

Name:	Heatherdale Tennis Club Inc.
Project Description:	Water Conservation Program Replacement of 8 “En-Tout-Cas courts” with “Classic Clay” synthetic surface
Date of Report:	22-02-2006

1. Background

Heatherdale Tennis Club is located in Mitcham in the middle of the Eastern Suburbs. The club was established in 1968, with two En Tout Cas courts, a court surface, which was very popular at this stage. In the years to follow, the club was continuously growing and an additional 6 courts were established on the site. The tennis club has approx. 400 members and our club is attended by over 5000 members of 100 clubs each year, we have over 80 teams competing in 8 different competitions and has had great success in community-funded projects such as ‘Try Tennis Days’ and ‘Tennis at Schools Days’.

For over 30 years the community have been playing on the En Tout Cas surface and have been happy with it, but with growing concern over water conservation and the increasing expense for court maintenance, the club wanted to look at an alternative more resourceful option that was more sustainable from the environmental and financial perspective.

To maintain a good playable surface for En Tout Cas, the courts need to be watered before and after each set, which uses approx 400,000 litres of water per court each year. This high cost of water usage and the need to save water was of great concern for the club along with cost of maintenance. In addition, after every heavy rainstorm major works would be needed to restore the courts to a playable condition, as the En Tout Cas court surface would be washed away into the local waterways, which in itself is another key environmental consideration for looking at alternatives.

The Heatherdale Tennis Club began a search for a court surface that had the same playing characteristics as En Tout Cas but had low water usage requirements, low maintenance and reduced run off of court material into the adjacent waterways. The investigation resulted in finding a relatively new and untried surface called ‘Classic Clay’.

Members of Heatherdale Tennis Club were first introduced to ‘Classic Clay’ at a competition in Bairnsdale and survey results proved that they were impressed with the playing surface and its likeness to the preferred En Tout Cas courts, so in January 2004 an application for Smart Water funding to replace the existing surface of the courts with the more environmentally friendly ‘Classic Clay’ as a metropolitan demonstration site was made and in April 2004 the application was proven to be successful.

2. What is 'Classic Clay'?

The Classic Clay tennis surface 'system' incorporates patented technology to achieve an extremely low maintenance, world-class clay surface, playable in both wet and dry conditions.

There are two components to the Classic Clay system. One simply acts as a specialised 'binder' for the other.

CLASSIC CLAY COMPONENT 1.

The primary focus of the Classic Clay system is the mineral infill or 'artificial clay' covering the entire surface area and is responsible for the clay-like characteristics. Due to the nature of the enamel like coating, the Classic Clay mineral infill requires a specialised 'binding' layer to contain and hold the infill at a particular depth and in one place. Without this 'binder' layer the infill would blow and wash away like a traditional En Tout Cas court.

CLASSIC CLAY COMPONENT 2.

The binder layer has been fine tuned in synergy with the size and shape of the mineral infill to result in a perfect balance and true clay playing character. The composition of the binder layer elements is unique and include a specialised backing cloth for strength and durability, a perfected latex composition of the binder layer elements is unique and include a specialised backing cloth for strength and durability, a perfected latex composition for stability, premium UV stabilisers and extreme temperature tolerances.

The playing surface retains all the attributes of a traditional clay court and introduces numerous unique benefits. The surface plays and slides like clay, has the consistent bounce characteristics and looks exactly like a perfectly prepared clay court but with the virtually no maintenance or water usage. The uniquely developed mineral infill is the component primarily responsible for the clay like characteristic. (As mentioned above in Component 1) It is commercially sieved, colour pigmented and furnace fired to achieve a consistent size, shape and enamel coating. This coating prevents the surface from binding or compacting and contributes to the superior drainage qualities of this system.

International competitions are held on this revolutionary surface including:

- ATP Senior Tour Sydney
- ATP Senior Tour Melbourne
- ATP Senior Tour Chicago
- Australian Junior Tournament

3. Project Implementation

With the project approved by the Smart Water Fund in April 2004, the City Of Whitehorse Council was contacted to advise them of the successful application and for guidance on the next step in regards to permits and what requirements there were on notifying the local community.

Community Consultation

As per advice from the City of Whitehorse council, letters were written to local residents informing them of the proposed works, the working hours and the noise level of the machinery which was going to be used by the contractors. Heatherdale Tennis Club also advised the local community about the clubs water saving targets stemming from this project, and the benefit to the adjacent waterways.

The project was formally started on September 10, 2004 with a ' Tie the Knot ' Ceremony. The local member of Parliament Tony Robinson, the Mayor of City of Whitehorse Robert Chong, Managing Director of Yarra Valley Water Tony Kelly and several other councillors from surrounding municipalities were in attendance.



Installation

Construction commenced on 11 September 2004. The time allocated for this stage was a period of 3 weeks, with an additional week allowed for potential bad weather.

All of the existing court lines, nails and part of the surface were removed to level the courts. Club members cleared and washed out the existing drainage system under the courts, which included inspection pits. The existing walls of these pits were extended and new grates were installed on top to allow the 'Classic Clay' surface to be installed.

An additional course of red bricks on the existing court surrounds were installed to allow for a further 50mm of crushed rock which was then laser levelled with a grader.

The courts were ready for the synthetic binding (as described in section 2) surface known as 'Classic Clay' to be installed over a compacted free draining base of a fine 'A' grade 50mm nominal crushed rock base, sealed with a product known as 'Permaflex', which is a binding solution that is designed to keep the crush rock in place.

The mineral infill component is then swept into the synthetic surface, which gives the unique qualities of this playing surface.



Alternative base for tennis courts

"Classic Clay" surface can also be installed over existing or newly constructed porous or non-porous sub base i.e. concrete, bitumen, Macadam, asphalt, painted hard court or equivalent materials.

4. Key Results and Benefits

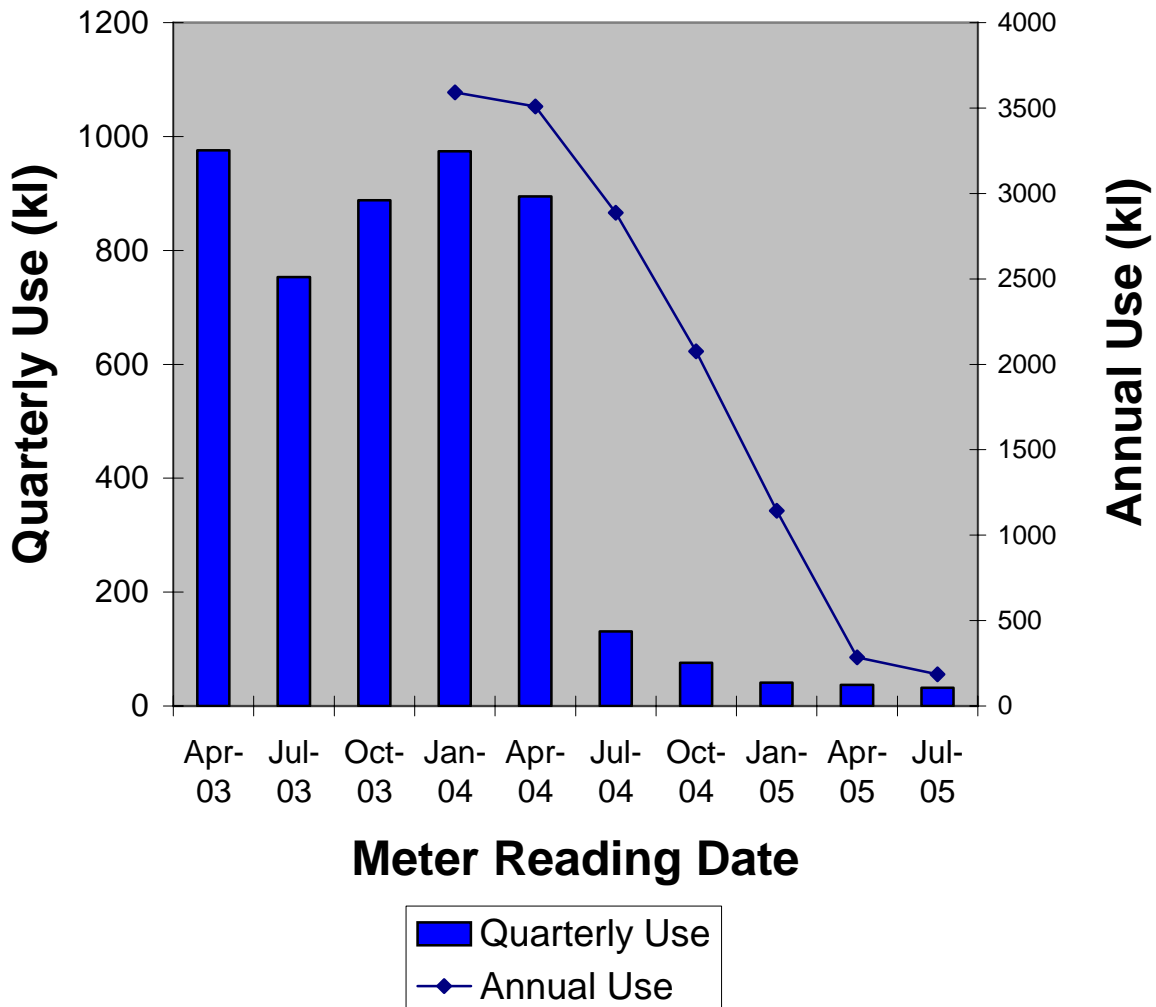
In starting this project the main aim of the Heatherdale Tennis Club was to lay a surface that would benefit both the club’s needs and also the environment.

Benefits to the Environment

- Since installing ‘Classic Clay’ the club is saving approx 850-900 KL of water per quarter, which brings the total water saving to approx 3400 KL per annum. The only water which is being consumed is in the club room’s toilets, showers, drinking taps on the courts and for garden use which is approx 32 KL per quarter.

The graph below shows the large amount of water saving at the club since the installation of the new water efficient surface.

Water Use at Heatherdale



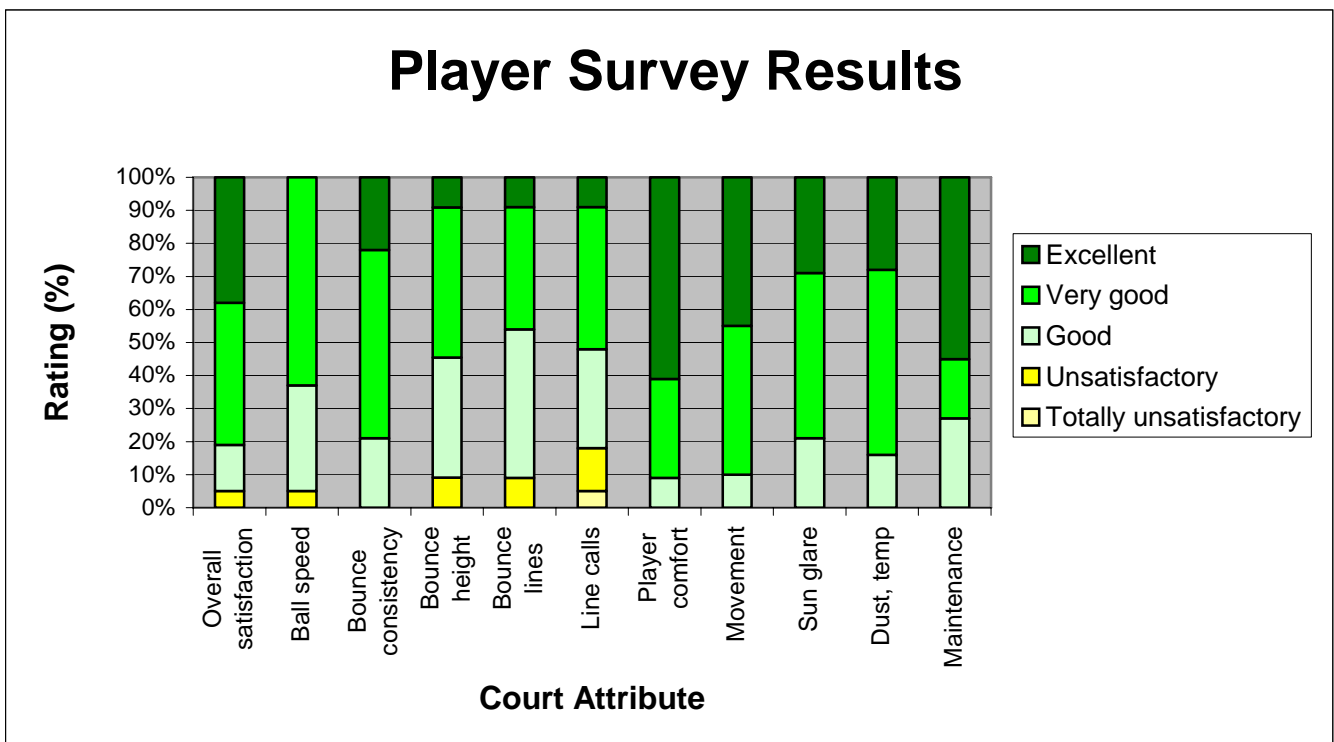
- As there is no turbid run off of the red En Tout Cas surface, now with the installation of Classic Clay, the water quality and eco system of the nearby waterway is protected.

Benefits to players

The success of this surface is largely dependant on the acceptability of its members. Classic Clay offers many benefits including:

- Court lines are a lot more noticeable and do not need to be swept down after every game.
- Ball bounces are true and are like a traditional clay court. The player can still slide easily on the court but there is also less heat retention underfoot. The surface is designed to remain a loose and free surface with a degree of air and space in the structure. This acts as a natural insulation type layer and is noticeably cooler underfoot than on a traditional En Tout Cas surface.
- The Classic Clay system has a shock absorbing quality, which is extremely beneficial for all players especially against the risk of injury. There is also the drastically reduced soil on clothing, footwear and tennis balls. The mineral infill is a consistent micron size and free of dust particles, therefore clothing, shoes and tennis balls remain much cleaner then when playing on a regular En Tout Cas surface.

The club has asked for feedback from players who have used the ‘Classic Clay’ courts and they have found all response to be extremely encouraging and only show signs of approval as seen on the graph below.



Communications.

Since the installation of 'Classic Clay' the tennis club has had a widespread coverage within a range of media and also various meetings.

This includes:

- An article in the local newspaper
- An article in the Tennis Victoria Magazine
- A radio interview on the ABC during their Australian Open coverage
- Introduction of the courts to the local tennis clubs to try them out
- Arrange meetings with tennis clubs interested in the new surface and usage of courts by their committees
- Provided signage showing main sponsors of the project around the courts and at the main entrance
- Power point presentation at a meeting at Tennis Victoria, which was attended by 60 members from 45 clubs around Victoria.

They have also had a large number of clubs who have visited the courts from all over Melbourne:

- Donvale Tennis Club
- Eltham Tennis Club
- St.Andrews Bentleigh Tennis Club
- Baxter Tennis Club
- Kew Tennis Club
- Park Orchard Tennis Club

A few clubs have made contact via phone:

- Healesville Tennis Club
- Ferntree Gully Tennis Club
- Victory Park Tennis Club, Brighton

Discussions with a two other clubs has also occurred:

- South Hawthorn Tennis Club
- Maccabi Tennis Club.

Maccabi Tennis Club has since purchased their own land in Bentleigh and is constructing a new complex, which will have 8 'Classic Clay' courts.

Park Orchards Tennis Club has already two 'Classic Clay' courts installed, after their coach and players tried the new courts. They were the first club to try the new surface and now are part of a proposed bigger Council program to support other clubs.

Another club that has sought expressions of interest for this type of court is East Burwood Tennis Club. Also, Berwick Tennis Club has contracted a similar court surface from a recently released competitor, even though 'Classic Clay' was specified.

5. Challenges and Lessons Learnt.

Throughout this project the Heatherdale Tennis Club encountered several challenges throughout the implementation stage, from which valuable lessons were learnt and can be taken into consideration for future clubs who are looking into implementing something similar. Such challenges included:

- Heavy Machinery was used on the courts and caused some problems with the surface so using smaller hoppers to do the distribution of the crushed rock or using a conveyer belt would be better.
- Maintenance of the courts during play was a little difficult with wet courts. In cooperation with 'Classic Clay' and Heatherdale Tennis Club a new drag mat, was developed to make it easier to redress the court after play
- The council requested the club to install root barriers along the edge of the courts to stop the roots of the surrounding trees doing damage to the courts in the future. The council fully funded this.
- Surrounding gum trees contaminate the sand fill with leaves and gum nuts. Trials have been carried out on various techniques and equipment to solve the problem.
- To take into consideration the time of year that reconstruction takes place. Spring proved to be a little unpredictable.

6. Conclusion.

This Project has proven to be a vast learning curve, not only for the Heatherdale Tennis Club but also for all tennis clubs throughout Victoria and all Councils. Councils are a key element in the future success of water saving initiatives like ours, as they have close relations with clubs in their area. They are all developing water management plans and are also a potential source of funding to help clubs with the initial up front capital, either via grants and or loans, and are also a great resource for technical support.

Heatherdale Tennis Club found that by changing a court's surface not only can they do their part in conserving water and protecting the quality of the nearby waterways, by reducing the amount of turbid water that runs into them, but also they can save money through reducing maintenance and water usage expenses.

Heatherdale Tennis Club has approx. 400 members with over 100 different clubs visiting the new courts and the feedback has been nothing but encouraging. It is great to see that the community all agree that Water Conservation in this day and age is so vital.

Court surfaces like 'Classic Clay' are the future in clay tennis courts. It has proved to be low maintenance and has virtually no water needs and with easy installation, this type of surface not only benefits the clubs and players but the environment too.

Invitation to other Tennis Clubs

We would like to invite any tennis club who is interested in this surface to contact our President Doug Terrill on 03 9873 4567 or our Secretary, Shayne Collins on 03 9874 8320 to arrange a time to test out the courts.

This has been the best investment for our tennis club in it's history and we would recommend this type of tennis court surface to any club.

Regards,

Jos Wolfkamp,

Project Manager and Vice President of this very proud tennis club.

We see Heatherdale Tennis Club as a leader in water conservation within the community and encourage all tennis clubs to be leaders in their local community.