3. POPULATION

3.1 SUMMARY OF POPULATION STUDY

- Mission Beach total population is estimated at 4,800 in August 2003 (refer section 3.3);
- In 2005, the construction date used in this study, total population is forecast to be 5,200 (Refer Chart 3)
- This varies from 3,700 (mid monsoon) to 6,500 (peak visitor periods);
- Nearby areas of Feluga, El Arish and Kurrimine add at least 800 potential users to the 'catchment' as evidenced by responses to community surveys. This means that the starting population for the *greater* Mission Beach area in 2005 will be near 6,000. However, erring on the conservative side, revenue estimates in this study are based on the Mission Beach population alone (i.e. 5,200);
- A 2003 Mission Beach population of 4,800 compares with nearby towns of Tully 2,700, Greater Tully 3,600, Cardwell < 2,000 and Innisfail 8,600;
- The estimated *resident* population of Mission Beach is 3,400 in 2003 (refer section 3.3);
- The growth rate for Mission Beach was 5% per year over the last 15 years;
- Growth over the last 5 years was 3.6% per year but this is now accelerating due to property sales and the impending sewerage scheme;
- In this study the growth rate used to predict future population is 4% and the growth rate used for 2001 – 2003 is 3.3%;
- At these growth rate over the life of the Aquatic Facility (2005 – 2035) the population will grow as follows:

TABLE1 - POPULATION GROWTH:

	2005	2015	2025	2035
Mission Beach	5,200	7,700	11,400	16,800
Greater Tully	3,600	3,700	3,850	4,000
Multiple MB/Tully	1.4	2	3	4

- Mission Beach has 19% of its population age 0–14 years (vs national 21%); 8% age 15–24 (vs 14%); 28% age 25–44 (vs 30%) and 45% age 45+ (vs 35%);
- There are 1575 dwellings in Mission Beach, 20% are unoccupied (holiday homes);
- 20% of private homes have a swimming pool;
- Median income is similar to national average (except Bingil Bay – lower);
- Unemployment is lower here than national (except Bingil Bay – higher);
- 9% of dwellings have no car;
- The 2004 school enrolments will be 379 including 52 preschool students.

3.2 BASE RESIDENT POPULATION

The estimated resident population for Mission Beach in 2001 was 3,186.

What is 'population'? There are many different population statistics with different definitions. The most commonly referred to are the number of people in the area 'enumerated' on the night of the census. This number includes visitors to the area and excludes residents away from the area on census night. The Australian Bureau of Statistics uses its sophisticated data base to determine the 'Estimated Resident' population i.e. brings back those away on the night and deletes the visitors.

For assessment of Aquatic Facility feasibility purposes the population most relevant to planning is the total of visitors and residents i.e. the figures on the census night. Some understanding of resident population is necessary for planning as well.

Where does 'Mission Beach' begin and end? People who say 'I live in Mission Beach' come from several small villages and rural residential areas on a 20 Km coastal strip from the North Hull River to Maria Creek (refer Map 1). There are at least ten discrete areas within 'Mission Beach' – Maria Creek/Midgeree, Garners Beach, Brookes Beach, Bingil Bay, Narragon Beach, Clump Point, Mission Beach, Wongaling Beach, South Mission Beach and Carmoo. Map 2 (see Map Section) shows the extent of the Mission Beach area. Maps 3, 4 & 5 show the streets of the area.

Previous studies have superficially evaluated population at Mission Beach by assuming the figures given by ABS urban areas are representative of the area. Unfortunately they are not because significant nodes of population at Narragon Beach, Maria Creek, Garners Beach and Carmoo are not included in the six main collection areas at Mission Beach. These areas are rural residential rather than urban residential yet comprise a significant portion of the Mission Beach community. This causes an understatement of population by around 500.

07 AUGUST 2001 ABS CENSUS

Mission Beach is not easily defined in terms of Australian Bureau of Statistics collection areas. Carmoo to the south is part of collection area 3040110, which also includes Feluga. Narragon Beach, Garners Beach, Maria Creek and Midgeree are part of a collection area extending to the rim of El Arish.

Carmoo is only 1Km direct from South Mission (refer Map 5). Carmoo people see themselves as residents of Mission Beach and use its facilities. A street survey was conducted and this revealed 57 occupied houses with 15 unoccupied homes and 9 sheds or humpies probably used for holidaymakers. This survey suggests that 20% of dwellings in Carmoo are not occupied. (This fits exactly with the 2001 census for Mission Beach villages where unoccupied dwellings represent 20% of dwellings).

Assuming the street survey missed at least 3 houses (some blocks are bush covered or on long easements) and 2.5 persons/ house means 60 x 2.5 or 150 residents would be a conservative estimate of the Carmoo resident population.

In collection area 3012607 the main population centres are Narragon Beach, Garners Beach and Midgereebar Road, Maria Creek. El Arish-Mission Beach Road and Granadilla are the next most intense rural residential areas, the remainder being larger farm holdings. Around 75% of people in this area are part of Mission Beach. That is an estimated resident population of 400.

TABLE 2: CENSUS COLLECTION AREAS

AREA	CENSUS COLLECTION AREA
Midgereebar Road -Midgeree – Maria Creek	3012607
Garners Beach	3012613 and 3012607
Brookes Beach	3012613
Bingil Bay	3012613
Narragon Beach	3012607
Clump Point	3012612
Mission Beach	3012612 and 3012614
Wongaling Beach	3040107 and 3040112
South Mission Beach	3040108
Carmoo	3040110

TABLE 3: 2001 RESIDENT, VISITOR AND CENSUS NIGHT POPULATIONS BY VILLAGE

AREA	HOW ESTIMATED	CENSUS NIGHT POPULATION	RESIDENT POPULATION	VISITORS
Bingil Bay	Census 2001 data	458	390	103
Garners, Narragon, Midgeree, Maria Creek	75% of census 2001 area 3012607	Est 380	Est 400	35
Mission Beach	Census 2001 data	1088	491	635
Wongaling Beach	Census 2001 data	1510	1031	632
South Mission Beach	Census 2001 data	918	724	336
Carmoo	Street survey	Est. 146	Est.150	10
Total Area		4500	3186	1751

NB: Census night population equals resident population plus visitor population less resident population out of town that night.

VALIDITY TEST OF THESE ASSUMPTIONS:

If the assumptions behind the numbers in table 2 are close to reality then 83% of the Mission Beach residential population lives in the 'urban' census collection areas.

Local primary school attendees are a well-defined population. 297 students attend in 2003. The 2001 census has 233 students attending the government primary school (refer to demographics data later; a small number of these may be visitors). Add 3.3% growth pa brings the primary student population to 249 in 2003 – that is 84% of the actual 2003 local school population. So there is a high level of correlation – we can be quite confident that the estimated resident population of 3,186 in 2001 is very close to actual.

3.3 Population Growth

Growth rates used for the study are: 2001 to 2003 - 3.3%; 2005 and beyond - 4%.

Table 4: Census figures for the three main centres from 1986
(Growth is based on numbers in these areas on census night including visitors):

Area	1991 % Growth in 5 years	1996 % Growth in 5 years	2001 % Growth in 5 years	Annual Growth over 15 years
Mission Beach	23%	24%	7%	3.2%
Wongaling Beach	82%	14%	34%%	7%
South Mission Beach	38%	11%	14%	3.8%
Area Growth in 5 yrs	46%	17%	20%	
Annual Growth Rate	8%	3.1%	3.6%	5%

Growth is much higher in Wongaling than other areas as expected because the joint Shire Planning Scheme elects Wongaling as the main centre for development. Census numbers are not available for past periods in Bingil Bay because of changes in this collection area. From the data in Table 3 a growth rate for 2002 and 2003 of between 3.1% and 3.6% pa would be a reasonable assumption – say 3.3%.

The 2003 resident population is estimated at 3,400 based on 2001 Census resident population of 3,186 (Table 3) plus estimated growth from 2001 to 2003 of 3.3%.

The August 2003 total population in town is estimated at 4,800 based on 2001 Census of 4,800 (Table 3) plus a growth rate of 3.3% from 2001 to 2003.

Future Growth Indicators

The average growth rate over the last 15 years has been 5% pa. Over the last 5 years this slowed to 3.6%. Which of these rates is represents future growth?

Growth is accelerating due to the impending sewerage system (now approved and funded) and recent intensive property purchase with high current rates of building activity. Recent S&R studies have assumed 4.1% and 5.3% growth rates. Somewhere between 3.6% and 5.3% seems most likely for the next 15 years.

The rate of growth of primary school student enrolments and housing approvals (below) would suggest that future growth might be at the higher end of that range.

A factor that will almost certainly press the Mission Beach growth button further is Wet Tropics Management's desire to ease pressure on Daintree visitation. Port Douglas, acting as base camp for tourists north of Cairns, has dominated tourism in Tropical North Queensland. Wet Tropics Management Plans now seek to spread the tourist load wider. Until recently, Wet Tropics have not taken the actions needed to make this strategy a reality – that is opening up some of the world class forest assets within Cardwell and Johnstone Shires.

This action is beginning (e.g. Misty Mountains Trails) and is inevitable. Mission Beach being the main base camp for tourism south of Cairns will grow accordingly.

School Student Enrolment Growth

The State Primary School populations by year provide another growth indicator. These are growing consistently year on year at 6.4% average. 2003 year-7 has 30 students whilst year-1 is 48 and preschool numbers are up to 50 with 40 already enrolled for 2004. School population for 2004 will be 327 or a total of 369 including pre-school. (Source: School Principal Gordon Robertson).

New Subdivisions

Another indicator of future growth is level of applications for subdivision of land. In Cardwell Shire subdivision applications are at high levels. There are 399 residential allotments in various stages of the approval process; many are complete or almost complete. In Johnstone Shire activity is far less significant yet there are still over 40 residential allotments in advanced stages of the approval process. This is a total of 440 new allotments or 28% of the number of existing residences (1575).

Such a surge in development activity suggests that the higher end of population forecasts is likely. For the next 5 years growth will almost certainly exceed the current rate of 5% but over 10 to 30 years 4% is probably be more realistic (growth may taper over the longer period).

The availability of land for housing expansion should not restrict growth to a population below that forecast for the life of the pool (16,000). There is much land already cleared and used for bananas or for cattle that may become available as land prices increase (if DPI approves the use). In the last two years beachfront land prices have trebled so considerable change in land use is inevitable.

New Home Approvals

Table 4 shows recent home building approvals running at 3.5% growth pa. This correlates closely to the census data for population growth of 3.6% pa for the 5 years from 1996 to 2001. The current rate of building activity in Cardwell Shire is thought to be highest on record. (Councilor Fox, principal of the largest building company in Mission Beach).

Furthermore, these homes are not being built for rent and left unoccupied. The largest rental agency in town is now leasing new rental properties before they are completed. The number of properties available for rent is down to a sixth of the normal inventory.

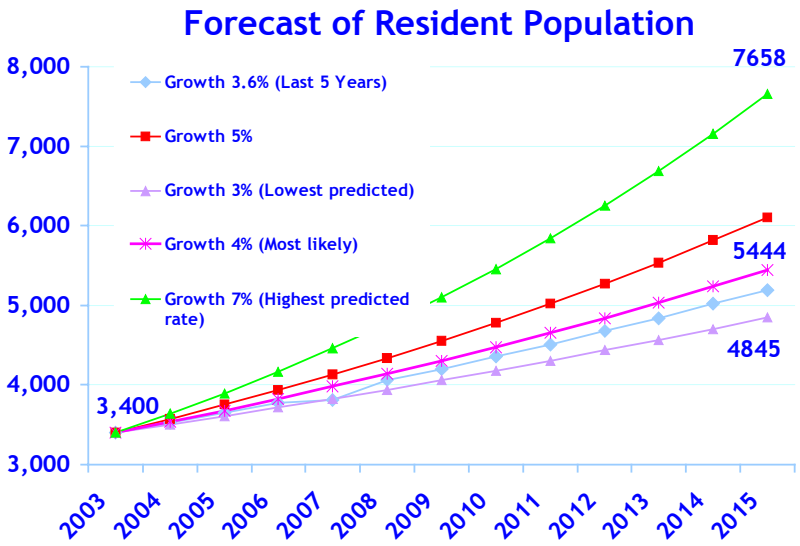
Table 5: New Home Approvals Both Shires, Six Years to Mid 2003

New House Applications Approved Johnstone SC	New House Applications Approved Cardwell SC	Total New Houses	% Increase in House Numbers per year
120	168	288	3.5% pa

FORECAST GROWTH RATE

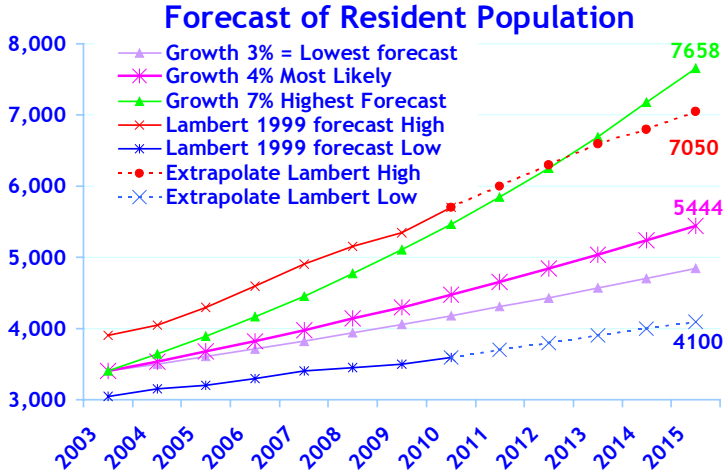
The population growth rate proposed for the study is 4%. The 1997 Sports and Recreation study used 4.1%. The 2000 study assumed 5.3% growth but for this study we take a more conservative line. Chart 1 shows projected populations of residents using different growth rates. At 4% growth rates, by 2005 (likely aquatic facility construction date) the *resident* population will be around 3,600 and within 10 years of construction this will increase to over 5,400.

CHART 1: FORECAST OF RESIDENT POPULATION:



The Cardwell Sports and Recreation Plan of 2000 (Lambert Recreation) population forecasts project to a 2015 resident population range of between 4,000 and 7,000 (Chart 2). The 7,000 forecast is still an outside possibility but the population will certainly exceed the lower end Lambert forecast of 4,100 in the year 2015.

CHART 2: LAMBERT RECREATION FORECASTS OF RESIDENT POPULATION 1999:



3.4 VISITOR POPULATION

A tourism study conducted by the Customer Connection in 1998 for Cardwell Shire Council evaluated accommodation capacity and loading. This showed a Mission Beach capacity of 2650 tourist accommodation beds (Resorts/Motels 560; Van Parks 1,200; Holiday Units 450; Backpackers 400; Bed & Breakfast 40). In the same survey Tully had 350 bed capacity and Cardwell 860.

In the 2001 census August 2001 urban Mission Beach had 1750 visitors (Table 3) whilst Tully had 306. Another full survey of bed numbers has not been conducted but data from Mission Beach Tourism and real state agents indicate that Mission Beach bed capacity has increased by over 300 in 5 years. Extrapolating 1998 by a mere 2.5% per year would give us 3,000-bed capacity in 2003.

Peak loads occur in June, July, August (peak July) and Christmas, Easter and school holidays. At peaks the accommodation is fully booked. The lowest loads occur in monsoon season (February is the lowest month). Backpackers tend to come all year round but caravans are mainly here in winter and Easter. Families are here Christmas, Easter and school holidays.

The estimated visitor numbers vary from a low of around 500 per night in the monsoon to a peak of over 3,000 in key holiday periods where every bed is booked and many residents host visitors as well. August is slightly above median.

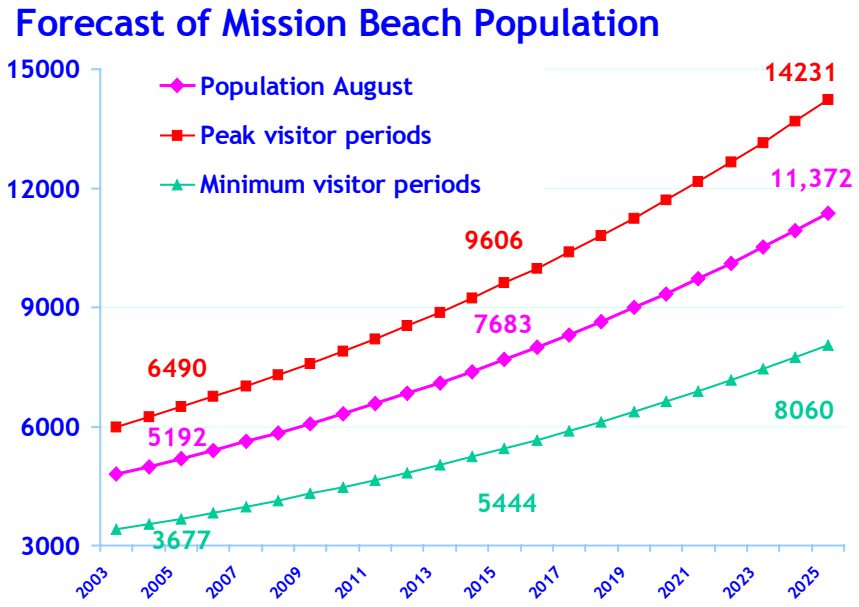
The tourist industry does not work together to capture the number of visitor nights but 1,100 people per night year round would be a conservative average i.e. 400,000 visitor nights per year. Information Centre data shows visitors to the centre grew from 19,000 in 1998 to 26,000 in 2002 with numbers tracking towards a record 27,000 plus in 2003. That is a 42% increase in 5 years or 7% per year compound.

3.5 OVERALL MISSION BEACH POPULATION

An aquatic facility is not merely for locals. Ideally, and as confirmed in the joint Shire Development Control Plan, it should meet the needs of locals and visitors and attract all groups in good numbers, so offsetting the cost of operation. It is therefore important to consider total population in town that being the number of people available to potentially use the facility. That is we use the census night data, which includes residents and visitors and excludes residents out of town.

In 2003 the August population is 4,800 whilst the population for the year will vary between 3,400 and 6,000. These numbers are extrapolated at 4% pa growth in Chart 3 below.

CHART 3:TOTAL POPULATION FORECASTS 2001 TO 2025:
(Includes visitors excludes residents out of town)



In round numbers we can expect a range of 3,700 (monsoon) to 6,500 (peak holiday periods) people here in 2005, from 5,400 to 9,600 in 2015 and between 8,000 and 14,000 in 2025.

3.6 COMPARISONS WITH TULLY POPULATION

The population of Tully is important in the context of planning for Mission Beach Sports and Recreation Facilities. The dominant Shire in terms of management and investment is Cardwell. Like any Council, Cardwell Shire is faced with dilemmas on such investment.

The issue of equity of Sports and Recreation facility provision is investigated and discussed in the Cardwell Shire Council Sports and Recreation Plan 2000. For now it is important to understand the underlying assumptions made in this important study. The 2000 study used the following population estimates:

TABLE 6: 1999 S & R STUDY POPULATION DATA

TOWNSHIPS	POPULATION ESTIMATE 1999	POPULATION ESTIMATE 2000	POPULATION ESTIMATE 2005	POPULATION ESTIMATE 2010
MISSION BCH LOW	2775	2842	3200	3602
MISSION BEACH HIGH		3238	4293	5691
TULLY	3464	3499	3678	3865
SHIRE		9536	10,235	10,997

Growth rates used for Tully were 5% in 5 years. This seems high considering that in the 1996 census Tully population decreased by over 7%. In the 15 years to the 2001 census Tully grew by only 5%. That is the growth rate assumed here, i.e. 0.3% pa.

The 1999/2000 reports used a growth range for Mission Beach – 12.5% in 5 years for a low and 32.7% in 5 years for the high end. At the 1996 census the growth rates of Mission Beach for the previous two 5-year census periods were 46% and 17%. So the growth forecasts for Mission Beach were much more conservative than for Tully.

Another odd feature of this data is that for Mission Beach the population data included the urban areas only. Hence, the initial numbers were considerably understated. For Tully on the other hand, the population appears to have included the district around the urban area. The Tully urban enumerated census numbers are as follows:

TABLE 7: TULLY CENSUS DATA (INCLUDES VISITORS)

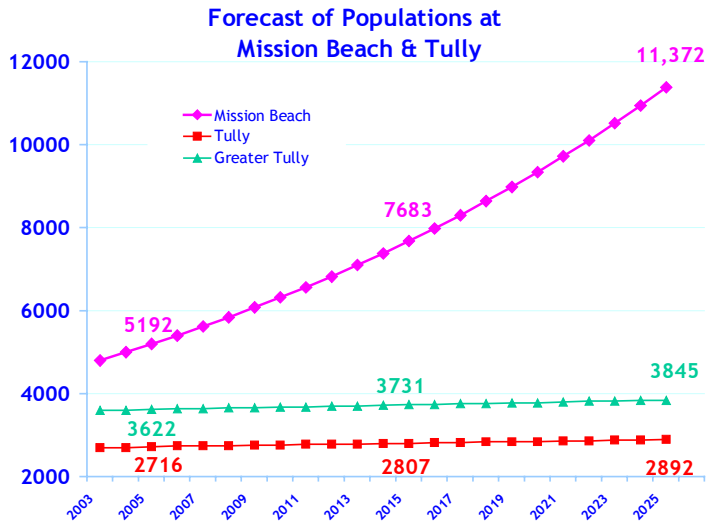
1986	1991	1996	2001
2575	2715	2509	2696

Extrapolating the 1996 numbers by the 1% pa growth forecast used in the 2000 study would bring Tully township up to a population of 2585 for 1999 but the report uses 3464 for 1999 – 879 above the Tully township number. So it is assumed that the Tully numbers are for 'greater Tully' (as is appropriate for Sports and Recreation facilities).

So the 2000 report compares greater Tully with urban Mission Beach. This seems an invalid comparison for equity purposes. Using census night population numbers and extrapolating these out 20 years (minimum life of an Aquatic Facility) shows a very different picture as seen in Chart 4 below. Tully on census night had 2696 people including 306 visitors from out of the local area. The ABS Tully resident population is 2792 in 2001 so there were 401 people out of town on census night – 95 more than there were visitors.

The Tully surrounding area population of 879 in 1999 is taken as 900 in 2001. This means the 2001 population for Tully is 2,700 and for greater Tully 3,600.

CHART 4: POPULATION FORECASTS FOR TULLY AND MISSION BEACH



Mission Beach (4,800) has a higher 2003 population than 'greater Tully' (3,600) and Cardwell (under 2,000) but less than urban Innisfail (8,600). In less than 10 years the population of Mission Beach will be double that of greater Tully. In the 20 years after the expected construction year of a Mission Beach facility the population of Mission Beach will be almost four times that of Tully township and almost three times that of greater Tully. In peak visitor periods the differences will be greater.

Future planning for capital expenditure on Sports and Recreation facilities is beginning to take this into consideration. Whilst Tully is currently the business (and geographical) centre of the Shire it may not be the ideal Sports and Recreation hub for the Shire in the near future. This may create dilemmas on issues such as the appropriate site for a Cultural Centre in Cardwell Shire but for the purposes of this study this data strongly underlines the urgent need for an Aquatic Facility in Mission Beach.

3.7 Demographics - Age

Table 8: Age Distribution

Age Group Years	Percent
0-4	6.0
5-9	6.6
10-14	6.3
15-19	4.2
20-24	4.1
25-29	5.1
30-34	6.3
35-39	8.2
40-44	8.2
45-49	6.8
50-54	6.9
55-59	8.4
60-64	7.0
65-69	6.1
70-74	5.2
75-79	2.8
80-84	1.2
85+	0.6
Total	100

Table 9: Age Distribution Compared with National Data

Age Group Years	% Mission Beach	% Australia
0-14	18.9	20.8
15-24	8.3	13.6
25-44	27.8	30.0
45-64	29.1	23.1
65+	15.9	12.5

The age distribution reflects what one would expect where there is no tertiary education facility and limited employment. This shows in the reduced portion of youth (15-24 years) and higher ratio of middle and older age people compared with national averages.

3.8 Demographics – Income, Education & Employment

Table 10: Income Education and Employment - 2001 Census

	Mission Beach	Australia
Median individual weekly income	$300 - $399 (MB, SMB & WB) $299 - $299 (Bingil Bay)	$300 - $399
Postgraduate education	2.5%	3.2%
Degree Education	9.3%	9.7%
Diploma/Certificate	27.5%	21.8%
Unemployed	5.7%	7.4%
Part Time Jobs	41%	32%

There are no great differences here between Mission Beach and the total Australian picture. Bingil Bay has a somewhat lower income average. Education ratios are similar but Mission Beach has a higher portion of people with diplomas or certificates than Australia overall.

A common local perception is that this is a place of high unemployment. The census data show the reverse - significantly lower levels of unemployment compared with national numbers. Bingil Bay is different at 10.6% unemployment whilst other villages range between 3.8% and 5.5%.

The numbers of students in 'urban' Mission Beach at the 2001 census are: preschool 52; local primary 233, other primary 19; Government secondary 108 and other secondary 30.

3.9 Demographics – Housing & Cars

Table 11: Dwelling numbers - Census 2001

Locality	Separate Houses	Semi Detached and Units	Attached Dwellings	Unoccupied Dwellings	Total
Bingil Bay	144	10	0	38	192
Mission Bch	141	35	3	40	219
Wongaling	270	140	4	91	505
South MB	185	52	0	78	315
TOTAL	740	237	7	247	1231

Extrapolating this data by recent housing approval numbers means there are around 1350 dwellings in the urban census collection areas of Mission Beach. Add 75 for Carmoo and 150 elsewhere means a total of 1575 dwellings in the area. 20% of

these are not occupied which is not unexpected with the number of homes and units that are used as holiday homes or holiday rental homes.

TABLE 12: CAR NUMBERS BY DWELLING - CENSUS 2001

NO CARS	1 CAR	2 CARS	3 CARS PLUS
9%	57%	28%	6%

This data has not been compared with national ratios. The 9% with no car may have implications for sports and recreation facilities and this is discussed in the needs analysis.

3.10 DEMOGRAPHICS – ANCESTRY

TABLE 13: ANCESTRY STATED IN CENSUS 2001

LOCALITY	MISSION BEACH %	AUSTRALIA %
INDIGENOUS AUSTRALIAN	1.5%	2.2%
AUSTRALIAN	30%	36%
ENGLISH	34%	34%
IRISH	11%	10%
OTHER NTH WEST EURO	11%	
SOUTH EAST EURO	4%	
ASIAN	1%	
OTHER	0.5%	
NOT STATED	5%	

This ancestral distribution is similar to the national picture. In many North Queensland communities there are higher ratios of people of indigenous ancestry – in Tully for example the ratio is 12% indigenous.

3.11 DEMOGRAPHICS – FAMILY

TABLE 14: FAMILY TYPES - CENSUS 2001

AREA	COUPLES WITH CHILDREN	COUPLES WITH NO CHILDREN AT HOME	ONE PARENT FAMILIES	OTHER FAMILIES	TOTAL
NUMBER	252	305	79	6	642
%	39%	48%	12%	1%	100%
% STATE 1996	48%	36%	14%	2%	100%

National averages were not accessed but comparison with State data (1996 census) shows Mission Beach has a high portion of families with no children home. This is as expected given the lack of education or work opportunities for youth in the area.

4. TRENDS

Analysis of changes and trends in aquatic facilities and of factors influencing planning for these is outlined here. These findings are a distillation of issues raised in phone and face-to-face interviews with Council personnel and pool constructors, designers and managers from many towns across Australia. These issues were reconciled with data extracted from the literature review.

4.1 TRENDS FOR REGIONAL SUCCESS

A study by the Australian Local Government Association and Jardine Lloyd Thomas National Economics (State of Regions Report 2003) identified the drivers for success in regional areas. Whilst the study focused primarily on regional cities there is no reason to believe these findings do not apply equally well to smaller population nodes.

TABLE 15: DRIVERS FOR REGION SUCCESS

DRIVER	MISSION BEACH QUALIFICATIONS FOR SUCCESS
Population growth in excess of 0.3% pa	Growth 5% pa for last 15 years and current indicators strong – perhaps above 5% now
Having strong scale and specializing in some non-primary industries i.e. non mining or agriculture	No significant scale but strong growth in tourism industry
Unemployment rates less than 11%	Mission Beach 2001 census unemployment was 5.7% versus 7.4% national
Capacity to be a net exporter of education and business services	Too small – net importer
Promote a high level of lifestyle choice and cultural creativity	Strong foundation being built in this community

This report looks into population migration and finds that factors attracting population include – recreational amenity, jobs, education and affordable housing. Jobs growth and recreational amenity are linked in this area – the more opportunities for recreation the more opportunities for the tourism industry to grow and generate employment.

Unfortunately, neither Innisfail nor Tully would rate highly on the States 'Nightwatchman" ranking of areas with potential for future success. Mission Beach is too small on its own to rate yet on such a scale but it does have many of the characteristics necessary for regional success. Working together, Innisfail, Tully and Mission Beach could become a regional success but Mission Beach will have to develop its own recreational and cultural assets to advance. And the first recreational priority is an aquatic facility.

Looking 30 years out Mission Beach will almost certainly become the main population node of these two Shires. Success of Mission Beach is fundamental to

success of the area as a whole. Without tourism, to augment our success in agriculture, the greater area is likely to drift into stagnation and economic disadvantage. Tourism and recreational assets are joined at the hip – natural beauty alone will not sustain a healthy tourism industry.

4.2 Changes in Sport & Recreation Issues

Factors that are changing and significantly impact planning for an aquatic facility in this area include:

- **More 'seachange'** – more people are attracted to a rural seaside lifestyle that aims for a better balance between work and leisure;
- **More dependence on tourism** – the Mission Beach community becomes increasingly dependent on tourism income as sugar and banana prices fluctuate and fall;
- **More hazards, more fears** – terrorism, global disease, cancer and broader communication of such adverse events has added to both the perils we face and our fear of them. This makes freedom from physical, psychological and economic dangers far more profound an issue than it was even three years ago;
- **More health, fitness focus** - people are increasingly aware of the need to work harder at health and fitness for themselves and their families (yet not always prepared to address it.) There are emerging groups of people with a higher willingness to participate in preventive health measures;
- **More alternative health options** – more people are prepared to use the services of health professionals outside the traditional medical sphere – chiropractic, physio, naturopathy, iridology, acupuncture etc. Some of these have a greater focus on the role physical activity in health;
- **More competing activities** – there are a rapidly increasing number of options for how we spend our day. Many of these options are passive (e.g. computer/TV/video), drawing people away from active sports or recreational activities;
- **More obesity** – the Western world is growing fatter quickly despite our greater knowledge of the perils. More people look to shortcuts to fitness and weight reduction (liposuction, drugs, wonder-diets, trainers etc) rather than confronting lifestyle and addressing imbalances in physical activity;
- **More technology** – with people assuming that technology will provide a more exciting, healthy and rewarding lifestyle (sometimes the easy option). More technology also means less human contact in many life activities and this is creating demand for more fun and human interaction;
- **More litigation** – an ever increasing population of legal practitioners seeking creative ways to make others pay for error, accident or innuendo;
- **More for less** – more competition for funds and more competing recreation options means we must do more with less and manage community assets to maximise their utilization and value;

- **More competition for tourists** – to attract and retain them requires a community to establish a much higher minimum standard and range of recreational activities;
- **More global** – no community is any longer sheltered from the rest of the world and immune to the changes continually sweeping it;
- **More equity** – a greater need to ensure that the needs all groups (not merely the majority) are considered and that regional communities will not automatically do without services taken for granted in cities;
- **More aged, more retired** – earlier retirement and longer life expectancy mean a quickly increasing need for recreation activities for older people. Seniors migrate to recreationally rich areas (State of Regions Report 2003);
- **More knowledge, more expectations** – the Internet and increased mobility of the population means people, even in small places, are more aware of what other communities have and seek a wider variety and higher quality of recreational activities;
- **More environmental awareness** – means communities expect any new infrastructure to be sustainable and well considered for wider impacts;
- **More informality and social sport** – people seek less formality and more flexibility in services, less organised competition and more social sport;
- **More infrastructure planning** – community infrastructure investments involve much more risk assessment, consultation and planning than ever before and Local Government is asked for higher levels of measurement and accountability;
- **More user pays** – an increasing pressure for the users of infrastructure to pay a higher portion of the costs;
- **More part time and casual employment** – meaning more leisure time for some yet perhaps less money to pay for it and fragmented opportunities;
- **More youth leaving** – our older youth are forced to leave the area due for education and employment;
- **More individual intolerance** – people will not tolerate as much adverse impact on their amenity even if this is for a wider community cause;

4.3 Dilemmas for Sport & Recreation Planning

The issues listed above do not represent a comprehensive list. Furthermore, many of these factors are in some kind of conflict with others so creating dilemmas for planners of any sports and recreation facilities. Examples for an aquatic facility are:

- More hazards & fears versus more informality: people seek freedom from threat so may seek more security but some of the security measures may create less informality of access or less flexibility for individual differences;
- More equity versus more for less: the community must consider all the needs of all its members. If there is a limited budget for an aquatic facility and it costs $50,000 for a disabled persons ramp and the same for a hydrotherapy pool which groups needs are met if there is only $50,000 available?

- More user pays versus more competition for tourists: a dilemma between asking for entry fees or making it free (there are two opposing trends – some driving towards user pays and others seeking to attract tourists with free entry lagoons);
- More litigation versus more informality and more expectations: the classic children's slide and plunge pool – should we have one with its inherently high insurance/litigation risk versus its high ability to attract patrons and meet their increasing expectations for variety of recreation and informal, non competitive activities);
- More environmental awareness versus more for less: should we lose three trees from a site that is attractive for patrons (so will enhance asset usage and lower user costs) or move to a less attractive site with less patronage and higher net operating costs?
- More hazards and fears versus more for less – the need for more effective safety and supervision may increase personnel costs yet the community seeks cost effective services and minimisation of unnecessary cost.

4.4 Changes in Sport & Recreation Behaviour

Behavioral changes relating to planning for an aquatic facility in this area include:

- **Rising demand, rising diversity** – increasing demand for a variety of recreation activities from both locals and tourists. Many locals see that there are few recreation options in Mission Beach and tourist operators believe there are too few options to encourage tourists to stay longer;
- **Dual forces on users pay** – the original Needs Analysis (2001) demonstrated that a large part of the Mission Beach community is willing to pay for quality recreational services whilst another large part expects a government to pay;
- **Hazards and fears** – several issues come into play here the main local one being stinger season and the realisation that stinger nets are not fail safe. Recent cases of freshwater stonefish stings are adding a new and dangerous dimension for those seeking to cool off in local creeks. Crocodiles are being reported with increasing frequency in creeks and even on the beach (several sightings on Wongaling and Garners Beach recently). Sending children to other locations such as Tully is also associated with some level of risk beyond that of personally supervising your own children in your local facility;
- **High expectations** – that recreation and sport facilities will be managed well and deliver safe and high quality outcomes;
- **Increased social and comfort expectations** – a preference for recreation facilities with capacity to meet a wide range of needs – mobile shade, tables and chairs, modern relaxing ambience, coffee and food, crèches, gardens, phones lighting, heating etc not just a body of water;
- **Wider participation** – community pools were once dominated by organised sport, catering mainly for the needs of schools and sports oriented youth. Now community aquatic facilities often cater for a wider range of needs

and a wider range of people – women, older people, young children, disabled, tourists, families and non Euro cultural groups;

- **More competition for regattas** – sports events are sought after and sports swim meets are more difficult to achieve as more centres vie for them;
- **Sharing facilities** – with other sports and recreation groups to maximise utilisation e.g. shared toilets and change rooms;
- **Rosters and timetables** are more commonly used to ensure that all groups have fair access to the facility for their unique needs.

4.5 TRENDS IN AQUATIC FACILITIES

There are a number of changes occurring in the planning, design, construction, operation and marketing of community aquatic facilities in Australia.

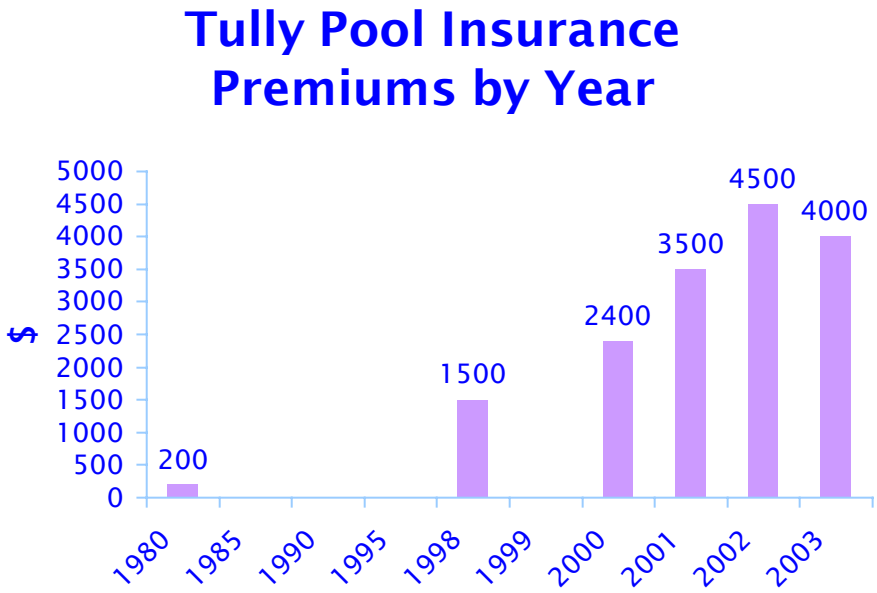
- **More consultation** – with potential customers, advocates and disaffected;
- **Whole of life focus** – where the feasibility is measured not merely for a year but over the assets expected life or a long period of it;
- **More recreation focus – e.g. seafront and riverfront recreation 'lagoons'** – these are mushrooming in Australia, especially in coastal Queensland. People are flocking to 'esplanade lagoons' in droves. These are usually large water areas (typically 3000-5000m^2), high quality/high cost ($5 - $10million construct; $0.5 – $1.0million pa operation), high patronage/low fees (usually no entry fee) with high quality, linked facilities (walking tracks, parks, kiosks etc). They focus on the social and recreation needs of locals and tourists and often separate family areas from youth in some informal way. Their feasibility is related to economic benefits (the high cost is believed to be offset by enhanced tourism and general economic activity) and health of the community (enhanced participation by locals and tourists causing better health and well being);
- **More 25m less 50m** – for small populations (below 30,000 population) a 25m pool is far more likely to be feasible than a traditional 50m pool. Hence, there is a trend towards 25m pools where in the past even tiny communities built a 50m pool (e.g. Cardwell, Tully and Babinda). There is also a trend towards 25m pools with savings on capital and operating costs;
- **More 'wet edge'** – community pools are usually wet edge (water level with edge) rather than 'skimmer box' technology used in most domestic pools;
- **One-person operations** – most communities have learned that labour costs are a major portion of operating costs. They therefore design the aquatic facilities to allow safe supervision and management of the facility with one operator. Those who design multi-pool facilities without due care and detail often end up with two operators and unnecessarily high costs;
- **More adept marketing** – some Council-run pools are now being marketed very creatively enhancing asset use and revenue so lowering costs to the community;
- **More multi-pool complexes** – more community aquatic facilities are now designed to have several water areas meeting different needs – a small lap pool for sports and exercise and school programs, a leisure pool for recreation, a tots pool usually part of leisure water, a slide and plunge

pool and a hydrotherapy – learn to swim pool. These are sometimes linked but many Councils now find it best for customer satisfaction and costs to have separate bodies of water for sports/exercise lap pools (ideally 27^0C or less), hydrotherapy (29 - 31^0C) and leisure (29-31^0C+);

- **More learn to swim/hydrotherapy** pools are being constructed to fill needs of older residents and learn to swim programs. These are relatively low cost investments (as low as $65K including gas heater) yet attract many users and much revenue if run well;
- **More litigation, higher insurance premiums** means many Councils shy away from risk activities such as slides because these do attract more users but at a high insurance premium. Innisfail pool has slides and insurance premiums are $15K pa versus Tully $4K pa without slides. Insurance premiums are rapidly increasing and have become a major item in operating expense (refer Chart 5 below);
- **Multi filtration** units rather than one filter system for all water bodies so saving energy – different water turnover requirements for different uses;
- **More water recycling** from backwash and spillage on concourses;
- **More energy saving** – solar arrays, thermal blankets, 3 phase pumps etc are increasing as Councils drive for better energy use;
- **More consultants** – some are spending large (and perhaps unnecessary) costs for high priced consultants rather than spending essential time researching their needs and designs with experienced Councils;
- **More temperature control** – some pools have very low utilization and the reason relates mainly to temperature. Children's pools have fixed full cover shade cloths and water mushrooms and jets leaving water temperature in the 21^0C range. Then they wonder why the hydrotherapy pool is unavailable for its intended uses. There is a rush for all sorts of devices to be added to existing pools - thermal blankets, solar and other water heaters, shade sails and devices to alter shade configuration. These are a critical component of any aquatic facility because success with shade and temperature determines customer satisfaction, demand pattern, revenue and therefore cost to the community;
- **More disabled access** – most now give careful consideration to disabled persons access and commonly use three approaches – hoists (around $8,000), ramps ($50,000) or slope entry (specific length to depth ratios). Handles, bars and benches are also commonplace but now commonly found to be an unacceptable safety hazard as well. Problem with hoists is the users seldom like the spectacle it can cause and recently there have been failures causing injury. Ramps are a very high cost (may be up to 20% of the total pool cost). Many smaller councils on limited budgets are using graduated entry in leisure pools to meet this important need economically;
- **More water turnover** – NSW regulations require higher turnover specs than Queensland but forward thinking Councils plumb accordingly expecting national standards soon;
- **More energy saving** – designs are increasingly addressing recurrent energy use and longevity as well as construction cost;
- **More modern kiosks** – more facilities now invest in high quality kiosks to attract higher volumes of customers and increase revenue. With a well-designed kiosk complex some Councils are finding it best to charge no

entry fee for parents who do not swim – they spend up on coffee and food and revenue outcome is maximised. Design of 'open/retail like' kiosk areas is emerging making the facility far more attractive and less foreboding than turnstile options. Another advantage with open plan kiosks is vision for supervising the pools is enhanced.

CHART 5: TULLY 50M POOL INSURANCE PREMIUM GROWTH



4.6 IMPLICATIONS FOR PLANNING & DESIGN OF AQUATIC FACILITIES

There are many impacts the factors described above have on the planning, design and feasibility for an aquatic facility. The compelling message from those most experienced in aquatic facilities is that you cannot overdo research and planning.

These investments involve a wide range of options, needs and technologies and there is much to learn from others and much to consider in applying this knowledge locally.

Some primary impacts and implications include:

- **Increasing revenue and utilization** is of paramount importance and many factors will influence this:
  - **Site location** – utilization is maximised by being in an area that is visible to locals and tourists, very accessible (bus routes, car parks), near a natural feature preferably the waters edge and near the school and population centres;
  - **Temperature control** – must have maximum ability to keep all water areas open all year at attractive temperatures;

- **Shade** – variable with seasons and ample sun and shade;
- **Attractive kiosk** – modern, open and inviting with cool area for food and coffee consumption in comfort;
- **Marketing plan** – creative and well structured plan well implemented to attract all target users;
- **Variety of quality activities** – must cater for the needs of most community groups for both sport and recreation. Learn to swim, swim coaching and other forms of value adding intervention maximise revenue for the lessees. Recreation pools are less effective revenue raisers but can be winners if the kiosk is designed and marketed well;
- **Meeting club needs** – ensuring design and implementation deliver to the requirements of well patronized clubs and groups;
- **Attracting tourists** – site location and ambience are the major factors. Most accommodation businesses have some form of aquatic facility but tourists still flock to lagoons in similar tourist towns. If the leisure pool and site ambience are right tourists will come in numbers, help the community fund its aquatic facility and aid employment through longer average stays. Centres with facilities such as slides, wave pools and dive platforms attract even more tourists;
- **Opening hours** will also affect demand. Open all seasons is a must and research on opening hours will determine the optimum mix for economics and community needs. The large portion of people working in tourism means many have shift work and rosters will need to accommodate this;
- **Safety** is paramount especially for young children and design will need to maximise security without downgrading attractiveness and functionality of activities;
- **Aged population** is a big opportunity. If the design and operation responds well to the needs of older people revenue will expand;
- **Space** for relaxation and socializing will also affect demand. More is better allowing groups to interact without adversely affecting the pleasure of others. Too much space can adversely affect ambience;
- **Fencing** – unfenced means higher usage but is offset by higher costs of security and insurance;
- **Fees** obviously affect demand. Tourists to Mission Beach come from three segments – backpackers, senior citizens (van parks/camping grounds) and families with children. Most are on limited budgets and those few with bigger budgets are well catered for by resorts (less need for the community pools). Locals in higher income brackets often have domestic pools so the main users amongst locals are also on limited budgets. Fees need to be low enough to be affordable for the majority yet high enough to offset the operating costs. Fees are limited by a maximum that lessees can charge in Cardwell Shire;
- **Playgrounds and BBQ's**

- **Reducing cost** of construction and operation is equally critical. Factors impacting cost include:
  - **Types of pools** - specs, durability, size, volume of water, temperature of water, sun exposure etc;

- **Ancillary equipment** – heating equipment, filtration systems, energy efficiency, cooling/shade gear, play equipment, design for supervision and cleaning etc;
- **Demand** – higher use means higher costs for a few items e.g. chlorine, filtration, cleaning;
- **Supervision** – ensuring design allows one operator for pools and kiosk/entry at low usage times;
- **Marketing** – cost effective for demand creation;
- **Consultants** – minimising unnecessary consultation and maximising the use of qualified volunteers from the community;
- **Safety** – those activities that are regarded as risky by insurers add considerably to insurance premiums;

- **Synergy with other sports and recreation infrastructure** – if possible the facility should use existing infrastructure and share its own infrastructure. An aquatic facility that is fenced off or charges entry fees is less easily able to share facilities with other sports and recreation activities (e.g. change rooms and toilets);
- **Minimising impact on residents**– like any development there will be some unavoidable loss of amenity with a successful public sports and recreation facility. Site choice will be critical as will be design of the car parks and the overall facility;
- **Minimising cost to community** – a self-funding facility is a pipe dream for a community with a total population under 30,000. Those (7%) expressing negative views about a pool were very focused on economics and rates charges. Most do not want to pay for the facility so if it does happen will be concerned to see that the 'subsidy' is minimised;
- **Variety of activities** – the facility must attempt to meet both sport and recreation needs of most significant user groups in the community. No facility will meet every individual need but needs must be ordered and every attempt made to meet the needs of groups traditionally neglected as well as majority groups;
- **Managing timetables** – some pools especially learn to swim/hydrotherapy pools are very popular and groups seek to have higher share of access. This needs strict timetabling from the outset so that dominant use or unfair expectations are not established by one group seeking to deny or reduce other groups access;
- **Fit with aspirations** - the facility must fit with the communities overall aspirations as expressed in Development Control Plans, Sports and Recreation Plans etc
- **Contribute to employment** – a successful aquatic facility is directly linked to the local economy. Tourism is this community's present and future and any way the facility can be designed to enhance tourism will bring major bonuses above and beyond the primary health and well being goals it is designed for.

5. NEEDS

5.1 PREVIOUS STUDIES

FEB 1997: MISSION BEACH RECREATION SURVEY

FOR: CARDWELL SHIRE COUNCIL & JOHNSTONE SHIRE COUNCIL

This study involved a survey of all recreation needs in the Mission Beach area, including both Shires. There were 145 individual and 19 group responses to the survey that found the priority facility requirements to be:

1. A swimming pool;
2. Improve parks and play facilities;
3. Upgrade MARC's Park
4. Multi-purpose indoor facility;
5. Bikeways and tracks linking communities;
6. Youth activities;
7. Upgrade Clump Point boat ramp;
8. Quality of facilities.

5.2 PREVIOUS STUDIES

FEB 1997: MISSION BEACH SPORTS, REC & CULTURE SURVEY

FOR: CARDWELL SHIRE COUNCIL

This study involved a survey of all sport, recreation and culture groups in the Mission Beach area, including both Shires. There were 20 group responses to the survey that found the priority facility requirements to be:

1. A swimming pool;
2. Upgrade Clump Point boat ramp;
3. Bowls green;
4. Cheap access to halls;
5. Boat ramp at Kennedy Esplanade;
6. Sailing Club facilities.

5.3 PREVIOUS STUDIES

DECEMBER 1999: SPORTS & RECREATION FACILITIES STUDY

FOR: JOHNSTONE SHIRE COUNCIL/TOURISM, SPORTS AND RACING QUEENSLAND
BY: STRATEGIC LEISURE/LAMBERT RECREATION

This study sourced information from reports, policies, and census data. It also sought community feedback via six focus groups (including one Mission Beach group and two youth groups), interviews and surveys (100 clubs invited to respond, public survey in local newspaper) and calls for public submissions. There were several meetings with key groups and individuals in Local Government, clubs and the community.

All relevant findings of this study are picked up in the Mission Beach Recreation Master Plan outlined below.

5.4 Previous Studies

August 2000: Sport and Recreation Facilities Plan

For: Cardwell Shire Council/Tourism, Sports and Racing Queensland
By: Lambert Recreation/Sinclair Knight Merz/Site Plan Cairns

Sport and Recreation Queensland jointly funded this plan with Cardwell Shire Council. It is a 10-year plan and includes a specific plan for Mission Beach, integrating communities of both Shires.

The study involved literature research and consultation with clubs, community groups, community members and agencies. The study also sought written submissions from residents. A high portion of these responses came from Mission Beach. Satisfaction with existing facilities was tested and found to be extremely low – of those who responded with other than 'Don't Know' **56% stated that facilities were 'Poor' or 'Very Poor'.**

Key Facility Issues for the whole Shire included Aquatic Facilities issues:

- The Tully pool will require additional investment over the next 3 – 7 years;
- Development of the Mission Beach pool is a clear community priority for both Shires.

Key Issues Identified by the Community

Equity of facility provision across the Shire

The study uncovered some of the Mission Beach feeling of disadvantage relating to Sports and Recreation facilities. Financial analysis of capital and recurrent expenditures showed Cardwell to have the highest levels of per capita expenditure with Mission Beach well behind. The analysis possibly favoured the Mission Beach case because costs incurred by Johnstone Shire were not included in the analysis.

The report also highlighted the need to view spending on all types of infrastructure. Whilst Mission Beach is a newer community it has not built up an infrastructure and cannot catch up to Cardwell and Tully overnight. The Mission Beach community is currently receiving large infrastructure spending on sewerage (State funded) as well as road sealing in Bingil Bay (Federal funds).

A more contentious issue is the claim in the report that 'The role of Tully as business centre of the Shire would suggest that a higher expenditure (in Tully) is legitimate to accommodate operation of Shire level facilities such as the showgrounds.' Without doubt, there is a need to maintain existing infrastructure such as the showgrounds. However, whilst this postulation may hold for recurrent expenditure the population growth statistics outlined earlier suggest that there is a

strong case for Sports and Recreation capex to be focused even more than currently on Mission Beach.

Mission Beach Key Sports and Recreation Facility Needs Identified

- Development and improvement of MARC's Park;
- Bikeways and pathways linking communities and facilities;
- Youth facilities;
- Library;
- Sailing Club enhancements;
- Swimming pool;
- Cultural venue;
- Older youth playground;
- Covered courts.

Other issues included boat ramp upgrades at Kennedy Esplanade and Hull River, landscaping foreshores and beach activity zones.

The recommended responses to the community feedback included:

- A Joint Facilities Agreement including a community pool;
- Implementation of the Mission Beach Facilities Master Plan by a joint Shire committee;
- Sorting out financial sharing and policies;
- Focus on MARC's Park for sport initially and Frogs Hollow for recreation and cultural activities;
- Integrated bikeways plan;
- Discussions with Queensland Transport on boat ramp rationalisation;
- South Mission Beach landscape master plan;
- Rotary Park concept plan with a focus on youth facilities.

Mission Beach Recreation Facilities Master Plan

Mission Beach Development Control Plan (DCP) Key Issues

- Wongaling Beach CBD will be the main commercial centre for communities within the DCP;
- Infrastructure development needs to support the residential and tourism industry uses of the area;
- Community facilities and services should be based at Wongaling Beach;
- Any future high school should be based west of the Wongaling Beach CBD.

Main Current Issues for Mission Beach Community

- Need for integrated Shire approach on Sports and recreation;
- There is a growing need for a swimming pool and strong community support for the pool as the highest priority;

- Resorts are not allowing community access to their pools, this reinforces the need to plan for a pool in future;

KEY FACILITIES DEVELOPMENTS FOR MISSION BEACH

- New library;
- Lighting for MARC's Park courts;
- Lease area for Sailing Club;
- Youth space at MARC's or Rotary Parks;
- Construction of bikeways/pathways linking communities and facilities;
- Frogs Hollow master plan with ground and hall upgrades;
- Priority planning for a community pool;
- Longer term planning for shade and roof over courts at MARC's Park.

THE SWIMMING POOL

- Current population is not such that a pool could run on a fully commercial or cost recovery basis. This means that ongoing management and maintenance would need to be subsidised. The population of the area in 5 – 10 years (may) be sufficient-for recovery of annual operating costs;
- The capital investment required to develop a pool suggests that it would only be viable with funding shared between several parties;
- The greater Mission Beach community has clearly identified the pool as one of the top priorities;
- The obvious approach is for the pool to be jointly provided by the school (Education Dept) Johnstone Shire and Cardwell Shire;
- The school could accommodate the facility but does not have operations expertise. A manager for the pool would be needed (usual practice);
- With a new pool and an agreed basis for funding the operating costs (eg school pays part and Shires the rest) it is feasible that a manager/coach for the pool could be found;
- There are no other suitable locations for a pool on local or state land;
- Neither MARC's Park or Frogs Hollow are suitable sites (MARC's Park because space was not available – this has since changed);
- While planning can commence, progress is constrained by the wait for sewerage infrastructure.

FURTHER DISCUSSION

That the population is insufficient to cover costs of running a pool is hardly surprising. Maroochy Council has found that they require at least 25,000 people in the 'catchment' to fully fund a well-managed 25m x 18m pool (i.e. cover every cost including depreciation and cost of capital). They are very active and successful at marketing these assets. Hence, no towns in North or Tropical North Queensland outside of the Regional Centres of Cairns and Townsville have the population needed able to totally fund a 25m community pool.

Further, the trend is for larger communities to install community 'lagoons' on beachfronts and riversides and not seek any cost recovery from users (eg Cairns, Townsville, Thuringowa and Whitsunday's). The trend is towards improved asset utilisation rather than to commercially run or unsubsidised facilities.

The Mission Beach school site has subsequently been found unsuitable whilst MARC's Park is still a candidate. The sewerage issue is resolved with funding approved and construction commencing.

TABLE 16: S & R FACILITY DEVELOPMENT PRIORITIES FOR MISSION BEACH

FACILITY	PRIORITY YEARS 1 - 10	COST EST $000	CURRENT STATUS
Library Construction	1	400	Existing building purchased and services expanded
MARC's Park Oval Training Lights	2	20	?
MARC's Court Lights	1-2	40	Completed
MARC's Oval Lights Upgrade	3-4	80-120	
Lease Area Sailing Club	1-2	25	To be implemented 2003 but again Mission Beach was deferred in favour of Cardwell and Tully programs
Youth Space/Skate Park	1-2	30-50	Planning is well advanced with implementation expected in 2004
Construct bikeways/pathways	1-4	300-500	Sewerage scheme includes bikeway/path linking Wongaling to MARC's Park (2004/5)
Frogs Hollow upgrade	2-3	100 Field 50 Hall	Field upgrades done hall no change yet
Staged Implementation MARC's Plan	3-6		Begun – Tennis and Multi Courts built
Community Pool Feasibility and Design Study	2-3	20-40	This study is on schedule and under budget. Design ($30K) comes after feasibility study
Funding submissions	2-3	5	After Design/Full Costing
Construct pool	4	400	Will cost much more than $400K for any facility
Plan shade and roof over MARC's multi use courts	6-8	40 Shade 200 Roof	

Most mid term facility investments have been completed or are well advanced. This leaves the Mission Beach aquatic facility as the stand out priority for Sports and Recreation development in Mission Beach.

There are emerging plans for repair, upgrade and additional facilities for existing (Cardwell and Tully) pools with important decisions to be made on which comes first – Mission Beach, Tully or Cardwell?

5.5 Previous Studies - December 2001: Mission Beach Community Pool Needs Analysis

For: Mission Beach Aquatic & Recreation Club. By: Houston-Boyd

This study sought to determine the community need and support for an aquatic facility as well as community uses for such a facility, frequency of use, fees that would be acceptable and the potential sites. The consultation methods included:

- Depth interviews with key stakeholders;
- Discussions with both Councils;
- Two public forums;
- Community survey – mailed;
- Workshop with year 6 & 7 students;
- Public submissions;
- Field survey of sites.

Existing Aquatic Facilities

The first step in the needs analysis was to determine existing aquatic facilities both natural and built in the region. The community identified aquatic facilities as:

- Ocean/Stinger Nets;
- Local water holes;
- Private swimming pools;
- Resort and other tourist accommodation pools;
- Innisfail or Tully community pools

Table 17: Pools in the Region
(Distances have been added to the table, as have Cardwell and Warrina pools).

Area & Distance from Mission Beach	Facility	Fees Adult/Child/Tot	Season Closure
Tully 25-35Km	50m + toddlers	$2.50/$1.25/$1.25	Closes Jun-Aug
Innisfail 55-65Km	50m+hydrotherapy+slide+2x toddlers	$2.20/$2.20/$0	Closes Jun-Aug
Woree (Cairns) 140Km	50m+hydrotherapy+slide+toddlers	$3/$2/$0	Open all year
Babinda 100Km	50m+toddlers	$1.75/$1/$0	Closes Jun-Aug
Ingham 130Km	50m+25m heated + toddlers	$1.75/$1/$0	Open all year
Gordonvale 130Km	25m+toddlers	$2.50/$1.50/$1.50	Closes Jun-Aug
Cardwell 75Km	50m + toddlers + infant	$2.50/$1.25/$1.25	Closes Jun-Aug
Warrina Lakes Innisfail 55-65Km	Leisure pool		

Lessees manage these aquatic facilities.

OCEAN

- For six months of the year Mission Beach has marine stingers making it unsafe to swim (the two dangerous species being Chironex Box Jellyfish and Irukandji Jellyfish);
- There are two stinger nets available; one in Mission Beach funded by Johnstone and one in South Mission funded by Cardwell;
- Some community members fear that construction of a pool may cause removal of the nets;
- Many locals will not use the stinger nets because they do not believe them to be safe – some will use the area but insist on stinger suits for their children.

Further Discussion

- The Irukandji Jellyfish is very small and may penetrate the nets, as may fragments of toxic Box Jellyfish tentacles. There is no guarantee of safety in the nets e.g. January 2004, a child wearing a stinger suit in the enclosure was stung on the neck;
- There is growing evidence of increasing numbers of marine stingers for several reasons including reducing numbers of fish predators;
- There is growing anecdotal evidence of 'stinger season' extending;
- The tragic death of a child swimming in the ocean (not in the nets) March 2003 has highlighted the need for a safe aquatic facility;
- The ocean is used extensively outside of stinger season particularly by young visitors and in the months of August, September and October when the seawater is warmer than most pools;
- At the height of summer the seawater temperature is very warm and not suitable for exercise or cooling off;
- Even if stingers were not here, there is a strong need for a cooler aquatic facility. Stingers make the need more compelling;
- At the October 2003 Aquatic Festival on Wongaling a 4m crocodile in the immediate area almost prevented use of the ocean for aquatic activity.

WATER HOLES:

- Some locals use creeks and waterholes in the summer months;
- These depend on local knowledge and access;
- They are not without difficulties – insects, crocodiles and unsafe terrain included;

Further Discussion

- Good quality waterholes with reasonable safety, space and water quality are available but at a distance;
- The safety of these recreation areas is now in question because of increasing numbers of freshwater stonefish;

- Example at Alligators Nest (Banyan Creek 30Km) Murray Falls (50Km) and at Babinda (100Km);
- These can cater for only small numbers of users and have rudimentary facilities and no supervision;
- The distance and disadvantages mean these meet the recreation needs of few Mission Beach people.

PRIVATE POOLS:

- A number of residents have their own pools (no attempt was made to quantify this number in the study cited here);
- Concerns were raised by some that those with pools would not use the community facility;
- The report concluded that if the community facility was more than a lap pool it would be used by some residents with their own pools.

Further Discussion

- 84 pools (average 14 pa) were built in the area over the last six years;
- There was a downturn in housing and pools 1998, 1999 and 2000 but a record 30 pools were built in 2003;
- 300 – 350 pools were built in the last 35 years (most pools last little longer) so it is determined that there are 330 pools now or 20% of private homes have pools. The predicted build rate suggests that from now on 50% of new houses will have pools;
- Discussions with the owners of a new pool shop confirmed there are 300 to 350 pools in the area. They completed a business plan and went as far back as both Council records would allow coming up with the same range.

RESORT AND ACCOMMODATION POOLS:

- These are seldom available to the public;
- On occasions some have been let to residents for a fee but this has never been open to all nor available all days;
- The school have used private and commercial (caravan park) pools for younger students at times but have no long term stable arrangements;
- An issue that is difficult to get round is safety/insurance/liability;
- These facilities will continue to be exclusive to paying guests.

Further Discussion

- The few pools that could meet many of the community needs for an aquatic facility (eg South Mission Beach Van Park leisure and plunge pool) are seldom going to be available to the public because they are used intensively by the tourists staying there.

COMMUNITY POOLS AT TULLY AND INNISFAIL:

- The Innisfail facility was upgraded in 2000;
- There is a swimming club at Innisfail and the pool is host to competitions;
- Tully is more often used by Mission Beach residents some travelling daily for fitness swimming and some to attend the Tully Swimming Club;
- Many Mission Beach residents expressed dissatisfaction with the 50Km round trip and associated cost and access difficulties.

Further Discussion

- The school also uses Tully pool for years 4 – 7 classes;
- Plans are being advanced for major upgrades to Tully and Cardwell pools.

PUBLIC FORUM DATA

This involved two groups and a total of 51 people. The main findings were:

- Both groups stuck with the need for a 50m pool rather than a 25m;
- Priority uses were school program, learn to swim lessons, fitness training, and a place to cool off;
- Other uses suggested were water aerobics, mother and toddler classes, swim squad training and a venue for community and family events;
- An innovative and professional lessee the was the preferred means of facilities management;
- A Council representative described costs of subsidising Tully 50m pool as $70,000 pa. There were some who believed the community could support a pool by fundraising and others who felt Council should subsidise it;
- The groups felt that the facility should encourage use by visitors;
- The groups also felt that the needs of the community should be the priority but that visitor usage would help reduce the cost burden.

COMMUNITY SURVEY DATA

Almost 30% responded to the mailed survey (406 respondents). That is a high response rate for mailed surveys and represents over 13% of the population of permanent residents in 2001 (10% is regarded as more than enough for this type of research mechanism). The Needs Analysis Report provides details of survey methods and a copy of the survey questions. These are not appended here but can be made available on request.

- Respondents: 62% female; 60% Cardwell Shire and 44% aged 36-55 years;
- 90% supported a pool, 7% did not, 3% undecided;
- 93% of those who responded to the question of need for a water play area said yes, 7% no;
- On pool location (Mission Beach, Wongaling, South Mission or Other) the responses were pro Wongaling (57%) with Mission Beach having 22% support and South Mission 4%. MARC's Park was specified on 7% of responses;

- Respondents repeatedly referred to a central location near the school. If the pool was to be at MARC's Park (Mission Beach) then it should have linked bikeways to the school;
- On usage the author of the report felt people tend to overstate proposed usage. Many said they do not swim now because of a lack of safe areas but they would swim if a pool were built. Responses on frequency of uses were daily 17%; 2-3 times a week 40%; weekly 27%; monthly 4%; never 6%; no response 2%;
- On fees 45% said $2-$3 and 35% said less than a dollar. Some accept the need for user pays and others see the pool as an entitlement;
- Lack of a safe swimming facility was commonly expressed especially from parents. Many said they will not allow their children to use the net areas due to a number of people being stung inside the nets;
- The primary needs expressed in the survey were school program, learn to swim, shade areas over pool and grass, kiosk and change rooms including disabled and toddler pool;
- Other needs expressed included water aerobics, dive board, water slide, volley ball on grass, lifeguard, clubhouse, gym, BBQ, grandstand, lockers, hydrotherapy, physiotherapy and squad facilities;
- Common comments made include:
  - Children should have a right to attend swimming lessons especially as they live in an area surrounded by water;
  - A pool would be great for a variety of activities and community events especially for children;
  - Many commented on a lack of facilities for children in this area;
  - Some supported 50m others said 25m would be better than nothing;
  - Wongaling does not have a stinger net and would be a good location for both tourists and locals;
- Common negative comments included:
  - Mission Beach is too small for this;
  - Concern on rate increases;
  - Pool unnecessary – use the nets;
  - Pool may adversely affect our application for sewerage funding

Site Analysis

Six sites were assessed using a checksheet. A team of people visited the sites - from MBARC, both Councils planning people, a pool construction company and the author.

The school site, seen as the only candidate in the two S & R reports, was eliminated – the State school declared it has insufficient space for a pool.

Only two sites showed promise – MARC's Park and Wongaling Foreshore (Rotary Park). Of these the team preferred MARC's Park (upside being beside other activities and potential future clubhouse, downside transport needed to school). The stated downside for Rotary Park was the potential delay caused by 'red tape' (probably meaning authority from EPA).

CONCLUSIONS OF THE NEEDS ANALYSIS

- The community have voiced a strong desire for a pool for many years;
- This is the fourth survey reinforcing that this is a key community need;
- The two Council Sports and Recreation Plans acknowledge the Mission Beach communities priority for a pool and suggest a partnership;
- The Cardwell Master Plan for Mission Beach suggests the pool be constructed in 2004/5;
- The small number of people against a pool have three main fears – rate increases, stinger net removal and loss of sewerage funding (the latter is no longer an issue);
- There is a strong demand for a safe swimming environment;
- The need for a 50m pool is questionable, a 25m pool is a more feasible outcome for this small community;
- MARC's Park is the preferred site or new alternatives closer to school;
- A feasibility study is advocated;
- The community cannot raise the funds needed alone.

5.6 REFINING THE DEFINITION OF NEEDS

In determining the needs of a community, invariably researchers focus analysis on quantitative data yet the richest veins of information are often found in the qualitative comments. Fortunately, this study encouraged comments and recorded many in the report so further analysis is possible.

It is inappropriate to express verbatim comments as a % of population but a strong sense of the common issues can be gleaned form these:

COMMON THEMES

SITE THEMES

- Wongaling/central/close to school = 32;
- Mission Beach/MARC's Park = 14;
- Foreshore = 7;
- South Mission = 1

RECREATION THEMES

- Children/youth need activities = 30;
- Stingers/ocean unsafe = 26;
- Place to cool off/hot weather = 13;
- Recreation focus/lagoon style/waterplay = 19;
- Families need/social = 15;
- Shade/trees = 8

SPORT/EXERCISE/HEALTH THEMES

- Sport/exercise = 5;
- 50m = 5, 25m = 7;
- Therapeutics = 2;
- Swimming/coaching = 3

RIGHTS/EQUALITY THEMES

- School needs it/equality for kids = 7;
- Tully/Innisfail too far, travel cost/no bus = 14

TOURISM/TOURIST/EMPLOYMENT THEMES

- Good for Tourists/tourism = 12

AGAINST POOL THEMES

- Cost high/rates high/community small = 12;
- Tully OK = 8;
- Nets are safe/OK = 4, use private or resort pools = 4;
- Put in sewerage first = 5

The overwhelming thrust of the comments is of a need for informal recreation – children's activities – children's safety – cooling off in a hot climate - social, family and community activity - water play activities rather than organised sport and formal exercise opportunities. A receptionist at one resort divulges that in hot weather up to 20 people a day ask for access to their pools but have to be denied due to safety and guest expectations of exclusivity. Most residents do not bother to ask anymore and a few sneak in unauthorised so there are certainly many people looking for safe, cool water on many hot summer days.

A childcare centre uses a gym once a week for 20 children and would use a pool at least as often if it were available. A local swim instructor was using a private pool but found it too small. Their 86 students were sent to Innisfail, 33 dropped out immediately.

6. DESIGN

6.1 PREVIOUS STUDIES

Previous studies have elicited little in the way of preference for design of an aquatic facility. The 2001 Needs Analysis determined in two group discussions that if the only two options were a 25m or 50m pool (traditional lap pool) then the community wanted a 50m pool regardless of its affordability.

In the qualitative feedback in the same study the preference was strongly in favour of recreational themes (111 comments) rather than sport themes (17 comments). The Sports and Recreation studies all refer to a 25m community pool as the only option considered.

6.2 DESIGN & COST RESEARCH

INTERVIEWS WITH COUNCILS, CONSTRUCTORS AND DESIGNERS

Face to face interviews, phone interviews and Email communications were used to widen the scope of enquiry and determine costs, income, concepts, what is possible, what works well and not and what they would do different if rebuilding today.

INITIAL FINDINGS

- Rough costs for several basic concepts are outlined below (Tables16 & 17);
- The Maroochy Shire experience is that a moderate size pool complex similar to that ideal for this area can be run without subsidy using full costs (depreciation, servicing debt etc) if the 'catchment' population exceeds 25,000 and the pool is very well promoted and utilised especially in terms of income generating programs;
- Cardwell Shire Planning Scheme requires that car parking spaces be provided – 10 spaces plus one space per 50m^2 water area;
- Current cost of carpark construction is $60K for 20 spaces;
- Water turnover rates are NSW 4 hours and QLD 8 hours for lap pools but most are heading for 4 hour turnover rates now; 2 hours for LTS pools;
- Pool utilisation and satisfaction is very much temperature dependent – some Councils have recently used one body of water for lap and leisure pools but satisfy neither group – exercise users want 25 – 27 degrees and leisure want 31 degrees or more;
- Amenities needed = modern retail style kiosk to ensure parents not swimming have some way of relaxing (shade, coffee, magazines etc); toilets (3 female, 2 male + urinal); change rooms 4 + 4; first aid room and small office;

- Toddler pools are not used if they lack some form of safe entertainment (mushroom, water jet, alligator etc), and must have mobile shade sails enabling removal in winter for temperature control;
- Shade cloths on wires such as Tully and Innisfail 50m pools are ugly and unacceptable today – some other solution is needed;
- Lap pool surface finish is a moving feast with no two people agreeing on what is optimum; painted surfaces are supposed to work for 4 years but often last one; tiles sound indestructible but also need constant maintenance some prefer fibreglass coat finish $20K for 25m 4 lane as these have a 10 year warranty; some prefer plastic films and others pebble finish;
- Leisure pools are supposed to cost much less than lap (area equivalent) but this is not always so in practice; cost more for filtration but less for shell.

PUBLIC MEETING AUGUST 2003

Several basic design concepts were presented at this public meeting with a brief list of pros and cons and a rough cost for each. Around 40 residents attended the meeting. A concept plan was drawn up for an 'Aquatic Complex' shown on the Rotary Park site diagram.

BASIC CONCEPTS DISCUSSED

- A 50m 'Olympic' 8 - 10 lane pool;
- A 25m 8 lane pool;
- A 25m x 4 lane pool;
- A pool complex with a 4 lane, 25m pool plus 100 – 200m^2 leisure pool including toddlers area and a small hydrotherapy pool;
- A similar pool complex but having the lap and leisure pool in one body of water;
- A foreshore recreation lagoon.

Rough costs of construction and operation were presented from initial research interviews. The cost estimates were as follows:

TABLE 18: EARLY COST ESTIMATES FOR COMPARING CONCEPTS

POOL CONCEPT	POOL CONSTRUCTION COSTS $M	OTHER CONSTRUCTION COSTS (FROM TABLE 17)	OPERATIONS SUBSIDY $K PA
50m x 21m lap	1.5	1	70
25m x 18m lap	0.7 – 0.9	0.9	50
Complex leisure + toddler + 25m x 8.8m lap pool	0.7 – 0.9	0.9	50
Lagoon 4000m^2	6	?	500 – 1,000

TABLE 19: EARLY COST ESTIMATES FOR CONSTRUCTION OF FACILITIES OTHER THAN POOL AND FILTERS

COMPONENT TO CONSTRUCT	SMALL POOL 'COMPLEX' 25M X 4 LANE + LEISURE + TODDLERS + LTS	'OLYMPIC' POOL 50M X 21
Design	$40K	$50K
Amenities, kiosk, buildings	$350K	$400K
Landscape	$50K	$50K
Carparks	$60K	$80K
Fences and furnishings	$50K	$50K
Solar blankets and rollers	$30K	$40K
Shade sails	$50K	$70K
Solar heating arrays	$50K	$70K
Concourses, hoist, other services	$130K	$140K
GST	$80K	$90K
Total	$890K	$1040K

A covered LTS (learn to swim/hydrotherapy) pool (12 x 6 x 1.2m covered) was estimated at a further $250K construction cost, no cost of operation was discussed at this point. This was later revised to $100K for a plastic covered (rather than fixed structure) LTS pool. (Some say it can be done for as low as $65K).

The meeting participants were not asked to vote on a concept preference but several did – 11 voted for a pool complex with one asking if it would be possible to extend to a 50m pool later on. None voted for other concept options.

MATCHING NEEDS WITH FACILITIES

If you capture every person's need or wish from the 2001 Needs Analysis then the facility would include

- 50m Olympic pool;
- Diving pool;
- Large foreshore leisure lagoon;
- Water slides and waterplay pool;
- Disabled access to all areas;
- Learn to swim pool indoor;
- Large kiosk with indoor café;
- Attractive shady relaxation area;
- Toilets and change rooms;
- Office and first aid room;
- Shade and heating facilities;
- Grandstand, lockers;
- Volleyball on grass area;
- BBQ and party area;
- Gym;
- Clubhouse;
- Physio and swimming squad facilities.

From discussions with many people especially those in the two Councils managing rates and fees there is obviously a need to make the facility affordable. The list above is affordable for a large metropolitan community but not for a small community. Funding and other considerations mean that the most likely upper limits of expenditure are a capital expenditure of $2 million and annual subsidy costs of $100,000 (the Tully pool subsidy is $75K for a smaller community).

Many would see this as way beyond what is practical or affordable but for the moment this is used to allow the community to choose between conflicting demands.

A foreshore lagoon would be great for families and tourists and would be an added attraction for tourists, enhancing local employment. A large foreshore lagoon is well beyond feasibility. It may be possible to build a foreshore leisure lagoon of say 700m^2 and meet the major recreational needs of the community but this would leave the sports/exercise needs largely unmet because the water temperature would be too high for strenuous exercise for much of the year. It would also leave the community without a LTS pool, which has wide appeal for school classes and for older and disabled people. Furthermore, fees are not collected for these types of aquatic facilities and costs of security and supervision of an unfenced lagoon are very high (24/7 labour costs). This brings the lagoon option in well over the $100,000 pa operating cost limit.

A 50m Olympic pool is also beyond feasibility. Initial estimates suggest this would cost up to $2.5m to construct. Later advice suggests it may be possible to build one for $2m but whilst this option is very attractive to some sport and exercise users it leaves most the community's recreation needs unmet.

A 'Pool Complex' is probably the most equitable way to respond on a limited capex and operating budget. This provides several smaller bodies of water for differing uses. Refined costs of construction and operation of a proposed facility are outlined in the Viability section of this report.

COMMUNITY SURVEY 2004

This is discussed more fully with data charts in the Site Section of this report. The first 202 surveys received show a strong correlation with the findings of the 2001 Needs Analysis. Many want a 25m-lap pool. A few still wish for a 50m-lap pool but the strongest demand is for a combination of leisure pool with slides.

Many express a need for quick action whatever happens and many express concerns for safety (stingers). Some also mention the importance of visual amenity.

The family-use question shows that the dominant use will be for the leisure – slides facilities then for the 6-lane lap pool. The issue of a 50m pool is still somewhat muddled in people's minds. People seeking 50m pools seek a regatta facility. Two types of swimming regatta are commonly run and there is a need for a 'short course' pool between Townsville and Cairns.

To meet this expressed need it is planned to provide a 6-lane pool with 2.5m lanes so that two swimmers can use each lane to maximise utilisation for most of the year. At regattas the pool format is then altered to 8-lane format for optimum sports function use. This offers the best of both worlds. Lane ropes can also be removed in hot weather to extend the leisure pool space.

The community underestimates its use of the Learn to Swim pool because it has little experience of the concept. Research suggests that such pools are low cost and achieve very high utilisation and revenues so are a priority for a successful aquatic complex.

7. SITES

Locations of three potential sites are shown in street maps (Maps 3, 4 & 5).

- Giufre's proposed development near the school – CSC;
- MARC's Park on Tully – Mission Beach Road – JSC;
- Rotary Park also near the school, at the foreshore, Wongaling Beach– CSC.

7.1 SITE ANALYSIS

A brief assessment of sites was drawn up after a literature search and interviews with key players in the area. These were displayed at a public meeting where several participants inserted further pros and cons. Assessment criteria are outlined in appendix 3.

GIUFRE SITE

This site is part of a recently approved development that includes an 8000m^2 area specifically assigned for an aquatic facility.

TABLE 22: GIUFRE SITE ATTRIBUTE ASSESSMENT

POSITIVE ASPECTS	NEGATIVE ASPECTS
Will be public land assigned to CSC	Lower visibility means lower patronage
Wongaling has no stinger net so it is perhaps more equitable to go with Wongaling area	Urban/Suburban ambience is much less attractive – lower patronage
Short safe walk to primary school	No opportunity for sharing services with other Sports and Rec activities
Central to main tourism and resident population + future growth area	Highest impacts on residential amenity but new block owners would be aware of this before purchase
Large area 8000m^2	No car park built yet
Close enough to school to attract education funding	No trees for natural shade
Requires no removal of trees	Flood and drainage issues untested but developer must rectify these before handover
Land will be filled to M Class or better by developer (currently P Class)	This development although approved has yet to commence but there is a high expectation that it will happen 'soon'
	Limited car space for regattas

The main negatives here are the lower visibility and lower ambience/attractiveness of the site and the high potential for impact on residential amenity. The positives are close proximity to the school, residents and tourists and larger area.

Some believe the visibility and attractiveness of Giufre's will be equal to Rotary site – the Concept Designers will no doubt tease out this debate with our community.

MARC'S PARK SITE

TABLE 23: MARC'S PARK ATTRIBUTE ASSESSMENT

POSITIVE ASPECTS	NEGATIVE ASPECTS
Provides the best opportunities to link with other sport and recreation clubs and activities (cricket, tennis, soccer, BMX, basketball) generating potential synergies or savings through shared infrastructure	Distance from school is a concern for many - would still require a bus trip though only short and quite inexpensive)
Owned by Johnstone Council who approve the use. No third party approvals needed	Over 3.5Km from main tourism and residential population centres
Groundwater level not as low as other sites (not tested)	Carpark space available but only lawn areas - would still need to build a sealed carpark area
Most visible site for to visitors and passing traffic – more patronage, less subsidy	Not close enough to school to attract education funding
Markets and sports share site and would attract people to it. Sports clubs may use pool for training and cooling down if adjacent – adds to patronage	No trees in lease area for natural shade of recreation areas but trees nearby
Impacts on residential amenity would be less other sites	Less space available on current planned lease than Giufre's – 4900m^2 (may be increased if needed) verses Giufre's 8000m^2
Little or no trees to remove or cause leaf problems for pools	Future may see a more industrial setting across Cassowary Drive
Space for high numbers of cars for regattas	
No potential for flood or storm surge inundation	
Rural setting – good ambience, not as good as Rotary but much better than Giufre	
Large space available for regatta parking	

The JSC-specified site is located on the northwest corner of the MARC's Park site between the existing access road and Tully-Mission Beach Road. A tree triangle protects it from main roads and the oval provides a large buffer from residences in Kent Close. The space allocated to the Aquatic facility leaves ample space for existing sports and recreation activities on MARC's Park with some room to expand further

The main negative for this site is that it is over 3.5 Km to the school and the major population centres. Research on bus costs for students and others (see Feasibility) show the travel cost penalty to be smaller than expected.

The main positives for this site are it is a guaranteed goer with no delays (the other two have some doubts to resolve). It is in an attractive setting, has close proximity to other sports and recreation activities and low impacts on residential amenity.

ROTARY PARK SITE

TABLE 24: ROTARY PARK ATTRIBUTE ASSESSMENT

POSITIVE ASPECTS	NEGATIVE ASPECTS
Seaside ambience would attract tourists and locals as happens in other towns with lagoon developments	EPA approval may delay start or veto site
Some carpark spaces probably available	Will involve some tree removal
Ownership OK – public already	May need Native Title clearance
Visible to visitors and passing traffic meaning more likelihood of tourists being attracted – higher patronage, lower subsidy	This area is used for the Aquatic Festival – would enough space remain or could festival be relocated?
Provides good opportunities to link with other recreation activities (skate park, children's playground. future cycle/ walking tracks and beach) so generating potential synergies or savings through shared infrastructure	Potential problems with storm surge in large cyclones
Within short safe walk to primary school	Salt and sand spray possible in strong winds (not seen as a great issue at lagoons elsewhere)
Close enough to school to attract education funding	Limited space for parking especially for regattas unless Skate Park is located further south
Good trees can be kept for natural shade of recreation areas	Some car parks are dedicated to previous developments so augmentation of parking will be needed
Central to main tourism and resident populations	Relatively narrow land space may limit design options
Residential amenity impacts less than Giufre's (few houses nearby – restaurants, camping grounds opposite site)	Some concerns regarding reduced visual amenity of foreshore
Wongaling has no stinger net so more equitable to go with Wongaling area	Rotary yet to be formally consulted on this site
Soil test done on adjacent Skate Park site – OK for pool	

The main negative here is the possible delay or veto by EPA due to perceived environmental impacts and the potential for damage in cyclones.

The positives are the central location for school, residents and tourists, the ambience and popularity of the site being close to the beach and the link with many other activities.

Cardwell Shire Council Executives have warned that EPA approval may be difficult although Council as just received approval for a Skate Park on adjoining land to the south. A preliminary discussion with the EPA Cairns (Principal Coastal Planner) confirms this perception. The EPA is reluctant to agree to 'permanent' structures being erected in erosion prone areas (including all our beach foreshore areas). The reason for this caution is that if such a structure is threatened by erosion the

community will seek to defend it with rock walls. Sea walls are prone to cause loss of beach further afield. This argument is irrefutable but most of the Wongaling Beach foreshore is covered in substantial recently built homes already so the wider question is does this facility significantly add to the perceived environmental impact?

EPA approval of a Skate Park adjacent may indicate that the Aquatic Facility is also reasonable. Provided the development is kept behind the area bounded by Banfield Road alignment then it is unlikely to worsen the problem of erosion protection because Banfield Parade would certainly be protected in future.

7.2 Which Site is Preferred?

The short answer is good news: all qualify and none are eliminated. Furthermore all have a good deal of community support.

Project Services determined all sites to be suitable for purpose with Giufre's being the easiest technically. Argo will evaluate this fully on social, aesthetic, environmental, technical and financial factors. They initially disagree with Project Services on the technical issue of soil type MARC's (M clay) being higher cost than Rotary Park (sandy S type) – they see sandy soils as higher cost for pool construction as do many others consulted on this issue.

Project Services see the MARC's site as costing around $100K more for construction than Giufre's and Rotary but this will be analysed in more detail by Argo.

Rough Cost Estimates	Giufre	MARC's	Rotary
Excavate/level	$0K	$30K	$15K
Clear some trees	$0K	$0K	$15K
Slope/bank stabilise	$0K	$20K	$0K
Extra cost M soil	$0K	$25K	$0K
Handrails/slope ramps	$0K	$20K	$5K
Car park sealing	$70K	$70K	$50K
2 BBQ's	$15K	$15K	$0K
Relocate electric lines	$0K	$5K	$0K
Penalty/Saving vs Budget	$0K	+$100K	$0K
Possible Education Funds	$110K	$0K	$110K
Difference Over/Under	$0K	+$210K	$0K

2001 Needs Analysis Survey

The survey asked respondents which area they preferred for location – Mission Beach, Wongaling, South Mission Beach or Other. 57% chose Wongaling, 22% Mission Beach and 4% South Mission Beach – the rest did not respond or said 'other' (portion not disclosed). 7% referred specifically to MARC's Park. The respondents were not aware of the opportunity now available at the Giufre site and most were also under the impression that MARC's Park was unavailable for an Aquatic Facility (was dedicated at the time to a Bowls Facility).

In the qualitative data 32 spoke of the preference for Wongaling/Central/Close to School; 7 referred to the foreshore (e.g. Rotary Park; 14 referred to Mission Beach or MARC's Park and there was one reference to South Mission Beach. That is 72% of verbatims regarding site location declared a preference for Wongaling or central.

The current split of 60% living in Cardwell Shire and 40% in Johnstone may trend quite quickly towards 70/30 based on recent development applications data (see Population – New Subdivisions). This adds to the case for choosing a Wongaling site.

2003 Public Meeting

At a public meeting in August 2003, three sites (MARC's Park, Giufre and Rotary Park) were discussed with some pros and cons listed. The audience was invited to post comments and votes on butcher's paper on the walls. Around a third of people present did so and voted as follows:

Table 25: Site Preferences

Locality	YES	NO
MARC's Park	1	9
Giufre Site	0	10
Rotary Park	15	0

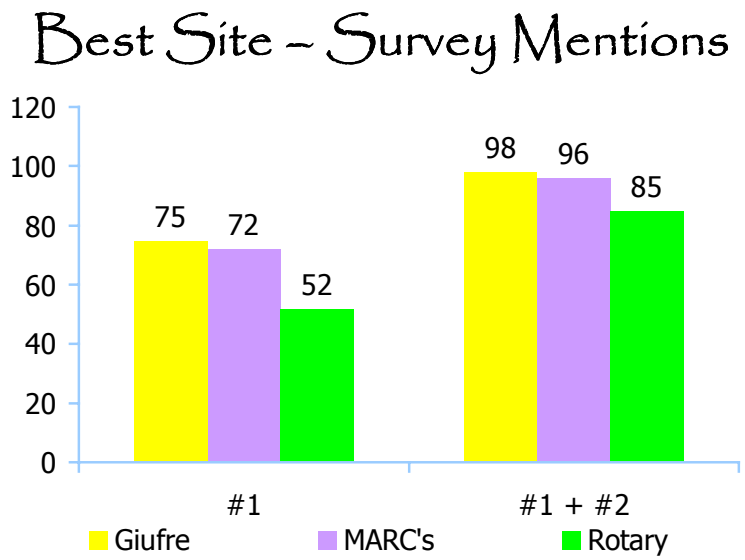
EPA may veto the Rotary Park site and the Guifre Site is to commence development but the MARC's Park site is immediately available. The presenter somewhat advocated the Rotary Site so this data is of little value. It does however demonstrate that all three sites are probably acceptable to most if presented positively.

2004 Community Survey

A community survey and information bulletin was released January 2004. Up to 17 March 2004, 202 responses have been received. The aim is to gain over 340 (10% of permanent residents) and preferably over 400 responses to ensure the sample is representative.

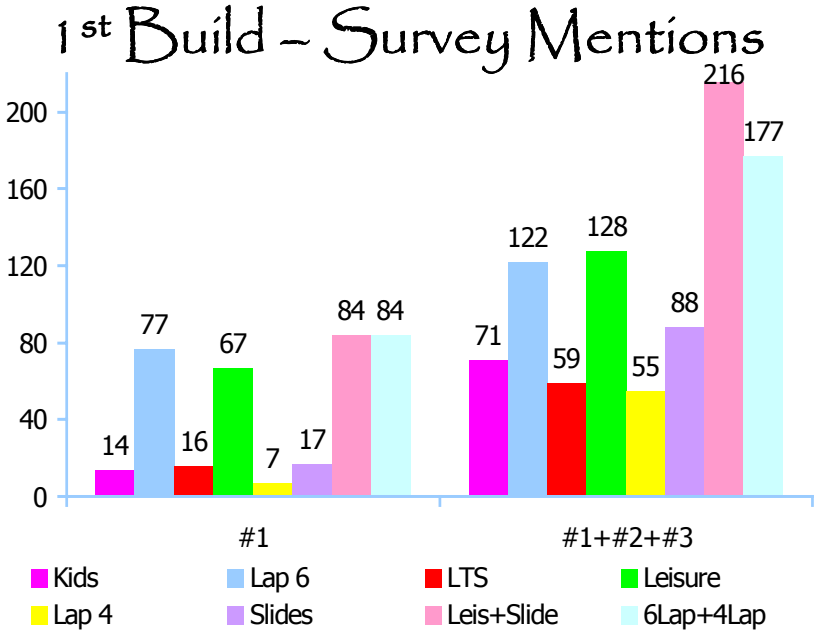
The survey format is attached at Appendix 1.

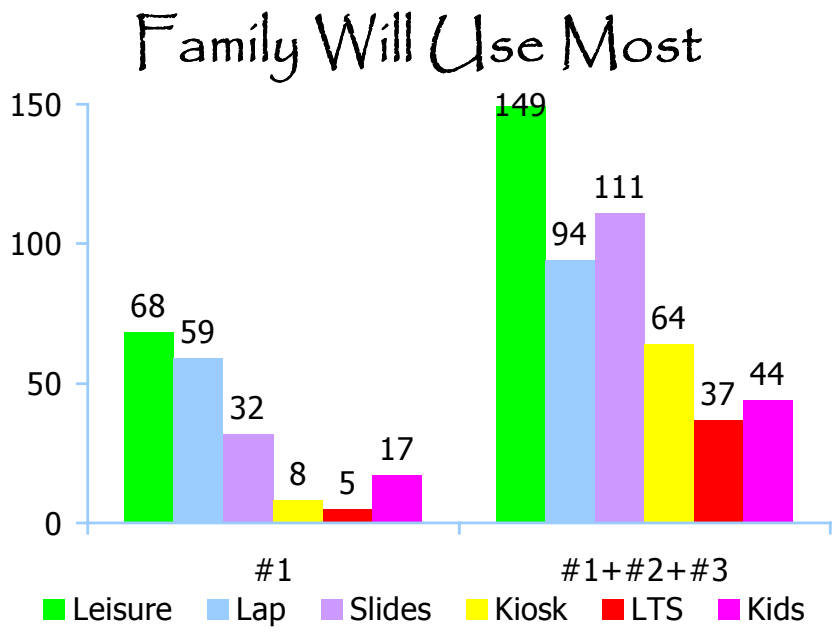
All three sites now have many advocates and some detractors. The two sites polling highest for now are Giufre and MARC's – its line ball with little separating the three on summed #1 + #2 preferences:

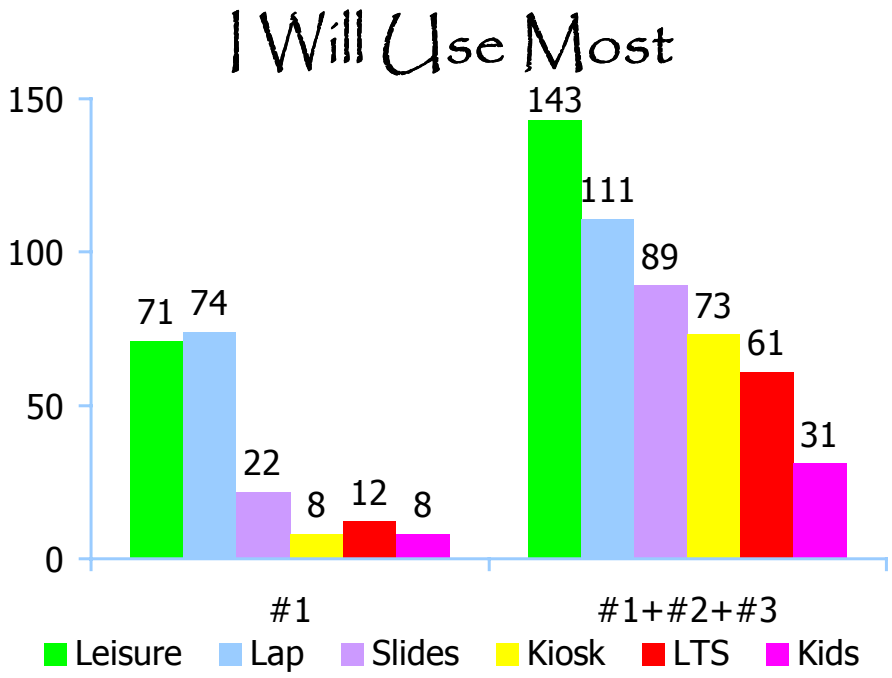


When asked which aquatic facility they would like to see built first, most respondents opted for a 6-lane lap pool or a leisure pool. Adding together nominations for a 6-lane lap and 4-lane lap pool (one should have been deleted but many put 6-lane at #1 and 4-lane at #2) and nominations for a leisure pool and for slides (slides cannot happen without leisure pool) the preference emerging is for leisure water. This confirms the findings of qualitative comments in the 2001 Needs Analysis survey.

The difference between leisure need and lap pool need is further exaggerated when one analyses the respondents envisaged usage of the facilities with the biggest difference being in family use.







The good news is that none of the sites is excluded after so much assessment. And all have considerable community support. Differentiation will require further community consultation and professional Design Assessment. This merely means no site has been eliminated and all are suitable candidates. A fully detailed Site Assessment will be conducted at Concept Design.

The plan is to continue seeking survey input in March (at local election poll it is easiest to gain responses). A Specialist Aquatic Designer is being appointed to evaluate the sites and the community needs further by providing sketches of concepts on each of the three sites. These will then be workshop tested in small

stakeholder groups. Using the site analysis, professional knowledge and community inputs (past and future) the designer will recommend the preferred site.

Experienced Aquatic Architects find community groups seldom select the optimum site by vote alone. The best way to determine the optimum site is to use interactive feedback then use technical and social site assessments to make an apolitical professional call. Refer Appendix 2 for this proposal.

8. VIABILITY

8.1 FINANCIAL VIABILITY

OVERVIEW

A rule of thumb for aquatic centre financial feasibility:

*A 17,500 visitors pa threshold is needed to make a small aquatic facility f*easible.
(Developed through years of experience in constructing and operating many aquatic facilities in Maroochy Shire)

The Tully pools attract 20,000 visitors pa from a population of 3,600. Mission Beach with population 5,200 in 2005 would attract 28,000 on a pro rata basis. Given modern leisure and learn to swim water facilities at Mission Beach the facility should easily attract in excess of 30,000 visitors per year.

Put simply, one of Queenslands most experienced aquatic facility managers would say (see Maroochy above) – it is financially feasible.

CAPITAL EXPENDITURE

Table 20 shows refined estimates of capital costs based on the recently estimated Eumundi pool of near identical specs. A quantity surveyor has assessed the Eumundi project. Additionally many quotes and estimates have been separately sought often from several sources in North Queensland. Higher estimates were used where there was conflicting information.

The Eumundi complex is an ideal comparator because, as mentioned in the needs analysis, this community is similar in most respects to Mission Beach. Furthermore, Maroochy Shire Council (e.g. Ron Smith) has vast experience in construction, operation and marketing of many recently installed pool complexes similar to the one this community seeks.

These numbers have been tested and altered in a number of ways and are considered reasonable estimates of likely cost. There are almost an infinite number of options for design specification.

The community will have to be intimately involved at final design stage but $1.6 million is an adequate budget for a quality asset that will be safe, long lasting and able to meet most of the communities aquatic leisure needs.

TABLE 20: REFINED COSTS OF A MODERATE SIZE POOL COMPLEX

Facility	Cost	Comments
Lap pool 25m x 15: spray concrete wet edge with lane ropes, platforms, ladders, pebblecrete, tiles on watermark, ends & and lane tiles, fresh water, filtration and dose system, 4 hr water turnover, depth 1.2 to 1.8m to 1.5m at end, deepest section is out from starting wall, line marks, balance tank,	$320K	6 x 2.5m lanes (Olympic spec) convert easily to 8 lane configuration for sports carnivals or to set aside lanes for rec in hot holiday periods. An alternative is to go to a 4 lane 8.8m wide pool but savings in capex are small (order $50-100K). 10-35% shade cover. Recirculated water from backwash and concourses.
Kids pool 50m^2 area: informal shape, 1x1.2mx400mm, beach entry, frogslide, 5x sprinkler sprays, snorkel trail, 1m mushroom fountain, underwater jet and air bed; spray concrete pebble finish, filtration ½ hr turnover, fresh water, skimmer box x 2	$45K	100% shade cover
LTS/hydrotherapy pool: 10x5x0.9-1.2m pebblecrete, swim off ledge 0.3mx0.6m.	$60K	Lap+LTS+Kids = $425K versus $270 - $310K Eumundi. 50% shade covered
Leisure pool 250m^2 area, fresh water, pebble surface, spray concrete, tiles at watermark, wet edge, depth graduated to allow safe disabled access 0 to 1.6m, 1 hr water turnover no balance tank.	$250K	25-75% shade cover
Slide plunge: extra cost to make leisure pool with a small 1.5 - 2m deep plunge area and two medium height slides	$50K	
Amenities building & Plant Room: Open plan kiosk with sink but no cabinets, cooking facilities etc with open walk in entry (no turnstiles), office, first aid room, change cubicles (4 female 4 male), toilets (3 female, 2 male + urinal); total area = 50 wc/change + 35 kiosk/office/first aid + 15 plant 100sqm	$150K	Considerably higher than allowed at Eumundi; Ken Fox Homes estimate to come
Concourses concrete paved broom finish	$30K	Eumundi $20K
Shade sails for kids pool (2), LTS (1) leisure pool (4) and lap pool (4) plus recreation area (2), able to be let down and remounted	$45K	Estimates ex Port Douglas Shades & Sails, $5K per sail with poles and install inclusive
Thermal Blankets for all pools with anchors and rollers where needed	$35K	Sunbather quotes on this design. Lap $17K, Kids $2K, LTS $5K, Leisure $11K
Heating Lap & LTS = electric heat pump + circ pumps; leisure & kids = solar arrays	$85K	Sunbather quotes on this design
Design & Planning Architecture $60K, Civil & Mech/Elect Engineers $22K, Quantity Survey $5K, Site investigation and Planning $6K	$120K	Probably higher than necessary – based on Eumundi costs. Project Management $27K
External Services: Telstra ($2K), external lighting ($6K), power supply ($3K), hypo tank & bunds ($7K),	$45K	Sewer, stormwater ($16K), water connect ($5K) backwash water recovery system ($6K)
Carparks (25 spaces)	$70K	Cost from recent job in Thuringowa –
Landscape: lawns, plants, architecture ($3K)	$40K	
Fence & Recreation Furniture Mesh security fence 250m $10K	$30K	Signs & Gates $3K, recreation furniture $17K
Building preliminaries allowance	$60K	
Site clearing & cut to fill excavation	$20K	
TOTAL	$1455K	
Contingencies Allowance 10%	$145K	
Total including contingencies	$1600K	

Sources of information and advice for this feasibility study included members of the MBARC plus a host of community and Council people, commercial pool experts, constructors and designers as well State Government personnel. Main contributors are listed in Appendix 4.

STAGED DEVELOPMENT

If the pool complex postulated above was not able to be funded or was not financially viable what would the scaled down options be and in what order would the community seek to start and add? A 'starter pool' could either be the lap pool or the leisure and toddlers pool, possible the latter based on most urgent and widespread need. At least 25% penalty would apply to the construction cost of a staged construction and it may well be 50-100% if not very well planned.

The leisure pool described (or maybe smaller) would meet the school program needs (water confidence, learn to swim and stroke improvement) as well as disabled, aged, family, toddler and youth recreation needs. It would not be very suitable as a learn to swim pool for toddlers and aged and would not meet therapy needs. It would not be ideal for exercise (aerobics or swimming laps) as the temperature would be too high most of the year. Those with specific lap pool needs could still access the Tully pool but most would not do so.

The 25m x 15m lap pool would meet the sports, exercise needs and the school program. It would meet few recreation needs and the research shows this is the dominant requirement in Mission Beach. Toddlers, aged, families and disabled would almost certainly use a leisure pool more often. However, add a LTS pool to the lap pool and a wider variety of needs are met so the dilemma persists.

Construction for a minimum set up of leisure and kids pool without slides, LTS pool, and lap pool, would cost around $1m.

Staged construction is not recommended. There are major problems with such an approach. If the community is forced to choose one pool over others then asset utilisation will be considerably reduced. Subsequent funding will be near impossible to raise because of the way State funding is structured (one dip) and because of the major financial penalties involved in staged construction.

A modern well designed recreation and sporting facility will be affordable and financially feasible so such severe compromises should not be countenanced.

TABLE 21: STAGED CONSTRUCTION

STAGE	FACILITY	COST	CUMULATIVE COST
1	Toddlers + Leisure pool + most basic amenities and services	$1,000K	$ 1,000K
2	LTS pool/shade/heating	$100K	$ 1,100K
3	Lap pool 25m/shade/heating	$500K	$1,600K
4	Add 25% minimum penalty for staging construction If add 50%	$400K $800K	$2,000K $2,400K

OPERATIONS EXPENSE

The Tully pools have a total volume of 1022m3 and an annual operating budget roughly as follows:

Chemicals	$15K
Energy	$15K
Maintenance	$30K
Internal Charges	$ 5K
Total Operating Expense	**$65K**

The Mission Beach (MB) facility proposed is 1050m3 – almost identical to Tully for treatment volume. Tully has no telemetering or modern devices to conserve chemical usage but the Mission Beach facility involves a greater recreation use (higher turnover of water so higher energy). It is therefore assumed that the operating costs will be the same for MB and Tully except MB will have an addition of $5K pas in heating costs and $5K for insurance. The chemicals and energy costs are similar to those provided by similar size pool complexes elsewhere.

This makes the total operating cost for Mission Beach facility $75K pa.

Full costs are not applied here – depreciation and interest on debt for example. Such a calculation is probably necessary for Council to estimate prior to its approvals and funding applications (as it does for many other service investments).

However, no public pool servicing a population catchment of less than 25,000 will break even on full cost accounting (Maroochy Shire experience). Even at the end of its minimum life (30 years) this facility is only servicing a population of 16,000 so comprehensive cost accounting is not applied here.

OPERATIONS INCOME

SCENARIO 1: NET 2005 INCOME = $143K; BASED ON TULLY ADMISSIONS/USE + 25%

The Tully pools had an approximate income stream in 2003 as follows

Admissions Income	$30K#
Kiosk Turnover	$25K
LTS classes	$25K
Swim Club Fees	$35K
Total Turnover	$115K

#(6,000 adults @ $2.50; 15,000 children @ $1.25)

The Mission Beach facility will almost certainly generate higher revenue than for Tully because:

- Add 40%: Mission Beach population is 1.4 times greater than the Tully catchment area (without including Feluga, El Arish or Kurrimine);
- Add ?% This facility will be far more modern and attractive to all ages;

- Add ?% It is temperature friendly all year round (shade sails, thermal blankets and heaters);
- Add ?% It will include a leisure pool and a learn to swim pool so will attract recreation users as well as tourists – not just traditional water sport and exercise users;
- Add 100%? Slides have been shown to double the user numbers of community pools in southeastern Queensland
- Offset this by taking into account the small number of Mission Beach people now using Tully.

From this the estimate is that revenue will be 125% of current Tully income. Several teenagers in Mission Beach occasionally visit the Edmonton commercial aquatic facility (4 hours round trip) and pay $10 entry fee for use of the slides. It would be fair and reasonable to charge at least $1 per admission for those wishing to use the Mission Beach waterslide facilities. This would add even more to the minimum estimated revenue. Assume that this merely offsets the costs of heating and insurance for the slides (total $10K).

TABLE 22: SCENARIO 1 INCOME

BASE: TULLY 2003			SCENARIO 1: MISSION BEACH 2005 = 125% TULLY 2003		
Admission Income			**Admission Income**		
Adults 6000 @ $2.50:	$15K		Adults 7500 @ $2.50:	$19K	
Child 15000 @ $1.25:	$19K		Child 18500 @ $1.25:	$23K	
Less 10% discount avge:	$4K		Less 10% discount avge:	$4K	
Net Admission Income:		**$30K**	**Net Admission Income:**		**$38K**
Kiosk Income			**Kiosk Income**		
2003 Turnover:	$25K		2003 Tully Turnover +25%:	$31K	
Less 45% Cost of Goods:	$11K		Less 45% Cost of Goods:	$14K	
Net Kiosk Income:		**$14K**	**Net Kiosk Income:**		**$27K**
LTS Class Income			**LTS Class Income**		
160 Pupils pa @ $8/class 20 classes per season:		**$25K**	200 Pupils pa @ $8/class 20 classes per season:		**$25K**
Swim Squad/Club Income			**Swim Squad/Club Income**		
220 members @ $160 avge pa		**$35K**	275 members @ $160 avge pa		**$44K**
			Slide Fees		
			50% of child admissions pay $1 fee		**$9K**
Total Net Non Council Income for Lessee		**$114K**	**Total Net Non Council Income for Lessee**		**$143K**

This scenario would generate $143K net income in 2005 excluding any fees paid to or paid by the lessee.

Scenario 2 Worst Case: Net 2005 Income = $K. Based on Tully + 25% except Swim Club Income - Tully + 0%

Table 23: Scenario 2 Worst Case

Base: Tully 2003			Scenario 2: Mission Beach 2005 (Worst)		
Admission Income			**Admission Income**		
Adults 6000 @ $2.50:	$15K		Adults 7500 @ $2.50:	$19K	
Child 15000 @ $1.25:	$19K		Child 18500 @ $1.25:	$23K	
Less 10% discount avge:	$4K		Less 10% discount avge:	$4K	
Net Admission Income:		**$30K**	**Net Admission Income:**		**$38K**
Kiosk Income			**Kiosk Income**		
2003 Turnover:	$25K		2003 Tully Turnover +25%:	$31K	
Less 45% Cost of Goods:	$11K		Less 45% Cost of Goods:	$14K	
Net Kiosk Income:		**$14K**	**Net Kiosk Income:**		**$27K**
LTS Class Income			**LTS Class Income**		
160 Pupils pa @ $8/class			200 Pupils pa @ $8/class		
20 classes per season:		**$25K**	20 classes per season:		**$25K**
Swim Squad/Club Income			**Swim Squad/Club Income**		
220 members @ $160 avge pa		**$35K**	220 members @ $160 avge pa		**$35K**
			Slide Fees		
			50% of child admissions pay $1 fee		**$9K**
Total Net Non Council Income for Lessee		**$114K**	**Total Net Non Council Income for Lessee**		**$134K**

This scenario would generate $134K net income in 2005 excluding any fees paid to or paid by the lessee.

Scenario 3 Best Case: Eumundi Pool Use Numbers adjusted to Tully 2003 Fees

The recently designed Eumundi complex will service a population catchment (greater Eumundi) of 5,000 people – very similar to Mission Beach but 17% less than greater Mission Beach (6,000). The pool complex facilities are almost identical to the ones proposed here. Eumundi does not need a recreation pool nearly as much as Mission Beach does because beaches and rivers in the Eumundi area meet that need (water temperature is lower and water is not infested with marine stingers).

Given equal management and promotion then, the proposed Mission Beach facility should attract considerably higher patronage and generate more revenue than the Eumundi complex. Scenario 3 merely mimics Eumundi estimates at Tulle fee structures.

This scenario would generate $143K net income in 2005 excluding any fees paid to or paid by the lessee.

All up the Eumundi plan is for a net income after cost of goods at $235K first year. If we adjust for admission discounts it is $200K. This does not include fees for hiring the facility for private functions.

TABLE 24: SCENARIOS 3 & 4

SCENARIO 4: EUMUNDI ESTIMATES 2003 @ TULLY FEES			SCENARIO 4: MOST LIKELY 2005 MISSION BEACH = COMBINATION		
Admission Income			**Admission Income**		
Adults 16000 @ $2.50:	$40K		Adults 10000 @ $2.50:	$25K	
Child 24000 @ $1.25:	$30K		Child 20000 @ $1.25:	$25K	
Less 10% discount avge:	$7K		Less 10% discount avge:	$5K	
Net Admission Income:		**$63K**	**Net Admission Income:**		**$45K**
Kiosk Income			**Kiosk Income**		
40,000 fee paying admissions spend $1 each:	$40K		30,000 fee paying admissions spend $1 each:	$30K	
30,000 non paying admissions spend $1 each:	$30K		20,000 non paying admissions spend $1 each:	$20K	
Less 45% cost of goods	$31K		Less 45% cost of goods	$22K	
Net Kiosk Income:		**$39**	**Net Kiosk Income:**		**$28K**
LTS/Swim Squad Income			**LTS/Swim Squad Income**		
750 (10% of population) pupils pa @ $8/class 20 classes per season:		**$120K**	364 (7% of population) pupils pa @ $8/class 20 classes per season:		**$58K**
Water Slide Income			**Water Slide Fees**		
50% of child admissions pay $1 fee		**$12K**	75% of child admissions pay $1 fee		**$15K**
Total Net Non-Council Income for Lessee		**$234K**	**Total Net Non-Council Income for Lessee**		**$146K**

SCENARIO 4: MOST LIKELY COMBINATION?

For Mission Beach one would expect the revenue to exceed Eumundi because of a higher catchment population and a higher need (safety issue for beach use). However, the best estimate seems somewhat short of that here. The major point of difference is at LTS and Swim Squad Income. Eumundi are successful in attracting around 15% of residents to participate. Tully is estimated to be attracting 380 to such events (11% of greater Tully population but some Mission Beach people participate at Tully). A more conservative starting point for Mission Beach would therefore be around 7% participation in the first year.

Using all available data, Scenario 4 at $146K is the most likely first year revenue for the planned facility at Mission Beach.

DIVIDEND OR SUBSIDY

For a first year of utilization the asset should be paying a fee back to Council in excess of the operating expenses i.e. the facility should cover operating expenses and pay a 'dividend' towards depreciation and capital costs.

However it is likely that for the first three-year contract with no proven income data the lessee would not tender for a dividend but would settle at no fee paid. So for the first three years the subsidy would be as for Tully. As years pass and income is proven and growing the subsidy should drop depending on the success of its utilization but by year 4 a $20K annual dividend would seem to be a reasonable minimum aim. Attracting good lessees to this area should be easy – many wish to live here. That is an advantage in terms likely success of the venture.

TABLE 25: POTENTIAL SUBSIDY PAID BASED ON FIRST YEAR COSTS AND INCOME ESTIMATES

	TULLY 2003	MB 2005 SCENARIO 2 WORST CASE	MB 2005 SCENARIO 1 TULLY + 25%	MB 2005 SCENARIO 4 MOST LIKELY	MB 2005 SCENARIO 3 BEST CASE
Net Income	$115K	$134K	$143K	$146K	$233K
Estimated Costs and Profits for Lessee	$125K	$135K	$135K	$135K	$173K
Fee paid to Lessee	$10K	$0K	$0K	$0K	$0K
Dividend from Lessee	$0K	$0K	$8K	$11K	$60K
Op Expense Councils	$65K	$75K	$75K	$75K	$75K
Subsidy	$75K	$75K	$68K	$64K	$15K

What is the most likely subsidy outcome? Initially, if the facility is only mildly successful and turns over merely $143K (as conservatively estimated in Scenario 4) then the subsidy would be $64K. That is $11K less than the Tully subsidy is today. The two Councils would split that subsidy – probably 2/3 to CSC 1/3 to JSC (Joint Council - JACSFACS decision).

Population growth would add to the opportunity for dividends. If population grows at 4% then for a well-managed asset dividends should grow at a similar rate and economies of scale should be reaped. In 10 years a reasonable expectation would be for Councils to pay little or no subsidy for a pool at Mission Beach. The following estimate is based on 4% usage increase in line with population growth and 3% cost pa escalation (inflation) plus an increase in LTS/Swim Squad participation from 7% of population to 10% in 10 years:

TABLE 26: SCENARIO 5 – 10 YEAR PREDICTIONS

SCENARIO 5: MOST LIKELY 2015 INCOME			SCENARIO 5: MOST LIKELY SUBSIDY 2015	
Admission Income			**Net Income**	**$340K**
Adults 15000 @ $3.50:	$53K			
Child 30000 @ $1.75:	$53K			
Less 10% discount avge:	$11K			
Net Admission Income:		**$95K**		
Kiosk Income			**Estimated Costs and Profits for Lessee**	**$200K**
45,000 fee paying admissions spend $1.35 each:	$61K			
30,000 non paying admissions spend $1.35 each:	$40K			
Less 45% cost of goods	$45K			
Net Kiosk Income:		**$56K**		
LTS/Swim Squad Income			**Dividend from Lessee**	**$140K**
768 (10% of population) pupils pa @ $11/class 20 classes per season:		**$169K**		
Water Slide Income			**Op Expense Councils**	**$100K**
75% of child admissions pay $135 fee		**$20K**		
Total Net Non-Council Income for Lessee		**$340K**	**Dividend Paid to Council**	**$40K**

That would increase the dividend to $40K in 10 years. This would represent a contribution towards depreciation and cost of capital.

The local population seeking to use the Aquatic Facility is based on Mission Beach only but surveys of residents show around 15% of interested users come from El Arish, Kurrimine, Tully, Feluga and other nearby centres not included in the Mission Beach 'catchment'. So revenue estimates may be understated considerably.

TABLE 27: ESTIMATED SUBSIDY PAID YEARS 1, 4 & 10

	YEAR 1-3	YEAR 4	YEAR 10
Subsidy	$75K plus inflation	Less than $64K	Dividend $40K

8.2 SOCIAL & ENVIRONMENTAL VIABILITY

SOCIAL COSTS

The only social costs forecast for an aquatic facility are a small local impact on visual and residential amenity. Visual amenity may well be enhanced if the architecture is fitting with the area (e.g. as at Eumundi).

All sites are very well suited to the location of a recreation facility. MARC's Park is already dedicated to recreation uses and is well separated from residential areas (Kent Close is nearest but well separated by a sports field).

Rotary Park is also well away from most housing being located in a restaurant tourism area. The park is also currently used for low frequency recreation activity and for festivals. Rotary Park may have to be assessed re native title.

The Guifre's has most potential for impact on future residential amenity. The site is however purposely set aside for an aquatic facility with large park space separating the centre of the development from residential precincts. Those who purchase nearby housing land will be aware of the proposed aquatic facility land use before buying.

SOCIAL DIVIDENDS

Social dividends are many and meaningful:

- **HEALTH & WELLBEING DIVIDENDS:** This aquatic facility would provide the greatest single opportunity for recreational and social interaction available to this community. All age groups, able or disabled, would have a host of new alternatives for sports and recreation available to enhance their lifestyle and future health. The year-round warm climate together with the temperature and weather controls provided (shade, insulation, heating) will ensure that this is not an asset used for only three months a year. High participation is assured.
- **SPORTS AND RECREATION EQUALITY:** Most small rural communities learn to live with many forms of disadvantage caused by distance and scale. Mission Beach has an added disadvantage being a relatively new community with little in sports and recreation facilities.

- All towns of 1800 people or greater between Townsville and Cairns have a 50m-community pool.
- Mission Beach residents travel between 40Km and 100Km round trip to get to a pool.
- Public transport is not an option for such trips. If you have no car – tough. If you have a car its at least $40 travel cost for an activity that costs less than $3 admission.
- 20% of Mission Beach residents have their own pool. Those without suffer the heat and do without aquatic exercise and recreation in summer or risk marine stingers.
- School children make do with small local commercial pools (available sometimes for years 1-4) or pay considerably for in time lost and transport costs for limited opportunities at Tully. Swimming and most other water sports are not a real option for Mission Beach children.

- **SAFETY DIVIDENDS:** Outside of the period May – October most locals eschew the seawater. The risks are too high due to stingers and more recently crocodiles. Several do use the two stinger net enclosures but many families will now not risk that with the smaller jellyfish and tentacle fragments penetrating this shield. Further, the water temperature in summer is often uncomfortably high at the beach edge. There are several injuries reported each season and one death occurred recently. A safe and comfortable water recreation area is a vital need for this area.
- **YOUTH DIVIDENDS:** The facility is designed to add a number of informal options for our youth. Many young people are not attracted to formal sports and recreation activities. Many are attracted to the informal recreation and social opportunities/activities offered here. Boredom has well known adverse community side effects and youth need a variety of recreational opportunities to get out of the cycle of nothing to do.
- **DIVIDENDS FOR MID AGE PEOPLE:** The Mission Beach community has a larger than normal distribution of people in 45-64 age group (6% above the national average). With a well-designed kiosk and park area enhancing the water recreation area this group will gain much needed variety in physical/social activities and be encouraged to participate more.
- **FAMILY DIVIDENDS:** Mission Beach families have few alternatives for sports and recreation whereby the entire family are involved actively. This facility provides that opportunity.
- **SENIORS AND DISABLED DIVIDENDS:** With the LTS/hydrotherapy pool and leisure pool members of our community with restricted mobility are also well catered for, adding many sport and recreational options to their lives.
- **EMPLOYMENT DIVIDENDS:** Tourism is the lifeblood of this community. The area has great natural attractiveness but little in the way of sports and recreational options. As a consequence some groups of tourists stay for 1-2 days and leave. Many larger tourism ventures do have their own pools but many smaller ones do not. Even the resort pools offer limited sports activities (apart from dive lessons) for tourists. A modern aquatic facility will add immeasurably to the attractiveness and amenity of the area for tourists. Success in tourism leads to jobs and lifestyle enhancement.

ENVIRONMENTAL VIABILITY

The only potential environmental dividend envisaged is that an aquatic facility will reduce the need for the community to develop and use natural waterways for recreation. This is probably of little consequence as the community is increasingly wary of the dangers of stinging creatures in natural waterways.

Likewise the downsides for the environment are not significant.

TREE CLEARING

The MARC's site is cleared of trees and the Giufre site is largely cleared as well. The Rotary Park site has some established trees and some of these would be removed if the facility were located there. Few significant trees exist on this site with most being young Acacias and Syzygium *forte* species – there are some quality Eucalypts and maybe some could be retained with careful design.

BEACH EROSION

More significantly, the Rotary site is adjacent to the beach so would require an EPA ruling on its suitability. Initial talks with EPA indicate an unwillingness to allow the community to build on the foreshore for fear that erosion will occur in future and the community will seek to protect the asset with rock levees. This is usually associated with problems of sand scouring from the beach.

Whilst that makes perfect sense and may lead us to conclude that the other two sites are preferred it must be said that the community already has around 50 houses on the foreshore at Wongaling. Furthermore it has streets running close to the foreshore (Banfield Parade) and the proposed facility can be located inside the outer edge of Banfield Parade's edges. In March 2004 EPA approved a Skate Park adjacent to the proposed Aquatic Facility site so the die has already been cast.

Adding a community pool would alter the picture little – the community would almost certainly seek to protect the houses and streets anyhow so the facility adds no extra risk.

Because there are two incontestable sites already available there is no need to resolve the Rotary site issues fully at this point. A soil test has been completed and this issue provides no problems. A survey of public opinion on the three sites is now being conducted. If the community does not want the facility on the Rotary site then no further work will be needed.

WATER ISSUES

An aquatic facility does involve considerable water use and older pools have little in the way of recycling and reclaim facilities. The proposed pools will be designed to capture concourse spillage and backwash wastewater. The recycled water will be used for parks irrigation and all sites have adequate nearby areas for irrigation.

Access Viability

Whilst most residents have cars and an ability to independently access the facility, 9% of households have no car so depend on local taxis or buses. Furthermore, a high portion of visitors (especially the large backpacker segment) does not have independent transport. This means that public transport is quite an important factor in determining the feasibility of the facility and the preferred site.

Currently, community pool users in Mission Beach may go to Tully or Innisfail (round trip 40 – 130 Km). Older people wishing to use a hydrotherapy pool have to travel to Innisfail and those seeking a leisure pool also have to use Innisfail (Warrina).

The primary school sends students to Tully at a cost of $4 per student trip or $6,000 per year. Mission Beach Bus and Coach provide this service at $200 per return trip for 50-60 students. If the community chose MARC's Park site, this cost would reduce to $1/student ($50/trip). Of course this would also reduce travel time loss by almost one hour per trip as well. If the community chose to locate the facility in Wongaling, there would be no cost for transport to the facility.

Mission Beach Bus and Coach provide a bus service from Bingil Bay to South Mission Beach six days a week (not Sundays or public holidays). This covers all areas except Carmoo, Garners or Midgeree. The service operates seven times a day and currently stops at MARC's Park and Rotary Park and travels nearby the Guifre site (would almost certainly include it as a stop if this was the chosen site).

Table 28: Bus Fares

From	To MARC's Park	To Rotary or Guifre
Bingil Bay	$3	$4.50
Mission Beach	$1.50	$3
Wongaling	$1.50	$1.50
South Mission Beach	$3	$3

If we had 1,000 people who accessed the pool in a year using public transport or walking what would be the cost of the bus travel? This analysis assumes that if they live in the area that the pool is sited in, half will walk.

Table 29: Cost to the Community for Bus Travel (if 1,000 Commutes Occur per Year)

From	To MARC's Park	To Rotary or Guifre
Bingil Bay 120	$360	$540
Mission Beach 270	$202	$810
Wongaling 380	$570	$285
South Mission Beach 230	$690	$690
Total Community Cost	**$1822**	**$2325**

The cost of bus travel to the facility will be similar for all three sites. Surprisingly, it is slightly higher for the Wongaling site options than for MARC's Park.

9. MANAGEMENT

The viability of any facility is greatly affected by way it is managed, operated and promoted to its customers and potential customers. As seen in the body of this report, there are many and sometimes conflicting needs for a community aquatic facility. Management of things as seemingly simple as timetables, kiosks, shade and water temperature may influence patronage immensely – get it right and there are great rewards in both customer satisfaction and income generated.

The design and construction are merely a starting point. Aquatic facilities are often grossly under-utilised, sometimes due to design deficiencies and often due to management and marketing deficiencies. The success of management of the facility determines the success in meeting the community's needs. This section deals with the options for such management and recommends a model.

9.1 MANAGEMENT OPTIONS

Four options are possible for management of the facility:

- Community Committee, School or Club Management;
- Council Management;
- Contract Management or
- Combination.

COMMUNITY COMMITTEE

Here a community committee, a school or one or more clubs is appointed to manage the facility. They may hire employees or use volunteers or use a combination. For an aquatic facility a qualified professional is essential for supervision and coaching. If the facility is designed well the professional manages it most hours alone.

The committee approach requires a group with the time and long-term commitment to volunteer their services. The likely contenders – school and MBARC are not volunteering that level of commitment so this is not a viable option.

COUNCIL

This model is seldom preferred for aquatic facilities because it costs much more than contract management. Neither Council advocates this option.

CONTRACT

Lessees are the way almost all aquatic facilities are managed in North Queensland. This proves to be the most reliable way to provide a high quality service at reasonable cost.

COMBINATION

The lessee can be contracted to manage all aspects of the facility with some assistance from Council and some form of community participation may be blended into the management structure. Using volunteers with special skills in attracting customers to the facility and in running a retail food outlet has merit.

Mission Beach has a group incorporated as MBARC (Mission Beach Aquatic and Recreation Club) who have shown long-term commitment to making this happen. Their continued involvement in some capacity after construction would be useful. The swim coach professionals who are qualified to manage aquatic facilities are seldom equally qualified to market their facility effectively on low budgets or to creatively manage a kiosk

There is opportunity for the contract to allow for engagement of a volunteer group with this role providing this is well structured and led by Council. (The Council that hosts the facility site manages any Mission Beach facility). A further sub option used at some aquatic facilities in the north is to separately contract the kiosk usually to a local food business.

9.2 PREFERRED MODEL

The lessee model is preferred with community assistance. This means formally defined roles and accountabilities for the community contribution. The community group would need to include all key stakeholders. Roles and memberships would be subject to revision at specified intervals. Marketing and benchmarking would be the primary role of the community committee. The committee should include residents with marketing, kiosk management and benchmarking qualifications and experience.

Both Councils now use lessees for their existing pools and have well established management structures for this to occur effectively. Marketing remains the weak link for both. Best practices should be accumulated and used from local Councils and others further afield.

The combined management team – Council, Lessee and Community should have clearly defined performance indicators covering worthwhile and proven indicators of cost, income and service quality. Indicators should be designed professionally and include both perceptions and actual service performance measures as well as modern complaints metrics and a measure of customer retention. These should be designed in ways that allow most indicators to be compared directly with best practices at other well-run aquatic facilities.

10. FUNDING

Funding bodies have not been pursued at this point other than to establish the criteria for funding. The major source of funds for community aquatic facilities stems from Queensland State Governments Sports and Recreation Queensland.

The criteria allow for achievement of 50% of the projects eligible costs up to a total project cost of $2million. The following costs within the proposed project are not eligible:

Pool Furniture/Slides	$70K	
Office and Kiosk Fittings	$20K	
Change room Accessories	$4K	
Signs	$2K	
Landscaping/Landscape Design	$40K	
Recreation Furniture	$17K	
Total		**$153K**
Contingency 10%		$15K
Total rounded		**$170K**

The amount that the community (Councils) could apply for from Sports and Recreation Queensland would therefore be 50% of $1.43m or $715K.

The recently funded Eumundi Aquatic Facility was a $1million project. This project attracted $110K from the Education Department and $220K from Federal Solutions Funding. This community could apply for both these as well as Tourism Funding so a reasonable funding outcome would be as follows:

TABLE 30: FUNDING EXAMPLE – GIUFRE SITE

FUND SOURCE	$K
Local Contributions:	
Cardwell Shire Council (assume 50%)	335
Johnstone Shire Council (assume 50%)	335
MBARC	30
Local In Kind	70
(Project Management, Soil Testing, Excavation etc)	
State Government Funding:	
Education Queensland	110
Sport and recreation Queensland	
Major Facilities Program 2005	600
(50% of $1600K less $170K ineligible $110K State Education & $120K Federal)	
Federal Government Funding:	
Transport and Regional Services	
Regional Solutions Program	120
Total Project Cost	**1,600**

TABLE 31: FUNDING EXAMPLE – GIUFRE SITE IF NO NON-S&R FUNDS AVAILABLE

FUND SOURCE	$K
Local Contributions:	
Cardwell Shire Council (assume 50%)	390
Johnstone Shire Council (assume 50%)	390
MBARC	35
Local In Kind	70
(Project Management, Soil Testing, Excavation etc)	
State Government Funding:	
Sport and recreation Queensland	
Major Facilities Program 2005	
(50% of $1600K less $170K ineligible)	715
Total Project Cost	**1,600**

TABLE 32: FUNDING EXAMPLE – GIUFRE SITE IF NO NON-S&R FUNDS AVAILABLE & JSC OFFER ONLY 33% CONTRIBUTION

FUND SOURCE	$K
Local Contributions:	
Cardwell Shire Council (assume 67%)	520
Johnstone Shire Council (assume 33%)	260
MBARC	35
Local In Kind	70
(Project Management, Soil Testing, Excavation etc)	
State Government Funding:	
Sport and recreation Queensland	
Major Facilities Program 2005	
(50% of $1600K less $170K ineligible)	715
Total Project Cost	**1,600**

Cardwell Shire Council has already planned to spend $600K on the facility albeit a little later than MBARC plans but the schedule is flexible. This means that CSC has already planned for more than enough to cover its share of the investment for its worst possible outcome.

11. NEXT STEPS

TABLE 33: KEY 2004 ACTIONS

ACTION	WHEN	WHOM
Completion of community survey (minimum 10% or 320 responses)	April 2004	MBARC
Begin minor funding applications	April 2004	CSC/JSC/MBARC
Site-based design roughs and community workshops to aid Councils in their site decision. Argo workshop small stakeholder groups then present findings to a large community group. They provide a firm site recommendation based on technical, social and environmental factors	April 2004	Argo or similar specialist pool designers
Agree on site	May 2004	JACSFACS/CSC/JSC
Design Concept	Jun 2004	Argo or similar
Approve Design Concept	July 2004	JACSFACS/CSC/JSC
Brief for Final Design	July 2004	JACSFACS/MBARC
Approve Design Contract	Aug 2004	JACSFACS/CSC/JSC
Design Complete	Sept 2004	Argo or similar
Approve Design	Sept 2004	JACSFACS/CSC/JSC
Quantity Survey	Oct 2004	Contract QS
Tender Preliminary Costing	Nov 2004	Lead Council
Agree Funding/Expenses/Construction Timing	Nov 2004	JACSFACS/CSC/JSC
S&R Funding Application	Nov 2004	Lead Council
S&R Funding Approval	April 2005	S&R Qld
Final Tender Approval	June 2005	JACSFACS/CSC/JSC
Commence Construction	July 2005	Lead Council

12. APPENDICES

APPENDIX 1: COMMUNITY SURVEY

MISSION BEACH AQUATIC & RECREATION CLUB
HAVE YOUR SAY

The feasibility study is near completion. A draft report will be submitted to Councils in March. The MBARC will arrange for the study facilitator to meet with interested community groups early in 2004. An overview is attached and all locals are encouraged to offer their views.

FORMS ARE AVAILABLE FOR ADDITIONAL MEMBERS OF THE FAMILY AT DROP OFF POINTS - CONNORS CORNER, MISSION BEACH AUR SUPERMARKET, WONGALING FOODSTORE, BEACHCOMBER TAKEAWAY AND MISSION BEACH STATE SCHOOL.

Your Name:_____ Address:_____
Resident ☐ orVisitor ☐? Do you have a pool where you live? Yes☐; No☐

ALL INFORMATION PROVIDED REMAINS CONFIDENTIAL

Your Preferred Site for the Aquatic Centre? Place 1 in your preferred site, 2 in your second preference and 3 in your least preferred site: (see page 3 for site information)
Giufre's Site ☐ MARC's Park ☐ Rotary Park ☐

If Councils are able to build an aquatic facility but cannot raise funds for it all, which facilities would you like built first? Place 1 in your first preference, 2 in second etc:

Children's Wader Pool	☐	Leisure Pool	☐
6 Lane Lap Pool 25m	☐	4 lane Lap Pool	☐
(Please delete one of the lap pools above – leaving the one you prefer to be built)			
Learn to Swim/Hydrotherapy Pool	☐	Water Slide Area	☐

Which facility would you <u>personally</u> use most often? Place 1 in your highest usage facility, 2 in second etc:

Children's Wader Pool	☐	Leisure Pool	☐
Lap Pool 25m	☐	Kiosk/Recreation Area	☐
Learn to Swim/Hydrotherapy Pool	☐	Water Slide Area	☐

Which facility would you see your family using most often? Place 1 in your family's highest usage facility, 2 in second etc:

Children's Wader Pool	☐	Leisure Pool	☐
Lap Pool 25m	☐	Kiosk/Recreation Area	☐
Learn to Swim/Hydrotherapy Pool	☐	Water Slide Area	☐

Further comments:

Please have forms returned to drop off points by Wednesday January 28

CONTACT PAUL ROXBY 40886110 or 0419650209

APPENDIX 2: CONCEPT DESIGN & SITE SELECTION

PROPOSAL

FOR PROFESSIONAL SERVICES FOR THE PROPOSED
MISSION BEACH AQUATIC CENTRE
LOCATED IN MISSION BEACH
FAR NORTH QUEENSLAND, AUSTRALIA

PREPARED FOR:

Mr Paul Roxby
President
MISSION BEACH AQUATIC AND RECREATION CLUB
31 Bingil Bay Road
Mission Beach Far North QLD 4852
AUSTRALIA

1.00 INTRODUCTION

Argo welcomes the opportunity to provide this fee proposal to the Mission Beach Aquatic and Recreation Club (MBARC) for the development of Mission Beach's Aquatic Centre.

The services covered by this fee proposal are architectural and include:

0. Master Planning (including assistance with site selection)
1. Concept Design

The purpose of these services is to provide MBARC with clear and expert information that allows for a site to be selected and then a description of how to develop the selected site to best serve the interest of the community.

The Master Plan will be established to allow for staged development over a 5 to 15 year period. The framework of the Master Plan will ensure that many possible opportunities are considered and that the optimal facility is ensured.

THE CONCEPT DESIGN WILL ENSURE THAT THE CHARACTER AND NEEDS THE MISSION BEACH COMMUNITY ARE ASSIMILATED AND PROVIDED FOR. OPPORTUNITY FOR COMMUNITY INVOLVEMENT IS PROVIDED IN THE FOLLOWING FORUMS:

1 3# Key Stakeholder workshops
2 2# Public presentations (typically at a council meeting) where feedback and suggestions will be welcomed and discussed
3 Urban art will be incorporated into the architecture and pools utilising the talents of local artists and involvement of the local school children.

2.00 METHOD

Our basic method of approach is act expertly on behalf of and report directly to the Client. The client can be assured of the full personal involvement from the principal for this project and of our enthusiasm and commitment in providing a quality service on time.

2.01 Desk Top Analysis of Existing Information

To expedite the process, we request that MBARC accumulates and sends key site and demographic information to Argo for study prior to the site visit.

The nature of the information required is scheduled in section 3.01 of this fee proposal.

2.02 Site Inspections and Community Consultation

Mr Will Marcus shall visit Mission Beach for three days to correlate and investigate the site information first hand and to meet with MBARC, the Local Authorities and Council Officers involved as well as the public. The preferred itinerary is as follows:

Day 1
Morning: Meet with client and involved parties and inspect the three possible sites. (2 to 3 hrs).
Afternoon: Workshop with Key Stakeholders to refine the brief. (3 to 4 hrs).
Evening: Argo to prepare draft master plans for each site. (6 hrs)

Day 2
Morning: Meet with client and re-inspect the three possible sites while reviewing the sketch master plans. (2 to 3 hrs).
Afternoon: Workshop with Key Stakeholders (1 hr).
Presentation to a public Council meeting. (30 min to 1 hr).

Day 3
Morning: Key Stakeholders Workshop (1 to 2 hrs) to determine the preferred site.
Afternoon: Workshop (2 to 3 hrs) with Key Stakeholders to develop the Master Plan for the selected site.

It is intended that the key stakeholders are people who represent the interests of all the major users. User groups generally include: the Councils (political and shire administration); the general community; business community; the swim club (if any yet); the school; the hospital or disability pensioners; the retirement village or aged pensioners. Some members of the working committee should be capable of representing more than one group. If representatives for these groups can be identified prior to the information gathering process then better quality information can be gathered.

A Key Stakeholder Committee of no more than 5 or 6 people is recommended. It is hoped that members of the Key Stakeholders Committee can each send Argo relevant information pertaining to the group they represent prior to the site visit.

For the workshop to be effective each member of the working committee should be well versed in the requirements of the group they represent and be empowered to make decisions 'on the spot', on behalf of that group.

A written site selection report and detailed design brief will be written by Argo and sent to the client, summarising the outcomes of the workshops and meetings on site.

This is the end of the preliminary consultative process regarding site selection and master planning and concept architectural themes.

2.03 Master Plan and Report

Once a site has been selected, the Master Plan shall be finalised on the preferred and drawn up in full colour to a scale of 1:200 at A1 size. The Master Plan shall describe the facility's extent, location and character as viewed from the air (showing roofs and tree tops) and will have taken into account aspects such as buildability, cost, serviceability, emergency egress and access, climate, soil conditions, existing site features, future expansion and day-to-day operation.

A companion report (A4 size) shall explain the 'logic' behind the master planning issues, schedule all items and describe future staging options.

2.04 Concept Design

The Concept Design shall be finalised and drawn up in full colour to a scale of 1:200 at A1 size. The Concept Design shall describe the facility's character and layout and will have taken into account aspects such as the existing character of Mission Beach, needs of the end users, future possible extensions to the facilities, and the desired projected image of Mission Beach.

The Concept Design shall include:

- Two site sections at 1:200 scale that show key building groups,
- An aerial axonometric of the total facility,
- Plans of the entire facility at 1:200 scale showing floor layouts of each building, paths, pools and concourses

2.05 Presentation

Mr Will Marcus will attend site a second time to deliver the finished work and make a presentation to Council and the public.

At this time, it is recommended that MBARC mount a public display of the aquatic centre master plan and concept design in a public place such as the Council offices, public library or shopping centre with a suggestion/comment box. This will allow for extra comments to be considered and incorporated at a later date as appropriate.

3.00 CLIENT'S RESPONSIBILITIES

3.01 Provision of Information

Provide base data as follows:

- Site and location plans of the three possible sites.
- Geotechnical information on each site.
- Title deed for each site showing ownership, site area and boundaries.
- Photographs of each site and adjacent properties.
- Demographic information for the town and Shire.
- Detailed surveys of each site showing contours, and all site features related to the AHD.
- Previous reports, SWOT analyses, feasibility studies and design drawings.
- Any other information, which you believe may be useful.

It is not critical for all of this information to be available prior to the site visit; however, the more prior research we can do, the more effective the time spent at Mission Beach will be. Ideally, this information is best provided two weeks prior to the site visit.

3.02 Provision of Services and Facilities

The following is required to be provided by the Client:

2. Desk space for Mr Will Marcus to use while in Mission Beach.
3. A meeting room suitable to hold the MBARC workshops with a white board and boardroom table.

4.00 FEE PROPOSAL

4.01 The Project

The project includes all development works on three sites in Mission Beach, all approximately 5,000 sq.m. in area up to draft master planning stage. After this stage, the project services and deliverables will focus on only one of these sites.

4.02 The services provided for the project are:

A1 Site Selection and Draft Master Planning 3 sites
A2 Master Planning preferred site
A3 Concept Design preferred site

4.03 Deliverables

The following shall be delivered to the client:

i) Master Plan 1:200 scale showing entire site as. Full colour bubble-jet reproduction of original, laminated. One copy. A1 sheet.

ii) Site sections 1:200 scale (#2), showing key building and pools. Full colour bubble-jet reproduction of original, laminated. One copy. (Also on the A1 master plan sheet).
iii) Site Plan at 1:200 scale, Full colour bubble-jet reproduction of original, laminated. One copy. A1 sheet.
iv) Aerial 3D projection showing the core of the facility bubble-jet reproduction of original, laminated. Full colour bubble-jet reproduction of original, laminated. One copy. A1 sheet.
v) A4 size report including a colour A3 size reproduction of the above drawings. Three bound copies and one unbound copy for reproduction by MBARC.
vi) Compact Disc with uncompressed jpeg and tiff versions of all drawings suitable for emailing and marketing purposes and a Microsoft Power Point presentation of the drawings and key items of the reports.

4.04 Alteration of Scope of Work by Client

Should the Client reduce the scope of the Project by removing elements or services that have already been Designed or provided, then our fee up to that time will be calculated to include these elements to that stage. Should the Client decide to extend the scope of the project or services beyond that which has been designed or provided to any stage, then a separate, extra fee for Designing and providing the new services will be charged at the same rate as for the other services.

4.05 Basis for Fee Calculation

Argo's fees for services described under A1, A2 and A3 are calculated as a fixed lump sum. All expenses including 2 trips to Mission Beach from Brisbane and all accommodation and travel expenses are included.

4.06 Fee Proposal

Argo's fee for professional services provided for the project is $20,000 (twenty thousand dollars) plus GST.

4.07 Reimbursable Expenses

Reimbursable expenses will include the following and will be additional to the above lump sum:

i) Reproduction of documents beyond the numbers and types nominated in item 4.03 at cost plus 10%.
ii) Provision of models, perspectives or other marketing materials not already nominated in section 4.03. Cost as quoted at the time.
iii) More travel costs to and at Mission Beach than specified in this proposal at cost plus 10%.
iv) Costs associated with the procurement of special information necessary for the delivery of services at cost plus 10%.

Reimbursement by the client shall be made at the time Argo incurs and invoices the expense. Argo shall not incur expenses without the permission of the client in writing.

4.08 Payment Schedule

Payment for services shall be in accordance with the following:

a)	Mobilisation fee to commence services	$ 4,400
b)	Due upon completion of MBARC and community consultation and Draft Master Planning	$ 6,600
c)	Due upon delivery of Final Master Plan	$ 6,600
d)	Due upon presentation of Final Concept Design and Report	$ 4,400
	TOTAL (INCL. GST):	**$22,000**

4.09 Payment

Payments shall be in accord with schedule 4.08 and shall be made by the Client within 7 days of issue of each invoice except for the mobilisation fee, which shall determine the commencement of services. We prefer payments to be made by electronic transfer of funds to:

Account name: Argo Projects Pty Ltd
BSB: 804050
Account: 3033 9685
Bank: Credit Union Australia
175 Eagle Street
Brisbane QLD 4000

Otherwise, cheques made payable to "ARGO" are acceptable.

4.10 Authorities Fees and Charges

Argo is not responsible for any fees or charges required in relation to the Project by any government authority nor for any special payments required for submission to or required to obtain approval from any government authority.

4.11 Copyright

The true value of Argo's services is its experience and intellectual property contained in the drawings, specifications and other documents. Argo grants the Client conditional license to use the information for the project described herein. The condition of the license is full payment of the invoices issued by Argo. This license is not transferable.

The drawings, specifications and other documents provided by Argo are the property of Argo whether the work for which they are made is executed or not, in whole or in part.

4.12 Form of Agreement

The form of Agreement between Argo and the Client will be as mutually agreed. A letter confirming engagement and accepting the terms and conditions of this fee proposal is also acceptable.

5.00 PROGRAM

It is envisaged that Argo could commence services in early May 2004. The program for provision of services would be as follows:

Item	Wks	Week										
		1	2	3	4	5	6	7	8	9	10	11
4. Desk top analysis	2											
5. Site inspection & draft master plan	1											
6. Master Planning	3											
7. Concept Design	2											
8. Presentation of Final Master Plan	1											

APPENDIX 3: CRITERIA USED FOR SITE SELECTION

1. Soil type, characteristics and capability;
2. Area available (around 5,000 square metres);
3. Land ownership including approvals needed and Native Title;
4. Land use constraints;
5. Visual amenity, site attractiveness to patrons future and present;
6. Visibility to patrons including tourists;
7. Space for car parks and for extra parking at intermittent regattas;
8. Access;
9. Population proximity including tourists;
10. School proximity;
11. Site slopes and shape;
12. Availability of Services (Electric, Sewerage, Drainage etc);
13. Environment conditions and impacts;
14. Pedestrian and cycle access;
15. Opportunity for sharing and synergy of services with other sports and recreation activities;
16. Existing nearby facilities that may be used e.g. Car parks;
17. Groundwater;
18. Future land uses nearby land;
19. Conflicting land uses;
20. Community opinions on all issues;
21. Climate, prevailing wind conditions/directions;
22. Existing trees and scope for attractive landscaping;
23. Cost of maintenance;
24. Cost of construction;
25. Funding considerations;
26. Drainage and water reuse;
27. Traffic Management;
28. Overhead power lines and underground pipes or structures;
29. Natural shade;
30. Equity issues;
31. Safety issues;
32. Population growth areas;
33. Excavation needs

APPENDIX 4: CONTRIBUTORS

Cardwell Shire Council: 1. Doug Green, Mgr Environmental Health Services
Cardwell Shire Council: 2. Mayor Tip Byrne, Cr Joe Galeano, Cr Ken Fox, CEO Mal Malyon, Belinda Jackson (Planning), Alf Raiti (Engineering)
Johnstone Shire Council: 8. Mayor Barry Moyle, CEO Peter Roberts, Brett Nancarrow (Planning), Kerry Osmond (Finance), Bruce Sawdy (Engineering), Wendy Zerner (Community)
14. Maroochy Council: Ron Smith Manager Business Development Branch
15. Pool Link Murwillumbah: Des Dillon MD
16. Simplex Aquatics Coffs Harbour/Orange John Dangerfield Director
17. Tourism MB Truss Biddescombe
18. Ray White Real Estate: Lyn Trapp Rentals
19. Mission Beach Primary School: Gordon Robertson Principal
20. Sports & Recreation QLD, Cairns: Sandra White, Andrew Atfield
21. Peter Hunt Architects Perth: John Hutchison Architect
22. Taree Council: Ian Angus Engineer
23. Michael Ganza Cairns: Engineer for Croydon pool
24. Dept Local Govt Brisbane: Suzanne Philp Research and Client Services
26. Ninnes and Fong WA: Jeff Ninnes
27. Thuringowa City Council: Karin Hartog Riverway Project Manager
28. SMB Coconuts Van Park: Don & Janine Gray
29. Thuringowa Construction & Maintenance: Guy Raffe
30. Boonah Council: Carl Manton
31. Beaudesert Shire: Gary Williams
32. Innisfail Pool: Ian Arthur Lessee
33. Strickland Insurance Brokers: Brett Stewart
34. Chinchilla Shire Council: Jenny Campbell
35. Mission Beach Bus and Coach: Mike Gardner
36. Cooktown Shire Council
37. Innisfail Library
38. Dirt Professionals: Angelo Tudini
39. Q Build: Eric Coates
40. EPA Cairns: Bruce Lawson
41. Accent Water and Energy: Mark Crowther
42. Sunbather Insulation and Solar: Geoffrey Balcomb
43. Shades & Sails Port Douglas: John Rebbechi
44. Eacham Pools: Gary Power
45. Phil Porter & Tully High students (Survey Analysis)
46. Project Services: Bob Christie