may be a function of lifestyle and the time limitations to be involved in the activities. The youngest and older age groups may have fewer work and family commitments that enable them to be more engaged in the ARC activities and able to achieve higher levels of social capital.

There were also some differences among the six centres in the study. These differences cannot be explored without compromising the confidentiality of the centres' involvement in the research. Factors that may be explored at another time should include the geographic setting, i.e., regional vs. urban, or different urban settings, and the profile of the programs and users at each of the different centres. It is important to note that there are differences among the centres and further research and analysis should explore more details about the centres to understand what factors may influence the social capital outcomes.

Although the overall rating of social capital is relatively neutral this analysis is limited because so little is known about how other community groups and programs respond to similar measures. What are the levels of social capital that are generated by users of libraries, infant welfare centres, youth groups, senior citizen centres, sport clubs, etc.? Similar research needs to be conducted in complementary community settings to identify some overall levels of social capital and to better understand the ratings for the different social capital constructs. Although the overall rating of ARC social capital is relatively neutral it could be higher or lower when compared to other community settings. Central service providers like ARC management groups and local councils provide a range of services to their communities that are designed to provide community connections. More research across the broader community sector needs to be conducted to determine how ARCs fit within the wider community context.

5.1.4 Community safety

The data provided two elements that demonstrated the centres contribution to community safety. The first element was the number of people that participated in aquatic education programs. The six centres reported that over 17,000 individuals participated in aquatic education classes during the past year. Although this is an important community benefit it is difficult to ascertain the value of the classes. Gold, Stevenson and Fryback (2002) outline the range of challenges of measuring the cost-effectiveness of different health initiatives. Learn to swim is a logical safety benefit but it is not possible to measure in this study. Previous research about the efficacy of swimming lessons and drowning in children only found that formal lessons reduced the likelihood of drowning for children aged one to four years (Brenner, et al. 2009). Nonetheless there is an intuitive community benefit for aquatic education classes because when people participate in aquatic education they may be less likely to suffer from mishaps and they are more likely to enjoy recreation and leisure swimming benefits. Further research regarding the benefits of aquatic education is warranted.

The respondents to the questionnaire also indicated that they feel safe when they are at the centre. This was the highest individual rated variable in the community connection scale. It is important to recognise that ARCs are appreciated because people feel safe when they are using them. However, this reinforces a previous point about the need to understand non-users attitudes about ARCs. It may be that non-users do not consider ARCs to be safe community settings so they are not likely to

participate in activities in the centres. More research needs to be conducted to understand why most members of the community do not participate at ARCs.

5.2 Economic significance

A range of evidence was collected to identify the level of economic significance of ARCs in their local community. Economic significance was defined earlier as the size and nature of economic activity associated with the operations of local government ARCs (Stynes, 2001, cited by Crompton, 2010). Indicators of economic significance were based on the review of the budget information, the level of economic activity in their local community, the relationship of the ARCs' economic activities within their local Council and in relation to the centre users, the economic activity of centre users, and the calculation of TCM impacts. In every instance of calculating the economic activity of the ARCs very conservative or lower levels of figures were used to make sure the value of any of the operations were not inflated.

5.2.1 ARC budget information

The analysis of the ARC budgets highlighted the complexity and difficulty of interpreting the centres' financial activities. Each of the six centres had very different range of budget items and allocations even though they tended to provide very similar programs and services.

The four key sources of income were Aquatic education, Class / group exercise, Health club / gym membership and Recreational swim. These four main program areas generated over 84% of the centre income. The main expense was staff that accounted for over 53% of the expenditure. The four programs that generated the main income only required 25% of the expenditure to deliver. This illustrates how profitable these main services are. Besides the program delivery the other major expenses were Administration and management (21.1%) and Operations covering energy, water, maintenance and equipment (16.8%).

5.2.2 Economic activity in the local community

The data from the centre interviews, documents and centre survey contributed to this analysis. It was clear that the centres are important organisations in the economy of their local communities.

The vast majority of the income is generated from the local community. This was the perception of the centre managers and was reinforced by the centre users. Over 70% of the survey respondents indicated that the centre was in their local municipality and 79% of respondents indicated they travelled 15 minutes or less to get to the centre. Centre managers that analysed post code information about their membership and aquatic education participants indicated that over 80% were from the local area.

The centre managers also indicated that most of their expenses were in the local area. Staff was the major expense for the centres and they indicated that most staff, especially the casual and part-time

staff, lived local. The centres were an important employer for people in their local community. Managers also indicated that whenever possible they tried to draw on local services to meet their specialist needs. Although some services, such as rubbish removal and sanitary services, were national companies, they tried to use local services whenever possible. Some managers indicated that they tried to collaborate with their local Council when it came to the appointment of a range of contract services. Although there were limited policies to employ local contractors, the practicality of having a local tradesperson who could quickly respond to any particular problems was recognised.

5.2.3 ARC operations within their local Council

The research did not determine how important local government was within their local economy but it is assumed that in most suburban and regional settings the local Council is an important local entity. Within the local council the ARCS were the equivalent of 2 to 4% of the Council income and 2 to 5% of the Council expenditure. One of the central services interviewees indicated that the contract for the ARC service provider was the second biggest contract for the Council. The operation of the ARCs is important within the local government context.

The income for the ARCs ranged between $5 and $8 dollars per Council resident, and $5 and $8 dollars of expenditure per resident. The close connection between the income and expenditure per resident also reflected the close to break-even level of operation of the ARCs.

It is interesting to note that although some centres had economic goals to “build financial capacity that enables us to contribute positively to our communities” (C3) there was very little awareness of how their economic activities related to the economy of their local area. The data from this research clearly demonstrates that the ARCs are a significant entity within their local area but they have little readily available data to support the objective that was set by at least one of the centres. It would be useful for ARCs and their local Councils to monitor their economic activities to regularly determine the contribution they are making to their local community.

5.2.4 Economic activity of ARC users

The data from the centre user questionnaires provides a range of insights about the economic activity of the centre users. Although several of the centres regularly participate in Centre for Environment and Recreation Management surveys (CERM, 2014) they had little understanding or data about the economic activity associated with their centre users, especially secondary spend.

The majority of the survey respondents (71.1%) indicated that it cost them less than $25 per week to use the ARC. Given that they tended to participate several times per week (74.8% participated twice or more per week) this is a relatively inexpensive cost per visit. However, it should be noted that this cost of $25 or less per week is a perception of how much they pay rather than a precise assessment of the costs for them to participate.

The review of the budget information identified the relatively low levels of income and expenditure associated with the café and merchandise services. The majority of the respondents indicated that they did not regularly use the café and they used the merchandise services even less. And when they do use the café and merchandise services they tend to spend less than $5 in the café and less than $25 on merchandise. They are more inclined to purchase relevant merchandise away from the centres and when they do this they tend to spend more money ($30+) on that merchandise. There may be scope for the ARCs to review the café and merchandise arrangements to grow this part of their business.

5.2.5 Health benefits / value

The TCM was used to calculate the benefit that was attributable to users participation in ARC activities. This information complements the previous work by SGS Economic and Planning (2010) where the value associated with sport facilities was calculated. The TCM was used to identify the health value of centre users. The outcomes of the TCM indicate that the centre users value the visit at almost $48 per visit; the centres average almost $38 million of value to their local communities; and every dollar of expenditure delivers a value of $7.60. These figures represent a significant contribution that ARCs make to their local community.

5.3 Implications for further research

This research was initially viewed as a pilot study that would not only provide some valuable results but would also set the scene for a much larger research project that would be able to address the research aims on a national level. The research became much larger than originally planned and this lead to a significant extension to the research completion date. One of the issues with the further development of the research will be the costs to effectively review each centre's financial operations.

5.3.1 Economic significance

The review of each centres' budget and financial statements required an extensive amount of time to determine how each centre managed its finances. The allocation of the different budget items to common categories and activities that would enable comparisons and overall analysis was complicated. In fact, the only way the budget items could be effectively allocated to the correct categories was through detailed discussion with each centre manager. There were no common approaches to how each of the six centres reported their financial activities. The need to spend hours reviewing budget and financial statements and the subsequent interviews makes the further development of the research very demanding. Replication and wider collection of this data will require extensive resources. The budget analysis is very labour intensive.

The other economic analysis such as the municipal analysis of the centre's operations also required detailed analysis at an individual centre level. The data is not readily available. This was also true for the data collected from the centre managers regarding their user catchments and local economic

activity. These were all issues that the centres did not regularly analyse. Consequently, it had to be managed on an individual centre basis.

The centre user questionnaire could be effectively applied in a wider setting. However, the survey should be conducted so it gained comments from a wider sample of centre users and collected data at different times of the year to better reflect the centre users economic activity. This aspect of the study would probably be easiest to apply at a national level if adequate resources were allocated to the data collection and analysis.

The data collection process to identify the economic significance of the centres was demanding and required more resources than what was allocated to this research project. Nonetheless, the results do provide valuable insights about the centre operations and there would be value in further developing the economic significance analysis to gain a wider range of insights about the ARC industry.

5.3.2 Social benefits

The analysis of each centres goal / vision statements and their business plans was also very time consuming. The process of allocating each of the centre's statements into common categories required a discussion with the centre managers to make sure the statements were effectively understood. The other aspect of this research that warrants further attention is the limited capacity to ascertain how well each centre was achieving its goals. The economic outcomes were relatively easy to measure but the social benefits that each centre aspired to deliver did not have clear key performance indicators. And, some of the key performance indicators, such as the need to establish five new community partnerships per year did not have an associated measure to determine if the partnership delivered any outcomes. Significantly more work is required to ascertain each centre is achieving its social benefit goals.

Again, the centre user questionnaire does provide a technique that could be applied in a wider range of ARCs. Not only would a more representative sample be required (as stated above and discussed in the following section) but more data would need to be collected from other community settings to gain better insights to the level and nature of social capital that is generated from each centre's users.

5.3.3 Summary

It is possible to apply the research approach from this study to a wider national study to determine the community benefits of ARCs. The major requirement will be the allocation of adequate resources to provide meaningful data about the centres' operations and to gain insights from a wider range of centre users.

5.3.4 Other research opportunities

A range of additional research opportunities has been identified in this study. These include opportunities such as the analysis of local real estate values before and after an ARC is provided to

see the economic significance this may have on the value of land and its subsequent rate impact. Other research opportunities include:

- An analysis of centre user physical activity changes when their centre is closed (either a temporary or permanent closure),
- An analysis of why a wider cross-section of the community do not use ARCs, particularly the lower socio-economic groups,
- The role of group classes and activities on the generation of participants level of social capital,
- The impact of activity leaders and centre staff on the generation of social capital outcomes,
- The role of gender and centre characteristics, i.e., geographic location, on levels of social capital,
- An analysis of social capital outcomes from other community activities such as libraries, community health centres, infant welfare centres, etc.,
- Benefits of aquatic education classes.

Investigations of these research opportunities would build on this current research and make an important contribution to a better understanding of the role of ARCs in their local communities. There may be potential for these topics to be investigated via research degree students as well as commissioned research projects.

5.4 Limitations

The research data and its interpretation provides some useful findings that have addressed the aims of the research. Nonetheless, there are several limitations that need to be acknowledged.

The sample for the centre users is not a representative sample. A convenience sample approach was used based on those who volunteered to complete the online questionnaire and those who were willing to complete the questionnaire when invited to participate for the on-site questionnaire. It should also be noted that the on-site questionnaires took place on only one day at two times of the day. The online questionnaire was usually available for completion over a five to seven day period. Future research needs to consider collecting complementary user data at different times of the year to get a more representative sample. The online questionnaire distribution could also be re-designed to target particular groups. A quota sampling approach would be more appropriate than the current convenience sample.

The current research cases are based on the six centres. Although the data from the six centres provides a range of useful data, the limitation of these six settings must be recognised. Future research should consider drawing on a much wider range centres at both a state and national level.

6. Conclusion

The purpose of this research was to identify the scope and scale of community benefits that come from the operations of ARCs, and to determine the potential of applying the research approach to a larger study. Although there are a range of benefits that may be attributed to ARCs (refer to Figure 2.1) the community benefits that were investigated in this study relate to the social benefits and the economic significance associated with participation in the activities of ARCs. The research has clearly identified a range of benefits that can be attributed to the delivery of services at ARCs.

6.1 Social Benefits

The review of the centre goals and vision statements clearly identified the intention of the centres to address the needs of the local community. ARCs exist to address the health and fitness needs by providing a range of health and fitness services that are designed to “inspire people to live healthier lives and enjoy the powerful benefits of physical activity” (centre goal statement). Centre users participate in a variety of moderate and vigorous physical activity that exceeds the normal physical activity patterns of most Australians. The survey respondents indicated that they felt their use of the centre helped them to remain healthy, have fewer sick days and be more productive in work / life.

The Travel Cost Method (TCM) was used to identify the value that centre users associated with their use of the centre. The TCM indicated that individuals get a value of nearly $48 for each visit to the centre. The average value of approximately $38 million per centre and the value of $7.60 for every dollar of expenditure indicated the important contribution that ARCs make in their local community.

Although it is clear that ARCs have an important contribution to the health and fitness of their local communities there is some evidence that questions the necessity of ARCs. If the survey respondents’ ARC closed, they indicated that they were likely to diminish their level of physical activity. However, the respondents also indicated that they were more likely to pursue physical activity elsewhere if their ARC was not available. Users of ARCs may be among those who would pursue physical activity regardless of the availability of the centre.

The goal and vision statements from the ARCs made it clear that they had a role to help to develop community connections and to include all members of their communities in their activities. These intentions were also reflected in the comments from the interviews. Nonetheless, there is limited evidence that ARCs are allocating resources to achieve this goal. There is a “juggle between community and commerce” that seems to be skewed towards the economic expectations. The data indicates that there were limited participation from lower socio-economic groups. Although the centre budgets and some activities do not reflect a large financial commitment to community development and inclusion of specific population groups of the community, some centres do provide a range of limited services to address these goals.

An important goal of the ARCs was to provide programs and services that connected the community. One of the centre goals specifically said, “Strengthen communities by bringing people together to experience the joy of belonging”. The data indicates that respondents felt safe at the centre, trusted others in the centre and were willing to accept others in their program and provide assistance to others. But, they did not see the centres as a place to make friends or to be involved as a volunteer. The overall rating of social capital was neutral. The data suggests that ARCs are not making a large contribution to their community’s social capital.

Although the overall rating of social capital was neutral this analysis is limited because so little is known about how participants from other community groups and programs respond to similar measures. What are the levels of social capital that are generated by users of libraries, infant welfare centres, youth groups, senior citizen centres, sport clubs, etc.? Similar research needs to be conducted in complementary community settings to identify some overall levels of social capital and to better understand the ratings for the different social capital constructs.

Involvement in group activities reflected how ARC users were more connected with each other and able to make connections that would generate social capital outcomes. If ARCs want to focus more on building community connections, then they may want to consider how staff in the centre interact with the centre users and how they encourage centre users to engage with other customers.

6.2 Economic Significance

The indicators of economic significance were determined through the document review, interviews, the survey and the calculation of TCM figures. Very conservative figures were used in the calculation of the ARC economic activity to make sure the value of any of the operations was not inflated.

All but two of the centres reported a small surplus from their operations. The four key sources of ARC income were Aquatic education, Class / group exercise, Health club / gym membership and Recreational swim which generated over 84% of the centre income. The main expense was staff that accounted for over 53% of the expenditure. The four programs that generated the main income only required 25% of the expenditure to deliver. This illustrates how profitable these main services are.

The centres are an important service provider in their local community. Within the local councils the ARCs were the equivalent of two to four per cent of council income and two to five per cent of the council expenditure. Within the ARCs, the data also indicated the importance of their local economic activity. Over 70% of the survey respondents indicated that the centre was in their local community. ARC managers’ postcode analysis of members indicated that over 80% were from the local area. Centres also indicated that much of their expenditure was in the local community. Most of their staff lived locally and they contracted local services whenever possible. ARCs are important contributors to

the local economy. The ARC activities were also identified as being important for small business in the state.

6.3 Implications for further research

The final aim of this research was to analyse the research process with the intention of expanding the research to include more centres from across Australia. Like many research projects this study has drawn upon resources much greater than what was originally allocated. There is the potential for the research to be applied on a national level but it will require an allocation of significantly greater resources than this current research.

6.4 Final Conclusion

The findings from this research provide some insights about ARC operations and benefits provided to their communities that have not been previously identified. The main conclusions and implications from the research are:

- The centre users participate in a variety of moderate and vigorous physical activity that exceeds the normal physical activity patterns of most Australians. This makes an important contribution to participants' health.
- Most centre users may be among the truly dedicated physical activity participants so there would be value for ARCs to attract a wider range of users, especially from disadvantage sectors of the community.
- The ARC goals / vision express a desire to address the social and community development activities in their operations but there may be economic impediments and limited resources to pursue these goals. ARCs need to review these goals and their operations to determine how they can make the social aspects of their operations a larger part of their main activities.
- ARCs contribute to local social capital but it tends to not be particularly strong. ARC management may need to review how they interact with their customers to facilitate the development of community connections.
- ARCs are important economic entities in their local communities. They provide:
    - Facilities, programs and services for their local residents
    - Employment for local residents
    - Employment for local contractors
- ARC activities are important contributors to the local community. Users value their visit to the centre at almost $48 per visit , the centres provide an average $38 million of benefits, and $7.60 of value for every dollar of expenditure. The value of their operations needs to be better recognised by the wider community and political decision makers.

Overall, the research has identified that ARCs are making important community and economic contributions to their local communities.

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Appendix 1 Interview questions

Aquatic and Recreation Centre (ARC) research

Interview with _____ on _____.

Check that Consent form is completed and explain the purpose of the research.

The research is investigating the community benefits of ARCs. We are trying to identify the community and economic significance of ARCs in their local communities, and to establish a method of collecting data that can be applied into a larger research project.

I have reviewed a range of documents from different centres including strategic plans and financial statements. The purpose of this interview is to clarify the matters raised in the documents and to explore other insights related to the economic activities of the centre.

Your comments will remain confidential and completely anonymous. Our discussion will be recorded and transcribed and you will be able to review the transcript if required.

Do you have any questions or concerns at this stage?
Let's begin – **Start the recorder**:

1. Tell me about your role in the centre. What are your responsibilities?	
2. I would like to explore the beneficiaries of the centre's operations. How would you explain the community benefits of the centre's activities?	
3. Give a copy of the Vision / goals summary. I am preparing a summary of the vision / goals for ARCs. Does this summary capture the range of things that centres are trying to achieve?	
4. I gave you a copy of my analysis of the budget information from the Centre. Can we go through this information	

to discuss if my interpretation of the centre's budget is accurate. I am particularly interested to explore if I have adequately placed the different budget items into relevant categories.	
Now I want to explore how much of your economic activity occurs in the local community and how much occurs outside the local community. I would like to get specific data but if necessary I can work with your estimates	
5. Let's start with Income.	5.1 Memberships – how many memberships would come from the local area and how much would be from outside the local area?
	5.2 Aquatic Education – how many users would come from the local area and how much would be from outside the local area?
	5.3 Class / group fitness programs – how many users would come from the local area and how much would be from outside the local area?
	5.4 Casual users such as recreational swim – how many users would come from the local area and how much would be from outside the local area?
	5.5 Schools, sport clubs, businesses and community organisations – how many users would come from the local area and how much would be from outside the local area?
	5.6 Café / Food & beverage / merchandise – do you have users from outside your area that use these services?
	5.7 Subsidised users – do you have any users whose use of the centre is subsidized? If yes, how is the subsidy organized?
	5.8 Grants – do you get any grants that support you to provide different programs and services?
	5.9 Other – do you have any other insights about your income that relates to the aims of this study?
6. Now let's explore some of the expenditure categories.	6.1 Staff costs – can you determine if you employ staff from the local community or are they from outside the local community? If so, what would he percentages be?
	6.2 Staff training – how much would be provided locally and how much would be provided from outside the local community?
	6.3 Marketing – do you use local services to promote your programs or do you use agencies from outside your community for activities like advertising and publications?
	6.4 Contractors – do you have agreements with different contractors to

	provide services like plant maintenance, cleaning, rubbish removal? Are these local contractors or are they from outside the local community?
	6.5 Program and service contractors like Personal trainers or class instructors – are they based in your local community or based outside your local community?
	6.6 Energy and utilities – do you have arrangements with local providers or are the contracts with providers from outside the local community?
	6.7 Policy - Do you have a policy about local services and staff vs outside the local community?
	6.8 Do you have any other insights about your expenditure that relate to the aims of this study?
This provides lots of useful insights about the centre's activities. Now I want to explore how the centres collaborate with other community groups.	
7. Do you work with other services? If so how? How important is this in your overall service delivery? Does this collaboration impact on your income or expenditure?	7.1 Older adult services? 7.2 Children's services? 7.3 Youth services? 7.4 People with a disability? 7.5 Welfare services? 7.6 Health services? 7.7 Community services? 7.8 Any other services?
We have covered a lot of information. Is there anything else you can share about the community or economic significance of your centre's operations?	

Thanks for your time today. I will be trying to get a transcript of our interview. Do you want to review the transcript when it is available?

Appendix 2– Copy of questionnaire

Community and economic benefits of ARCs

INFORMATION TO PARTICIPANTS INVOLVED IN THE RESEARCH

You are invited to participate in a research project entitled Community Benefits of Participation at Victorian Aquatic and Recreation Centres. This project is being conducted by Dr John Tower, Associate Professor Bob Stewart and Ms Katie McDonald from the Institute of Sport, Exercise and Active Living (ISEAL) at Victoria University.

The aims of this research project are i) to gain respondents' insights about the level of community connection they gain from their activities at aquatic and recreation centres (ARCs), ii) to understand respondents' economic activity related to their use of the ARC, and iii) to establish a method of collecting and analysing ARC user data that can be applied in a larger research project. The ARC industry is a significant part of the sport and recreation services delivered for local communities. Governments at all levels make significant contributions to the construction and operation of centres. Surprisingly, there is limited research that has measured the community and economic significance of individuals' use of ARCs and the impact this may have in their local community. This research will identify the community and economic activities associated with your use of this ARC.

What will I be asked to do?

If you agree to participate in this research you will need to complete a questionnaire that asks questions about i) your usage of the centre, ii) your community connection and iii) economic activity associated with your use of the centre and iv) some basic demographic information about you. Your responses will remain confidential with only the combined responses of all participants being used in the analysis and final report.

What will I gain from participating?

Your participation in this project will allow us to build up a body of knowledge about the ways ARCs contribute to their local communities. We will use this data to advise ARCs, governments and sporting bodies on the significance of ARCs. Your contribution to the research will also contribute to the development of a larger research project that will investigate the benefits of ARCs across Australia. Overall, the research will assist government, sport and recreation organisations to better understand the importance of ARCs and how they support the Australian community to more productively engage with the world of sport, exercise and physical recreation.

How will the information I give be used?

The information you provide will be distilled in to a series of scholarly papers and reports that will be disseminated to all major stakeholders, especially ARCs, governments and sporting bodies.

What are the potential risks of participating in this project?

This is a low risk project. The only risk to informants is the possibility of feeling coerced into responding to questions. However, if, having agreed to participate, you find yourself being invited to

comment on things that might cause you distress, you are reminded that you can refuse to answer any questions asked of you, and additionally, terminate the questionnaire if need be.

How will this project be conducted?

You will need to complete a printed copy of the questionnaire.

Who is conducting the study?

This project is being conducted by Dr John Tower, Associate Professor Bob Stewart and Ms Katie McDonald, associates of Victoria University's Institute of Sport, Exercise and Active ISEAL (ISEAL), and members of the College of Sport and Exercise Science. Any queries about your participation in this project may be directed to Dr John Tower. Email john.tower@vu.edu.au or phone 03 9919 4741. Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4781.

Section A - Your use of the centre. Please tick the circle for your answer to each question.

Q1. On average, how many times do you visit the centre

- ❍ Less than once a week (1)
- ❍ Once per week (2)
- ❍ Twice per week (3)
- ❍ Three or four times per week (4)
- ❍ Five or more times a week (5)

Q2. How long have you been using this centre?

- ❍ Less than one month (1)
- ❍ 1 month to less than 6 months (2)
- ❍ 6 months to less than 1 year (3)
- ❍ 1 year to less then 2 years (4)
- ❍ 2 years or more (5)

Q3. What is the MAIN program/activity that you usually participate in? **Choose only one option!**

- ❍ Learn to swim (1)
- ❍ Lane (lap) Swimming (2)
- ❍ Gym/health club (3)
- ❍ Group fitness / exercise classes (4)
- ❍ Leisure swimming (5)
- ❍ Aqua exercise classes (6)
- ❍ Swim club / Squad training (7)
- ❍ Other - please list (8) _____

Q4. What are all of the programs/ activities that you use when you visit this centre? **Choose all of the activities that you do.**

- ❑ Learn to swim (1)
- ❑ Lane (lap) swimming (2)
- ❑ Gym / health club (3)
- ❑ Group fitness / exercise classes (4)
- ❑ Leisure swimming (5)
- ❑ Aqua Exercise classes (6)
- ❑ Swim Club / Squad training (7)
- ❑ Socialising with others (8)
- ❑ Cafe (9)
- ❑ Merchandise shop (10)
- ❑ Childcare (11)
- ❑ Other (12)

Q5. On average, how much time do you spend per visit at to this centre?

- ❍ Less than 30 minutes (1)
- ❍ 30 minutes to less than 60 minutes (2)
- ❍ 60 minutes to less than 90 minutes (3)
- ❍ 90 minutes to less than 120 minutes (4)
- ❍ 120 minutes or more (5)

Q6. Is this centre in the same municipality as your home?

- ❍ Yes (1)
- ❍ No (2)

Q7. The following items refer to your participation in moderate or vigorous physical activity, i.e., activities that make you breathe harder than normal and last for at least ten minutes. Please indicate your level of participation for each of these items.

	Never (1)	Monthly but not every week (2)	1 to 2 days per week (3)	3 to 4 days per week (4)	5 to 7 days per week (5)
How often do you typically take part in moderate to vigorous physical activity? (1)	❍	❍	❍	❍	❍
How often do you typically take walks for exercise? (2)	❍	❍	❍	❍	❍
How often do you typically engage in exercise other than walking, e.g., jogging, cycling, active sports, activities at the gym or leisure centre, use of home gym, etc.? (3)	❍	❍	❍	❍	❍
How often do you typically work in the garden or yard at home? (4)	❍	❍	❍	❍	❍
How often do you typically engage in moderate or vigorous physical activity at your work? (5)	❍	❍	❍	❍	❍

Q8. Please indicate your level of agreement with the following statements

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
If I could NOT come to this centre I would	❍	❍	❍	❍	❍

NOT participate in as much physical activity (1) If I could NOT come to this centre I would do physical activity somewhere else (2)	❍	❍	❍	❍	❍

Section B - Your connection with the local community.

Q9. Please indicate your level of agreement with the following statements

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
I like to help at this centre by being a volunteer (1)	❍	❍	❍	❍	❍
I like to attend extra activities at this centre besides my main program / activity (2)	❍	❍	❍	❍	❍
Being a user of this centre encourages me to be a member of different community organisations (3)	❍	❍	❍	❍	❍
I like to be involved by helping to organise community activities at this centre (4)	❍	❍	❍	❍	❍
I have friends at this centre that will help me when necessary (5)	❍	❍	❍	❍	❍

I meet with friends from this centre away from the centre (6)	❍	❍	❍	❍	❍
I am wiling to help centre users when they need assistance (7)	❍	❍	❍	❍	❍
I talk regularly with my centre friends outside of the activities at the centre (8)	❍	❍	❍	❍	❍
I feel safe when at this centre (9)	❍	❍	❍	❍	❍
Most people can be trusted (10)	❍	❍	❍	❍	❍
Most people at this centre can be trusted (11)	❍	❍	❍	❍	❍
Most people in my activities at this centre can be trusted (12)	❍	❍	❍	❍	❍
The diversity of people at this centre makes the centre culture better (13)	❍	❍	❍	❍	❍
I like being exposed to different people's lifestyles at this centre (14)	❍	❍	❍	❍	❍
I am willing to help others because in the long run they	❍	❍	❍	❍	❍

will help me (15)					
When a stranger joins my activity or class, I try to make them feel welcome (16)	❍	❍	❍	❍	❍
I feel like part of my local community by participating at this centre (17)	❍	❍	❍	❍	❍
I have made friends through my participation at this centre (18)	❍	❍	❍	❍	❍

Section C - Economic activity related to your use of this centre.

Q10. Please indicate your level of agreement to the following statements

	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
This centre provides reasonable priced programs and activities (1)	❍	❍	❍	❍	❍
It is easy for me to travel to this centre (2)	❍	❍	❍	❍	❍
I need to purchase a specific clothing, shoes and / or equipment to participate in activities at this centre (4)	❍	❍	❍	❍	❍
I usually only pay the entrance/ usage/ membership fee when I use this centre (6)	❍	❍	❍	❍	❍
	Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)

The costs of programs and activities constrains me from participating in everything I would like to do at this centre (9)	❍	❍	❍	❍	❍
My participation at this centre helps me to remain healthy (10)	❍	❍	❍	❍	❍
My participation at this centre helps me to have less sick days (11)	❍	❍	❍	❍	❍
My participation at this centre helps me to be more productive in work / life (12)	❍	❍	❍	❍	❍

Q11 On average, how long does it take you to get to this centre?

- ❍ Less than 10 minutes (1)
- ❍ 10 minutes to less than 15 minutes (2)
- ❍ 15 minutes to less than 20 minutes (3)
- ❍ 20 to less than 25 minutes (4)
- ❍ 25 minutes to less than 30 minutes (5)
- ❍ More than 30 minutes (6)

Q12 Using a $ value, what value do you place on the TIME it takes to TRAVEL to, and USE this centre?

- ❍ $0 to less than $5 (1)
- ❍ $5 to less than $10 (2)
- ❍ $10 to less than $15 (3)
- ❍ $15 to less that $20 (4)
- ❍ $20 to less than $25 (5)
- ❍ More than $25 (6)

Q13 Costs to use the centre per week

	Less than $5 per week (1)	$5 to less than $15 per week (2)	$15 to less than $25 per week (3)	$25 to less then $35 per week (4)	More than $35 per week (5)
How much do you estimate that it costs you to use this centre on a weekly basis? Please consider all the costs including membership / program fees, activity fees, clothing, shoes, equipment, cafe, travel, etc. (1)	❍	❍	❍	❍	❍

Q14. On average, how often do you use the cafe / food and beverage service?

- ❍ Never use the cafe (1)
- ❍ Less than once a week (2)
- ❍ Once per week (3)
- ❍ Twice per week (4)
- ❍ Three or four times per week (5)
- ❍ Five or more times per week (6)

Q15. On average, how much money would you spend at the cafe / food and beverage services?

- ❍ Never spend money at the cafe (1)
- ❍ $0 to less than $5 (2)
- ❍ $5 to less than $10 (3)
- ❍ $10 to less than $15 (4)
- ❍ $15 to less than $20 (5)
- ❍ More than $20 (6)

Q16. On average, how often do you purchase merchandise AT THIS CENTRE?

- ❍ Never purchase merchandise (1)
- ❍ Less than once per week (2)
- ❍ Once per week (3)
- ❍ Once per fortnight (4)
- ❍ Once per month (5)
- ❍ Less than once per month (6)

Q17. On average, how much do you spend when purchasing merchandise at this centre?

- ❍ Never spend money for merchandise (1)
- ❍ $0 to less then $15 (2)
- ❍ $15 to less then $25 (3)
- ❍ $25 to less then $30 (4)
- ❍ $30 to less then $50 (5)
- ❍ More than $50 (6)

Q18. On average, how often do you purchase merchandise AWAY FROM THE CENTRE that you use at this centre?

- ❍ Never purchase merchandise (1)
- ❍ Less than once per week (2)
- ❍ Once per week (3)
- ❍ Once per fortnight (4)
- ❍ Once per month (5)
- ❍ Less than once per month (6)

Q19. On average, how much to you spend when purchasing merchandise away from the centre that you use at this centre?

- ❍ Never spend money for merchandise (1)
- ❍ $0 to less then $15 (2)
- ❍ $15 to less then $25 (3)
- ❍ $25 to less then $30 (4)
- ❍ $30 to less then $50 (5)
- ❍ More than $50 (6)

Section D - Information about you.

Q20. Your gender

- ❍ Male (1)
- ❍ Female (2)

Q22. Your marital status

- ❍ Single, never married (1)
- ❍ Married / partnered (2)
- ❍ Single / divorced (3)
- ❍ Prefer not to say (4)

Q21. Your age

- ❍ 18 to 19 years (1)
- ❍ 20 - 29 years (2)
- ❍ 30 - 39 years (3)
- ❍ 40 - 49 years (4)
- ❍ 50 - 59 years (5)
- ❍ 60 - 69 years (6)
- ❍ 70 - 79 years (7)
- ❍ 80 + years (8)

Q23. Your highest level of education

- ❍ Primary School (1)
- ❍ Secondary School (2)
- ❍ VET / TAFE certificate / Diploma (3)

General comments / suggestions – Please share any confidential comments about your involvement in activities at this centre.

Thank you for completing this questionnaire. Your answers will remain confidential. The data from this research will help the aquatic and recreation industry to provide better services to you in the future.

Please return this questionnaire to the VU staff in the centre or put it in the box at Centre Reception.

Appendix 3 ARC Vision & Services

Vision – what do they want to achieve?

1 Quality	2 Industry leader	3 Target markets - inclusion	4 Community Development	5 Health / physical activity	6 Customer Service (probably related to quality)	7 Culture – May be staff culture	8 Economic	9 Environmentally sustainable	10 Safety
"To provide these services at the highest possible quality" (C6)	"to be a community and industry leader in the provision of health and fitness and recreational entertainment." (C6)	"To provide … to all market segments within the [geographic area] and beyond" (C6)	"Increase participation and access to community development programs and services" (C1)	provide sporting and recreational opportunities in support of community health and wellbeing	"To be a centre of customer service excellence" (C6)	"Staff feel recognized for their effort, professionalism and contribution." (C1)	"To be conscious of cost recovery and provide a value for money sustainable service." (C6)	"To be conscious of cost recovery and provide a value for money sustainable service." (C6)	"Provide all activities and services in safe and clean environment" (C6)
"To provide the highest quality aquatic entertainme	"To simply be the best multi functional leisure	"To provide access to all." (C6)	"Provide opportunities for the local community to contribute	Inspire people to live healthier lives and enjoy the powerful benefits of	"To be the place where staff want to work and customers feel	**We have strong people committed to our**	Member retention is critical to continued	"Commit to environmentally sustainable practices."	"promote a safety culture through education, awareness

nt, fitness and recreational services" (C6)	facility in Australia. The market leader that other leisure centre businesses model themselves on." (C6)		their time and talent to community programs." (C1)	physical activity (C2)	they belong" (C6) – may be part of culture.	**mission, skilled in their area of contribution and reflective of the communities we serve. (C5)**	financial prosperity (C2)	(C1)	and procedures" (C1)
"To provide the health club component of the business at a level of quality that is at least an equal to major health clubs." (C6) *Highest quality – suggests*	"Ensure consistent use of best practice systems and procedures across the region" (C1)	"strive to increase our understanding of our diverse community" (C1)	Utilising the YMCA Open Doors initiative, the Centre will be subsidized for services offered to underprivileged community members. (C2)	Improve the health and happiness of Victorians in need (C2)	"Constantly improve member and guest service & communication" (C1)		Strengthen the financial stability that enables us to achieve our Vision (C2)	Minimise our environmental impact (C2)	Greatly improved understanding of and compliance with OH&S reporting requirements with over 300 minor or major incidents reported and logged at WSLC. We

that the major commercial health clubs set the standard.									continue to improve our systems and educate staff for ongoing and improved compliance(C2)
“Facility presentation kept at the highest possible level.” (C1)	“HR systems throughout the cluster are aligned to best practice.” (C1)	“Increase participation and access to community development programs and services” (C1)	Strengthen communities by bringing people together to connect; to experience belonging (c2)	Develop our people to be healthy, happy, capable and inspired (C2)	“minimize asset downtime to ensure continual member and guest satisfaction.”(C1)		Build the financial capacity that enables us to contribute positively to our communities (C3)	a sustainable YMCA through active engagement in the movement (C2)	Build the safest and most supportive environment for our people and participants (C2)
balanced quality urban developmen	Through the use of targeted visibility at	will continue to actively target local groups and	Improve the health and happiness of Victorians in	advocate for healthier environments.(c2)	achieving meaningful community impact (C2)		a prosperous, modern economy	Reduce our environmental footprint	Provide the safest environment for staff,

t (C4 Council)	local community events and through increased media exposure, the Centre's brand will be enhanced and local "champions" (C2)	leaders with a view to creating programming opportunities for all residents, regardless of their ability to pay for essential health and wellness services (C2)	need. (C2)				(C4 Council)	(C3)	volunteers and participants (C3)
Develop quality program to meet centre and council needs (C5)	be a Global Centre of Excellence (C2)	Utilising the YMCA Open Doors initiative, the Centre will be subsidized for services offered to underprivileged community	Build community support for our work with people experiencing disadvantage C2)	**Inspire people to live healthier lives by enjoying the powerful benefits of physical activity (C3)**			Build a thriving, prosperous, safe and sustainable Y (C4)	sustainable natural environment (C4 Council)	Build a thriving, prosperous, safe and sustainable Y (C4)

		members. (C2)							
	Enhance our reputation in order to effectively achieve our vision and goals (C2)	Build community support for our work with people experiencing disadvantage C2)	**Strengthen Communities by bringing people together to experience the joy of belonging (C3)**	Improve physical, mental and social wellbeing by increasing the number of people participating in physical activity (C3)			Invest in asset rejuvenation in a proactive and reactive manner (C5)	Build a thriving, prosperous, safe and sustainable Y (C4)	**Continue on with developing a strong robust OH&S culture. (C5)**
	Increase awareness of the benefits of physical activity through advocacy (C3)	Develop our people to be healthy, happy, capable and inspired (C2)	Develop our people to be healthy, happy, capable and inspired	Contribute to the prevention and treatment of chronic (lifestyle related) disease by increasing targeted physical activity					

				initiatives (c3)					
	dynamic services & facilities (C4 Council)	**Help improve the Health and Happiness of Victorians in need (C3)**	Create meaningful opportunities to volunteer, connect and belong (C3)	Inspire people to live healthier lives and enjoy the powerful benefits of physical activity (C4)					
	Ensure that the community are aware of the centre and community asset (C5)	Increase inclusive opportunities that positively impact the health and happiness for people experiencing disadvantage (C3)	intentionally design and deliver programs and services that create opportunities for people to participate with others (C3)						
	We are recognised as an	Build community support for	Develop healthy,happy, capable						

	innovative charitable organisation that works with communities, and partners, to build strong people, families and communities. (C5)	our work with people experiencing disadvantage (C3)	and inspired people through relationship building (C3)						
		Improve the health and happiness of Victorians in need (C4)	healthy, connected communities (C4 Council)	healthy, connected communities (C4 Council)					
		Continue to market the centre through local media editorials and community	Strengthen communities by bringing people together to connect, to experience	healthy, connected communities (C4 Council)					

		festivals and events (C5)	belonging (C4)						
		We play a leading role in creating accessible and welcoming places. Increase and measure the number of women in sport participation and implement programs to show an increase in this area (C3)	**We understand, influence and seek to inspire appropriate partners for our communities - those who are connected and committed to creating a shared outcome. (C5)**						
		We recognise the uniqueness							

		of every community, and work collaboratively to develop local responses. (C5)							
		We offer places where people are welcome and comfortable to meet, to connect. (C5)							

Appendix 4 – Summary of expenditure allocations

	C 1			C 2			C 3			C 4			C 5			C 6			Average
Expenditure	Non-staff %	Staff %	Total %	Non-staff	Staff	Total	Non-staff	Staff	Total	Non-staff	Staff	Total	Non-staff	Staff	Total	Non-staff	Staff	Total	
Access / specific population programs	0.5	0.4	0.9		0.3	0.3	1.1	2.2	3.3	0.5	1.9	2.4		1.0	1.0				1.3
Administration / management	8.3	15.6	23.9	8.7	3.7	12.4	16.5	5.4	21.9	10.8	5.9	16.7	24.3	8.20	32.5	2.2	17.1	19.3	21.1
Aquatic education	0.2	7.1	7.3	0.0	4.9	4.9	0.3	6.0	6.3	0.4	7.0	7.4	0.1	9.2	9.3		8.7	8.7	7.3
Café / Food & beverage			0	2.1	1.1	3.2	3.5	3.8	7.3			0.0							*5.3
Child care	0.1	4.0	4.1		3.6	3.6	0.0	3.0	3.0	0.04	1.0	1.0	0.1	2.5	2.6		3.5	3.5	3.0
Class / group fitness	0.3	4.1	4.4	0.5	5.5	6.0	0.1	4.0	4.1	0.05	2.9	2.9	0.2	4.6	4.80		12.8	12.8	5.8
Cleaning	0.3	2.6	2.9	0.5	3.5	4.0			0.0			0.0							*1.2

Clean Contractors / Waste removal	2.2		2.2			0.6	0.1		0.1	0.4		0.4	0.2		0.2	3.0		3.0	1.1
Community Development			0.30		0.0	0.0	0.5	1.3	1.8		0.5	0.5		0.3	0.3				0.5
Contractors									0.0	14.9		14.9			0.0	0.6		0.6	*2.6
Dry programs			0	3.1	0.9	4.0	0.0	0.4	0.4			0.0		0.0	0.0				*0.7
Facility rental									0.0			0.0				2.0		2.0	*0.3
Health club membership		6.8			4.2	4.2	1.8	7.9	9.7	0.1	6.3	6.4	0.1	6.6	6.7				4.5
Health Service							0.0	0.6	0.6			0.0							*0.3
IT				0.3		0.3	0.8		0.8	0.4		0.4	0.4		0.4				*0.4
Marketing	0.4	8.5	8.9	1.3	0.0	1.3	1.2	0.5	1.7	0.9	0.2	1.1	0.4	0.4	0.8				2.8
Merchandise	1.1		1.1	0.8		0.8	1.0		1.0	1.2		1.2	0.7	0.2	0.9	1.3		1.3	1.1
Operations	1.8	1.4	3.2	1.1	1.8	2.9	4.4	1.1	5.5	4.8	0.7	5.5	10.0	2.2	12.2				4.9
	C1			C2			C3			C4			C5			C6			Average
Oper energy	7.4		7.4	8.2		8.2	3.5		3.5	6.6		6.6	7.2		7.2	7.0		7.0	5.5
Oper equipment	0.4		0.4	1.1		1.1			0.0	2.8		2.8				0.4		0.4	0.9
Oper maintenance	3.6		3.6	7.1		7.1	2.2		2.2	3.5		3.5				0.6		0.6	2.8
Oper water	2.2			1.1		1.1	1.0		1.0	1.5		1.5	1.7		1.7	1.1		1.1	1.1

Recreational swim		7.4	7.4		4.8	4.8		6.3	6.3		6.7	6.7		8.4	8.4		12.1	12.1	7.6
Safety / risk management	0.3	0.5	0.8	0.4	0.6	1.0	0.4		0.4	0.2		0.2	0.5		0.5	0.0		0.0	0.5
School aquatic programs		1.7	1.7		1.2	1.2			0.0			0.0							*0.7
School / club	0.9		0.9						0.0			0.0		1.9					*0.2
School program							0.0	1.8	1.8	1.0	3.1	4.1		2.0	1.9	0.8		0.8	*1.4
Staffing admin & customer service			0.00		14.7	14.7		6.6	6.6		5.5	5.5		8.9	8.9				6.0
Staff on costs	9.3		9.3	9.9		9.9	9.1		9.1	7.7		7.7	9.6		9.6	11.8		11.8	9.6
Swim, spa & sauna	0.1		0.1						0.0			0.0		0.1	0.1				*0.1
Telecommun.				0.5		0.5	0.3		0.3	0.5		0.5	0.4		0.4	0.4		0.4	0.4
Depreciation							0.7		0.7			0.0	1.0		0.9	14.4		14.4	2.7
Total							48.5	50.9	99.48	58.3	41.7	100	56.9	56.5	111	45.64	54.20	99.84	100%

* Average figure has limited centres for this data calculation

Appendix 5 – Descriptive statistics

The following table provide the outcomes of the descriptive statistic analysis from the centre user questionnaire.

Table A5-1 – Frequency of use of centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than once a week	71	5.2	5.2	5.2
	Once per week	275	20.0	20.0	25.2
	Twice per week	326	23.7	23.8	49.0
	Three or four times per week	514	37.4	37.5	86.4
	Five or more times a week	186	13.5	13.6	100.0
	Total	1372	99.9	100.0	
Missing	System	1	.1		
Total		1373	100.0		

Table A5-2 – Length of centre use

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than one month	53	3.9	3.9	3.9
	1 month to less than 6 months	146	10.6	10.6	14.5
	6 months to less than 1 year	148	10.8	10.8	25.3
	1 year to less then 2 years	220	16.0	16.0	41.4
	2 years or more	804	58.6	58.6	100.0
	Total	1371	99.9	100.0	
Missing	System	2	.1		
Total		1373	100.0		

Table A5-3 Main program / activity

	Frequency	Percent	Valid Percent	Cumulative Percent
Learn to swim	240	17.5	17.7	17.8
Lane (lap) Swimming	141	10.3	10.4	28.2
Gym/health club	423	30.8	31.1	59.4
Group fitness / exercise classes	293	21.3	21.6	80.9
Leisure swimming	51	3.7	3.8	84.7
Aqua exercise classes	115	8.4	8.5	93.2
Swim club / Squad training	13	.9	1.0	94.1
Other - please list	80	5.8	5.9	100.0
Total	1358	98.8	100.0	

Missing	System	17	1.2		
Total		1373	100.0		

Table A5-4 All programs / activities used in the centre

Item	Frequency	Percentage %
Learn to swim (1)	337	24.5
Lane (lap) swimming (2)	498	36.3
Gym / health club (3)	741	54.0
Group fitness / exercise classes (4)	562	40.9
Leisure swimming (5)	435	31.7
Aqua Exercise classes (6)	221	16.1
Swim Club / Squad training (7)	25	1.8
Socialising with others (8)	332	24.2
Cafe (9)	293	21.3
Merchandise shop (10)	52	3.8
Childcare (11)	74	5.4
Other (12)	112	8.2

Table A5-5 Time spent at the centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 30 minutes	4	.3	.3	.3
	30 minutes to less than 60 minutes	409	29.8	29.8	30.1
	60 minutes to less than 90 minutes	729	53.1	53.1	83.2
	90 minutes to less than 120 minutes	170	12.4	12.4	95.6
	120 minutes or more	60	4.4	4.4	100.0
	Total	1372	99.9	100.0	
Missing	System	1	.1		
Total		1373	100.0		

Table A5-6 Centre is in your municipality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	983	71.6	72.3	72.3
	No	374	27.2	27.5	99.8
	Total	1360	98.8	100.0	
Missing	System	16	1.2		
Total		1373	100.0		

Table A5-7 Participation in moderate or vigorous physical activity

	Never (1)	Monthly but not every week (2)	1 to 2 days per week (3)	3 to 4 days per week (4)	5 to 7 days per week (5)
	Frequency / Percentage	Frequency / Percentage	Frequency / Percentage	Frequency / Percentage	Frequency / Percentage
How often do you typically take part in moderate to vigorous physical activity? (1)	68 / 5.0	98 / 7.2	384 / 28.2	576 / 42.4	234 / 17.2
How often do you typically take walks for exercise? (2)	130 / 9.6	261 / 19.2	476 / 35.0	290 / 21.3	202 / 14.9
How often do you typically engage in exercise other than walking, e.g., jogging, cycling, active sports, activities at the gym or leisure centre, use of home gym, etc.? (3)	180 / 13.2	172 / 12.7	413 / 30.4	421 / 31.0	173 / 12.7
How often do you typically work in the garden or yard at home? (4)	251 / 18.5	507 / 37.3	452 / 33.3	103 / 7.6	44 / 3.2
How often do you typically engage in moderate or vigorous physical activity at your work? (5)	761 / 57.9	173 / 13.2	198 / 15.1	125 / 9.5	57 / 4.3

Table A5-8 Importance of the centre for your physical activity – Based on likert scale of Strongly disagree (1) to Strongly agree (5)

	Mean	Mode	Standard deviation
If I could not come to this centre I would not participate in as much physical activity (1)	3.26	4	1.371
If I could not come to this centre I would do physical activity somewhere else (2)	3.68	4	1.071

Table A5-9 Community Connections items - – Based on likert scale of Strongly disagree (1) to Strongly agree (5)

	N	Mean	Mode	Standard Deviation
I like to help at this centre by being a volunteer (1)	1368	2.19	3	0.928
I like to attend extra activities at this centre besides my main program / activity (2)	1369	2.76	3	1.071
Being a user of this centre encourages me to be a member of different community organisations (3)	1367	2.53	3	0.999
I like to be involved by helping to organise community activities at this centre (4)	1370	2.21	2	0.882
I have friends at this centre that will help me when necessary (5)	1370	2.92	4	1.179
I meet with friends from this centre away from the centre (6)	1371	2.71	2	1.230
I am wiling to help centre users when they need assistance (7)	1371	3.64	4	0.949
I talk regularly with my centre friends outside of the activities at the centre (8)	1369	2.70	2	1.187
I feel safe when at this centre (9)	1373	4.34	4	1.496
Most people can be trusted (10)	1369	3.79	4	0.829
Most people at this centre can be trusted (11)	1370	4.02	4	0.714
Most people in my activities at this centre can be trusted (12)	1362	4.04	4	0.719
The diversity of people at this centre makes the centre culture better (13)	1365	3.79	4	0.785
I like being exposed to different people's lifestyles at this centre (14)	1365	3.61	4	0.814
I am willing to help others because in the long run they will help me (15)	1363	3.63	4	0.783
When a stranger joins my activity or class, I try to make them feel welcome (16)	1362	3.77	4	0.754
I feel like part of my local community by participating at this centre (17)	1364	3.45	4	0.955
I have made friends through my participation at this centre (18)	1363	3.28	4	1.112

Table A5-10 Economic activity at the centre - – Based on likert scale of Strongly disagree (1) to Strongly agree (5)

	N	Mean	Mode	Standard Deviation
This centre provides reasonable priced programs and activities (1)	1368	3.86	4	0.793
It is easy for me to travel to this centre (2)	1369	4.18	4	0.679
I need to purchase a specific clothing / shoes to participate in activities at this centre (4)	1368	3.35	4	1.024
I usually only pay the entrance/ usage/ membership fee when I use this centre (6)	1363	3.09	4	1.249
The costs of programs and activities constrains me from participating in everything I would like to do at this centre (9)	1358	2.44	2	1.087
My participation at this centre helps me to remain healthy (10)	1365	4.29	5	0.778
My participation at this centre helps me to have less sick days (11)	1359	3.67	4	0.996
My participation at this centre helps me to be more productive in work / life (12)	1350	3.94	4	0.911

Table A5-11 Travel time to centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 10 minutes	726	52.9	53.1	53.1
	10 minutes to less than 15 minutes	349	25.4	25.5	78.7
	15 minutes to less than 20 minutes	149	10.9	10.9	89.6
	20 to less than 25 minutes	66	4.8	4.8	94.4
	25 minutes to less than 30 minutes	50	3.6	3.7	98.1
	More than 30 minutes	26	1.9	1.9	100.0
	Total	1366	99.5	100.0	
Missing	System	7	.5		
Total		1373	100.0		

Table A5-12 Value associated with time to travel and use the centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	$0 to less than $5	789	57.5	58.4	58.4
	$5 to less than $10	289	21.0	21.4	79.8
	$10 to less than $15	129	9.4	9.5	89.3
	$15 to less that $20	56	4.1	4.1	93.5
	$20 to less than $25	34	2.5	2.5	96.0
	More than $25	54	3.9	4.0	100.0
	Total	1351	98.4	100.0	
Missing	System	22	1.6		
Total		1373	100.0		

Table A5-13 Costs to use this centre per week

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $5 per week	62	4.5	4.6	4.6
	$5 to less than $15 per week	435	31.7	32.3	36.9
	$15 to less than $25 per week	461	33.6	34.2	71.1
	$25 to less then $35 per week	249	18.1	18.4	89.5
	More than $35 per week	141	10.3	10.4	100.0
	Total	1351	98.2	100.0	
Missing	System	25	1.8		
Total		1373	100.0		

Table A5-14 Frequency of use of café / food and beverage services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never use the cafe	729	53.1	53.6	53.6
	Less than once a week	353	25.7	26.0	79.6
	Once per week	169	12.3	12.4	92.0
	Twice per week	70	5.1	5.1	97.1
	Three or four times per week	34	2.5	2.5	99.6
	Five or more times per week	5	.4	.4	100.0
	Total	1360	99.1	100.0	
Missing	System	13	.9		
Total		1373	100.0		

Table A5-15 Average money spent at the café / food and beverage service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never spend money at the cafe	264	19.2	30.1	30.1
	$0 to less than $5	354	25.8	40.4	70.5
	$5 to less than $10	201	14.6	22.9	93.4
	$10 to less than $15	50	3.6	5.7	99.1
	$15 to less than $20	5	.4	.6	99.7
	More than $20	3	.2	.3	100.0
	Total	877	63.9	100.0	
Missing	System	496	36.1		
Total		1373	100.0		

Table A5-16 Frequency of use of purchasing merchandise at this centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never purchase merchandise	912	66.4	67.3	67.3
	Less than once per week	143	10.4	10.5	77.8
	Once per week	5	.4	.4	78.2
	Once per fortnight	1	.1	.1	78.2
	Once per month	15	1.1	1.1	79.4
	Less than once per month	280	20.4	20.6	100.0
	Total	1356	98.8	100.0	
Missing	System	17	1.2		
Total		1373	100.0		

Table A5-17 Average money spent for merchandise at this centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never spend money for merchandise	395	28.8	47.4	47.4
	$0 to less then $15	129	9.4	15.5	62.8
	$15 to less then $25	124	9.0	14.9	77.7
	$25 to less then $30	70	5.1	8.4	86.1
	$30 to less then $50	61	4.4	7.3	93.4
	More than $50	55	4.0	6.6	100.0
	Total	834	60.7	100.0	
Missing	System	539	39.3		
Total		1373	100.0		

Table A5-18 Frequency of merchandise purchases away from the centre for use at the centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never purchase merchandise	259	18.9	19.1	19.1
	Less than once per week	193	14.1	14.3	33.4
	Once per week	17	1.2	1.3	34.7
	Once per fortnight	22	1.6	1.6	36.3
	Once per month	138	10.1	10.2	46.5
	Less than once per month	724	52.7	53.5	100.0
	Total	1353	98.5	100.0	
Missing	System	20	1.5		
Total		1373	100.0		

Table A5-19 Average money spent for merchandise away from this centre for use at the centre

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never spend money for merchandise	141	10.3	11.5	11.5
	$0 to less then $15	132	9.6	10.8	22.2
	$15 to less then $25	175	12.7	14.3	36.5
	$25 to less then $30	157	11.4	12.8	49.3
	$30 to less then $50	239	17.4	19.5	68.8
	More than $50	383	27.9	31.2	100.0
	Total	1227	89.4	100.0	
Missing	System	146	10.6		
Total		1373	100.0		

Table A5-20 Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	403	29.4	29.9	29.9
	Female	946	68.9	70.1	100.0
	Total	1351	98.2	100.0	
Missing	System	24	1.8		
Total		1373	100.0		

Table A5-21 Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 to 19 years	29	2.1	2.2	2.2
	20 - 29 years	175	12.7	13.0	15.1
	30 - 39 years	294	21.4	21.8	36.9
	40 - 49 years	291	21.2	21.6	58.5
	50 - 59 years	196	14.3	14.5	73.1
	60 - 69 years	265	19.3	19.7	92.7
	70 - 79 years	87	6.3	6.5	99.2
	80 + years	11	.8	.8	100.0
	Total	1348	98.2	100.0	
Missing	System	25	1.8		
Total		1373	100.0		

Table A5-22 Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single, never married	205	14.9	15.3	15.3
	Married / partnered	981	71.4	73.1	88.3
	Single / divorced	121	8.8	9.0	97.3
	Prefer not to say	35	2.5	2.6	100.0
	Total	1344	97.9	100.0	
Missing	System	31	2.2		
Total		1373	100.0		

Table A5-23 Highest level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	9	.7	.7	.7
	Secondary School	282	20.5	21.3	21.9
	VET / TAFE certificate / Diploma	357	26.0	26.9	48.8
	University degree	361	26.3	27.2	76.0
	Post graduate university degree	318	23.2	24.0	100.0
	Total	1327	96.6	100.0	
Missing	System	46	3.4		
Total		1373	100.0		

Appendix 6 – Statistical procedures

This appendix provides details for the calculation of a range of the statistical procedures that were discussed in Section 4.

Section 4.3.2 Usage of the Centre – Levels of physical activity.
Chi-square test for association between main activity and levels of physical activity participation - X^2 (28, n = 1,347) = 207.9, p = .000, phi = .393.

Differences between the ratings of the impact of not coming to the centre were analysed using a paired samples t-test. The paired samples t-test is a measure of the statistical validity of the differences in terms of the responses to two questions (Pallant, 2011). There was a statistically significant difference for the two mean scores Q9-1 (M = 3.26, SD = 1.371) and Q9-2 (M = 3.68, SD = 1.071), t (1350) = -7.61, p < .0005 (two-tailed). The effect size for the difference is small with an Eta Square (.04) indicating a small effect.

Section 4.3.3
The key themes of these variables were volunteering, friendship, safety, trust, appreciation of diversity and reciprocity. The pilot version of the questionnaire tested the suitability of these variables to function as a scale. A Cronbach alpha was used to test the scale reliability and this test indicated a high level of reliability. The Cronbach alpha measures the degree that the items in the scale "hang together". The Cronbach alpha for the scale should be above 0.7 and a coefficient above 0.8 is considered good (Pallant, 2011). The test of the scale from the pilot study data provided a score of 0.862 that indicates a high level of reliability.

Principal components analysis
Initially the variables in the community connection scale were reviewed to determine their suitability to conduct principal components analysis (PCA). The inspection of the correlation matrix identified a large number of variables with correlations of 0.3 and above. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.865 (needs to be above 0.6) and the Bartlett's Test of Sphericity value was significant (p = .000). The data was deemed to be suitable for further PCA.

After a number of iterations of PCA a four factor solution was determined. The four factors and their variable items were:

- Volunteer / involved comprising:
    - I like to be involved by helping to organise community activities at this centre
    - I like to help at this centre by being a volunteer
    - Being a user of this centre encourages me to be a member of different community organisations

    - I like to attend extra activities at this centre besides my main program / activity
- Trust comprising:
    - Most people at this centre can be trusted
    - Most people can be trusted
    - Most people in my activities at this centre can be trusted
- Friends comprising:
    - I meet with friends from this centre away from the centre
    - I talk regularly with my centre friends outside of the activities at the centre
    - I have friends at this centre that will help me when necessary
    - I have made friends through my participation at this centre
- Acceptance / reciprocity comprising:
    - I like being exposed to different people's lifestyles at this centre
    - The diversity of people at this centre makes the centre culture better
    - I am willing to help others because in the long run they will help me
    - When a stranger joins my activity or class, I try to make them feel welcome
    - I feel like part of my local community by participating at this centre

The scale used these four factors with the 16 variables as the basis for further analysis. It was also decided to include the safety variable, "I feel safe when at this centre" as a fifth variable for inclusion in the scale. A reliability analysis was conducted on this scale and produced a Cronbach Alpha score of 0.852 indicating a high level of reliability. The reliability of the scale would have increased if the variable about safety was removed but this was considered an important issue to explore so it was included in the analysis. The four factors and the safety variable were used for the following analyses. Table 4.14 provides the mean scores for each of the four factors, the safety variable and the overall level of community connection.

The mean scores for the safety variable, the four community connection factors and the total community connection indicate that the respondents have low levels for the Volunteer & involvement, and the friends factors. The highest community connection variables relate to Safety (4.34), Trust (3.95), and Acceptance / Reciprocity (3.65). The rarting of the Total for the community connection variable (3.28) is in the neutral category with a score close to the rating of 3 (neutral). These results suggest that ARCs do not create high levels of community connection. This matter will be discussed further in Section 5.

Difference between main activity groups

A one-way between groups multivariate analysis of variance was performed to investigate main activity differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the main activity that respondents pursued (Q4). Preliminary assumption tests were conducted and some of the measures indicated there were some issues regarding homogeneity and equality of

variance (this may be due to the large sample size). Therefore the Pillai Trace test was used because it is more robust as a test for variance among the groups. There was a statistically significant difference among the main program / activity groups for all of the dependent factors. Pillai's Trace, $F = 1.08$ $p<.0005$.

A Bonferroni adjustment of the level of significance was adopted to set the level of significance at 0.01 for the further analysis of the differences. Significant differences were identified for all five of the dependent variables.

The safety variable was rated the lowest by the Learn to swim respondents. The other respondent groups had similar scores. The Partial Eta Square figure of 0.98 indicates that 98% of the variance in the scores is explained by the main program / activity.

The four factors of Volunteer / involved, Trust, Friends and Acceptance / reciprocity had significant differences among the main program / activity options. Inspection of the differences in the mean scores for these variables indicated that respondents whose main program / activity were Group fitness / exercise classes, Aqua exercise classes, Swim club / squad training and Other had higher mean scores for the rating of the four factors. The Partial Eta Square figure for all these difference was 0.90 or more indicating that much of the differences (>90%) in the ratings for these community connection factors is explained by the main program / activity. This result indicates that groups of respondents who participate together are more likely to have a higher level of social capital than those who participate in more individually oriented activities. This results will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of the main program / activity on the total score for the community connections scale. There was a statistically significant difference at the $p < .05$ level for the different groups. However, the effect size of the difference was quite small with an eta square figure of 0.06. The post-hoc comparisons using the Tukey HSD test indicated that the two groups that had higher mean scores were the respondents whose main program / activity was Group fitness / exercise classes and Aqua exercise classes. This reinforces the higher levels of community connection for those involved in the group class activities. The impact of the group classes on the levels of social capital will be discussed further in Section 5.

Differences between gender

A one-way between groups multivariate analysis of variance was performed to investigate gender differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' gender (Q20). Preliminary assumption tests were conducted and some of the measures indicated there were some issues regarding homogeneity and equality of variance (this

may be due to the large sample size). Therefore the Pillai Trace test was used because it is more robust as a test for variance among the groups. There was a statistically significant difference among the main program / activity groups for all of the dependent factors. Pillai's Trace, $F = 0.97$ $p<.0005$.

The inspection of the mean scores for all the dependent variables indicated that females rated all the community connection variables higher than male respondents. The level of significance was <0.01 for each variable and the Partial Eta Square was 0.89 or more indicated a strong effect of gender explaining 89% or more of the variance in the community connection ratings. Females are rating the community connection variables higher than males. This will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of gender on the total score for the community connections scale. There was a statistically significant difference at the $p < .05$ level for the different groups. However, the effect size of the difference was quite small with an eta square figure of 0.02. Females had a marginally higher overall score for the Total Community Connections variable . This reinforces the higher levels of community connection for females. The impact of gender on the levels of community connection will be discussed further in Section 5.

Differences among age groups

A one-way between groups multivariate analysis of variance was performed to investigate age differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' age (Q21). Preliminary assumption tests were conducted and some of the measures indicated there were some issues regarding homogeneity and equality of variance (this may be due to the large sample size). Therefore the Pillai Trace test was used because it is more robust as a test for variance among the groups. There was a statistically significant difference among the main program / activity groups for all of the dependent factors. Pillai's Trace, $F = 1.045$, $p<.0005$.

The safety variable was rated the highest by the 18 to 19 year group. The other age groups had similar scores. The Partial Eta Square figure of 0.89 indicates that 89% of the variance in the scores is explained by the age group.

The four factors of Volunteer / involved, Trust, Friends and Acceptance / reciprocity had significant differences among the age options. Inspection of the differences in the mean scores for these variables indicated that respondents in the 18 to 19, and 50 plus age groups had higher mean scores for the rating of the four factors except for Friends which had higher ratings for the 18 and 19, and 60 plus age groups. The Partial Eta Square figure for all these difference was 0.89 or more

indicating that much of the differences (>89%) in the ratings for these community connection factors is explained by the respondents' age. This result indicates that the youngest respondents and the older respondents have higher levels of community connection than the other age groups. This result will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of age on the total score for the community connections scale. There was a statistically significant difference at the $p < .05$ level for the different groups. However, the effect size of the difference was quite small with an eta square figure of 0.03. The post-hoc comparisons using the Tukey HSD test indicated that the groups that had higher mean scores were the respondents aged 18 and 19, and 70 to 79 years. This reinforces the higher levels of community connection for the younger and older respondents. The impact of age on the levels of community connection will be discussed further in Section 5.

Differences among marital status groups

A one-way between groups multivariate analysis of variance was performed to investigate marital status differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' marital status (Q22). Preliminary assumption tests were conducted and some of the measures indicated there were some issues regarding homogeneity and equality of variance (this may be due to the large sample size). Therefore the Pillai Trace test was used because it is more robust as a test for variance among the groups. There was a statistically significant difference among the main program / activity groups for all of the dependent factors. Pillai's Trace, $F = 0.993$, $p<.0005$.

The inspection of the mean scores for all the dependent variables indicated that there were no consistent trends for the marital status groups. Table 4.15 illustrates the mean scores for the different groups. The single / divorced and prefer not to say respondents had the lowest rating for the Safety variable but had the highest rating for the Volunteer & involvement factor. The Partial Eta Square figure for all these difference was 0.89 or more indicating that much of the differences (>89%) in the ratings for these community connection factors is explained by the respondents' marital status. The variety of ratings for the marital status analysis does not provide any useful insights that helps to distinguish one marital status group for their rating of community connections variables.

Table 4.15 Ratings for the marital status for the community connection variables

	Your marital status	Mean	Std. Deviation	N
I feel safe when at this centre	Single, never married	4.34	.696	202
	Married / partnered	4.36	1.733	956

	Single / divorced	4.24	.659	121
	Prefer not to say	4.00	.750	33
	Total	4.33	1.523	1312
	Single, never married	9.8366	3.26111	202
	Married / partnered	9.6109	3.04542	956
Total Volunteer & Involvement	Single / divorced	10.1901	2.95046	121
	Prefer not to say	10.3939	2.73792	33
	Total	9.7188	3.06741	1312
	Single, never married	11.8614	2.09016	202
	Married / partnered	11.8713	1.91034	956
Total Trust	Single / divorced	11.6529	2.04006	121
	Prefer not to say	11.3636	2.19115	33
	Total	11.8369	1.95859	1312
	Single, never married	11.5396	4.08990	202
	Married / partnered	11.5858	3.96951	956
Total Friends	Single / divorced	12.1983	3.92772	121
	Prefer not to say	11.0606	3.42727	33
	Total	11.6220	3.97268	1312
	Single, never married	18.1980	3.10198	202
	Married / partnered	18.2615	2.95350	956
Total Acceptance Reprocity	Single / divorced	18.3636	3.17017	121
	Prefer not to say	17.3636	2.95612	33
	Total	18.2386	2.99737	1312

A one way between groups analysis of variance was also conducted to explore the impact of marital status on the total score for the community connections scale. There was no statistically significant difference among the marital status groups. This tends to reinforce the inconsistency from the previous analysis of the marital status differences on the five dependent variables.

Differences among levels of education groups

A one-way between groups multivariate analysis of variance was performed to investigate highest level of education differences in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' highest level of education (Q23). Preliminary assumption tests were conducted and some of the measures indicated there were some issues regarding homogeneity and equality of variance (this may be due to the large sample size). Therefore the Pillai Trace test was used because it is more robust as a test for variance among the groups. There was a statistically significant difference among the main program / activity groups for all of the dependent factors. Pillai's Trace, $F = 1.013$, $p<.0005$.

The inspection of the mean scores for all the dependent variables indicated that there were no consistent trends for the level of education. Table 4.16 illustrates the mean scores for the different groups. The higher levels of education tended to have higher ratings for the Safety variable whereas, the University and Post-graduate respondents tended to have higher ratings for some of the other factors. The Partial Eta Square figure for all these difference was 0.89 or more indicating that much of the differences (>89%) in the ratings for these community connection factors is explained by the respondents' education level. The variety of ratings for the education level analysis does not provide any useful insights that helps to distinguish one education level group for their rating of community connections variables.

Table 4.16 Ratings for the education level for the community connection variables

	Your highest level of education	Mean	Std. Deviation	N
I feel safe when at this centre	Primary School	4.22	.667	9
	Secondary School	4.27	.628	277
	VET / TAFE certificate / Diploma	4.27	.659	345
	University degree	4.39	.592	357
	Post graduate university degree	4.44	2.907	311
	Total	4.34	1.524	1299
Total Volunteer & Involvement	Primary School	10.2222	2.22361	9
	Secondary School	9.9386	3.06686	277
	VET / TAFE certificate / Diploma	9.8000	3.24001	345
	University degree	9.6078	2.96662	357
	Post graduate university degree	9.4887	2.93462	311
	Total	9.7052	3.05170	1299
Total Trust	Primary School	12.0000	2.06155	9
	Secondary School	11.8556	1.98383	277
	VET / TAFE certificate / Diploma	11.4986	1.96499	345
	University degree	12.0168	1.76411	357
	Post graduate university degree	12.0354	1.96962	311
	Total	11.8491	1.92750	1299
Total Friends	Primary School	12.3333	2.95804	9
	Secondary School	12.4946	4.02224	277
	VET / TAFE certificate / Diploma	11.6087	3.83230	345
	University degree	11.4090	3.85127	357
	Post graduate university degree	11.1961	4.12742	311
	Total	11.6490	3.96789	1299
Total Acceptance Reprocity	Primary School	18.1111	2.47207	9
	Secondary School	18.1949	2.82424	277
	VET / TAFE certificate / Diploma	18.1565	2.98131	345
	University degree	18.2409	3.00808	357

	Post graduate university degree	18.3473	3.18995	311
	Total	18.2333	3.00107	1299

A one way between groups analysis of variance was also conducted to explore the impact of education level on the total score for the community connections scale. There was no statistically significant difference among the education level groups. This tends to reinforce the inconsistency from the previous analysis of the education level differences on the five dependent variables.

Differences among the different centres

A one-way between groups multivariate analysis of variance was performed to investigate differences among the six centres (and the combined on-line respondents (C7) in the community connection factors. The five dependent variables were Safety, Volunteer / involved, Trust, Friends and Acceptance / reciprocity. The independent variable was the respondents' centre setting. Preliminary assumption tests were conducted and some of the measures indicated there were some issues regarding homogeneity and equality of variance (this may be due to the large sample size). Therefore the Pillai Trace test was used because it is more robust as a test for variance among the groups. There was a statistically significant difference among the main program / activity groups for all of the dependent factors. Pillai's Trace, $F = 1.035$, $p<.0005$.

The inspection of the mean scores for all the dependent variables indicated that there were no consistent trends for the different centres. C2 and C3 tended to have higher ratings for the Safety variable whereas, C2, C3 and C6 tended to have higher ratings for some of the other factors. The Partial Eta Square figure for all these difference was 0.89 or more indicating that much of the differences (>89%) in the ratings for these community connection factors is explained by each of the centres. There may be some issues regarding the ratings of the community connection variables among the different centres but it is not possible to discuss these differences without compromising some of the issues regarding confidentiality. It is sufficient to know that all the centres do not have the same ratings of the community connection variables. This will be discussed further in Section 5.

A one way between groups analysis of variance was also conducted to explore the impact of the centre on the total score for the community connections scale. There was a statistically significant difference at the $p < .05$ level for the different groups. However, the effect size of the difference was quite small with an eta square figure of 0.03. The post-hoc comparisons using the Tukey HSD test indicated that the groups that had higher mean scores were the respondents from C2, C3 and C6. This reinforces the previous analysis where these centres also tended to have higher ratings.

Community Benefits of Victorian Aquatic and Recreation Centres

Institute of Sport, Exercise and Active Living

Victoria University

ECONOMIC BENEFITS OF AUSTRALIA'S PUBLIC AQUATIC FACILITIES

INDUSTRY REPORT

EVERYONE CAN BE A LIFESAVER

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The drowning prevention research of the Royal Life Saving Society – Australia is proudly supported by the Australian Government.

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DID YOU KNOW?

$2.72 MILLION

The average aquatic facility creates $2.72 million a year in value to the community

The average Australian visits a public aquatic facility 4.4 times a year

$48 BILLION

Every year in Australia physical inactivity costs the health system $3.7 billion and leads to death and disability costing $48 billion

5%

Insufficient physical activity is responsible for 5% of all death and disability in Australia

40%

Nearly 40% of the Australian population is classified as "physically inactive" according to the World Health Organisation's physical activity scale

Increased risk of disease is heavily concentrated among the physically inactive category

A weekly visit to a pool is enough to take most people out of the "physically inactive" category

$26.39

As a result of these health benefits, every aquatic facility visit creates economic benefits worth an average of $26.39 in addition to the leisure value gained by users

Additional potential benefits of public aquatic facilities include:

- Patrons' enjoyment
- Benefits of water familiarisation and improved aquatic safety skills
- Increased sense of community and social capital
- Increased local economic activity
- Patrons' improved workplace productivity
- Keeping the option of accessing the pool open for potential users
- Improvements in property values and local tax base

The value of these additional sources of potential benefit is not estimated in this report. Estimating them could form the basis of additional future research.

ECONOMIC BENEFITS OF AUSTRALIA'S PUBLIC AQUATIC FACILITIES

Table of Contents

BACKGROUND

Australia's public aquatic facilities generate significant economic benefits for their patrons and for the Australian health care system. Increased physical activity, in the form of swimming and other aquatic exercise, leads to a valuable improvement in health outcomes.[1]

In addition, public aquatic facilities provide Australians with a safe place at which to familiarise themselves with the water, supported by lifeguards, good visibility and marked depths. This enables visitors to aquatic facilities to develop their aquatic survival skills in a low risk environment and to develop confidence in the water before being exposed to more hazardous open water aquatic recreation. We should work to encourage the provision of suitable public aquatic facilities for all Australians, and to encourage their use due to the benefits they provide for exercise and improved aquatic safety.

On average, each Australian visits a public aquatic facility 4.4 times a year, leading to 106 million individual pool visits annually.[2] The physical activity engaged in during these visits, including lap swimming, aquatic sports, learning to swim and unstructured aquatic play, helps to increase visitors' levels of physical activity.

To determine the overall health benefits of exercise, health professionals measure levels of activity based on the number of minutes of exercise engaged in each week, adjusted for intensity as measured on the Metabolic Equivalent of Tasks ("MET") scale, to arrive at an estimate of MET.minutes per week.[3] Increases in activity, as measured in MET.minutes, can be traced to predictable improvements in health outcomes.

AIMS

This study aims to estimate the economic benefits of an individual aquatic facility visit by measuring the links between an increase in physical activity from an average pool visit and reduced risk of mortality, morbidity and health care expenditure, as well as reduced absenteeism.

This figure can then be used to calculate the additional value created by individual pools or the aquatic facility sector as a whole, based on estimated annual attendance.

METHODS

Estimating the dollar value of health gains

Estimates of the burden of illness caused by insufficient physical activity, measured in Disability Adjusted Life Years (DALYs), is taken from the Australian Institute of Health and Welfare's (AIHW) 2016 Australian Burden of Disease Study.[1] One DALY is equal to either one year of reduced life expectancy or equivalent reductions in quality of life over a period of time. So, for example, an illness which reduced life expectancy by one year would cause one DALY, as would one which caused the patient to experience a 50% reduction in quality of life for two years. These DALY figures were converted into a dollar value using Royal Life Saving Society – Australia's (RLSSA) preferred 2016 Value of a Statistical Life Year (VSLY) of $198,000.[4, 5]

Measuring impact of physical inactivity

The measurement scale for levels of physical activity was taken from the assessment of behavioural risks in the 2015 Global Burden of Disease study.[6, 7]

The appendix to this study provides data on the links between different levels of activity and the relative risks of stroke, type 2 diabetes, heart disease and breast and colon cancers for different age groups.

These risks based on activity level were weighted by their relative contribution to the burden of inactivity and by the age distribution of the Australian population to derive a single relative-risk-of-health-reduction measure for the average Australian at each level of physical activity.[8] This measure enables us to divide the overall burden of physical activity across persons at the different activity levels.

The distribution of physical activity in Australia

Detailed physical activity data from the Australian Health Survey was used to estimate the proportions of the population in each activity level used by the Global Burden of Disease Study, based on World Health Organization (WHO) physical activity groupings.[9] These activity levels are measured using average MET.minutes per week, with levels of activity (including both physical exercise and gardening) allocated as follows:

- Persons who undertake less than 600 MET.mins/week are classified as "inactive" and experience a 32% higher relative risk of harm from lifestyle-related illness than those with the highest level of activity. This cut off roughly equates to 60 minutes per week of vigorous exercise, such as lap swimming, or 120 minutes of low intensity exercise such as snorkelling.
- Persons with between 600 and 4000 MET.mins/week are classified as "low activity" and experience 14% more harm from lifestyle-related illness than those with the highest level of activity. Four thousand MET.mins is equivalent to 400 minutes of vigorous exercise each week.
- Persons with more than 4000 but less than 8000 MET. mins/week – 800 minutes of vigorous exercise or a proportionately longer period of more moderate exercise – are classified as "moderate activity" and experience 5% more harm from lifestyle-related illness than those with the highest level of activity
- Persons with more than 8000 MET.mins/week are classified as "high activity" and are used as the baseline.

Figure 1 shows the percentage increase in mortality and morbidity (measured in DALYs) experienced by the average person in each activity level, relative to the average high activity individual.

Figure 1 shows that persons who are physically inactive according to the WHO guidelines experience 32% higher levels of disability and premature mortality than persons engaging in high levels of activity, while persons engaging in low and moderate activity experience 14% and 5% increases in ill-health, respectively, compared to persons with high activity levels.

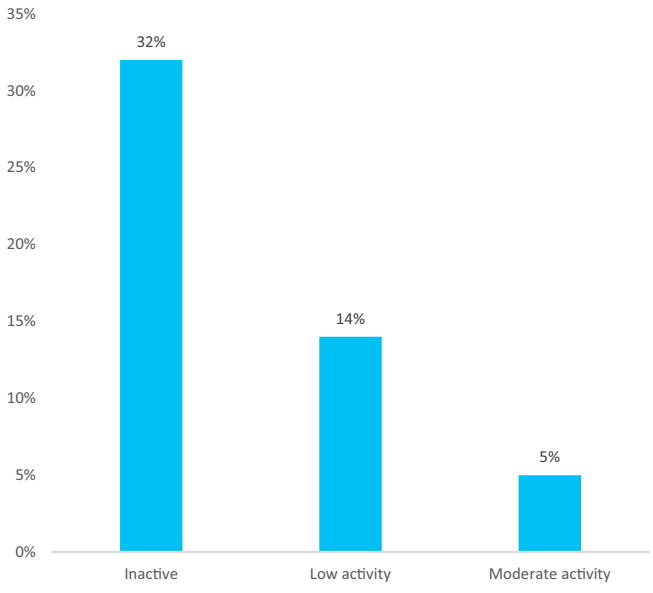

Figure 1: Average increase in mortality and morbidity, relative to high activity

The physical activity levels used by the WHO are based on the medical literature linking physical activity to illness, and are much higher than the minimum levels of exercise recommended by the Commonwealth Department of Health.[10]

Figure 2 shows the breakdown of the Australian population across the different WHO activity levels, based on distributional data for average levels of reported physical activity (including gardening) provided by the AIHW.

Based on this data, we estimate that 39% of the Australian population qualify as "inactive" by the WHO standard, undertaking the equivalent of less than 60 minutes of vigorous exercise each week and suffering 32% more disability and premature mortality than high activity persons. A further 53% of Australians report "low" levels of physical activity, or under 400 minutes of vigorous exercise, while only 8% of Australians are classified as "moderate" or "high" activity, with the equivalent of more than 400 minutes of vigorous exercise.

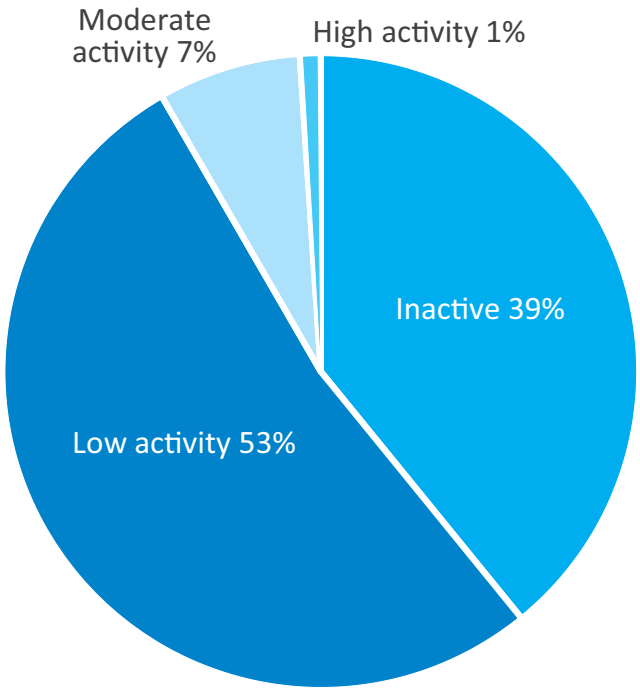

Figure 2: Distribution of activity levels across the Australian population

Total costs of existing physical activity

We then estimate a per capita health cost of low physical activity for people in each category, based on the share of DALYs experienced by each group. We also allocate a portion of Australia's health care spending, using the projected expenditure on the illnesses linked to low activity and the percentage contribution of low activity to each illness.

The calculation of per capita costs by activity level also incorporates an approximation for levels of absenteeism, calculated as a function of self-reported health and taken from a survey of 3,620 employees.[11] This qualitative health estimate is then mapped to MET activity levels based on conservative assumptions about how the two rating scales are likely to overlap, with low self-reported health being overrepresented in the inactive category, based on the established links between low physical activity and reduced overall health outlined above. Projected days of work missed are then valued based on estimated daily wages calculated from Australian average weekly earnings.

Taking all these costs together, Figure 3 shows the breakdown of overall additional costs for the average person in each activity level, relative to someone who is engaging in high physical activity.

Figure 3 shows that the additional ill health experienced by every Australian who is physically inactive costs Australian society an additional $4,576 each year, in the form of disability, lowered life expectancy, increased medical expenditures and increased absenteeism. Every person who engages in "low" physical activity generates costs of $1,185 and each person who reaches "moderate" activity costs $385 per year, compared to the "high" activity baseline. When an individual moves between any two activity levels, we can use these figures to calculate the dollar value of the expected improvement in health.

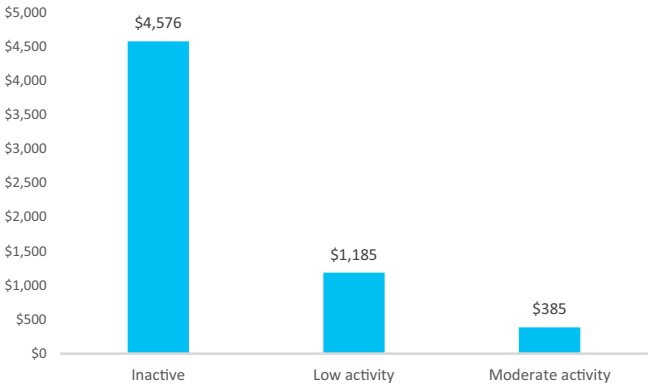

Figure 3: Additional per person costs of activity-related ill health, compared to high activity persons

Effect of additional aquatic facility visits on health costs

Based on existing approaches to valuing active transport,[12] we simulate the effect of an additional aquatic facility visit on the overall distribution of physical activity to calculate the reduction in health care costs from this amount of additional physical activity.

Existing estimates suggest that swimming has a metabolic intensity of between 4.3 and 13.6,[3] depending on the exact activity and swimming speed. We adopt the relatively conservative figure of 7.5, towards the middle of this range and in line with the ABS figure for "vigorous" exercise.[9] This implies that ten minutes spent swimming will, on average, generate 7.5 x 10 or 75 MET.mins of physical activity, a little more than 10% of the 600 MET.min threshold for a "low" level of physical activity.

We estimate the average time spent swimming per pool visit at 74 minutes, based on a large (n=8,000) Dutch survey,[13] which is broadly consistent with a smaller Australian study (n=100) estimate of 69 minutes per visit.[14] Based on detailed distributional data for Australian activity levels we randomly assign METs equivalent to an additional aquatic facility visit to a member of the Australian population and calculate the resulting change in the costs of insufficient physical activity.

Relationship between activity categories and risk reduction

The value of additional physical activity depends heavily on the assumptions about the relationship between elevated risk and a person's activity level within an activity band: whether the benefits of increased activity accrue gradually as a person moves from an average inactive activity level to an average low activity level, or whether they occur mainly when the person actually crosses the threshold for the higher activity level.

We deal with this in our final result by taking the average of the benefits calculated using these two different assumptions – first by assuming that all "inactive" individuals are equally at risk and that all health benefits occur when changing activity levels, and second by assuming that the benefits of increased activity accrue at a constant rate when moving from the observed average activity level of someone who is "inactive" activity level to the average activity of persons at the "low activity" level.

Using these figures, we calculate the value of increased physical activity from one additional pool visit for the average Australian in terms of improved health and reduced health care costs.

Extrapolating from per-visit to per-facility and industry-wide benefit

Figures from the Western Australian aquatic industry[2] suggest that the average Australian visits a public aquatic facility 4.4 times per year. Extrapolating these figures to the Australian population as a whole implies 106 million individual public aquatic facility visits each year. Multiplying this figure by the value of the average individual visit enables us to estimate the wider economic value of the aquatic industry as a whole. Similarly, attendance figures for the average aquatic facility enable us to calculate the benefit from individual facilities.

Attendance data gathered by Wollongong City Council[15] for public aquatic facilities under its control show that the average public aquatic facility in the Illawara region attracted 128,000 visits per year. This is broadly consistent with calculating the number of visits per-pool based on the 4.4 per person annual figure, above, and the estimate of 1,027 total public aquatic facilities calculated by the RLSSA,[16] which implies 99,000 visits per-pool each year.

RESULTS

Benefits per visit

Based on the methods outlined above, we find that the average pool visit generates benefits of $26.39 in improved health outcomes and consequent reductions in health spending and absenteeism.

This figure is based on the average of $41.99, which is the calculated benefit if all members of the same activity category are assumed to experience equal levels of elevated health risk, and $10.80, which is the estimate of benefits if health costs are assumed to decline linearly between average activity levels within each activity category.

The vast majority of this benefit (more than 99% of the total) is due to currently inactive persons moving into the "low" activity category. Each year, each person who leaves the inactive category as a result of an additional pool visit generates improved health valued at $3,542, while persons moving from "low" to "moderate" generate $801 and those moving from "moderate" to high generate only $385. In addition, given the low exercise requirement for reaching the threshold for "low" activity, many more inactive persons are likely to move to a higher activity classification when undertaking an additional pool visit than those whose activity is already "low" or "moderate".

This suggests that increases in aquatic facility usage which target currently inactive persons will have greater benefit than those which target the average Australian (the basis on which the $26.39 figure is calculated) and that increases in swimming among the already active will generate much smaller benefits.

This figure is calculated by looking at additional aquatic facility visits, and is technically not applicable to reductions in existing swimming, such as those due to the closure of an existing facility for example. In these cases the benefit calculation which assumes that risk increases evenly as activity falls will be mostly unchanged, while the benefit where risk is assumed to be constant for all members of an activity level needs to be recalculated using a revised simulation designed to model reduced activity from the current baseline. Modelling reduced visits in this way yields a significantly lower estimate of $7.77 per visit, but this figure displays higher variance during simulations than the figure for increased exercise and should be applied with caution. However, if there is a gradual upward trend in physical activity over time, future additional aquatic facility visits, whether increases or reductions in today's activity levels, will effectively be additional to the 2011/12 physical activity levels used in calculating these estimates. As such, we suggest applying the $26.39 per visit figure for most purposes.

The breakdown in value of improved health across the three categories measured – the value of longer life and reduced disability, reductions in health care spending and reduced absenteeism – for individuals moving from inactive to low activity are shown in Figure 4, below. This suggests that the majority of the gains result from the societal value of the improved health enjoyed by the newly-active person themselves. This is due in part to the conservative assumptions used in estimating the portion of health care costs directly associated with inactivity and the level of absenteeism caused by ill health due to low physical activity.

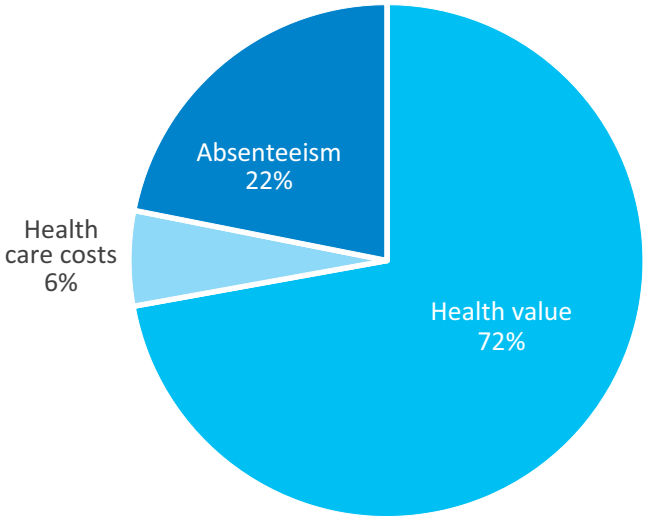

Figure 4: Breakdown of gains from a single individual leaving the inactive group, by category

Industry-wide benefits

Based on the calculated per-visit benefits of $26.39, and the 4.4 annual visits per person cited above, the Australian aquatic industry as a whole generates $2.8 billion in wider economic benefits, in addition to the leisure benefits enjoyed by the visitors.

Benefits from the average aquatic facility

We have three different estimates for the average aquatic facility's annual attendance. Western Australian figures[2] – the source of the 4.4 visits per person estimate – suggest an average of 82,000 visits per aquatic facility per year. Figures from Illawara-region pools[15] suggest more than 128,000 visits, while a calculation based on RLSSA estimates of total facility numbers in Australia[16] implies 99,000.

Taking the average of these figures suggests 103,000 pool visits per year which, when multiplied by the value per visit of $26.39, implies that the average facility generates $2.72 million in additional economic value.

DISCUSSION

The calculations outlined earlier represent one of a number of ways in which the value of public pools can be estimated. An alternative approach is taken in a Victoria University study on the Community Benefits of Victorian Aquatic and Recreation Centres,[17] which calculates a direct economic benefit of $13.83 per pool visit on the basis of patrons' travel and pool entry costs.

Neither of these approaches attempt to measure the less tangible social and community benefits of a public pool, nor the potential improvements in water safety, environmental amenity, option value or property value benefits experienced by local residents even if they are not patrons. The exact values of these less direct benefits are difficult to calculate, but they are likely to be significant, meaning that the $26.39 figure quoted above is likely to underestimate the true benefits of pool visits. The health benefits of increased physical activity are also likely to be accompanied by improved productivity at work, and these extra benefits are not yet captured by this research.

Neither study attempts to calculate the additional economic contribution which public pools might make to the local economy via an input-output framework, given the concerns as to the difficulty of avoiding double counting benefits and identifying potential alternative uses for funding when this approach is employed.[18]

In addition, this paper assumes that patrons place no leisure value on their pool visits over and above the cost of entry and that they take into account the future health benefits of their aquatic activities when deciding how often to visit. If patrons took no account of the value of health benefits when visiting the pool then it would be appropriate to add together the estimated health benefits of $26.39 and the leisure benefits of $13.83 to determine the total value of a pool visit. However, evidence from studies of the motivations of visitors to public aquatic facilities[19] shows that visitors place a high level of value on health benefits, suggesting that some of the physical activity benefit is already captured in the value of leisure benefits.

LIMITATIONS AND NEXT STEPS

More accurate estimates could be generated by separately modelling the health gains for different age cohorts, rather than assuming that patrons have the same age profile as the Australian population as a whole. Adopting this approach would require data on the ages and activity levels of current and potential pool attendees.

We have likewise assumed that the activity levels of patrons mirror the overall activity levels of the Australian population. We justify this assumption on the basis that our focus is on the marginal aquatic facility patron, who is most likely to increase or decrease their level of exercise based on the local availability of a public pool. While the average pool patron may be more active than the average Australian, this is less likely to be true of the marginal patron.

Similarly, the assumptions around length of time spent swimming and metabolic intensity, while backed by evidence, remain quite stringent. This is offset to some extent by the fact that less active patrons are likely to possess lower cardio-respiratory fitness and therefore to experience higher metabolic loads at lower levels of exercise than the average Australian.

Finally, since we do not have access to a timeline for when the health gains from additional physical activity are likely to arrive, we have not applied a discount rate to future health gains. This may lead to economic benefits being slightly overstated, but precedents exist for using this kind of approach.[12, 20]

The accuracy of these estimates could be improved by tying the benefit of a specific aquatic facility, whether existing or proposed, to the average activity levels of the demographic groups in its catchment area, rather than the averages for Australia as a whole. The benefits of exercise could also be tailored to reflect differences in relative risk as a function of the ages of the target population. This would allow the identification of high value areas for the placement of aquatic facilities.

CONCLUSIONS

Physical inactivity imposes massive costs on Australian society, leading to higher rates of stroke, heart disease, diabetes and cancer. Almost every Australian could benefit from engaging in additional exercise.

Our public aquatic facilities enable Australians to engage in more than 130 million hours of vigorous exercise each year. This activity generates direct economic value, particularly in the form of patrons' improved future health and reductions in health care expenditure, which we estimate to be $22.14 per visit, or $2.35 billion each year.

These benefits from public aquatic facilities are additional to the revenue they generate and to their many intangible benefits including a sense of community, social capital, access to water safety education and patron enjoyment.

When considering whether to provide new aquatic infrastructure and whether to maintain existing facilities, governments should take into account the measurable health benefits these facilities deliver when conducting cost benefit analysis.

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APPENDIX

Table 1 sets out the age-weighted average increases in relative risk of key lifestyle illnesses as a result of insufficient physical activity. The relative risk of each disease for a person engaging in high physical activity has been normalised to 1.00, meaning that a value of 1.16 shows a 16% increase in the risk of that condition relative to a person of the same age who engages in high physical activity. As such, the relative risks show how the impact of exercise changes with age, but do not show how age influences the overall risk of disease.

Activity level	Breast cancer	Colon cancer	Type II Diabetes	Heart disease	Stroke
Inactive	1.16	1.29	1.34	1.34	1.39
Low	1.12	1.17	1.19	1.11	1.16
Moderate	1.09	1.07	1.04	1.02	1.11
High	1.00	1.00	1.00	1.00	1.00

Table 1: Relative risk of illness as a function of physical activity. Source: Global Burden of Disease 2013.

These figures are calculated from age-specific relative risk ratios for each activity level.

Tables 2-4, below, set-out the relative risks for each activity-linked disease for persons in the "inactive", "low activity" and "moderate activity" categories, with all risks faced by high activity persons once again normalised to 1.00.

Age	Breast cancer	Colon cancer	Type II Diabetes	Heart disease	Stroke
25-29	1.16	1.29	1.34	1.57	1.67
30-34	1.16	1.29	1.34	1.52	1.62
35-39	1.16	1.29	1.34	1.48	1.57
40-44	1.16	1.29	1.34	1.45	1.52
45-49	1.16	1.29	1.34	1.41	1.48
50-54	1.16	1.29	1.34	1.37	1.43
55-59	1.16	1.29	1.34	1.34	1.39
60-64	1.16	1.29	1.34	1.30	1.35
65-69	1.16	1.29	1.34	1.27	1.31
70-74	1.16	1.29	1.34	1.23	1.27
75-79	1.16	1.29	1.34	1.20	1.23
80+	1.16	1.29	1.34	1.17	1.20

Table 2: Relative risk of illness as a function of age, inactive persons only. Source: Global Burden of Disease 2013.

Age	Breast cancer	Colon cancer	Type II Diabetes	Heart disease	Stroke
25-29	1.12	1.17	1.19	1.18	1.26
30-34	1.12	1.17	1.19	1.17	1.24
35-39	1.12	1.17	1.19	1.16	1.22
40-44	1.12	1.17	1.19	1.15	1.21
45-49	1.12	1.17	1.19	1.14	1.19
50-54	1.12	1.17	1.19	1.13	1.17
55-59	1.12	1.17	1.19	1.11	1.16
60-64	1.12	1.17	1.19	1.10	1.14
65-69	1.12	1.17	1.19	1.09	1.13
70-74	1.12	1.17	1.19	1.08	1.11
75-79	1.12	1.17	1.19	1.07	1.10
80+	1.12	1.17	1.19	1.06	1.09

Table 3: Relative risk of illness as a function of age, low activity persons only. Source: Global Burden of Disease 2013.

Age	Breast cancer	Colon cancer	Type II Diabetes	Heart disease	Stroke
25-29	1.09	1.07	1.04	1.03	1.18
30-34	1.09	1.07	1.04	1.03	1.17
35-39	1.09	1.07	1.04	1.03	1.15
40-44	1.09	1.07	1.04	1.03	1.14
45-49	1.09	1.07	1.04	1.03	1.13
50-54	1.09	1.07	1.04	1.02	1.12
55-59	1.09	1.07	1.04	1.02	1.11
60-64	1.09	1.07	1.04	1.02	1.10
65-69	1.09	1.07	1.04	1.02	1.09
70-74	1.09	1.07	1.04	1.02	1.08
75-79	1.09	1.07	1.04	1.01	1.07
80+	1.09	1.07	1.04	1.01	1.06

Table 4: Relative risk of illness as a function of age, moderate activity persons only. Source: Global Burden of Disease 2013.

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Guidelines

for Sustainable Management of Community Recreation Facilities

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TABLE OF CONTENT

Guidelines for the Sustainable Management of Community Recreation Facilities

Written by SGL Consulting Group for the Local Government Recreation Forum - South Australia in May 2014

CASE STUDIES

INTRODUCTION

1.1 WHY WERE THESE GUIDELINES DEVELOPED

In 2009 the Local Government Recreation Forum developed an "Issues and Directions Paper for Local and Regional Sport and Recreation Facilities" titled "A Time For Fundamental Change", which highlighted a range of issues facing Local Government.

As a direct result of the Issues and Directions paper, the Local Government Recreation & Sport Facilities Sustainability Group was convened to strengthen the financial sustainability of local government owned local and regional level sport and recreation facilities and/or built assets. A key role of the Group was to investigate specific opportunities, methods, guidelines that will assist Local Government to sustainably manage local and regional recreation and sport facilities.

The objective of these Guidelines for the Sustainable Management of Community Recreation Facilities is to provide a resource that Local Governments can use to ensure community clubs are viable, able to manage their facilities effectively, encouraging maximum community participation and provide a safe and healthy sport and social environment.

The Guidelines will benefit Local Government by:

- Creating a more financially sustainable environment in the provision and management of sport and recreation facilities
- Encouraging sustainable approaches to management of community facilities across Local Government.
- Assisting Councils to establish best practice management for new and/or existing facilities.
- Supporting asset planning and provide management solutions to cater for the changing demands and future trends in facility management.
- Encouraging sustainable growth of sporting clubs.
- Identifying leasing/licence/hire arrangements that support sustainable club development and an equitable approach for sporting clubs facility users to ensure activities with lower participation rates or lower funding availability are supported.
- Identifying management models that will support the development of community sporting hubs.

1.2 WHAT IS SUSTAINABLE MANAGEMENT

Sustainability is not a mono-dimensional concept. Financial or economic sustainability is the primary focus of these Guidelines. In addition, recreation delivers many community benefits, hence three other elements of sustainability must also be addressed when establishing sustainable management models - social, environmental and cultural.

Many definitions of each element of sustainability exist, the following definitions are indicative of the general meaning of financial, social, environmental and cultural sustainability.

Financial sustainability is an important concern of Local Government. It has been defined by the LGASA in these terms:

"A Council's long-term financial performance and position is sustainable where planned long-term service and infrastructure levels and standards are met without unplanned increases in rates or disruptive cuts to services." [1]

Social sustainability occurs when the formal and informal processes, systems, structures and relationships actively support the capacity of current and future generations to create vibrant, healthy and liveable cities. [from City of Adelaide]

Environmental sustainability refers to „development which meets the needs of the present without compromising the ability of future generations to meet their own needs". [from World Commission on Environment, Bruntland Report 1997 as adopted by City of Norwood Payneham & St Peters]

Cultural sustainability refers to "developing, renewing and maintaining human cultures that create positive, enduring relationships with other peoples and the natural world" [from City of Marion]

How Were These Guidelines Produced

In preparing these Guidelines, research was conducted involving a series of methodologies. These methodologies and the results of the research are detailed in a Research Report, which is a separate volume to these Guidelines.

[1] *This definition was adopted in 2006 by the Local Government Association of SA and the Australian Local Government Association.*

CHOOSING THE RIGHT MANAGEMENT MODEL

2.1 WHAT MANAGEMENT MODELS EXIST

Six primary management models exist, although each model can have multiple variations. In practice, management models fit into three categories:

1 In house management by local government:
   - Direct management by Council staff
   - Management by a Section 41 Committee of Management or Section 42 or 43 Subsidiary of Council
   - License or season permit to use a recreation facility

2 External management by a non local government organisation:
   - Contract management
   - Lease

3 Shared management whereby a formal Agreement will establish the basic operating responsibilities of parties to the agreement. Once the Agreement has been negotiated, the facility will be managed either in house or by an external management organisation.

2.2 WHAT FACTORS ARE IMPORTANT

When deciding on the most appropriate management model, it must be recognised that no one management model will suit all facilities and situations. Consequently, a unique solution must be designed to meet the specific needs of Council, the facility and its community.

When determining a unique management solution, the relative importance of a suite of factors must be considered. The following factors were identified in the research conducted during the preparation of these Guidelines.

2.2 Table: What Factors are important

Factor	Issues to consider
Asset management Local government must determine the importance of maintaining these facilities in a safe, working condition.	Local Government invests substantial funds into the development and operation of recreation facilities. Asset management involves at least three elements, which are not necessarily mutually exclusive: ■ Day to day (ie minor) maintenance and repairs ■ Cyclical and major maintenance and repairs ■ Structural maintenance and repairs
Presentation of the facility Local government must determine the importance of the presentation and appearance of facilities.	The quality and standard of maintenance and cleaning of a recreation facility will have a significant impact on its presentation. Consumers have increasing expectations regarding the level of presentation and the quality of maintenance.
Finance Local government must determine the importance of the cost to operate a facility and level of certainty to meet budget projections.	The cost of operating recreation facilities varies substantially. When full cost accounting for a recreation facility is used it will include: ■ Overhead costs (eg IT, management supervision, payroll, book keeping and accounting functions). ■ Depreciation and/or loan servicing costs. ■ Operating costs (eg income and expenditures related directly to the facility). ■ Capital development, capital upgrades and major restorative maintenance works. In addition the certainty of operating within a predetermined budget may be important.

Factor	Issues to consider
Financial contribution Local government must determine the importance of a known or guaranteed income stream to support the operation and/or development of a facility.	Long term financial sustainability of recreation facilities can be enhanced through financial contributions to use of the facility and for capital development and upgrades. Wherever possible some form of guaranteed income stream should be generated.
Control Local government must determine the importance of retaining control over operational and/or policy matters impacting upon the facility.	The level of control a Local Government wishes to retain over various facets of a recreation facility's operation, from staff selection to pricing to programming priorities, has a direct influence on the management model selected. Local Government may retain some rights such as pricing, use by community clubs and maintenance, but may not require direct control over other aspects such as staffing and programming. A significant issue relating to the level of control is the level of involvement in the day to day operation of the recreation facility by politicians. In other words the level of delegated authority that elected members will give to officers to implement policies.
Cost of changing management model Local government must determine the importance, and cost of short term staffing expenses against the benefits of changing the management model.	The cost to change a management model is usually a significant factor when management changes from direct management to external management. Local Government tends to employ recreation facility staff under a range of tenures - such as contract, full time, temporary for a fixed period and casual. Consequently, short term redundancy payments or redeployment costs have to be weighed against long term staff cost savings.
Responding to market demands Local government must determine the importance of staff responding rapidly to changing markets demands.	Local Government has high levels of governance and probity. Consequently, strict protocols and procedures must be observed. Conversely, staff working in a dynamic industry, such as recreation facility management, should not be unduly constrained when responding to an evolving market place. For example, promotional strategies and program pricing may need to be implemented on short notice.

Longevity of management Local government must determine the importance of stability and longevity of management and relationships	A consistent approach to management is usually in the best interests of all stakeholders. It allows for relationships between owner, operator and consumers to be developed. Conversely frequent changes in management structures can have a negative influence on the operational viability.
Performance indicators Local government must determine the importance of meeting KPI's	Recreation facilities are developed to meet the needs and wants of the community and market. Managers of recreation facilities are also required to deliver specific outcomes, based on the policy and priorities of Local Government.
Core purpose Local government must determine the importance of the facility as a public – merit – private good or service	Recreation facilities tend to be developed as community infrastructure as a public service. Examples exist of local government owned recreation facilities which are specifically developed as commercial facilities. Where a recreation facility sits on the public – merit – private good/service continuum will have a significant impact on the management model adopted.
Management capability Local government must determine the importance of providing industry knowledge, support and guidance to operational staff	Managing a recreation facility requires specific skills at all levels. At the facility level skills can be obtained through staff selection. At the senior organisational levels (eg local government senior and executive staff), another set of recreation facility management skills are required. Management capability is a reflection of the skills of staff at all levels, and especially at the higher levels who are required to provide support and guidance to operational staff.
Risk management Local government must determine the importance of managing risk through the management model	Risk management is the joint responsibility of the owner, operator and user of a recreation facility. From a local government perspective a key issue to be addressed is its level of risk, which is directly related to the management model adopted. It is also apparent that local government will not eliminate risk whilst retaining ownership of the recreation facility.

2.3 FEATURES OF EACH MANAGEMENT MODEL

Features of each primary management model are summarised, including a review of respective responsibilities of local government and potential partners.

2.3.1 Direct Management by Council

Direct management by Local Government involves employing staff. Council is responsible for all aspects of the facility's operation including operating policies, financial performance and asset management. In some cases, a management committee may be established to help with policy development and to ensure community involvement in management decisions.

The following table summarises responsibilities and comments on the implications of the direct management model for each management factor.

2.3 Table: Features of each Management Model

Criteria	Local Government	User Responsibilities	Comment
Asset management	All asset management functions	None	Adequate budget provisions needed
Presentation of the facility	Presentation of the facility	None	Adequate budget provisions needed
Finance	Meeting budget Fund budget short falls	None	Local Government tends to have a higher staff cost structure that the community and private sector (eg penalty rates on weekends)
Financial contribution	Sets fee structure for users Negotiate financial contribution with users	None	Users may require a formal guarantee of ongoing use or access to the recreation facility
Control	Control over all aspects of the facility	None	Local Government can make politically based operational decisions eg pricing Local Government can modify its operating policies at short notice Not the preferred management model for many rural Local Governments
Cost of changing management model	None	None	Unlikely to be any costs in addition to operational costs
Responding to market demands	Delegate authority to staff to respond to changing market	None	Local Government deals directly with users and user groups Tends to have low level of volunteerism
Longevity of management	None	None	Tends to be a long term management solution
Performance indicators	Establish Performance indicators	None	Incentives and penalties to be agreed for meeting or failing to meet performance indicators Staff tenure to be tied to performance indicators

Core purpose	None	None	Local Government is best placed to manage public services, rather than private or commercial services
Management capability	None	None	Local Government which manages a range of recreation facilities will usually have the necessary management capability Local Governments which have a small number of recreation centres (eg multipurpose leisure centre) tend not to have the management capability
Risk management	All risk management	None	-

2.3.2 Committee of Management or Subsidiary of Council

An extension of the direct management model is a formally constituted Committee of Management under Section 41 of the Local Government Act (1999). A Council may establish committees to assist in the performance of its functions, for example to manage or administer property, facilities or activities on its behalf. A Council must, when establishing a committee, determine the reporting and other accountability requirements. Establishment of a committee does not derogate from the power of the Council to act in a matter.

Alternatively a Council or group of Councils can establish a subsidiary body corporate under Section 42 or 43, respectively of the Local Government Act (1999) to provide a specified service or services orto manage or administer property, facilities or activities on behalf of the Council(s).

The following table summarises responsibilities and comments on the implications of the committee of management model for each management factor.

2.3.2 Table: Commitee of Management or Subsidiary of Council

Criteria	Local Government	User Responsibilities	Comment
Asset management	All asset management functions	None	Adequate budget provisions needed
Presentation of the facility	None	Presentation of the facility	Adequate budget provisions needed
Finance	Meeting budget	None	As the Committee is not separately incorporated for Local Government it may be required to abide by the employment terms and conditions of its host Council
Financial contribution	Sets fee structure for users	Committee to negotiate financial contribution with users and make recommendation to Council	Users may require a formal guarantee of ongoing use or access to the recreation facility

Criteria	Local Government	User Responsibilities	Comment
Financial contribution	Sets fee structure for users	Committee to negotiate financial contribution with users and make recommendation to Council	Users may require a formal guarantee of ongoing use or access to the recreation facility
Control	Total control over all aspects of the facility	None	Local Government has to work through the Committee Local Government, through the Committee, can make politically based operational decisions eg pricing Local Government can modify its operating policies at short notice Traditional management model for many rural Local Governments
Cost of changing management model	None	None	Unlikely to be any costs in addition to operational costs
Responding to market demands	Delegate authority to Committee to respond to changing market	Maintain effective relationships with users and user groups	Local Government deals with users and user groups through the Committee Tends to have higher level of volunteerism than direct management
Longevity of management	None	None	Tends to be a long term management solution
Performance indicators	Establish Performance indicators	None	Incentives and penalties to be agreed meeting or failing to met performance indicators Committee tenure to be tied to performance indicators
Core purpose	None	None	Committees as an arm of Local Government tend to be better at managing public services, rather than private or commercial services
Management capability	None	None	Committees rely upon the skill set of appointed members Ensure a range of skills are available through the appointees Conflict of interest exists in most Committees
Risk management	All risk management	None	–

2.3.3 License agreement

A license agreement exists where Council enters into a licence detailing the rights and responsibilities of Council and the licensee. Council receives an agreed rental or income (or a percentage of the net surplus) but has no direct control over the day to day management.

A licence is used where the licensee has management rights only of grounds and or a facility. A licence does not convey or create an interest in a building or the land to a particular party and is typically utilised for shared use arrangements by sporting associations.

Whilst the contract management model may be based on a licence agreement, this management model relates mainly to sporting clubs or associations which use a building or sports facility on a seasonal or other short term, periodic basis.

The following table summarises responsibilities and comments on the implications of the license agreement management model for each management factor.

2.3.3 Table: License Agreement

Criteria	Local Government	User Responsibilities	Comment
Asset management	All asset management functions	None	Adequate budget provisions needed
Presentation of the facility	None	Presentation of the facility	Adequate budget provisions needed
Finance	Meeting budget Fund budget short falls	None	As the Committee is not separately incorporated for Local Government it may be required to abide by the employment terms and conditions of its host Council
Financial contribution	Sets fee structure for users	Committee to negotiate financial contribution with users and make recommendation to Council	Users may require a formal guarantee of ongoing use or access to the recreation facility
Control	Total control over all aspects of the facility	None	Local Government has to work through the Committee Local Government, through the Committee, can make politically based operational decisions eg pricing Local Government can modify its operating policies at short notice Traditional management model for many rural Local Governments

Criteria	Local Government	User Responsibilities	Comment
Cost of changing management model	None	None	Unlikely to be any costs in addition to operational costs
Responding to market demands	None	None	Licensees conduct programs and tend to have the capacity to respond to changing market conditions Local Government has contact with users and user groups through the license Community based licensees tend to be volunteer based organisations
Longevity of management	None	None	Tends to be a long term management solution, although each license is likely to be a short term license
Performance indicators	Establish Performance indicators in the license	None	Incentives and penalties for meeting or failing to met performance indicators can be included in license, although this is not normal practice
Core purpose	None	None	Most licensees are not for profit, membership based organisations
Management capability	None	None	Many licensees are affiliated with state or national organisations although management support varies
Risk management	Risk management relating to the physical condition of the facility, plant and equipment used by the licensee	Risk management relating to activities it conducts	Both Local Government and the Licensee will be required to ensure they are adequately insured

2.3.4 Contract Management

Contract management exists where Council contracts out the management of the centre to an individual manager, a community based organisation or a facility management company.

Responsibilities of the owner and contractor are set out in a formal contract for a fixed period of time, which may be a License, Lease or Management Agreement.

The following table summarises responsibilities and comments on the implications of the contract agreement management model for each management factor.

2.3.4 Table: Contract Management

Criteria	Local Government Responsibilities	Contractor Responsibilities	Comment
Asset management	Asset management functions which ensure the facility is maintained in the long term. This will usually include structural and cyclic maintenance	Day to day maintenance and cleaning	Adequate budget provisions needed
Presentation of the facility	None	Presentation of the facility	Standard of presentation needs to be clearly defined in agreement
Finance	None	Meeting budget Fund budget short falls	Not for profit and private sector contractors tend to have greater flexibility in the employment market and the capacity to have lower staffing Local Government may receive a return on its asset/investment through a profit share arrangement
Cost of changing management model	None	None	Substantial costs may be incurred in moving from a direct management model to contract management Local government can require the contractor to engage existing facility staff and specific terms and conditions [Note: this approach may incur a financial penalty on Council]

Criteria	Local Government Responsibilities	Contractor Responsibilities	Comment
Responding to market demands	None	None	Contractors tend to have the capacity to respond to changing market conditions Local Government has no direct contact with users and user groups, except through other consultative mechanisms Not for profit contractors tends to have higher level of volunteerism than private sector contractors Contractors are likely to develop new programs or target new markets if it at least break even financially Local Government may be required to subsidise programs targeted to low income markets
Longevity of management	None	None	Tends to be a long term management solution, with contracts often having at least one right of renewal
Performance indicators	Establish Performance indicators in the contract	None	Incentives and penalties for meeting or failing to met performance indicators can be included in contract
Core purpose	None	None	Private or commercial sector contractors are better placed to manage commercial services than Local Government
Management capability	None	None	A contractors management capacity and capability will often be directly related to the size of the organisation and its current range of contracts
Risk management	Risk management relating to the structural integrity of the facility, plant and equipment	Risk management relating to operational matters	Each party to the contract will be required to ensure they are adequately insured

2.3.5 Lease Agreement

A lease agreement exists where Council enters into a lease detailing the rights and responsibilities of Council and the lessee. Council receives an agreed rental or income (or a percentage of the net surplus) but has no direct control over the day to day management.

The lessee has full property rights and is responsible for financial performance, asset maintenance and operational policies. A lease is used where the group has exclusive possession of the premises for a fixed period of time.

The following table summarises responsibilities and comments on the implications of the lease agreement management model for each management factor.

2.3.5 Table: Lease Agreement

Criteria	Local Government Responsibilities	Lessee Responsibilities	Comment
Asset management	Asset management functions will be detailed in the lease agreement	Tend to have greater asset management responsibilities than Local Government	The level of responsibility is often a function of the term of the lease
Presentation of the facility	None	Presentation of the facility	Standard of presentation needs to be clearly defined in agreement
Finance	None	Funding its responsibilities as detailed in the lease Pay the agreed lease fee	Local Government may receive a return on its asset/investment through the lease fee Local Government has limited financial responsibility
Control	None	To use the facility within the terms and conditions of the lease	Local Government has limited control of the facility Difficult for either party to withdraw from or change the terms of the lease without the consent of both parties.
Cost of changing management model	None	None	Substantial costs may be incurred in moving from a direct management model to contract management
Responding to market demands	None	None	Lessee conduct programs and tend to have the capacity to respond to changing market conditions Local Government has contact with users and user groups through the lease Community based lessees tend to be volunteer based organisations

Criteria	Local Government Responsibilities	Lessee Responsibilities	Comment
Performance indicators	Establish Performance indicators in the lease	None	Incentives and penalties for meeting or failing to met performance indicators can be included in lease, although this is not normal practice
Core purpose	None	None	Most leases are not for profit, membership based organisations
Management capability	None	None	Many lessees are affiliated with state or national organisations although management support varies
Risk management	None	Risk management relating to activities it conducts Risk management relating to the physical condition of the facility, plant and equipment	Both Local Government and the Licensee will be required to ensure they are adequately insured

2.3.6 Shared Management

Shared management exists where a management agreement is prepared detailing cost sharing, legal and access arrangement for a jointly developed recreation facility. This may be between Council, club, schools and other private organisations.

The following table summarises responsibilities and comments on the implications of the shared management model for each management factor.

2.3.6 Table: Shared Management

Criteria	Local Government Responsibilities	Partner Responsibilities	Comment
Asset management	None	None	Responsible for asset management functions will be detailed in the joint use agreement Usually greatest asset management responsibility remains with the owner of the facility ie owner of the land on which the facility is constructed
Presentation of the facility	None	None	Joint use agreement details responsible for presentation of the facility
Finance	None	None	All financial matters are detailed in the joint use agreement, including capital development, capital upgrades and operating costs
Financial contributions	None	None	Financial contributions are detailed in the joint use agreement
Control	None	None	Local Government level of control will be detailed in the joint use agreement Difficult for either party to withdraw from or change the terms of the joint use agreement without the consent of both parties Whilst DECS "broadly support" the concept of shared use, however arranging longer term agreements through DECS can be time consuming and difficult to achieve
Cost of changing management model	None	None	Unlikely to be any substantial costs, as these arrangements tend to relate to new facilities
Responding to market demands	None	None	Operational responsibilities will be detailed in the joint use agreement

Criteria	Local Government Responsibilities	Partner Responsibilities	Comment
Performance indicators	None	None	Performance indicators can be established in the joint use agreement Incentives and penalties for meeting or failing to meet performance indicators can be included in joint use agreement
Core purpose	None	None	Most joint use agreements involve education institutions or community based organisations such as religious organisations
Management capability	None	None	Very few joint use agreement partners will have recreation facility management capacity or capability
Risk management	None	None	Each party to the joint use agreement will be responsible for risk management relating to activities it conducts. All parties to the joint use agreement will be required to ensure they are adequately insured

2.4 ASSESSMENT

In each case a unique solution must be designed to meet the specific needs of each Council and its community. There is no single best solution or approach.

In simple terms, there are good and bad examples of in house managed recreation facilities and good and bad examples of externally managed recreation facilities.

The relative importance of the factors discussed above will vary from Council to Council and within each Council from facility to facility. Consequently, an assessment of the relative importance of each factor has to be made before choosing a management model.

A key point to note is that both in house and external management of recreation facilities will achieve policy outcomes desired by Council if the management model is correctly structured.

Given this caveat, in practice the relative importance of a small number of criteria will suggest whether in house or external management is most appropriate.

In house management is <u>not</u> best suited to situations where:

- The core purpose of a recreation facility is to provide a commercial return on the investment.
- Council does not have senior and/or executive staff with skills and experience in managing, operating and/or maintaining the type of recreation facility under consideration.

In house management is best suited to situations where:

- Council wishes to exert a high level of control over the day to day operation of the facility, including elected members making operational decisions on an ad hoc basis.
- Council wants to ensure that the facility is maintained to a high standard and has the capacity to provide adequate funds for all categories of asset management including cyclical and structural maintenance.
- Council wants to directly manage its potential risk exposure.

External management is best suited to situations where:

- Council wishes to minimise the cost of operating the recreation facility.
- Council wants to attract a substantial capital investment in the facility or plant and equipment.
- Council wants a fixed budget to operate a recreation facility.
- The recreation facility competes in a dynamic market, requiring rapid response to changing market conditions.

WHO PAYS

3.1 IS FUNDING A LOCAL GOVERNMENT RESPONSIBILITY

3.1.1 Public and Private Goods and Services

The notion of public and private goods and services provide a basis for deciding the level of financial support a recreation facility will receive from Local Government.

A **public good or service** is an item whose consumption is not decided by the individual consumer but by the society as a whole, and which is financed by taxation. A public good or service may be consumed without reducing the amount available for others, and cannot be withheld from those who do not pay for it. Public goods and services include parks. No market exists for such goods, and they are provided to everyone by governments.

A **private good or service** is an item of consumption that, if used by one party, may not be available for others, such as food and clothing.

The characteristics of pure public goods are the opposite of private goods:

- The benefits derived from the provision of pure public goods cannot be confined to only those who have actually paid for it.
- Consumption of a public good by one person does not reduce the availability of a good to everyone else.

Public goods or services are fully funded by taxes, whereas private goods or services are fully funded by the user. Parks and reserves have elements of public and private goods or services. The greater the element of public good, the greater the financial contribution from the public purse. Conversely, the greater the element of private good, the greater the financial contribution from users.

In a recreation facility:

- ✓ Public goods or services include access and use of a park, and the physical amenity of parks as an element of the urban landscape. Thus parks and reserves which have full and free access for the general public will be fully maintained through taxes, eg beaches.
- ✓ Private goods or services are for the exclusive use of a group eg members, to which the general public is excluded, except by payment of a fee. Thus members of a health and fitness club for which membership is paid will be totally funded by users.

3.1.2 Community Benefits

The public/private good model must be considered within the context of community benefits.

Use of public land for recreation purposes provides a series of community benefits. These benefits may be delivered to individuals and also to the wider community. For example individual benefits may include increased health and community benefits may include reduced health care costs, and improved liveability due to availability of, and access to, a range of recreation activities.

The greater the number of community benefits provided at a facility the greater the level of financial support likely to be provided by Local Government. Hence, a bowling club may be for the exclusive use of its members, yet the activity of bowling may produce community benefits which can be supported by Local Government. Conversely, it may be difficult to identify any community benefits from a fully licensed club rooms, which is effectively a commercial activity competing with the private sector for patronage.

3.2 PRINCIPLES FOR CALCULATING COST SHARING

3.2.1 In house Management Models

The following table provides basic principle for calculating cost sharing responsibilities for in house management models.

3.2.1 Table: In house Management Models

Management	Capital	Operational
Direct management	Ownership of the asset remains with Local Government. Local Government will usually provide the funding for the recreation facility and major upgrades and renovations. Limited, if any funding will be expected from users and user groups without some form of long term tenure.	Local Government responsible for all operating costs. Users and user groups pay a fee for use of the facility. Local Government sets the fee structure based on market rates, the extent of public/private good and the community benefits from the activity.
Committee of Management or Subsidiary	Ownership of the asset remains with Local Government. Local Government will usually provide the funding for the recreation facility and major upgrades and renovations. In rural communities a Committee of Management will often include local residents who are also representative of user groups. Fundraising is often a responsibility (and expectation) of the Committee of Management.	Local Government through the Committee of Management or Subsidiary responsible for all operating costs. Users and user groups to pay a fee for use of the facility. Local Government, on the recommendation of the Committee of Management sets the fee structure based on market rates, the extent of public/private good and the community benefits from the activity.
License	Ownership of the asset remains with Local Government. Local Government will usually provide the funding for the recreation facility, major upgrades and renovations. Some funding can be obtained from users and user groups in return for long term tenure. The level of funding will be directly related to the length of tenure.	Local Government responsible for all operating costs. Users and user groups to pay a license fee for use of the facility. Local Government to set the license fee based on market rates, the extent of public/private good and the community benefits from the activity.

3.2.2 External Management Models

The following table provides basic principle for calculating cost sharing responsibilities for external management models.

3.2.1 Table: In house Management Models

Management	Capital	Operational
Contract management	Ownership of the asset remains with Local Government. Contribution to capital works will be negotiated in the Contract. Local Government will usually provide the initial funding for the recreation facility and major upgrades and renovations. Contractor will expect to generate a return on any investment over the life of the Contract. Contractor can be expected to provide consumable plant, equipment and materials which have a life less than the term of the contract. Fit out of a recreation facility will be negotiated in the Contract. An open tender process will determine the level of funding to be provided or received by Local Government.	Local Government will provide an operating subsidy or receive a rent and/or share of profit. Financial arrangements will depend upon the nature of the recreation facility and the terms of the contract. An open tender process will determine the level of funding to be provided or received by Local Government. Local Government responsible for all costs related to supervision and monitoring the contract.
Lease	Ownership of the asset reverts to Local Government at the expiry of the lease. Lessee will expect to generate a return on any investment over the life of the lease and/or pay out any loans for the capital works. Lessee can be expected to provide consumable plant, equipment and materials which have a life less than the term of the lease. Local Government contribution to the initial funding for the recreation facility and major upgrades and renovations will be dependent on the type of facility, the level of public good and the community benefits derived from the facility	Lessee responsible for all operating costs, except as provided in the lease. Local Government responsible for operating costs specified in the lease as being its responsibility. Local Government responsible for all costs related to supervision and monitoring the lease

3.3 SUMMARY

Funding the capital and operating costs may involve a mix of funding sources:

1 Government (Local, State and Federal) is responsible for providing community infrastructure which is recognised as a public good or service and generates significant community benefits

2 Not for profit organisations are often reliant upon using community infrastructure, and usually aim to operate on a financial break even basis

3 Commercially based organisations expect to generate a return on their investment

Governments will resource a recreation asset in direct proportion to its position on the public/merit/private continuum and the community benefits it generates. Not for profit organisations will contribute to a recreation asset based on its capacity to financially break even. Commercial organisations will invest in a recreation asset if it can demonstrate a financial return. Both not for profit and commercial organisations will require tenure which enables them to generate sufficient revenues to meet their financial targets (eg repay loans and return on investment).

The level of contribution from not for profit and commercial organisations will be directly related to the terms, conditions and the risk profile of the project's financial structure.

IMPROVING SUSTAINABILITY

4.1 INGREDIENTS FOR SUCCESS

A suite of management models are available to use in different circumstances for a variety of recreation assets eg indoor/outdoor, wet/dry, passive/active and single/multipurpose. No one best management model is available for any category of asset, or particular situation.

There are however, common features or elements of a well managed, and hence sustainable recreation asset:

- A manager and/or management team which is proactive, provides leadership, makes decisions, motivates and innovates
- A Business Plan which details how the asset will be managed to achieve its KPI's
- A strong focus on achieving its aims and objectives
- Ongoing analysis and review of KPI's based on valid and reliable data collection
- Customer focussed management and staff
- Appropriately skilled and experienced staff
- A commitment to continuous improvement
- Proactive and innovative programming strategy
- Regular evaluation of programs and services offered, including feedback from customers

4.1.1 The Planning Sequence

A new or refurbished recreation facility which is based on research regarding the need and financial implications has more probability of being sustainable in the long term. The planning sequence incorporates the elements detailed above.

4.1.2 Preparing KPI's

Key performance indicators can be difficult to establish and monitor. Outcomes which are easily quantified, and relatively easy to prepare, include indicators such as income and expenditure, and patronage levels. On the other hand, qualitative outcomes which are much more difficult to draft, include customer satisfaction levels and social outcomes such as contribution to the health of the community and quality of life issues.

Both quantitative and qualitative performance measures are needed to reflect the 'public' service aspect of leisure.

Key performance indicators establish what is expected from the facility, by setting service level expectations. Performance indicators, once established, become the benchmark against which performance is evaluated.

Overseas experience indicates that where quantitative performance indicators are used, greater emphasis is placed on efficiency and in particular financial performance, and less emphasis is given to meetings social objectives.

Two types of performance indicators are:

1 Specifications which focus on the end product of service delivery and may be referred to as outcomes, outputs, descriptive specifications or performance based specifications.

2 Specifications which focus on how the facility, programme or service will be delivered may be referred to as inputs, methods based specifications or prescriptive specifications.

Experience from the UK, Australia, North America and New Zealand indicate that while the inputs, methods based or prescriptive approach to specifications is the easiest, it does not necessarily result in effective service delivery which meets social and leisure objectives. Consequently, specifications must focus on outcomes or outputs and be descriptive and performance oriented.

In drafting key performance indicators the following aspects must be considered:

- Each performance indicator must be measurable.
- Performance indicators must focus on outcomes rather than inputs. For example, a specification relating to learn to swim should specify that children are taught to swim rather than detailing the teacher/pupil ratio.
- Performance indicators must be written so that they are clear, concise, easily understood and unambiguous.
- Performance indicators must establish minimum standards and refer to appropriate industry specifications. For example standards in the Guidelines for Safe Pool Operation.
- Performance indicators must identify core elements which must be achieved and are not negotiable, such as safety and public access.
- Performance indicators can be drafted to address equity issues by identifying specific populations who must be given access and changes in participation levels by specific target groups, for example older adults.

Key performance indicators should be designed to address outcomes directly relevant to the facility. Examples of Key Performance Indicators for the most common outcomes sought by facility owners are:

Management	Capital
Financial performance	■ Operate the facility within the budget set by Council. ■ Increase revenues by X% each year. ■ Provide monthly financial reports within X days of the end of each (month/quarter).
Attendances, use and occupancy	■ Increase total attendances by X% each year. ■ Increase attendances by (eg older adults) by X%. ■ Maintain minimum attendance of X participants in program Y. ■ Achieve X% occupancy during peak periods. ■ Establish at least X new programs for (eg indigenous people) in Year Z. ■ At least two lanes must be available for public use at all times except when approved by Council. ■ Provide reports on attendances within X days of the end of each (month/quarter).
Customer service	■ Measure and maintain a customer satisfaction rating of X ■ Respond to all customer complaints within X hours
Maintenance and cleaning	■ Water quality to meet SA Health regulations. ■ All plant and equipment to be maintained in accordance with manufacturers recommendations
Safety	■ Advise Council in writing of all major accidents/incidents within X hours of it occurring ■ Meet the supervision standards detailed in the RLSSA Guidelines for Safe Pool Operation ■ Conduct a risk assessment each (quarter/year) ■ Meet relevant OH&S standards and regulations (specify each standard)

4.2 OVERCOMING EXISTING PROBLEMS

Improving management of recreation assets may involve a change in the management model, alternatively it may require other actions unrelated to the management model.

The following issues may impact on the sustainability of a recreation asset, and remedial strategies or actions are proposed.

Issue	Strategy or Action
Many clubs: ■ are managed by untrained volunteers ■ operate facilities without a strategic plan, budgets etc. ■ operate without succession plans	■ Provide access to club development programs ■ Require clubs to meet STARCLUB standards of governance and management ■ Link competencies of clubs with management responsibilities (eg low level of competence à low level of management responsibility) ■ Provide incentives to up skill volunteers and prepare business plans.
Reviewing agreements – many in place for a number of years without review	■ Introduce agreements with short fixed terms with rights of renewal subject to meeting agreed KPI's. ■ Formally review all agreements on a regular basis, prior to the expiration of, and during the term of the agreement. ■ Commence the renewal negotiations at least six months prior to the expiration of each term/option.
Councils operating without policies and procedures, service standards	■ Establish and adopt policies, procedures and service standards ■ Refer to existing policy documents from LGA SA
Councils imposing arrangements on clubs without consideration of the impacts on the user groups	■ Local Government to establish clear objectives and outcomes for each recreation asset based on market research, benchmarking and community consultation. ■ Market test all arrangements by publicly advertising terms and conditions of use of the recreation asset and inviting expressions of interest in use.
Capacity of local and neighbourhood level facilities vs. regional centres	■ Individually assess the capacity, role and function of each recreation asset. ■ Prepare strategic plans which clearly designate the capacity, role and function of each recreation asset.
Sense of ownership by user groups impacts on shared use opportunities and consolidation – not willing to share	■ Prepare formal written contracts (hire agreement, licence, lease, management agreement) with all users of Councils recreation assets, regardless of the management model. ■ Ensure all contract specify the terms and conditions of use, including use by third parties

Quality of facilities affects use and income	■ Ensure adequate funds are provided to implement a maintenance regime which keeps the recreation asset in fit for purpose condition ■ Ensure adequate finds are available for refurbishment or redevelopment of the recreation asset
Oversupply of facilities where demographics have changed and demand has reduced	■ Prepare strategic plans which project the long term future of each facility. ■ Undertake a review of under used recreation assets to assess the best long term use of each asset. ■ Where appropriate prepare strategies to consolidate recreation assets and relocate displaced user groups to alternative venues
Duplication of facilities	■ Determine demand for each facility ■ Recycle facilities which are not required, for alternative uses
Environment – technologies to reduce costs	■ Conduct feasibility studies to assess the short and long term cost and benefits, including pay back periods, of new technologies. ■ Test the viability of new technologies on one facility before extending to multiple facilities. ■ Include provision for environmentally sustainable technologies in all new facilities or refurbishment of existing facilities
Most councils do not **benchmark facilities**	■ Refer to section 4.4

4.3 HOW TO IMPROVE PERFORMANCE

Improving the performance of a recreation asset must be considered within the context of the objectives and outcomes required by Council. It is only possible to assess improvements using valid and reliable data to measure progress.

A multi-step approach can be used:

Step 1	Establish objectives or key performance indicators (KPI) for the recreation asset
Step 2	Identify data to measure each objective or KPI, eg revenue, attendances, operating costs, customer satisfaction and number of complaints
Step 3	Collect and analyse data collected to assess improvement against the KPI's
Step 4	Identify areas which are underperforming
Step 5	Establish and implement strategies to improve performance in underperforming areas
Step 6	Determine Council's role and responsibility for implementing the strategies and allocate appropriate resources

Tips:

- ✓ Establish a broad range of KPI's in the areas of finance, attendances/use, customer/user satisfaction, condition/ maintenance of the asset, reporting.
- ✓ Establish KPI's that relate specifically to the recreation asset
- ✓ Ensure the objectives and outcomes are realistic and achievable within the terms and conditions of the management model and budget allocation
- ✓ Up skilling of personnel involved in management, maintenance and operation of the recreation asset may be required – responsibility and funding may have to be negotiated between Council and its partners
- ✓ Additional resources may need to be allocated to increase the skills and capabilities of underperforming managers
- ✓ Financial arrangements may need to be changed to improve performance against some KPI's
- ✓ If performance does not improve, review and if necessary change the management model – the management model is a means not an end

4.4 HOW DOES YOUR FACILITY COMPARE

Benchmarking is an effective tool for assessing the performance of a recreation asset compared with similar assets.

Benchmarking involves collecting data to measure key performance indicators. Effective benchmarking involves the following steps:

Step 1	Establish objectives or key performance indicators (KPI) for the recreation asset
Step 2	Identify data to measure each objective or KPI, eg revenue, attendances, operating costs, customer satisfaction and number of complaints.
Step 3	Identify criteria for selecting comparative recreation assets eg type of asset, size of asset, age of asset and demographic composition of primary catchment.
Step 4	Identify recreation assets which meet the criteria in Step 3 and collect relevant data.

Effective benchmarking relies upon collecting relevant data from comparable facilities.

Very few industry benchmarks currently exist and the facility level. Two existing benchmarking products have been identified.

4.4.1 CERM

CERM Performance Indicators (CERM PI) is the main benchmarking tool relating to recreation and sport centres. It is based on data from over 200 sport, leisure & aquatic facilities in Australia and New Zealand. For more information refer to: http://www.unisa.edu.au/cermpi

CERM PI are compiled from information supplied by centre managers. Consequently, longitudinal variations and trends can be assessed. Operational management benchmarks have been developed for over 70 performance indicators in areas such as finance, services, promotion, staffing, facility presentation, utilities, memberships, equipment and sustainability.

Benchmarks are published for groupings of centres according to centre type, size and location.

The CERM PI customer service quality (CSQ) questionnaire measures how well a service is provided or how successful a leisure service management team is in meeting its service objectives. A representative sample of customers complete a short questionnaire that includes customer's expectations compared with their perceptions of the facility's performance. The questionnaire also includes sections to record customer benefits, demographic and use characteristics, problem resolution as well as customer advocacy and loyalty.

4.4.2 STARCLUB

The STARCLUB - Club Development Program, developed by the Office for Recreation and Sport was designed for use by sport and active recreation clubs of all sizes. Clubs are able to assess their level of governance, administration and operation by completing a 25 step questionnaire.

4.4.3 Longitudinal Benchmarking

The CERM benchmarks will provide an indication of the efficiency of a facility (eg maintenance cost per m2), however, it is unlikely to measure its effectiveness (eg improved wellbeing of customers).

It is equally difficult to obtain qualitative data from similar facilities to enable a true comparison of performance. To overcome this deficiency longitudinal data to measure outcomes or KPI's can be collected for the recreation asset.

A longitudinal approach will ensure that the same data can be compared over time, to assess increases or decreases in performance.

4.5 HOW TO INCREASE USE

Promoting access to wider community usage of space and facilities is not dependent upon the management model or structure. All management models have the capacity to promote access and use of community recreation and sport resources. Increasing access and use is a function of the relative importance that local government places on this outcome.

It can be achieved by:

1 Defining what is meant by "promoting access to wider community use".

2 Establishing "promoting access to wider community use" as an outcome or objective for the asset.

3 Developing KPI's which measure "promoting access to wider community use".

4 Require the asset manager to collect data and measure performance against the KPI's.

Tips

- ✓ Include the KPI's in all tenure documents, such as licence agreements and management contracts
- ✓ Require facility managers to prepare a business plan which states how these KPI's will be met
- ✓ Review reports on KPI's and require explanation and/or corrective action when not met
- ✓ Link renewal of tenure to meeting KPI's

4.6 HOW TO SUPPORT GROWTH OF SPORTING CLUBS

Encouraging sustainable growth of sporting clubs and guiding consistent approaches to management is not dependent upon the management model. All management models have the capacity to encourage sustainable growth of sporting clubs and guide consistent approaches to management.

Sustainable growth of sporting clubs is the joint responsibility of individual clubs, state sporting organisations, the Office for Recreation and Sport and local government. Local government can assist by:

1 Supporting the delivery of club development programs

2 Supporting the delivery of volunteer development programs

3 Providing access to appropriate sporting facilities on sustainable terms and conditions

4 Provide links to resources (eg STARCLUB) on Council's web site

Tips

- ✓ Require all clubs to register as a STARCLUB and demonstrate progress towards meeting all requirements of the Club Development Program within a specified period
- ✓ Require all clubs to prepare a business plan [Note: the business plan will reflect the size and complexity of the club]
- ✓ Recognise that clubs and sports will grow and decline in cycles over time, requiring different standard of facilities

4.7 HOW TO INCREASE THE EFFECTIVE USE OF COUNCIL AND COMMUNITY RESOURCES

Promoting the effective and efficient use of Council and Community resources is not dependent upon the management model. All management models have the capacity to promote effective and efficient use of Council and Community resources.

Promoting the effective and efficient use is a function of the relative importance that local government places on this outcome. It can be achieved by:

1 Defining what is meant by "promoting effective and efficient use".

2 Establishing "promoting effective and efficient use" as an outcome or objective for the asset.

3 Developing KPI's which measure "promoting effective and efficient use".

4 Require the asset manager to collect data and measure performance against the KPI's.

Tips

- ✓ Include the KPI's in all tenure documents, such as licence agreements and management contracts
- ✓ Require facility managers to prepare a business plan which states how these KPI's will be met
- ✓ Review reports on KPI's and require explanation and/or corrective action when not met
- ✓ Link renewal of tenure to meeting KPI's

4.8 HOW TO ESTABLISH MANAGEMENT OF A HUB AND MULTIFUNCTIONAL FACILITY

Establishing a suitable management model for a hub or multifunctional facility development will require a unique solution to reflect type of facility and funding arrangements. It will require a multistep approach:

Step 1 Establish clear outcome or objectives for the hub or multifunctional facility

Step 2 Determine the individual components of the hub or multifunctional facility

Step 3 Determine capital and operational funding requirements and sources of funds

Step 4 Determine the tenure needs of funding parties

Step 5 Develop a management model which satisfies the needs of all funding parties and meets the outcomes or objectives established in Step 1

Tips

- ✓ Prepare a detailed feasibility study and business plan for the hub or multifunctional facility, including a management strategy
- ✓ A commercial investment will require a commercial tenure arrangement eg lease
- ✓ Where local government is the major source of funds it will have the greatest say in the management model
- ✓ Link tenure to capital investment, to enable funding parties to recoup their investment – including not for profit clubs and associations
- ✓ Select a single entity to manage the hub or multifunctional facility, and all tenure arrangements [Note: this body may be Council, and existing organisation or a new organisation]
- ✓ Negotiate individual tenure agreements (sub lease, licence, permissive occupancy, hire fee, user fee) with individually tailored terms and conditions with all user groups and/or tenants.

4.9 HOW TO ESTABLISH MANAGEMENT MODELS THAT SUPPORT SPORTING CLUBS

Identify management models that will support an equitable approach for sporting clubs.

An equitable approach for sporting clubs is not dependent upon the management model. All management models have the capacity to support an equitable approach for sporting clubs.

An equitable approach for sporting clubs is a function of the relative importance that local government places on this outcome. It can be achieved by:

1 Defining what is meant by "an equitable approach for sporting clubs".

2 Establishing an "equitable approach for sporting clubs" as an outcome or objective for the asset.

3 Developing KPI's which measure an "equitable approach for sporting clubs".

4 Require the asset manager to collect data and measure performance against the KPI's.

Tips

- ✓ Include the KPI's in all tenure documents, such as licence agreements and management contracts
- ✓ Require facility managers to prepare a business plan which states how these KPI's will be met
- ✓ Review reports on KPI's and require explanation and/or corrective action when not met
- ✓ Link renewal of tenure to meeting KPI's

4.10 HOW TO PROVIDE SUSTAINABLE SUPPORT

Local Government will only be required to provide support to in house management models as summarised in the following table.

All external management models are based on the premise that the external partner has the capacity and resources to manage the recreation asset within the terms and conditions of the formal contract, lease or agreement.

Local Government may be required to provide support to organisations which use Council's recreation assets, to ensure their sustainability. This is unrelated to the management model.

Management model	Support
In house management	
Direct management by Council staff	■ Capital and operating funds ■ Trained and qualified staff to manage and maintain the asset
Management by a Section 41 Committee of Management	■ Capital and operating funds ■ Access to training for volunteer members of committee ■ Professional and technical advice (eg accounting, legal, planning, management, maintenance, and asset management)
License or season permit to use a recreation facility	■ Capital and operating funds ■ Trained and qualified staff to manage and maintain the asset ■ Access to training for volunteer members of licensee ■ Access to resources eg club development guides ■ Assistance with applications for license
External management	
Contract management	No support required except where specified in the contract
Lease	No support required except where specified in the contract
Shared management	No support required except where specified in the contract

Tips

✓ Do not negotiate external management contracts or shared use agreements with organisations which do not have the capacity to manage and maintain the asset

✓ Do not impose unrealistic terms and conditions on user groups and licensees, which sets them up to fail

✓ Clearly distinguish between support to community organisations which use Council's recreation assets (eg club development programs) and support to ensure the management model is sustainable (eg rent or rate relief and operating subsidies)

4.11 HOW TO EQUITABLY SHARE COSTS

Principles for cost sharing of capital and operating costs for multi-use and/or shared use facilities are outlined in section 3. Financial arrangements between Council and management and between user groups must be documented so that roles and responsibilities are clear and equitable.

Determining cost sharing arrangements is a five step process:

Step 1 Determine where the facility, element of the facility, program or service sits on the public/merit/private service continuum.

Step 2 Assess the level of community benefits delivered by the facility, element of the facility, program or service

Step 3 Determine the proportion of operating and asset management costs to be borne by Council and its partners (eg user groups, licensees, lessees and contractors)

Step 4 Negotiate a contribution to operating and asset management costs with each partner based on the deliberations in Steps 1 – 3.

Step 5 Include the contribution to operating and asset management costs in all documents relating to the management, maintenance and use of the recreation asset

Tips

- ✓ Each facility, program or service is unique, hence a single solution will not fit all
- ✓ Document the roles and responsibilities of all user groups and partners in a formal agreement. license, lease or contract
- ✓ Regularly monitor adherence to the terms and conditions of the negotiated contract
- ✓ Recognise that user groups have varying capacity to pay, based on a variables such as size, type of organisation, fund raising capacity and demographic characteristics of members or program participants,

4.12 HOW TO ASSESS THE EFFECTIVENESS OF MANAGEMENT STRUCTURES

Assessing the effectiveness of management structures can be achieved by:

1 Establishing qualitative and quantitative outcome or objective for the asset.

2 Developing KPI's which measure each outcome or objective

3 Require the asset manager to collect data and measure performance against the KPI's and provide regular reports to Council.

4 Reviewing the reports from the asset manager

Tips

- ✓ Include a mix of quantitative and qualitative outcomes and objectives for the recreation asset
- ✓ Include the KPI's in all tenure documents, such as licence agreements and management contracts
- ✓ Require facility managers to prepare a business plan which states how these KPI's will be met
- ✓ Review reports on KPI's and require explanation and/or corrective action when not met
- ✓ Link renewal of tenure to meeting KPI's

CASE STUDIES

A series of case studies are presented which are examples of sustainable recreation and sport facilities. These case studies were selected to include facilities in rural, provincial and metropolitan areas, wet and dry facilities, and local and regional facilities.

5.1 WUDINNA SWIMMING POOL

Wudinna Swimming Pool is a public facility operated by a community based incorporated association, on Crown land leased from Wudinna District Council. Wudinna is located on central Eyre Peninsula, South Australia. In 2009 the population of the district was at 1,333.

5.1.1 Management Model

This case study is presented as an example of external management under a lease agreement with a not for profit association.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	✓
Finance	✓
Financial contribution	✓
Control	
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	
Core purpose	✓
Management capability	
Risk management	✓

5.1.2 Facilities

Wudinna Swimming Pool comprises three pools including:

- Main pool - 25m x 8 lane (19.5m), one third of the pool has a graded depth of 1m – 1.2m, the middle third is 3.5m deep and the final third is 1.5m deep.
- Splash pool approximately 3m x 4m and 0.3 deep
- Kidney shaped teaching pool approximately 15m x 6-8m and 0.9m deep.

Additional amenities include showers, toilets, untreated tank water, canteen, grassed and sheltered areas.

The pool opens between November – March, and from 4pm until 6pm on weekdays and 2pm - 6pm on Saturdays and Sundays. During the school holidays the pool opens from 3pm - 6pm during the week.

Casual entry is $5.50 for an adult and $3.50 for a child.

5.1.3 Governance and Management

Wudinna Swimming Pool is located on Crown Land, under the car and control of Wudinna District Council. It is leased to Wudinna District Swimming Pool Incorporated (the Association) for a five year term, with a peppercorn rental ($1 Payable upon demand).

Council has no role in the development, operation or maintenance of the pool. It does provide an annual grant of $4,000 to the Association.

Under the lease the Association is responsible for capital development, operation and maintenance of the pool. The Association also owns all improvements on the land ie the pool and all buildings and facilities. This arrangement results in all risk and liability issues being the responsibility of the Association. Conversely Council has no risk or liability associated with the pool.

The issue of risk to Council must be qualified. The Local Government Association Mutual Liability Scheme (LGAMLS) is still concerned about potential risk given that the facility is ultimately on Council controlled land. Consequently, any failure in the Association's insurance would see a reversion to Council liability by default. LGAMLS conducts risk audits from time to time, and advises outcome to the committee, usually a copy of the report.

Membership of the Association is by subscription and open to all residents. Membership also entitles individuals and families to use the pool. An Annual General Meeting elects office bearers and presents the annual report and financial statements.

5.1.4 Finance

The District Council of Wudinna provide an annual grant of $4,000 to the Association. All operating costs and local contribution to capital improvements are funded by the Association.

Currently, the Association has in excess of $100,000 in cash to support the cash flow of the pool and for capital improvements.

All expenses are paid from income from users, profit from the kiosk, fundraising and the grant from Council. An indicative operating budget for the pool is summarised in Table 5.1.

5.1.3 Staffing

Approximately 60 residents are actively involved in operating and maintaining the pool. It includes volunteers on the Association committee, and people who volunteer in the kiosk, maintaining the grounds and maintaining the water quality.

All lifeguards are trained locally by a qualified Royal Life Saving Society examiner. Lifeguards tend to be school students who have obtained their Bronze Medallion or Bronze Cross. They are paid an honorarium or out of pocket expenses of $7 per hour.

All other personnel operating and maintaining the kiosk, pool grounds and plant are volunteers. Pool plant operators have current pool operators certification.

Table 5.1: Indicative Operating Budget

	Amount	Comment
Revenue		
Memberships	$11,000	
Casual Entry	$2,000	
Kiosk profit	$3,000 - $4,000	After expenses
Fundraising	$8,000	After costs
Donations	$8,000	Including Council grant
Total	**$32,000 - $33,000**	
Expenses		
Chemicals	$5,000 - $6,000	
Insurance	$8,000 - $10,000	
Lifeguards	$1,500 - $2,000	
General expenses	$9,000	
Total	**$23,500 - $27,000**	
Profit	**$5,000+**	

5.1.6 Other Information

Members of the Association, that is those that have paid a membership fee are able to use the pool outside of the normal operating hours subject to at least one other person being on site who is qualified in resuscitation techniques.

Council has an Environmental and Community Health Manager (Health Inspector) based in Wudinna and shared with other Councils.

He has inspectorial responsibility for water and infrastructure quality, so in turn Council does assume some responsibility there in terms of regulation and risks associated. This covers all public pools and spas in his area, including motels, caravan parks, but not Education Department facilities.

5.1.7 Assessment of Sustainability

An assessment of how the Wudinna Swimming Pool compares with the four elements of sustainability is provided:

1. Social sustainability

Wudinna is a small, isolated rural community, with limited resources. Ensuring the community has access to a wide range of recreation and sport opportunities requires the combined effort of local residents. The swimming pool is one of a number of facilities in the township and district of Wudinna which are operated by volunteers. Without the input of these volunteers, it is possible the facilities may not exist or at best will not be of the same high standard.

A key feature of this case study it that the initiative to establish and operate the swimming pool emanated from the community, rather than being a Council driven strategy. The Association is an incorporated body which represents the interests of the community. It is committed to ensuring Wudinna residents have access to a quality swimming pool.

The importance that the Wudinna community place on having a community swimming pool is indicated by the significant number of residents who are members, but do not use the pool.

2. Environmental sustainability

Wudinna Swimming Pool has no features which make is especially environmentally sustainable. It is not mechanically heated, and is operated to meet health standards.

3. Cultural sustainability

Wudinna has a culture of volunteerism. It is the community norm for residents to volunteer for one of many community based organisations. In addition to providing valuable volunteer services, these organisations are important social networks. In other words they are a way of meeting people and becoming an integral part of the local community. Community based associations are a basic building block of the social fabric of Wudinna.

3. Financial sustainability

Wudinna Swimming Pool operates with a fixed grant from Council of $4,000 per annum. The Association operates the pool at a profit most years and has built a reserve of $100,000 to enable upgrades to buildings and plant.

A major reason for the financial performance is the large number of volunteers who donate their time and effort into ensuring the pool continues to function.

5.2 WEST LAKES SPORTS & COMMUNITY CLUB

The West Lakes Sports and Community Club is situated on land owned by the City of Charles Sturt at Edwin Street, West Lakes Shore, South Australia. The club has operated since 1986 and currently comprises 5 sub tenants; lawn bowls, tennis, croquet, senior citizens, and bridge. Combined, the Club has over 800 registered members.

In July 2011 Club West Lakes was created as the trading business for the Lakes Sports and Community Club.

5.2.1 Management Model

This case study is presented as an example of external management under a management agreement with a community based group.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	✓
Finance	✓
Financial contribution	✓
Control	
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	
Core purpose	✓
Management capability	✓
Risk management	

5.2.2 Facilities

West Lakes Sports and Community Club comprise two function rooms, kitchen, licensed bar and sport facilities including:

- 12 hard court tennis courts.
- 3 lawn bowls bowling greens.
- 2 croquet greens.

Additional amenities include change rooms, showers, toilets and outdoor viewing/bar area.

Approximately 18 months ago, the facilities underwent significant redevelopment costing just under $1.4m. Specifically, the bar and dining/function area was increased in size and reconfigured along with resurfacing of the tennis courts. The upgrade works were funded by the clubs through their own funds and successful grant funding.

General office hours are 4pm-10pm Monday to Friday; the bar is licenced for daily service.

5.2.3 Governance and Management

West Lakes Sports and Community Club land and facilities are owned by the local Council; the City of Charles Sturt. Council have one license agreement with the "West Lakes Sports and Community Club" offered for up to 5 years at any one time.

The West Lakes Sports and Community Club Board of Management comprise the 5 clubs which make up the Community Club. These clubs are sub-tenants of this broader club. The sub-tenants include:

- West Lakes Bowling Club;
- West Lakes Tennis Club;
- West Lakes Croquet Club;
- West Lakes Senior Citizens; and,
- West Lakes Bridge Club.

The main building is a shared space between all the above clubs with each club having equal representation on the Club's board of management.

5.2.4 Finance

Charles Sturt charges clubs for three items:

1 Land rent (only if the facility in question is locked for exclusive use for the club/license holder in question)

2 Building rent (charged at 2.5% of Council's equity in the building/facility. The exception to this is if the Club has invested into the facility themselves)

3 Ground maintenance (only if the club does not do this themselves)

General maintenance responsibilities are defined in the license agreement. In a broad sense, each club does their own maintenance however Council is responsible for larger scope capital maintenance.

5.2.5 Staffing

No Council staff is directly based at the facility. The respective clubs have a mixture of staff and volunteers.

5.2.6 Other Information

The Club generates income through bar and kitchen revenue, functions and membership fees. The Club charge sub-tenants membership fees and facility rental fees to pay for utilities and general operational expenses.

5.2.7 Assessment of Sustainability

An assessment of how the West Lakes Sports and Community Club compares with the four elements of sustainability is provided:

1. Social sustainability

The Sports and Community Club is the major multipurpose sporting facility in West Lakes. The club has been structured to represent all five tenants of the complex. It has shared social facilities which benefit all clubs and are available to the wider community.

2. Environmental sustainability

West Lakes Sports and Community Club has no features which make it especially environmentally sustainable.

3. Cultural sustainability

West Lakes Sports and Community Club operates with a mix of volunteers and paid staff. Without volunteers, it is likely that the facility would not be financially or culturally sustainable.

4. Financial sustainability

A financially sustainable arrangement has been negotiated between the Club and Council. The Clubs are responsible for operating the facilities and routine or day to day maintenance. Council is responsible for major structural maintenance. Jointly the club and Council has funded a major upgrade of facilities with a mix of grant funding and a local contribution.

5.3 NARACOORTE SPORTS COMPLEX

Naracoorte Sports Complex is a multi-sport complex located on Crown Land, under the care and control of Naracoorte Lucindale Council. It is leased to the sport complex's incorporated body. The complex is located in the centre of Naracoorte Lucindale Council which is located in the centre of the Limestone Coast region of South Australia. The Council is approximately 300 kilometres from Adelaide and 450 kilometres from Melbourne.

5.3.1 Management Model

This case study is presented as an example of external management under a management agreement with a community based group.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	
Finance	✓
Financial contribution	✓
Control	
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	
Core purpose	✓
Management capability	
Risk management	

5.3.2 Facilities

Naracoorte Sports Complex comprises nine sporting clubs and their associated facilities. All facilities are owned by the respective clubs.

Football Club:

- Football oval with double storey scoreboard structure, time keepers box, perimeter fencing, bench seating and lighting towers
- Club bar – corrugated galvanised iron shed
- Playground
- Separate toilet block
- Headquarters building comprising meeting areas, kitchen, storerooms and toilets and showers.

Netball and Tennis Club:

- Plexi-paved sealed playing courts configurable for both netball and tennis
- Lighting towers

Soccer Club:

- Soccer field
- Player shelters
- Lighting towers
- Clubroom

Hockey Club:

- Grass hockey field
- Clubroom
- Playground
- Lighting towers

Angling Club:

- Clubhouse and storage area

Basketball and Squash Club:

- 2 indoor basketball courts
- 4 squash courts with glass backing

Shared between football club, netball and tennis club:

- Clubhouse built in the early 1980's and comprises clubroom/bar area, toilets, canteen/kitchen, change rooms and veranda.

5.3.3. Governance and Management

Naracoorte Sports Complex is a multi-sport complex located on Crown Land, under the care and control of Naracoorte Lucindale Council. It is leased to the sport complex's incorporated body and comprises nine separate organisations:

- Naracoorte Football Club
- Kowree Naracoorte Football League
- Naracoorte Netball Club
- Naracoorte Tennis Club
- Naracoorte Soccer Club
- Naracoorte Hockey Club
- Naracoorte Angling Club
- Naracoorte Basketball Club
- Naracoorte Squash Club

5.3.4 Finance

As building and fixed facilities are owned by the clubs, all capital improvements and maintenance is the responsibility of the clubs. Council is responsible for roads and car parks, drainage and common landscaping (as shown in the example below).

5.3.5 Staffing

The complex appoints a president to reside over the incorporated body which represents all clubs. The clubs are volunteer based.

5.3.6 Assessment of Sustainability

An assessment of how the Naracoorte Sports Complex compares with the four elements of sustainability is provided:

1. Social sustainability

Naracoorte Sports Complex is the main sports complex in Naracoorte. It comprises the major sports codes in the town, and is hence a centre of community activity.

2. Environmental sustainability

Naracoorte Sports Complex has no features which make is especially environmentally sustainable.

3. Cultural sustainability

Ike many smaller rural communities, there is a general understanding that "the community" must be self-reliant. In other words if the community wants facilities and activities to occur they must provide them from within the communities resources. Essentially, Council assists with maintenance of common areas, and the user groups are responsible for the areas they occupy and use.

4. Financial sustainability

From a Council perspective this is a financially sustainable facility. Council have minimal responsibility for the complex. The users, through volunteers and community fund raising are responsible for the development and upkeep of the facilities.

5.4 GOLDEN GROVE RECREATION CENTRE

Golden Grove Recreation and Arts Centre is located on Council land on separate freehold title and is owned and operated by the City of Tea Tree Gully. The facility is located approximately 20km north east of the Adelaide CBD.

5.4.1 Management Model

This case study is presented as an example of direct in house management of a multipurpose facility, with cost sharing under a joint use agreement with three public and private schools.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	✓
Finance	✓
Financial contribution	✓
Control	✓
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	
Core purpose	✓
Management capability	✓
Risk management	✓

5.4.2 Facilities

Golden Grove Recreation Centre features:

- 3 x multi-purpose indoor courts (netball, basketball, volleyball, badminton, futsal)
- Crèche – indoor and outdoor areas
- Kiosk and lounge area
- Meeting room
- Amenities including toilets, showers and change areas

The adjoining theatre/arts centre is only used by the schools and :includes:

- Indoor theatre – stage, lighting
- Foyer and kiosk/bar area
- Catering kitchen and dining room

5.4.3 Governance and Management

The Centre currently operates under a joint use agreement with three secondary schools adjoining the facility. Council acts as a manager for the day to day promotion and administration of the facilities within the complex.

According to Council, the Centre functions as a business unit/ cost Centre and its operating costs are fully covered by income generated from the Centre's users. Approximately 4,000 users attend the Centre each week.

5.4.4 Finance

The schools are charged a percentage of agreed costs based on what is used.

The arrangement is primarily with DECS.

Facility maintenance is all done through Council's building and property works area. Consequently, it is difficult to quantify the annual expenditure

5.4.5 Staffing

The facility is operated only by council staff with a mixture of fulltime and contract staff. As a general overview, there is a Facility Manger, Line Manager Customer Service, customer service staff, and program staff such as sport umpires.

5.4.6 Other Information

The courts cannot be programed for any community use during the school hours, Monday-Friday, due to joint use agreement with schools.

5.4.7 Assessment of Sustainability

An assessment of how the Golden Grove Recreation and Arts Centre compares with the four elements of sustainability is provided:

1. Social sustainability

Golden Grove Recreation and Arts Centre is an excellent example of maximizing use of community resources, through a joint use agreement. During school hours the facilities are extensively used by the three schools and are available for community use in the evenings and during school holidays.

2. Environmental sustainability

No environmentally sustainable features were identified.

3. Cultural sustainability

The shared use and funding model ensures that all users groups are required to cooperate and share resources. Consequently, collaborative decision making processes are used to ensure that the whole community has equitable access to facilities.

4. Financial sustainability

Operational and capital funding responsibility is shared between all parties to the joint use agreement. In addition, fees generated from community use of the sporting facilities reduce the financial contribution of Council and the three schools.

5.5 IPSWICH SPORTS HOUSE

Ipswich Sports House operates as a business unit within the Ipswich City Council; occupying office space within Council owned and operated buildings. Ipswich Sports House was developed by Ipswich City Council to assist sport and recreation organisations deliver services to the community.

Ipswich is located approximately 40km south east of Brisbane and comprises an area of 1,090km2 and has a population of approximately 180,000 people.

5.5.1 Management Model

This case study is presented as an example of a service jointly funded by local and state government to support community based sporting clubs and associations.

5.5.2 Facilities

As a business unit within the Ipswich City Council, Ipswich Sports House occupies Council office space in their Civic precinct. However, as Ipswich Sports House is designed to be a 'one-stop-shop' for everything sport and recreation for the Ipswich community, they sub-lease office space to the following groups:

- Australian Sports Commission;
- Little Athletics; and,
- Australian Football League.

Additionally, Ipswich Sports House services 120 organisations as clients across 34 different sports plus various community groups.

5.5.3 Governance and Management

While in its current form, Ipswich Sports House is a business unit within Council, the goal is for it to become self-sustainable as its own entity financially and operationally by November 2014. Until then, the Ipswich Sports House has been funded equally by the State Government and Council.

5.5.4 Finance

Income streams for Ipswich Sports House, other than funding, are derived from the following:

- Local event services;
- Leasing of office space;
- External contract work – tender work;
- Education programs; and,
- Corporate support – sponsorship.

5.5.5 Staffing

Ipswich City Council operates with a Sport and Recreation staff team separate to Ipswich Sports House. Ipswich Sports House has an Executive Officer and approximately 10 Sport and Recreation Officers who work directly in the sport and recreation community. These officers work at the association and club levels with the aim of building capacity to ensure the long term viability and sustainability of sport and recreation delivery across Ipswich.

Additionally, Ipswich Sports House has an advisory board made up of local professionals representing sport and recreation, finance, law, local government, state government and education fields.

5.5.6 Other Information

Services being provided are club development, education and training, business services and professional services.

The stated benefits to the Ipswich sport and recreation community are identified as follows:

- Direct access to Sport and Recreation Officers experienced in developing Sport and Recreation Organisations in the areas of planning, management programming, governance, volunteer management and marketing;
- Production and implementation of Operational and Strategic Plans to grow business participation;
- Increased managerial and business skills through training programs;
- Increased efficiency in running the organisation (saving your volunteers time);
- Access to meeting and office space;
- Assistance meeting State Sporting Organisations expectations and maximising their support; and,
- Access to education and training programs.

5.5.7 Assessment of Sustainability

An assessment of how the Ipswich Sports House compares with the four elements of sustainability is provided:

1. Social sustainability

The intention of the service is to build the capacity of community recreation and sporting clubs and associations. In the long term this will increase the efficiency and effectiveness of community organisations.

2. Environmental sustainability

No environmentally sustainable initiatives were identified

3. Cultural sustainability

In addition to supporting community volunteers, and increasing the capacity of these volunteers, the service also taps into local skills and knowledge through its advisory Board.

4. Financial sustainability

Currently, the service is funded jointly by local and state government. It has been established with a brief to become financially self sufficient. In the long term, it is expected that minimal or no external funding will be required for either state or local government sources.

5.6 THE REX, BAROSSA AQUATIC FITNESS CENTRE

The Rex, Barossa Aquatic Fitness Centre is a local community facility located in the Barossa Valley area of Tanunda, South Australia. The facility is owned the Barossa Council and operated under a management agreement by Belgravia Leisure.

5.6.1 Management Model

This case study is presented as an example of external management under a management agreement with a commercial organisation.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	
Finance	
Financial contribution	✓
Control	
Cost of changing management model	
Responding to market demands	✓
Longevity of management	
Performance indicators	
Core purpose	✓
Management capability	✓
Risk management	

5.6.2 Facilities

The Rex, Barossa Aquatic Fitness Centre comprises:

- 3 x multi-purpose indoor sports courts
- 6 x international competition standard indoor squash courts with movable internal walls
- Gym/health club comprising weights, cardio and RPM areas
- 25 metre indoor, 8 lane heated pool
- Separate leisure pool with beach entrance, water features, incorporated spa
- Crèche with outdoor breakout area
- Meeting room
- Café/kiosk
- Treatment room (for physiotherapy etc)
- Amenities including toilets, change rooms and showers

In November 2011 a three stage facility upgrade was completed to the Rex, Barossa Aquatic Fitness Centre:

- Stage 1 & 2 – 8 lane 25m indoor, heated swimming pool for leisure and training; separate pool for group rehabilitation and learn to swim classes; international standard multi-purpose court and refurbished second court; fully equipped gym; separate rpm/static bike room; new changing rooms and toilets; cafe area; administration area; treatment rooms and sports equipment shop.
- Stage 3 – was facilitated by external Federal Government funding of $2m and includes 6 glass-backed squash courts converting to multi-function movement space; Court 3, dual function crèche and youth space; refurbished changing rooms and toilet.

Redevelopment of the Centre included a number of environmentally sustainable initiatives:

- Refurbishment of the existing buildings rather than demolishing and rebuilding
- Lighting systems included low output lights, zoned to allow unoccupied areas to be turned off
- Skylights in main stadium to reduce lighting during daylight hours
- Insulation in walls and ceilings
- Storm water recapture for toilets and irrigation

5.6.3 Governance and Management

The Rex, Barossa Aquatic Fitness Centre is operated under a management agreement by Belgravia Leisure. There are agreed thresholds within this agreement with regards to operational and maintenance expenses. Essentially, Council pay for general operational and maintenance expenses up to the agreed threshold.

5.6.4 Finance

Belgravia Leisure operates with a fee for service (management fee). Council bears any operating loss.

Council approve member and entrance fees on consultation/ recommendation from Belgravia Leisure. Further, Council offer a 10% discount for local rate payers on an annual basis; this can be redeemed for membership, program fees etc.

5.6.5 Staffing

Belgravia Leisure are responsible for staffing the Centre.

5.6.6 Assessment of Sustainability

An assessment of how the Rex, Barossa Aquatic Fitness Centre compares with the four elements of sustainability is provided:

1. Social sustainability

Redevelopment of the facility has converted an old and poorly functioning recreation centre into a modern, multipurpose leisure complex. It is used by a wide range of demographic groups within the Barossa community.

2. Environmental sustainability

Redevelopment of the Centre enabled to installation of environmentally sustainable features, including the lighting system, skylights and recycling storm water.

3. Cultural sustainability

Local sporting groups and schools are able to use the facility on a hire basis. Most of these groups are managed by volunteers, and service he local community.

4. Financial sustainability

The arrangement with the commercial operator does not offer a financially sustainable outcome for Council. Council is responsible for funding any operating losses, which are not capped. Capital funding of the facility was possible due to a cocktail of funding sources including grants from State and Federal governments and funds from Council sources.

5.7 NURIOOTPA CENTENNIAL PARK – BAROSSA VALLEY TOURIST PARK

The Nuriootpa Centennial Park comprises the Barossa Valley Tourist Park and Nuriootpa Sports and Function Centre on Council owned land and facilities. The Park is situated 70 km north of Adelaide, South Australia.

5.7.1 Management Model

This case study is presented as an example of direct management by a Subsidiary of Council appointed under Section 42 of the Local Government Act.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	✓
Finance	✓
Financial contribution	✓
Control	
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	
Core purpose	
Management capability	✓
Risk management	

5.7.2 Facilities

Centennial Park is a multi functional recreation, sport and tourism complex. Recreation and sporting facilities include:

- Two football/cricket ovals (one with turf wicket)
- Soccer pitch
- Eight synthetic tennis courts
- Playgrounds

The Nuriootpa Sports and Function incorporates the Nuriootpa Football Clubrooms, which was built in 1999, which include:

- Multi-purpose and multi-configuration function/meeting hall/room
- Bar and kitchen facilities
- Separate meeting areas

Barossa Valley Tourist Park features:

- 45 cabins; 37 with an ensuite.
- Approximately 150 powered tent sites; approximately 20 non-powered.
- Kiosk
- 3 separate amenity blocks, special needs friendly, two of which have showers, toilets, and laundry facilities.
- Camp kitchen with 2 covered BBQs, microwave, fridge and seating
- User pay washing machines and dryers, and clothes lines
- Two children's playgrounds
- Man-made lake
- Sullage and porta dump
- Car wash area

5.7.3 Governance and Management

The Nuriootpa Centennial Park Authority operates as a 'Section 42' Committee, that is as a subcommittee of Council. The Committee appoints a CEO and employees and operate largely independently from Council, although under the auspice of Council.

The Authority includes representatives of Council and recreation and sporting groups based at the Park, including tennis, football, cricket, bush gardens, sports centre and soccer.

5.7.4 Finance

The Park Committee prepares its own financials and budgets which be submitted to Council. All Park financials are audited by Council auditors.

Maintenance and operational expenses are the responsibility of the Nuriootpa Centennial Park.

The Authority operated at a surplus of $120,000 in 2012/13, with income of $1,348,734, which represented an increase of $137,000 over the previous year.

5.7.5 Staffing

All staff are employed by the Section 42 Committee, including a CEO and staff working in the Barossa Valley Tourist Park and Nuriootpa Sports and Function Centre.

5.7.6 Assessment of Sustainability

An assessment of how the Nuriootpa Centennial Park compares with the four elements of sustainability is provided:

1. Social sustainability

Centennial Park is the main recreation and sporting venue in Nuriootpa. It is managed by the Nuriootpa Centennial Park Authority on behalf of The Barossa Council. Its composition is reflective of the local community. Hence, it is effectively operated by the local community, to meet the needs of the local community.

2. Environmental sustainability

No environmentally sustainable initiatives have been identified.

3. Cultural sustainability

Centennial Park is a major local sporting facility and also acts as a tourist facility. Hence it cater for a wide range of users. It has a local, regional and national catchment, and helps to promote Nuriootpa and the broader Barossa Valley to a wide target market.

4. Financial sustainability

The Authority operates at a surplus, and hence is financially sustainable. The has an unusual mix of community and commercial components. The community facilities are predominantly managed by volunteer based community groups, whereas the commercial elements are managed and operated by paid staff.

5.8 MELBOURNE SPORTS AND AQUATIC CENTRE

Melbourne Sports and Aquatic Centre (MSAC) is the largest indoor sporting and leisure facility in the Southern Hemisphere. The facility is located less than 5km south of the Melbourne CBD in Albert Park.

Since opening in 1997, the Melbourne Sports and Aquatic Centre have hosted major events including:

- 2007 FINA World Swimming Championships
- 2006 Commonwealth Games
- 2002 World Masters Games
- 2001 World Squash Championships

5.8.1 Management Model

This case study is presented as an example of direct management by a Trust responsible to a State Government Minister. In principle it has many of the same features of direct management through a Section 42 or 43 Subsidiary of Council.

MSAC is one of a group of facilities referred to as the Melbourne Sports Hub that is managed by the State Sport Centres Trust on behalf of the Victorian Government. State Sports Centres Trust is a statutory authority which governs MSAC. The Trust acts as the committee of management for Crown lands.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	✓
Finance	✓
Financial contribution	
Control	✓
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	✓
Core purpose	✓
Management capability	✓
Risk management	✓

5.8.2 Facilities

Melbourne Sports and Aquatic Centre has core facilities centred on aquatics and sports:

Seven pools (including six indoor):

- 50m indoor Competition Pool – heated, 10 lanes, three moveable booms and 15m moveable floor (allow conversion to water polo and under water hockey pools, or 25m short course for events), grandstand seating (capacity of 1,800), video score board, PA system, TV lighting, Electronic timing systems, poolside meeting rooms, underwater viewing windows.
- 25m Lap Pool –heated, five lanes, disability access.
- Multi-Purpose Pool – heated, moveable floor depth, disabled access
- Hydrotherapy Pool – heated
- Wave Pool – heated, includes toddler play area (beach entry, waves running approximately every 30 minutes
- Water slide – heated, 50m slide, fully enclosed
- Outdoor 50m Competition Pool – Heated, 10 lanes, moveable floor depth (world first in a 50m pool), grandstand seating for 3,000, sunbathing area with poolside lounges, moveable boom (allowing pool to be split up into different configurations), video score board, PA system, TV lighting, electronic timing systems, poolside meeting rooms, poolside café, VIP function room.
- FlowRider – located adjacent the outdoor 50m competition pool. FlowRider is a surfable wave that combines many elements of various board sports (e.g. surfing, skateboarding, snowboarding, wakeboarding)

14 Diving Boards - range of springboards and platforms

Spa, Sauna & Steam Room

10 indoor basketball courts

10 squash courts

18 table tennis tables

19 badminton courts

Two Pilates / Yoga studios

Fitness Centre

Crèche

5.8.3 Governance and Management

Melbourne Sports and Aquatic Centre is one of a group of facilities referred to as the Melbourne Sports Hub that is managed by the State Sport Centres Trust on behalf of the Victorian Government. State Sports Centres Trust is a statutory authority established in accordance with the Melbourne Sports and Aquatic Centre Act 1994. The Melbourne Sports and Aquatic Centre (MSAC) opened for business on 27 July 1997.

- The Trust governs the Melbourne Sports Hub's four venues on behalf of the Victorian Government:
- Melbourne Sports & Aquatic Centre (MSAC);
- State Netball Hockey Centre (SNHC)
- Lakeside Stadium; and,
- MSAC Institute of Training.

Combined, these facilities equate to a worth in excess of $350M.

The Melbourne Sports and Aquatic Centre is a public facility on Crown Land. The State Sports Centres Trust acts as a committee of management of Crown lands (of which MSAC is included). The Trust reports to the relevant State Minister under the Act.

Initially, the Melbourne Sports and Aquatic Centre Act 1994 had a scope only for MSAC but has since been amended a number of times to include key changes:

22 December 1999 Act amendment:

- To rename the Melbourne Sports and Aquatic Centre Trust as the State Sport Centres Trust; and,
- Extend powers of the Trust to enable it to manage the State Netball Hockey Centre (SNHC) and other sports, recreation and entertainment facilities and services.

10 October 2004 Act amendment:

- To include additional land in the land at the Melbourne Sports and Aquatic Centre and to provide additional management powers in relation to the Melbourne Sports and Aquatic Centre land.

Within the Trust, MSAC is managed as an independent strategic business unit, producing a business plan and having an separate financial operation and accounts. Specifically, one of the key functions of the Trust is the management, operation and maintenance of the MSAC and SNHC. Further, it is the Government and Trust's policy that the Centre will not receive any cross subsidies for operation with another facility in the group.

5.8.4 Finance

MSAC recorded 2.2M annual attendances in the year ending June 2013 and an income level of $14.4M.

As a whole, the State Sport Centres Trust recorded an operating surplus before depreciation of $804K (2012/13) which included operational funding from Government of $2.253M (for MSAC, SNHC and Lakeside Stadium combined). Additionally, there was a depreciation charge of $7.519 million for the year. Consequently, the State Sport Centres Trust recorded a deficit of $6.715 million for 2012/13.

5.8.5 Staffing

Each venue has independent reporting obligations and separate business plans. State Sport Centres Trust operates under the State Sport Centres (Amendment) Act 2004. The operations of the State Sport Centres Trust are overseen by Minister for Sport and Recreation. State Sport Centres Trust is governed by a Board of Trustees.

- The organisational structure is shown below. A Facilities Management Business Unit works across all facilities within the Trust with responsibility for:
- Proactive & reactive maintenance
- Minor works
- Project Management/Capital works
- Capital planning
- Asset management
- IT support
- Environmental management
- Occupational Health & Safety
- Risk Management

5.8.6 Other Information

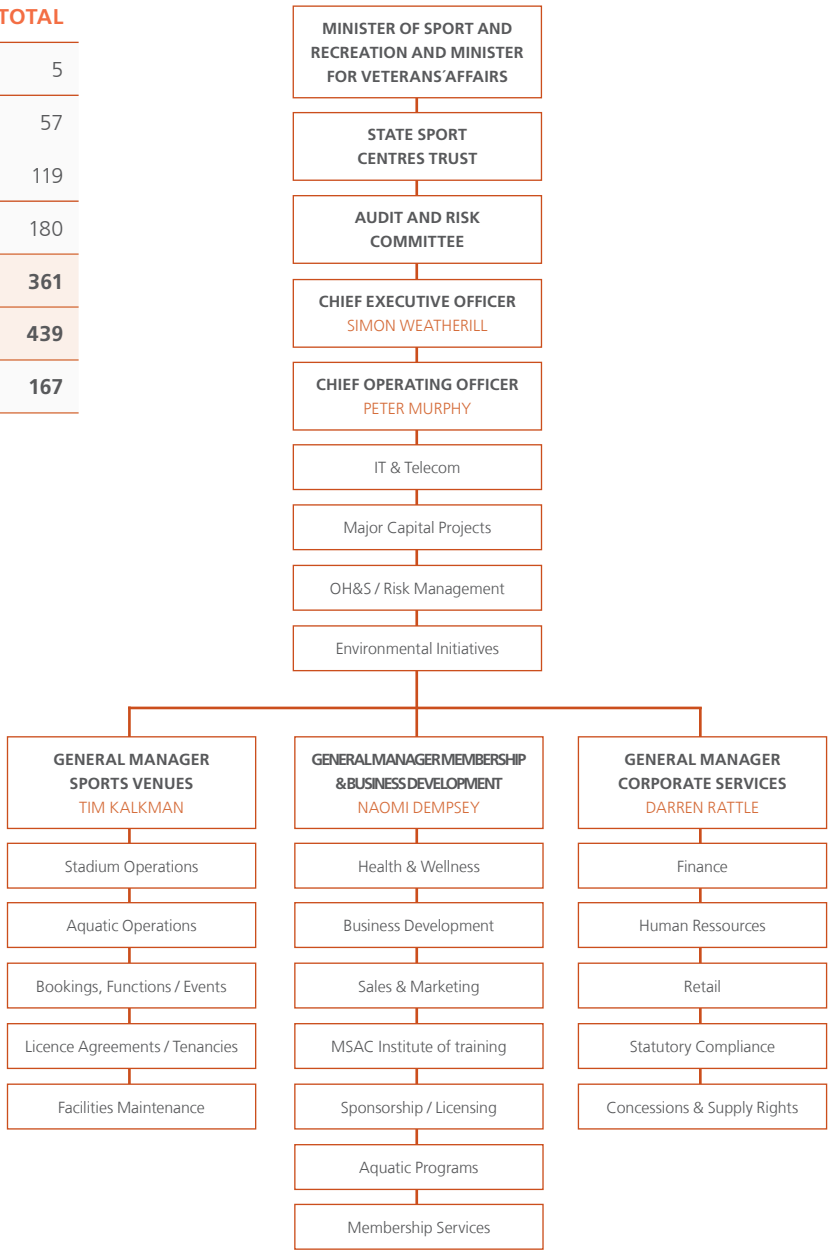
State Sport Centres Trust has undertaken significant measures relating to the environment and sustainability. In June 2013, the Energy Performance Contract (EPC) plant installation was completed and valued at $4.12 million. This was facilitated by funds secured from the Deportment of Treasury and Finance. An estimated annual saving of $550k across the Trust venues is anticipated by implementing a number of initiatives:

Lighting upgrades including new LED technology and redesign of lighting system controls;

- Heating, ventilation and air conditioning improvements;
- Building management system (BMS) upgrades including Web based unified BMS to overcome BMS communication issues;
- Water management through recycling of pool backwash water
- Trigeneration plant providing significant reduction in greenhouse gases (the simultaneous generation of electricity and useful heating and cooling from the combustion of a fuel or a solar heat collector); and,
- Solar photovoltaic cells.

Staff profile by position in 2013

	MALE	FEMALE	TOTAL
Executive Officers >100k	4	1	5
Full time	29	28	57
Part time	63	56	119
Casual	80	100	180
Total paid	**176**	**185**	**361**
Total active	**217**	**222**	**439**
Full time equivalent			**167**



Source: State Sport Centres Trust, 2012/13 Annual Report

5.8.7 Assessment of Sustainability

An assessment of how MSAC compares with the four elements of sustainability is provided:

1. Social sustainability

MSAC is effectively a local community recreation centre, and also caters for national and international competitions. It has undergone upgrades to increase its capacity to cater for increased demand and hence use by local residents and workers. As a result both attendances and revenues have continued to increase. The range of programs and activities delivered from the Centre has increased substantially since it development.

2. Environmental sustainability

Recent redevelopment of facilities has included significant environmentally sustainable features. Emphasis has been given to reducing energy and water consumption. The recent developments are projected to have a payback period of approximately eight years.

3. Cultural sustainability

MSAC is a major focus for physical activity and sporting events in Melbourne. It replaced old and dilapidated buildings, which had been used by a small number of sports since the 1950's. As, one of a suite of major sporting facilities in Melbourne, it reinforces Melbourne's self-proclaimed status as the sporting capital of Australia and one of the major sporting cities in the world.

4. Financial sustainability

The Trust receives State Government funding and is expected to operate the suite of facilities within this budget. Over the last four years the Trust has operated the facilities for a combined profit, excluding depreciation, of $6.76M. This profit includes the annual budget allocation provided by the State Government.

5.9 PLYMPTON SPORTING AND RECREATION CLUB

The Plympton Sporting and Recreation Club is situated on land and facilities owned by the City of Marion. The club in its current form was established in 1979 when the Plympton Football Club and Plympton Footballers Cricket Club joined together to form a year round complex.

In addition to adult sport, the club has a strong junior sports program with over 250 junior participants for football, soccer, and cricket.

5.9.1 Management Model

This case study is presented as an example of indirect management through a management agreement to a multi sports body.

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	
Finance	
Financial contribution	
Control	✓
Cost of changing management model	
Responding to market demands	
Longevity of management	✓
Performance indicators	
Core purpose	✓
Management capability	
Risk management	

5.9.2 Facilities

The Plympton Sporting and Recreation Club comprise a main club room facility including:

- Hall/dining
- Kitchen
- Bar
- Gym/weights room
- Amenities including change rooms, toilets and showers

The grounds feature a main oval suitable for various configurations - Australian rules, cricket, and soccer.

5.9.3 Governance and Management

The Plympton Sporting and Recreation Club operate under a 5 year license agreement with the City of Marion. Currently, the club pays an annual license fee of $284. The Club is structured as "one entity" with a centralised committee which encompasses all sports; as opposed to separate sporting or activity clubs operating independently.

As the licensee, the Club is responsible for their own day to day management and operations. Additionally, their license agreement makes the club responsible for general minor maintenance and cleaning. Council is responsible for broad and large scale capital maintenance.

The management and governance of this club is unusual and is a good example of socially sustainability. At Plympton there is only one lease and no sub lease organisations. This eliminates any potential for conflict between sub licence groups/clubs/sports. As a consequence there is less demand on volunteers as there's only one committee – less people needed; less training required etc..

At facilities where sub groups exists there is often conflicts over cost sharing responsibilities. With one club managing all facilities and services this issue does not exist at Plympton Sports and Recreation Club.

5.9.3 Staffing

The club operates as a committee with a president, secretary and treasurer and is primarily run by volunteers. An exception to this however is a paid part-time club manager. In total the club has approximately 600 - 700 members.

5.9.4 Other Information

Recent upgrades were completed in early 2013 and were made possible thanks to successful grant applications through Council, State Government and Club One to a combined total of approximately $450,000.

The funds have been used to extend the function room, add a gym/weights area, upgrade the change rooms and improve lighting towers. Significantly for the club, the light towers now enable games (not just training) and simultaneous activity between different sports thanks to the larger area being lit.

The lighting upgrade will result in:

- Improvements to turf management – wear and tear and current compaction of certain portions of the ovals surface would be reduced through the more even spread of training sessions (this will also reduce maintenance costs).
- Improved player safety.
- Improved function of the site.
- Lower energy costs and more energy efficient lights.
- Benefits to residents with less lighting spill from the reserve.

The club in the final stages of planning for further upgrades to the bar and kitchen to better cater for the now large function area.

5.9.5 Assessment of Sustainability

An assessment of how Plympton Sporting and Recreation Club compares with the four elements of sustainability is provided:

1. Social sustainability

The Club is a local community based, multi sport organisation. It caters for all age groups and is a volunteer based club.

2. Environmental sustainability

Recent redevelopment of floodlights has delivered some environmentally sustainable initiatives. It is expected that less maintenance on the oval will be required and energy costs will be lower due to greater energy efficient globes.

3. Cultural sustainability

Plympton Sporting and Recreation Club caters for multiple sports – Australian Rules Football, soccer and cricket. Each sport is able to operate with some degree of autonomy with a single club structure.

4. Financial sustainability

Council is responsible for major maintenance of the facility, with the Club being responsible for minor maintenance and cleaning. This enable revenues generated through the clubrooms to be used to operate the three sports.

5.10 WITTON CENTRE, PORT NOARLUNGA

The Witton Centre, Port Noarlunga was redeveloped with funding from Council, Department of Education and Children's Development (DECD) and the Federal Government. It houses Port Noarlunga Surf Life Saving Club, DECD Aquatics program and a commercial restaurant and beach café.

5.10.1 Management Model

It is a good example of the following assessment criteria:

Criteria	
Asset management	✓
Presentation of the facility	✓
Finance	✓
Financial contribution	✓
Control	✓
Cost of changing management model	
Responding to market demands	✓
Longevity of management	✓
Performance indicators	
Core purpose	✓
Management capability	✓
Risk management	✓

5.10.2 Facilities

The facility is a split level structure on the Port Noarlunga beachfront. The facility underwent a complete redevelopment in 2010/11 which incorporated the building itself and outside surrounds such as the car park and foreshore. The total budget was $6.5m and funded by Council, State and Federal Government and Port Noarlunga SLSC. Significantly, the Federal Government funding was for $3m.

Surf Lifesaving Club facilities include:

- Function and dining room;
- Kitchen;
- Bar;
- Two balconies;
- First aid room;
- Training/meeting room;
- Gym;
- Storage area for all surf craft; and,
- Toilets, showers and change rooms (DECD aquatics program pays the surf club a hire fee for DECD staff to access and use these facilities).

Restaurant facilities include:

- Lounge area;
- Large open dining room with balcony;
- Kitchen and bar; and,
- A separate 'beach kiosk' downstairs.

The DECD Aquatics facilities include:

- Office space;
- Staff kitchenette;
- Staff room/lounge/store area; and,
- Multipurpose garage which houses program equipment (wetsuits, snorkels etc) and is configured to a student change area.

This two-storey building retained some of the original infrastructure, with

significant new works constructed around it. The finished product includes a bar, café,

restaurant, kiosk, community facilities (change rooms, toilets, gym), student aquatics facility and landscaped community areas.

Significant challenges faced the team on this project purely related to its scenic location on the foreshore of one of the state's most beautiful suburban beaches – consequently, protecting the natural environment was of the highest priority, with the site registered with the KESAB Tidy Sites programme. Construction-wise, specific attention had to be paid in regards to the methods and materials used to cope with wind, sea-spray, sand, sun and salt.

5.10.3 Governance and Management

The Witton Centre is owned by the state government as Crown land (Department for Environment and Natural Resources) and dedicated in the care, control and management of Council.

The building is subject to three lease agreements. A commercial restaurant/kiosk areas, the surf lifesaving activities (Port Noarlunga Surf Lifesaving Club) and DECD aquatic program.

The Port Noarlunga Surf Life Saving Club had an existing lease over the building until 31 December 2025. This lease agreement was amended via a deed of variation to change the lease area (to remove the area formally sub-leased by DECD).

The DECD lease area comprises office space and a multi-use area that includes a staff room, portable change rooms and a lecture room. The areas are approximately 14.2 square metres in size for the office area and 133 square metres in size for the multiuse area.

Previously DECD had a long term tenancy arrangement with the Port Noarlunga Surf Lifesaving Club as a sub-lessee. They have occupied the premises together with the surf lifesaving club for a period of 30 years prior to the recent redevelopment. DECS have been an active party during the redevelopment process of the Witton Centre, including the early planning stages and identification of their historical leased area.

DECD advised that they wished to alter their existing arrangements and rather than continue to be a sub-lessee of the surf lifesaving club they wanted to occupy their portion of the premises directly from Council as a lessee. Council leased the area to the Minister for Education for a period of 10 years with two rights of renewal for a period of five years each. The lease is on standard community leasing terms and was subject to receiving the Minister for Environment and Conservation's consent and receiving no objections from the public consultation process.

5.10.4 Finance

Construction of the Witton Centre was funded by contributions from Council, the Federal Government ($3M) and DECD ($361,000).

The Port Noarlunga SLSC pays the City of Onkaparinga agreed rental and building insurance fees as part of their lease agreement. Additionally, the club charges the DECS aquatics program a hire fee for their staff that uses the change room facilities.

The lessee of the restaurant and kiosk invested approximately $375,000 in fitting out the restaurant/café and kiosk. An annual lease fee of approximately $50,000 was negotiated with a substantial discount for the initial tenancy term to allow the business to establish itself.

The annual rent paid by DECD is $1,080 (exclusive of GST) given DECD financial contribution to the redevelopment of the facilities.

Day-to-day operational maintenance is the responsibility of the lessees with the exception of capital works and the building exterior (e.g. gardens, car park, paths etc). Further, any changes, improvements or alterations must first be approved by Council but are then at the cost of the lessee, if approved.

5.10.5 Staffing

The Port Noarlunga SLSC operates with a structure which includes a board and various office holders for different areas of the club. The club is primarily run by club members on a voluntary basis however there are some key paid positions. These include a Facilities and Function Manager, bookkeeper and bar staff.

DECD Aquatic Education Programme employs over 50 instructors, most of which are from the local area. The program is accessed by over 200 schools state wide, which include over 14,500 students annually that are aged from 5 to 18 years. The restaurant and kiosk are staffed by the lessee.

5.10.6 Assessment of Sustainability

An assessment of how the Witton Centre compares with the four elements of sustainability is provided:

The Witton Centre has three distinct components which provide community based activities. Port Noarlunga SLSC is a volunteer based club, catering for all age groups and both genders. DECD Aquatic Program offers instruction for school children in a variety of aquatic activities. The restaurant and kiosk cater for the general public providing facilities which enhance the beach experience.

2. Environmental sustainability

Given its prominent and exposed position, the facility was designed to ensure it is environmentally sustainable in the long term. Construction methods and materials selected were designed to cope with wind, sea-spray, sand, sun and salt.

3. Cultural sustainability

The Witton Centre has increased the beach amenity for a large number of beach goers. It has reinforced the relatively high importance the community gives to beach related activities. The Witton Centre caters for the needs of a wide range of community activities ranging from formal sport to aquatic instruction to beach safety, to casual beach activities and dining.

4. Financial sustainability

The Witton Centre was developed using a cocktail of funds from three spheres of government, from a community sports club and a commercial operator. Similarly, the leasing and rental arrangements have been structured to allow long term occupancy and financial sustainability for the lessees and Council.

LGSRFSG

Written by SGL Consulting Group for the Local Government Recreation Forum - South Australia in