

ALTERNATIVE SWIMMING FACILITIES



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FOREWORD

I am very pleased to introduce this booklet — "Alternative Swimming Facilities" — to everyone interested in water recreation and its planning.

The material included here will be especially helpful in developing a new water recreation facility or updating an existing one. Some of the current developments in this field are truly exciting and a number of large-scale projects are already operating in Queensland and Western Australia.

Even in Victoria, with our shorter operating seasons, the financial viability of well-designed alternative swimming facilities is demonstrated by the increasing private sector activity in this area. You will notice that this publication has been supported by two sponsors. This is especially gratifying to me because Victorian Government policy on sport and recreation is to encourage private industry sponsorship and participation wherever practical.

One of the aims in publishing this material has been to provide a source of ideas for recreation planners working in local government. For this reason, a copy of this booklet has been mailed to every municipality in Australia.

GEOFFREY M. INMAN
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For many decades, the design of public swimming pools remained virtually unchanged. However, in recent years, there has been an exciting innovation—the development of *alternative* swimming facilities.

What are they? Why are they so exciting? What are the possibilities? How much do they cost?

The aim of this booklet is to answer these questions, and others.

But first, let us look at the reasons behind the emergence of alternative swimming facilities . . .



INTRODUCTION

The concept of alternative swimming facilities is revitalizing the water recreation industry. It offers hope to managers of conventional swimming pools who have been struggling with problems of low attendance and increasing operating costs. For both private sector and local government, alternative swimming facilities have proved an unqualified *success*—both in economic and social terms.

Why? Quite simply, because they give the people what they want. Let us see what this means . . .

Why Do People Visit Local Swimming Pools?

Look at a crowded pool on a hot summer day. The activities are varied, but most people can be found standing or splashing in the shallow end. If the pool has an outdoor area, you will also find a lot of people sunbathing, socializing or just relaxing there. Only a few people will be trying to swim repeated laps. The vast majority are at the pool to have *fun*.

Evidence from research studies in the United Kingdom and Australia very clearly supports this. An overwhelming percentage (figures range from 85% to 93%) go to the local pool for recreational swimming. The emphasis is on play and relaxation. Recreational swimming involves informal, spontaneous and unstructured activity.

People (mostly children) spend their time playing in the shallow end. They swim a few strokes, splash around, climb out, and then jump or dive back into the

water. They want to run around, jump and bombshell, or play with beach and water toys.

Young adults and parents mainly come to the pool for relaxation and are more concerned with socializing. They come to meet their friends, sunbathe, and perhaps have a swim. These people appreciate an area separated from the boisterous and vigorous activities of those at play.

What's Wrong With Conventional Swimming Pools?

Most municipal swimming pools have a conventional design. The main pool is usually a traditional rectangular shape, designed for people who want to swim laps or train for aquatic sports. Very often, special attention is given to the needs of swimming clubs and school groups. In fact, many municipal councils go to a lot of trouble to provide and maintain a high standard swimming pool complex for local sporting events.

So, for the serious swimmer, chances are that the municipal pool—with its conventional design—is *excellent*. The problem is that *most* people do *not* visit the local pool for serious swimming. As we have already seen, most people go there for *recreation*.

Unfortunately, many municipal pools do not effectively cater for the recreational swimmer. Some do not have enough shallow water. Others have no facilities for relaxation and socializing. Some even have rules and regulations which *discourage* play!

ALTERNATIVE SWIMMING FACILITIES ... WHY?



"Whitewater Slide", Macquarie, A.C.T (Photo: G. Thompson)



"Big Surf", Phoenix Arizona (Photo: YSR Library)

Generally speaking, conventional swimming pools have not been developed with recreational swimmers in mind. The main consideration has usually been to provide a *sporting* facility, which people can also use for recreation if they like. However, very little is done to positively *encourage* recreational swimmers, by offering additional features especially for them. Because of this, annual attendance figures are much lower than they could be.

To put it another way, there is a strong *market demand* for facilities which are specially designed for water action recreation. Conventional swimming pools do not adequately meet this demand. It is for this reason that the concept of *alternative swimming facilities* has emerged.

Depending on the capital expenditure and land area needed to develop them, alternative swimming facilities can be divided into *four main types*—

1. Recreational features added to a conventional swimming facility
2. Water playgrounds
3. Leisure (or wave) pools
4. Water theme parks.

Let us now consider each of these in more detail.

Suppose *your* municipal pool has already been built (at a considerable cost). You agree that *something* should be done to cater for recreational swimmers. But funds are limited, or perhaps there is no room for a major new development. Fortunately, there are a number of simple (and inexpensive) ways to improve the recreational potential of a traditional rectangular pool. Here are some possibilities—

Fountains and Sprays

Everybody likes to watch and listen to the splashing waters of a fountain. Usually, they are found in parks, town squares, or foyers of large buildings, where they are a “look but don’t touch” feature. But the local swimming pool is a place where people can get in and actually play with the spraying water.

A fountain or a spray could be added in a section of the main pool, the learner’s pool, or in a special wading pool. Wherever it is located, it is a popular attraction.

Slides and Water Chutes

As a crowd pleaser, probably nothing beats an exciting water slide or chute. These can be situated to make use of the existing pool or a special catchment pool could be built. Joint development by a commercial enterprise and the local council would virtually eliminate construction and operating costs for the council.

Experience has shown that the addition of a water slide or water coaster is almost certain to increase your annual pool attendance.



Bletchley Leisure Pool, England (Photo: YSR Library)

1. HOW TO IMPROVE AN EXISTING POOL



Above: Rampage Slide at "Wet N' Wild", Orlando, Florida. Right, above: Flying fox at "Wet N' Wild". Right, below: Relaxation area at "Adventure Island", Tampa, Florida. (Photos: WaveTek)



Bumper Boats

Bumper boats are the "dodgem" cars of the water. Each boat has a small motor and can hold one or two people. Imagine the fun, as they bounce and bump along in a pool or small lagoon.

The special pool needed, plus the boats, represent a substantial investment. But once again, development by a commercial group in conjunction with the local pool can minimize the drain on municipal funds.

Rope Swings and Aerial Trolleys

If the existing pool has a diving pool or a pool with a deep end, then a tarzan swing or aerial trolley will add plenty of thrills and excitement. These give the exhilarating sensation of swinging through the air and splashing in the water. Of course, to ensure safety, a catch-net must be provided to cushion the falls of those people who let go too soon! However, the risk is easily kept to a safe level, without taking away the adventure.

A Setting for Relaxation

Many older teenagers, young adults and parents use the local pool as a place for social recreation. They need a pleasant setting where they can enjoy the sunshine or relax in the natural shade of trees. Lounge chairs would be a welcome extra.

Barbecues and picnic tables also encourage *family* outings. The aim is to offer an environment where Mum and Dad can either join the kids at play, or relax in comfortable surroundings while the kids play on their own.



Above: "Whitewater Slide", Macquarie, A.C.T. (Photo: G. Thompson). Below: Waterfall and fountain at Ascot water playground (Photo: YSR Library)

CASE STUDY—The Aqua Thrillway, Fremantle

The Aqua Thrillway in Fremantle, Western Australia is a recent example of the successful *joint development* of alternative swimming facilities by a municipal authority and private enterprise.

Property adjacent to the Fremantle Municipal Pool has been leased to a commercial group, which developed the land and built "The Aqua Thrillway". It features a water slide which twists and turns for 150 metres to finish in a small catchment pool. Another popular attraction is a small pool with bumper boats.

People who have already entered the Municipal Pool pay an extra fee in order to use the Thrillway. This arrangement has proved very beneficial for everyone concerned.

Before the Thrillway was opened, the Municipal Pool had an average annual attendance of 104 000 people. After only a half season with the Thrillway operating, attendance had increased to 182 000 people. It is expected that, with a full season of operation, attendance will be more than double the previous annual average.

The commercial venture has also benefited by its association with the municipal pool, which provides a ready-made focus for water recreation activities. In fact, the scheme has been so successful, that further expansion is being considered.

Of course this development has also been good for the community which is happy to have a new source of recreation. And the local council is seen to operate a financially viable facility.

CASE STUDY—Whitewater Slide, Macquarie

In Macquarie, A.C.T., the local council leased their entire pool complex to a private group, which has accepted full responsibility for its operation. A number of alterations were made, but the main addition was a "Whitewater Slide", built to attract the recreational swimmer. The advantage of the "Whitewater Slide" is that it can be erected in a limited area.

The slide has proved to be a tremendous financial success. One hour of full operation is enough to meet the daily operating costs. Capital expenditure will also be repayed in a correspondingly short period.

Users of the slide are charged \$2 for a one hour session, with new sessions starting every twenty minutes. A colour coded band is attached to the user's wrist to indicate the session he is in. The maximum capacity of 150 people per hour (50 for each session) gives a potential revenue of \$300 per hour.

Even at capacity operation, the slide offers plenty of excitement with a minimum of waiting. Responses of people who use the new attraction are very enthusiastic. Everyone—young and old—enjoys the thrills offered by the slide.

2. WATER PLAYGROUNDS- FUN FOR ALL

Suppose that *some* development funds are available for recreational swimming. But maybe a major new project is out of the question. Fortunately, there is a medium cost option to consider—the *water playground*. This is a successful concept which can be developed on its own or integrated with existing facilities.

The idea of a water playground is to include a variety of alternative water facilities in a park environment. The emphasis is on shallow water play areas surrounded by picnic areas and park settings.

Pools which offer a wide range of water depths and low gradient entrances into the water are important. Special shallow puddles for toddlers allow parents to play with their children without having to get more than their feet wet.

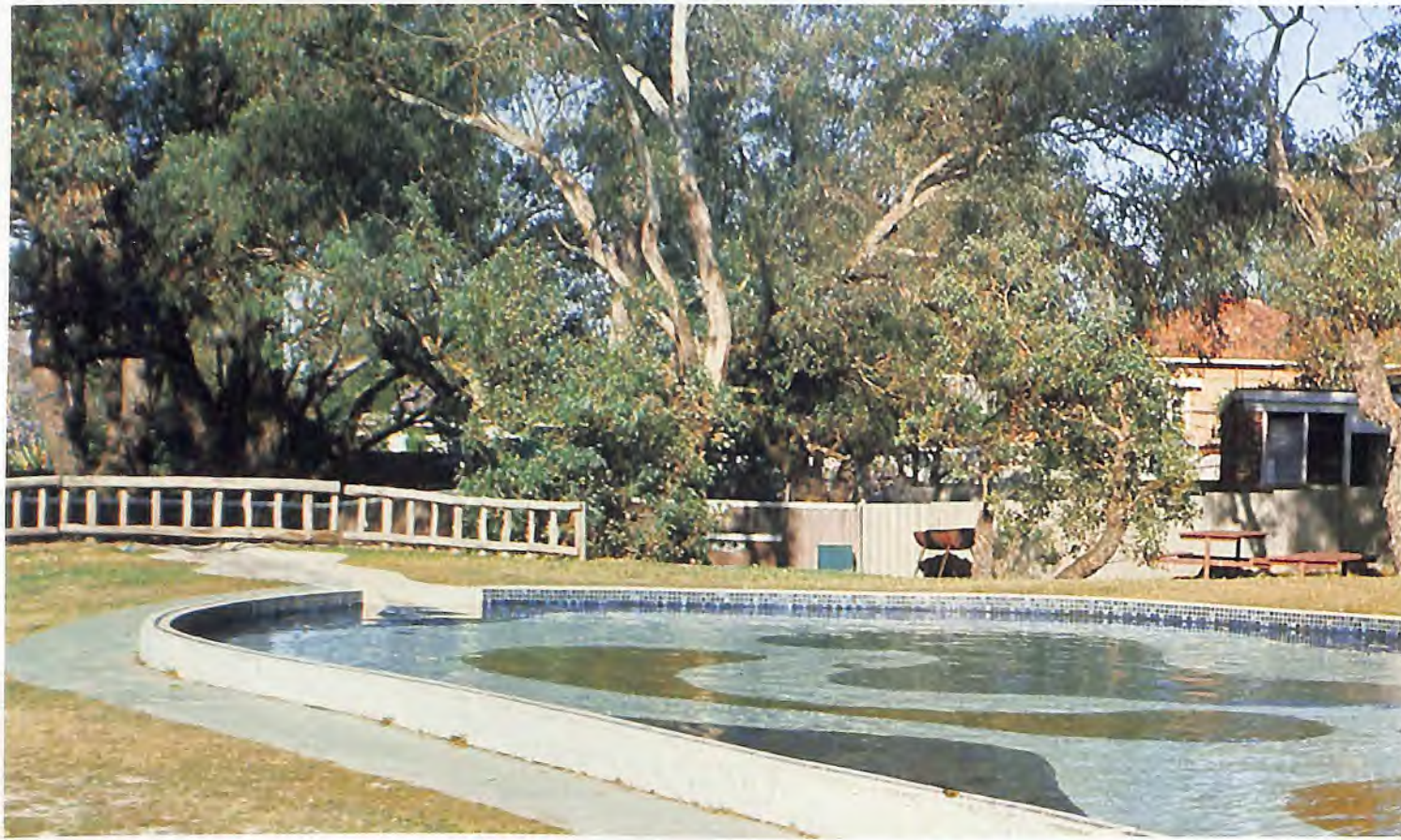
Fountains and waterfalls add to the atmosphere. But more importantly they are there to be played in. Caves and tunnels with flowing water provide places to hide and play. Water slides and chutes of various lengths and gradients can be featured throughout the playground.

Specially designed water toys such as water guns and cannons can be placed strategically. Children should also be encouraged to use their own toys—balls, floats, boats, and so on. There could be separate pools for toy boats and rafts, with a lock system to change the depths of pools and stream courses.

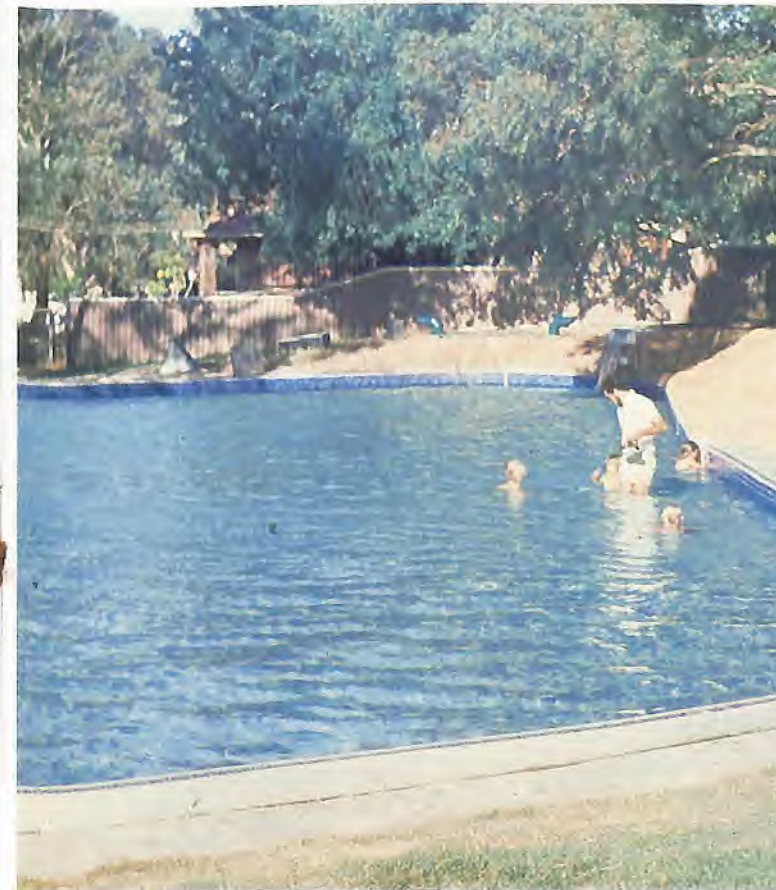
The whole purpose of a water playground is to encourage play and recreation. And this is what makes the concept so popular with the general public.



Above; Playground at "Wet N' Wild". Below: Playground at "Wild Waters". Left, above: Playground slide at "Wild Waters". Left, below: Water playground at "Adventure Island". (Photos: WaveTek).



Ascot water playground. Above: Pool and channel. Below: Open channel, tyre swing and see-saw. Right, above: "Peddle Go Round". Right, below: Water pool for rafts (Photos: YSR Library).



CASE STUDY—Ascot Water Playground

Ascot Water Playground, located in Belmont, Western Australia, was the first water playground to be developed in Australia. It has been an overwhelming success.

The shallow depth water areas consist of a twelve metre diameter central fountain with associated slide and toddlers wading pool. Two split level wading pools are linked by lock systems for toy boats. A large "Boat lake" approximately 450 mm in depth also features tractor tubes for a healthy paddling exercise. There are also twin slides where children can slide about ten metres down into a circular pool, with a mini-version of the slide alongside for toddlers.

The surrounding park provides a comfortable environment with naturally shaded picnic and barbeque facilities and a kiosk for light refreshments. There is a wide range of playground equipment, with types segregated to allow the rough and tumble of the older kids, without risk to toddlers. A nine hole mini-golf course is adjacent to the kiosk and is available for a small hiring fee of 40 cents per golf ball and club.

Throughout the water playground, the emphasis is on play and family participation. Children can enjoy the wide range of activities and parents can join in without getting wet or just relax in the comforts of the park.

What if you want to do something really *big* for recreational swimming?

When capital funds and land for development are less of a problem, it is time to consider building a *separate leisure pool* or wave pool. The facilities discussed previously can be incorporated with conventional pools to develop a complex which caters for both serious and recreational swimming. But the *leisure pool* is geared almost exclusively for recreation.

Leisure pools have a freer form than a conventional rectangular pool. The design usually attempts to simulate a beach type setting by the use of curves, straight edges and shallows, all carefully worked out. The effect is enhanced by providing playground equipment in the surrounding areas. But the main feature is the wave pool.

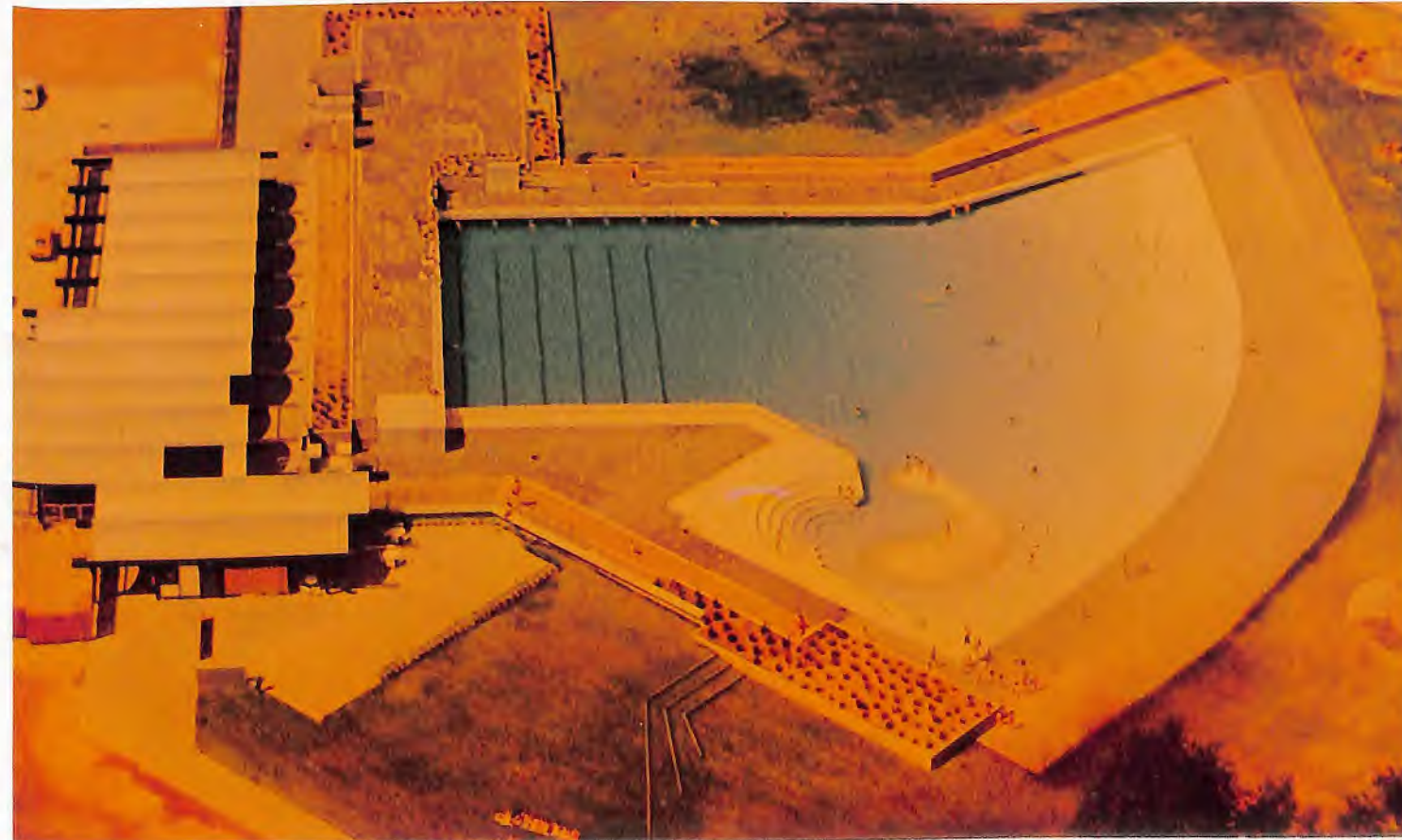
The wave pool is probably the most exciting and innovative concept ever to be introduced to pool designs in Europe and the U.S.A. WaveTek pools have been tried in a number of overseas countries and have proved to be both popular and financially profitable.

Swimmers and non-swimmers of all ages are catered for in the pool. With depths ranging from 0-2.4 metres, even toddlers can enjoy the water. The varying depths make the pool ideal for swimming instruction, allowing beginners to go only as deep as they like.

Because there is a gradually sloping bottom, handicapped and elderly people can enter the pool easily to a safe and comfortable depth. Competitive



3. LEISURE POOLS- AN EXCITING ALTERNATIVE



Above: Whitley Bay leisure pool. Below: Aerial view of wave pool. Left, above: Concordia leisure pool. Left, below: Herringthorpe leisure pool (Photos: YSR Library)



Above: WaveTek pool at Pontiac, Michigan. Below: WaveTek pool at Point Mallard Park, Decatur, Alabama. (Photos: WaveTek)

swimmers can also use the wave pool—simply turn off the wave machine, set up the lane dividers, and the pool is ready for racing or training.

Wave pools create a sensational feeling in the water. It is similar to being in the ocean, but it is different. The water is clean and not salty. You can ride the crests on a raft, bob up and down in the rollers, body surf, frolic in the breaking whitecaps or just lay in the shallow end of the pool and let the last lap of the waves roll over you.

Additional revenue is gained from raft hire.

Leisure Pools—Some Overseas Examples

Just how well have leisure pools succeeded? Let us briefly look at some results from America and England, where they have been operating for several years.

U.K. Results

In England, leisure pools are drawing people from a much wider area than the conventional pools. In fact, when questioned, 65 to 88% of people said that they chose the leisure pool facility even though there were conventional pools closer to where they lived. The majority of people said that they intended to visit the leisure pool repeatedly—the pool was more than a single visit novelty.

The effect of leisure pools on conventional pool attendance has been mixed. Although leisure pools have partly lured people away, they have also

generated substantial new swimming activity in other local facilities.

The wave machine was cited as the major attraction of leisure pools. Another aspect which was appreciated was that leisure pools provided a place for the family and friends to share an enjoyable activity *together*.

U.S.A. Results

In the United States, leisure pools have measured their success in financial terms. As in England, the most popular feature of the leisure pools has been the wave machine.

The first American leisure pool facility in Decatur, Alabama earned a profit exceeding \$150 000 in its second year of operation. By its sixth year in 1977, the centre earned over \$330 000 profit. These figures were achieved in a facility which operates for only a 109 day season. 1981 provided a revenue of \$771 000 with a profit of \$346 000 after deducting \$425 000 for expenses.

In Pontiac, Michigan, a pool opened in 1976 with only a 68 day season. During that time period, the pool had an income exceeding \$75 000 and operating costs totalling \$60 000.

In both cases the WaveTek pools have been successful, not just in financial terms, but also in terms of public satisfaction. And because the public appreciates the exciting new type of recreation, the local Parks and Recreation Commissions have gained a great deal of positive public exposure.

The ultimate in alternative swimming facilities is the *water theme park*, which offers a combination of many different water recreation activities. The aim is to please everyone, by providing the biggest and the best of everything! You can whoosh down flumes, float on undulating waves, spray water jets and cannons, and rampage down wet roller coaster rides.

In America, water parks have met with huge success. Australians too will soon be enjoying the total water action theme park with at least four parks under construction for private enterprise and another to be a redeveloped municipal facility.

A typical water park will include—

- * water playgrounds for children
- * giant water chutes and slides, water coasters
- * WaveTek pools
- * bumper boats
- * rope swings and aerial trolleys
- * bubble machines which cushion every dive (even belly flops are fun)
- * a range of outdoor picnic, barbeque and refreshment facilities
- * rapids ride
- * cliff jumps.

The advantage of the water park concept is that it can be developed gradually. A few features can be offered in the first phase of development. Over a period of time, as finances become available, new features can be added. Competition determines the staging of the development.



4. WATER THEME PARKS- PUTTING IT ALL TOGETHER



Above, below; Beach area at "Wild Waters" wave pool, Left: Water chute at "Adventure Island". (Photos: WaveTek)

So far in this booklet, we have looked at different ways to provide facilities for the recreational swimmer. This section gives some general guidelines on costs.

Water Playgrounds

The initial investment for a water playground can range from \$50 000 for a small playground to \$250-\$280 000 for playgrounds like Ascot and Maylands. Because there is normally no entrance fee for the use of playground facilities, they operate at a deficit.

The major expense is staff salaries. Ascot and Maylands have operating expenses of about \$40-\$45 000 annually, while at the small Rolf Harris playground at Bassendean, expenses are only \$6-\$8 000.

The larger centres do have some revenue from the kiosk, the coin operated barbecues and the mini-golf course—receipts range from \$2 500 to \$3 000.

Water Slides and Chutes

The capital cost of this type of facility can vary greatly, depending on size and types of material used in the construction. Another consideration is whether an existing pool can be used or a new pool is required. Generally speaking, cost estimates range from \$12 000 for a small slide to over \$500 000 for the most elaborate structures.

Operating expenses also cover a wide range. Usually there is a charge made for the use of the slide during a prescribed period of time. This fee is invariably more than enough to cover expenses. From

TABLE 1—1980 WAVETEK ADMISSION FEES

PUBLICLY OPERATED FACILITIES	
Decatur, Alabama	11 and over is \$3.00 10 and under is \$1.50
Pontiac, Michigan	18 and over is \$2.25, 17 and under is \$1.25, preschool age is free. Half price twilight swim from 6 to 8 p.m.
Fairmont, West Virginia	19 and over is \$2.00 18 to 5 is \$0.75, under 5 is admitted free
Pittsburgh, Pennsylvania	18 and over is \$2.40, 17 and under is \$1.20
Bismarck, North Dakota	18 and over is \$1.50, 17 to 13 is \$0.75, 12 to 7 is \$0.50, 6 to 3 is \$0.25. From 5 to 6:30 p.m. any size family can swim for \$3.50. There are two sessions in the afternoon from 1 to 3 p.m. and 3 to 5 p.m.
Salt Lake City, Utah	13 and over is \$2.50, 12 and under is \$1.75. Season passes are \$35.00 for a child and \$45.00 for an adult and \$75.00 for families.
Dothan, Alabama	Adults \$3.00, children \$1.50
Nashville, Tennessee	Adults \$3.00, children \$2.00
Waveland, Mississippi	Adults \$4.00, children \$2.50
Denver, Colorado	District residents—Adults \$3.50, children \$2.50 Non-residents—Adults \$4.50, children \$3.50
Sandusky, Ohio	Adults \$2.50, children 14 to 5 \$1.75
PRIVATELY OPERATED FACILITIES	
Marriott WaveTek (Louisville, Kentucky)	Everyone is charged \$3.50
Mountain Ocean (Pigeon Forge, Tennessee)	12 and over is \$4.50, 11 and under is \$2.50
Wet N' Wild (Orlando, Florida)	13 and over is \$6.00, 12 to 3 is \$4.50, 2 and under is free. Reduced price between 5 and 9 p.m. is offered
Wild Waters (Silver Springs, Florida)	12 and over is \$4.95, 11 and under is \$3.95, under 3 is free
Adventure Island (Tampa, Florida)	All ages \$5.15, under 3 is free
White Waters (Branson, Missouri)	Adults \$6.95, children \$5.95

HOW MUCH WILL IT COST... WILL IT PAY FOR ITSELF?

TABLE 2—AVERAGE PER CAPITA REVENUES MUNICIPAL OPERATED POOLS

Pool	Attendance	Gross Revenue \$	Average Per Capita Revenue \$
Denver, Colorado, 1980	95 939*	505 909	5.27
Waveland, Mississippi, 1980	44 103	193 657	4.39
Nashville, Tennessee, 1980	94 079	409 519	4.35
Decatur, Alabama, 1980	205 760	756 491	3.67
Salt Lake City, Utah, 1980	42 411	129 786	3.06
Dothan, Alabama, 1980	104 912	304 933	2.91
Sandusky, Ohio, 1980	24 600*	71 486	2.90
Fairmont, West Virginia, 1980	26 838	59 238	2.25
Pittsburgh, PA (Settlers Cabin), 1980	123 265	255 844	2.08
Pittsburgh, PA (Boyce Park), 1980	105 406	205 238	1.95
Pittsburgh, PA (South Park), 1980	105 930	204 725	1.93
Pontiac, Michigan, 1980	96 542	140 376	1.45
Bismarck, North Dakota, 1979	36 621	14 811	0.40

* Partial season.

the water slides around Australia there are unanimous positive comments concerning profit potential. Naturally, profits will vary. All those who are currently operating water slides are very pleased with the results.

WaveTek Pools

The wave pools in America have all been financially successful and have produced a substantial profit over the years of operation.

The Point Mallard Park Aquatic Centre in Decatur, Alabama has had a steadily increasing attendance and revenue during its first seven years of operation. The entire complex—which includes a wave pool, an Olympic standard 50 metre pool with a 10 metre diving tower, snack bar, gift shop, playground, and so on—cost \$1 200 000 to build in 1970. By 1977 the profits generated equalled the cost of construction.

Hyland Hills Park District in Denver, Colorado opened their facility in 1980 and in the partial season in which they opened the total gross revenues were \$505 909 with profit after expenses of \$211 274. They also experienced the highest per capita revenue of any of the publicly owned facilities which was \$5.27 average spent by the 96 000 people who visited the facility.

Admission fees charged at a number of publicly and privately operated WaveTek facilities in the United States are listed in Table 1.

Table 2 gives the average per capita revenue for the public pools in table 1.

Private sector operations report higher figures with average per capita expenditure of up to \$7.50 to \$8.60.

The cost of a wave pool depends very much on the size of the pool desired. Total pool cost will range from \$550 000-\$700 000 including wave machinery.

By now you probably agree that alternative swimming facilities are truly an exciting innovation in water recreation. Whether you are planning to develop an alternative facility in your local area, or whether you are "Just browsing", it is certainly hard not to be inspired by some of the magnificent facilities now operating or in the construction/design stage in Australia and overseas.

Experience in the United States indicates that the most successful long term facility will be the water action park, where the participants come to stay. A minimum visit is half a day and a one price admission per person applies covering all the "rides" in the park. The most successful facilities also have large deck areas for relaxation and "family togetherness".

Concessions such as souvenirs and food services are provided at the majority of parks.

Effective marketing of the facility to target groups such as social clubs is vital. Special promotions in conjunction with local service clubs, T.V. and radio stations, and commercial sponsors are practised by most successful municipal operators. Regular surveys of their patrons make these facilities a continuing success.

In the United States the pools operate with only about 3-4 productive months in which to maximize the operating strategies. They can't afford to meander through the season waiting for final figures to tell whether they have succeeded or not. Therefore timetables

for performance and a method for assessing when they are ahead or behind schedule have been developed.

The attitude is that they are not in the business of counting turnstile clicks, but of generating a healthy return on assets, and this involves a detailed marketing plan.

In this booklet, we have tried to answer some of the *basic* questions about alternative swimming facilities. More detailed information can be found in the references listed at the back. Both the commercial sponsors of this booklet would be happy to supply you with further details about their products and services.

Whatever your interest in alternative swimming facilities, all of us here at the Department of Youth, Sport and Recreation are available to help in any way that we can. Please direct your enquiries to Graham Thompson, Co-ordinator, Planning and Technical Services Unit.

Our address is:—

Department of Youth, Sport and
Recreation
570 Bourke Street
Melbourne, 3000

Or telephone on (03) 602 1566. And please feel free to use our reference library—its on the 24th Floor.

WHERE TO NOW?



Above: Rampage slide at "Wet N' Wild". Below: Slide pool at "Wild Waters". (photos: WaveTek)

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ALTERNATIVE SWIMMING FACILITIES

