

5.1 PUMP TRACK

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Operations

RECOMMENDATION

That Council approves a \$100,000 grant application to the Get Playing Places and Spaces fund and a Council contribution of the remaining cost of approximately \$25,000 to build an asphalt Pump Track on part of Lot 99 SP150469 Reserve for Recreation, (Port Douglas Sports Complex) as part of the proposed Family Skills Park.



EXECUTIVE SUMMARY

There are few low cost active recreation opportunities for children and young people in Port Douglas. Organised sports are available in the town, but these do not have universal appeal and usually require membership fees. Cycling is one of the most popular recreational activities for young people with 70% of boys participating. Mossman and Wonga Beach each have BMX tracks and skateboard parks, but Port Douglas, the main population centre of the Shire, has only a small skateboard park at the Port Douglas Sports Complex.

Douglas Integrated Riders and Trail-builders Club (DIRT) has proposed a 'Family Skills Park' for an unused area that forms part of the Port Douglas Sports Complex. The proposal includes a cross-country circuit, a skills circuit and a pump track which would provide a variety of conditions for riders of all skill levels and ages. A pump track is a loop with dirt berms and mounds designed for the bike to maintain speed without the rider pedalling. As well as recreational and fitness uses, pump tracks can be used for practicing balance, learning skills and improving confidence on a bike. DIRT has proposed constructing a dirt pump track.

While the cost of a dirt pump track is relatively low, they have very high maintenance costs estimated at over \$10,000 per year, with major rebuilds after the wet season and a full make over every 5 – 10 years. An asphalt track requires a much higher initial outlay (\$125,000) but has minimal maintenance needs and a life expectancy of 30 years. Using a whole of life cost, the maintenance costs of a dirt track outweigh the build cost of an asphalt track within the first 10 years. An asphalt track can also be used by skateboards, scooters, roller blades and bikes, whereas a dirt track is only suitable for bikes.

Council has the opportunity to apply for a grant to build a pump track through the Department of National Parks, Sport and Racing's Get Playing Spaces and Places grant fund for up to 80% of the cost of the track to a maximum of \$100,000, requiring only a further contribution from Council of \$25,000.

Port Douglas Police have indicated they are very supportive of a pump track and Family Skills Park in the area as they recognise the need for more recreational options for children and young people.

It is recommended that Council approves a \$100,000 grant application to the Get Playing Places and Spaces fund and a Council contribution of the remaining cost of approximately \$25,000 to build an asphalt pump track at the Port Douglas Sports Complex as part of the proposed Family Skills Park.

The photograph included in the report is of a recently constructed asphalt pump track in southern Cairns. This pump track was designed and constructed by Cairns company World Trail and the same design and construction costs have been used to develop the grant proposal.

BACKGROUND

The resident population of the Douglas Shire is currently estimated at 11,969, with around 25% of the population aged less than 20 years (2,884). By 2026 the number of young people is expected to increase to 3,158 (Qld Govt 2013). Visitors to the area can significantly increase that number.

Port Douglas is the main population centre for the shire with over 5,000 residents. It is a vibrant tourist destination with beautiful natural surroundings and a wide range of activities available for holidaymakers; however, there are limited recreational options, especially low cost activities, for children and young people in the area. There are some facilities for organised sports, such as football, netball, cricket and tennis but these activities, while popular, do not have universal appeal and frequently have high membership costs.

Douglas Shire Council supports and encourages a healthy and active region through the provision of sporting, cultural and recreational opportunities and initiatives, however there is a gap in facilities for children, especially in Port Douglas. Being a small area there are limited diversions or active recreational activities for children. Research shows that increased participation in physical activity enhances cognitive functioning, memory, concentration, behaviour and academic achievement and participation in community sports appears to extend to school success. It is important then, to provide opportunities for physical activities that will appeal to boys and girls, from a wide range of backgrounds, at little or no cost.

One of the most popular recreational activities for young people is bike riding with nearly 70% of young boys and over 63% of all children engaging in riding for recreation or sport in Australia (ABS 2012). Bike riding is low cost, healthy and can be engaged in both singly or in groups, and by all ages.

The Shire has some mountain bike tracks such as the “Bump” track, but these are very challenging and not suitable for young riders or beginners. There are two BMX tracks in the Shire, at Wonga and Mossman, but none at Port Douglas. Wonga, Mossman and Port Douglas also have skate parks which are very popular; but there are limited bike tracks which are both challenging and safe for riders of all ages, particularly for young people. Port Douglas is the population centre of the Shire, with over 5,000 residents, and a large number of tourists and visitors, making the roads less safe for young riders, however without a designated bike track, young riders have few options.

Douglas Shire aims to become the ‘bicycle capital of Australia’ and this strategy includes engaging with all age groups to encourage bike riding in all its forms, including trail riding and ‘pump’ tracks.

Douglas Integrated Riders and Trail-builders Club (DIRT) has in-principle approval for a ‘Family Skills Park’ for an unused area that forms part of Lot 99, SP 150469, Recreation Reserve (Port Douglas Sports Complex). The proposal includes a cross-country circuit, a skills circuit and a pump track which would provide a variety of conditions for riders of all skill levels and ages. As a new club, however, they have limited funds and rely on club labour, grants and donations to build and maintain trails.

COMMENT

Port Douglas, while providing a range of activities for tourists, is not well equipped with low cost activities for residents. The lack of active recreation opportunities for children and young people in Port Douglas may contribute to an increase in anti-social behaviour, poorer health and fitness outcomes and lower academic achievements (Curtin University 2015).

A pump track is a loop with dirt berms and mounds designed for the bike to maintain speed without the rider pedalling. As well as recreational and fitness uses, pump tracks can be used for practicing balance, learning skills and improving confidence on a bike. The pump track is an important feature of DIRT’s proposed Family Skills Park. The choice of options is between an asphalt pump track and a dirt pump track built at the site of Family Skills Park and integrated into the Park.

The proposed track would be a double loop track with a series of ‘rollers’ or mounds down the long sides and berms at each end. An asphalt pump track is suitable for use with bikes, skateboards, roller blades and scooters, whereas dirt pump tracks are only suitable for bikes.

An asphalt pump track, while more costly to construct, at \$125,000, has several long term advantages. As the track is formed, compacted and covered in asphalt, it is not subject to the same degree of wear and tear as a dirt pump track making maintenance for the track minimal, being limited to mainly cleaning. An asphalt track would not need to be rebuilt after the wet season and will remain in good condition for up to 30 years. Some repairs to the asphalt surface may be required over the life of the track but these are likely to be minor in cost. Annual maintenance for the asphalt pump track is estimated at \$2,500.

An asphalt pump track would be weather proof and able to be used year round, whereas the wet season would likely make a dirt pump track unsafe and in need of substantial maintenance after the wet season. DIRT has expressed its support for the asphalt pump track proposal.

PROPOSAL

Collocating an asphalt pump track as part of the Family Skills Park at the existing Port Douglas Sport Complex (Lot 99, SP 150469), builds on an existing active community precinct creating a space where families, children and young people can gather for a variety of sports including football, tennis, netball, skating and biking. The Family Skills Park is planned to have a cross country circuit and a skills circuit as well as the pump track.

The area where the track will be built is an unused portion of the Port Douglas Sports Complex which may otherwise become the site of anti-social behaviours. Putting active recreation infrastructure in the area, increasing the number of people visiting and using the area and making it more visible will make the site less attractive for anti-social behaviour, helping to prevent any such problems.

An asphalt pump track is virtually maintenance free, as opposed to a dirt pump track which requires regular maintenance to ensure the mounding does not wear down and is safe and fit for purpose. An asphalt pump track at the Sports Complex would increase the range of activities available and provide a safe area for bike, scooter and skateboard riding and skills development. DIRT's proposal to build a bike Family Skills Park will make this area a focal point for off road riding and cater to all ages. Being a low cost activity it will be accessible to people from all backgrounds, residents and tourists. Providing children and young people with a safe off-road track for recreational riding will improve road safety for all users. Hire bikes are available from a number of businesses in the area and a number of bike tour businesses are also operating. The asphalt pump track will increase options for cyclists and families and help support businesses.

FINANCIAL/RESOURCE IMPLICATIONS

Funding for an asphalt pump track is not available in the current budget but there is an opportunity to apply for a grant for up to 80% of the cost, to a maximum of \$100,000, from the Department of National Parks, Sport and Racing's Get Playing, Places and Spaces fund. A successful grant application would mean Council would only need to outlay approximately \$25,000 to complete the track.

RISK MANAGEMENT IMPLICATIONS

The risks to Council with this project are mainly connected to the use of the track, rather than the construction phase. Using a contractor with experience in building similar tracks removes much of the construction risk and building in the dry season mitigates the threat of weather delays.

Usage risks include the site being used for anti-social behaviours such as drinking; track deterioration; and physical injury to users. Anti-social behaviours can be discouraged through surveillance of the site, by other users, CCTV, or regular patrols. The risk of track deterioration is a point of difference between the two options: a high risk for a dirt track, but a low risk for the asphalt track. Physical injury to users is a moderate risk for both track types. Council already has BMX and skate parks operating in the shire and has public liability insurance commensurate with the risk, however riders use the tracks at their own risk and Council is able to mitigate some of the risk by ensuring the tracks are always in good repair and fit for use. In this sense an asphalt track which does not deteriorate quickly is safer than a dirt track which quickly shows wear and is easily damaged by wet weather.

The track will be built on a disused sanitary depot/tip and EPA approvals may be required. There is a current Native Title claim on the area QLD 602/2012 No 1.

SUSTAINABILITY IMPLICATIONS

Economic: Lower ongoing maintenance costs.

Environmental: Erosion is minimised in an asphalt construction.

Social: Improved recreational options for young people including scooter and skateboard users.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2014-2019 Initiatives:

Theme 1 - Celebrating Our Communities

1.1.4 - Support and encourage a healthy, active and capable region through sporting, cultural and recreational opportunities, and community wellbeing initiatives.

1.1.5 - Support local non-profit community, sporting and cultural organisations to build their capacity.

1.3.4 Provide and enhance community facilities and opportunities that cater for the arts, recreational and cultural pursuits.

Theme 2 - Building a Sustainable Economic Base

2.3.2 - Investigate opportunities for sports and cultural tourism.

2.3.5 - Develop and promote Douglas as the “bicycle capital of Australia” through the planning and construction of a network of bicycle trails, traffic separation and management arrangements.

COUNCIL’S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council’s involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Asset-Owner	Meeting the responsibilities associated with owning or being the custodian of assets such as infrastructure.
Part-Funder	Sharing the cost of a program or activity with other organisations.

CONSULTATION

Internal: Property, Governance, CEO Unit, GM Operations

External: Port Douglas Police, DIRT

COMMUNITY ENGAGEMENT

No formal community engagement has been undertaken.

ATTACHMENTS

Attachment 1	Pump Track Location
Attachment 2	Business Case

PROPOSED ASPHALT PUMP TRACK LOCALITY PLAN



LEGEND:

- PUMP TRACK CENTRELINE** 
- PUMP TRACK ROLLER (typical)** 
- EXISTING CONTOURS**
- MAJOR CONTOUR 0.5m** 
- MINOR CONTOURS 0.1m** 
- DESIGN CONTOURS**
- MAJOR CONTOURS 0.5m** 
- MINOR CONTOURS 0.1m** 
- PROPERTY BOUNDARIES** 

NOTES:

1. The Pump Track design is based on world class design concepts and provided with a hard surface to prolong the sustainability of track geometry and reduce long term maintenance costs.
2. The Pump Track was identified as an integral part of a project proposal for a MTB Family Skills Park made to the Douglas Shire Council. This park is an initiative of the Douglas Integrated Riders & Trailbuilders (D.I.R.T.) Club.
3. Other identified components of the Skills Park proposal would be positioned to link into the Pump Track location.
4. The depicted location is conceptual only and would require more detailed assessment to identify the final location.
5. Tree locations have been assumed from aerial imagery and are approximate only.
6. The Pump Track is to be constructed with suitable imported material and a layer of asphalt.
7. Reticulated drainage will provide conveyance of stormwater.
8. All topographic data, cadastral data and aerial imagery used in the design was provided to World Trail Pty Ltd by Douglas Shire Council.



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CLIENT:

DOUGLAS SHIRE COUNCIL

PROJECT:

**PROPOSED ASPHALT PUMP TRACK
PORT DOUGLAS SPORTS RESERVE**

Scale:
1:500 (A1)

Date:
7th July 2016

Drawing:
WT160707 - FSD16-05-01 - Figure 1

Rev No.:
A



Business Case

Pump Track Port Douglas Sports Complex



Document control

TABLE 1: DOCUMENT CONTROL

Prepared by:	Annette Tranent
Role:	Grants Officer
Team	GEO Unit
Local Government Authority	Douglas Shire Council
Version number	Draft 1
Version date	06/07/16
Status	Initial Draft
File / document number:	File number / document number

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1 Executive summary

There are few low cost active recreation opportunities for children and young people in Port Douglas. Organised sports are available in the town, but these do not have universal appeal and usually require membership fees. Cycling is one of the most popular recreational activities for young people with 70% of boys participating. Mossman and Wonga Beach each have BMX tracks and skateboard parks, but Port Douglas, the main population centre of the Shire, has only a skateboard park at the Port Douglas Sports Complex.

Douglas Integrated Riders and Trail-builders Club (DIRT) has in-principle approval for a 'Family Skills Park' for an unused area that forms part of Lot 99, SP150469, Reserve for Recreation, (Port Douglas Sports Complex). The proposal includes a cross-country circuit, a skills circuit and a pump track which would provide a variety of conditions for riders of all skill levels and ages. A pump track is a loop with dirt berms and mounds designed for the bike to maintain speed without the rider pedalling. As well as recreational and fitness uses, pump tracks can be used for practicing balance, learning skills and improving confidence on a bike. The DIRT proposal suggests a dirt pump track which the club would build and maintain.

While the cost of a dirt pump track is relatively low, at approximately \$20,000 it has very maintenance costs estimated at over \$10,000 per year, with major rebuilds after the wet season and a full make over every 5 – 10 years. An asphalt track requires a much higher initial outlay (\$125,000) but has minimal maintenance needs and a life expectancy of 30 years. Using a whole of life cost, the maintenance costs of a dirt track outweigh the build cost of an asphalt track within the first 10 years. An asphalt track can also be used by skateboards, scooters, roller blades and bikes, whereas a dirt track is only suitable for bikes.

Port Douglas Police have indicated they are very supportive of a pump track and Family Skills Park in the area as they recognise the need for more recreational options for children and young people.

Council has the opportunity to apply for a grant to build a pump track through the Department of National Parks, Sport and Racing's Get Playing Spaces and Places grant fund for up to 80% of the cost of the track to a maximum of \$100,000, requiring only a further contribution from Council of \$25,000.

It is recommended that Council approves a \$100,000 grant application to the Get Playing Places and Spaces fund and a Council contribution of the remaining cost of approximately \$25,000 to build an asphalt pump track on a part of Lot 99 SP 150469, Reserve for Recreation, Port Douglas Sports Complex to form part of the proposed Family Skills Park.

2 Project objective

2.1 Community need or business outcome

The resident population of the Douglas Shire is currently estimated at 11,969, with around 25% of the population aged less than 20 years (2,884)¹. By 2026 the number of young people is expected to increase to 3,158². Visitors to the area can significantly increase that number.

Port Douglas is the main population centre for the shire with over 5,000 residents. It is a vibrant tourist destination with beautiful natural surroundings and a wide range of activities available for holidaymakers; however there are limited recreational options, especially low cost activities, for children and young people in the area. There are some facilities for organised sports, such as football, basketball and tennis but these activities, while popular, do not have universal appeal and frequently have high membership costs.

Douglas Shire Council supports and encourages a healthy and active region through the provision of sporting, cultural and recreational opportunities and initiatives,³ however there is a gap in facilities for children, especially in Port Douglas. Being a small area there are limited diversions or active recreational activities for children. Research shows that increased participation in physical activity enhances cognitive functioning, memory, concentration, behaviour and academic achievement⁴ and participation in community sports appears to extend to school success.⁵ It is important then, to provide opportunities for physical activities that will appeal to boys and girls, from a wide range of backgrounds, at little or no cost.

3 Background

3.1 Current situation

One of the most popular recreational activities for young people is bike riding with nearly 70% of young boys and over 63% of all children engaging in riding for recreation or sport in Australia.⁶ Bike riding is low cost, healthy and can be engaged in both singly or in groups, and by all ages.

The Shire has some mountain bike tracks such as the “Bump” track, but these are very challenging and not suitable for young riders or beginners. There are two BMX tracks in the Shire, at Wonga and Mossman, but none at Port Douglas. Wonga, Mossman and Port Douglas also have skate parks which are very popular; but there are limited bike tracks which are both challenging and safe for riders of all ages, particularly for young people.

¹ Qld Government 2013, Projected population, by five year age group by local government area, Queensland 2011 to 2036

² ibid

³ Douglas Shire Council, Corporate Plan 2014-2019

⁴ Curtin University 2015, Brain Boost: how sport and physical activity enhance children's learning

⁵ ibid

⁶ ABS 2012, 49010DO0001_201204 Children's Participation in Cultural and Leisure Activities, Australia, Apr 2012

Port Douglas is the population centre of the Shire, with over 5,000 residents, and a large number of tourists and visitors, making the roads less safe for young riders, however without a designated bike track, young riders have few options.

Douglas Shire aims to become the 'bicycle capital of Australia'⁷ and this strategy includes engaging with all age groups to encourage bike riding in all its forms, including trail riding and 'pump' tracks.

Douglas Integrated Riders and Trail-builders Club (DIRT) has proposed a 'Family Skills Park' for an unused area that forms part of a Reserve for Recreation at Lot 99 on SP 150469, the Port Douglas Sports Complex. The proposal, which has in-principle approval from Council, includes a cross-country circuit, a skills circuit and a pump track which would provide a variety of conditions for riders of all skill levels and ages. It is proposed to build the asphalt pump track as part of this Park.

4 Alignment with strategic objectives and policy framework

4.1 Project drivers

Council is committed to encouraging Shire residents to be healthy and active and to take advantage of the unique natural environment. Council's corporate plan 2014-2019 lists several relevant goals:

Goal 1.1.4 Support and encourage a healthy, active and capable region through sporting, cultural and recreational opportunities and community wellbeing initiatives

Goal 1.1.5 Support local non-profit community, sporting and cultural organisations to build their capacity.

Goal 1.3.4 Provide and enhance community facilities and opportunities that cater for the arts, recreational and cultural pursuits.

Goal 2.3.2 Investigate opportunities for sports and cultural tourism.

Goal 2.3.5 Develop and promote Douglas as the 'bicycle capital of Australia' through the planning and construction of a network of bicycle trails, traffic separation and management arrangements.

⁷Douglas Shire Council, Corporate Plan 2014-2019

TABLE 1: PROJECT DRIVERS

Project driver	Nature of the driver	Council objective
Priority 1: Provide safe bike precinct	Create safe area for young people to ride bikes and gain skills	Goals 1.1.4; 1.3.4 & 2.3.5
Priority 2: Promote cycle sports	Encourage and grow cycle events and tours including triathlons, mountain biking, junior events	Goals 1.1.4; 1.3.4; 2.3.2 & 2.3.5
Priority 3: Support local organisations	Support DIRT club and help build cycle sports	Goals 1.1.5; 1.3.4 & 2.3.5

5 Options considered

The potential delivery options that have been considered as part of the Business Case are listed below in table 2.

TABLE 2: OPTIONS TO BE CONSIDERED

Reference	Description	Comment
Option A: Asphalt pump track	Build low maintenance asphalt pump track at Port Sports complex as part of DIRT's Family Skills Park	Provides safe bike precinct with low maintenance costs. Suitable for bikes, scooters, skateboards, rollerblades
Option B: Dirt pump track	Allow DIRT to build pump track, as part of Family Skills Park plan	New club with limited capacity; track would be dirt and clay and would require high level of maintenance; DIRT would need to raise funds and rely on in-kind contributions for construction; Council has contributed a grant of \$10,000.

A pump track is a loop with dirt berms and mounds designed for the bike to maintain speed without the rider pedalling. As well as recreational and fitness uses, pump tracks can be used for practicing balance, learning skills and improving confidence on a bike. They are safe for all ages and skill levels. The pump track is an important feature of DIRT's proposed Family Skills Park at the Port Douglas Sports Complex. The choice of options is between an asphalt pump track built and maintained by Council and a dirt pump track built and maintained by DIRT, either of which would be located at the site of the Family Skills Park and integrated into the Park.

The proposed track is a double loop track approx. 25 metres long, and 10 metres wide with a series of 'rollers' or mounds down the long sides and berms at each end. An asphalt pump track is suitable for use with bikes, skateboards, roller blades and scooters, whereas dirt pump tracks are only suitable for bikes.

An asphalt pump track is virtually maintenance free, as opposed to a dirt pump track which requires regular maintenance to ensure the mounding does not wear down and is safe and fit for purpose. An asphalt pump track would be weather proof and able to be used year round, whereas the wet season would likely make a dirt pump track unsafe and in need of substantial maintenance after the wet season. The high level of maintenance required for

a dirt pump track would be a significant and ongoing cost to the DIRT club. The comparative costs are discussed in section 12 of this report.

DIRT have included a pump track in the plan for their bike trail based Family Skills Park, however as a new club they have limited resources to build the Park and would rely on grants, donations and volunteers. Council's building of an asphalt pump track would reduce the overall cost of the Park to the Club, reduce the Club's annual costs for maintenance, and provide a substantial start for the Skills Park.

Co-locating the pump track as part of the Family Skills Park at the existing Port Douglas Sport Complex, builds on an existing active community precinct creating a space where families, children and young people can gather for a variety of sports including football, tennis, netball, cricket, skating and biking. The Family Skills Park is planned to have a cross country circuit and a skills circuit as well as the pump track.

6 Impact on service levels

Apart from regular clearing of litter, the asphalt pump track would require very little other maintenance so will not have an impact on service levels within Council. A new track will improve the level of service for sporting infrastructure.

A dirt pump track built by DIRT would be maintained by the Club and have little impact on Council's service levels, however due to the constant need for maintenance and the subsequent costs, the condition of the dirt track may deteriorate rapidly.

TABLE 3: IMPACT ON SERVICE LEVELS

Reference	Will this option affect existing service levels?
Option A: Asphalt pump track	No change to maintenance services; improved service of sporting infrastructure
Option B: Dirt pump track	No change to maintenance services provided DIRT maintains track

7 Analysis of legislative issues

7.1 Environmental issues

The pump track will be built on existing Reserve for Recreation on Lot 99 SP 150469, Port Douglas Sports Complex. The Reserve is built on a disused sanitary depot/tip and may require EPA approvals before construction can begin.

7.2 Planning issues

The pump track will be built on state land managed by Douglas Shire Council as a sporting complex. The track will not require any development, building or planning approvals.

7.3 Cultural heritage or Native Title issues

The track will be built on existing park land which has a current Native Title Claim QLD 602/2012 No 1.

8 Stakeholder consultation

Douglas Shire has a large community of active bike riders and hosts several triathlon events each year. Part of Council's Corporate Plan is to become known as the 'bicycle capital of Australia'⁸. Research undertaken as part of the Shire's Cycling and Walking Strategy (while amalgamated with Cairns Regional Council), showed that people in Douglas Shire were more likely to ride to work than elsewhere in Queensland and there was a strong community interest in pleasant places to cycle for sport, recreation, fitness and tourism⁹. Existing bike paths, BMX tracks and skate parks are all well patronised and it is expected that there will be strong community support for this project, particularly in Port Douglas. The mountain bike and trail riding group DIRT have already expressed their support for the track and it will be an integral part of their planned Family Skills Park.

Port Douglas Police have been consulted as they have an ongoing interest in the Sports Complex as a site for regular patrols and to prevent any anti-social activities in the area. Police believe that a lack of recreational activities can contribute to anti-social behaviours and an increase in crime, and strongly support the building of a pump track¹⁰.

The residents of the Shire, especially Port Douglas, are also stakeholders and this project will be of particular interest to families and those interesting in recreational biking. Many residents feel there are too few activities for children and young people in the area and a pump track will help alleviate this problem.

9 Public interest assessment

Port Douglas, while providing a range of activities for tourists, is not well equipped with low cost activities for residents. The lack of active recreation opportunities for children and young people in Port Douglas may contribute to an increase in anti-social behaviour, poorer health and fitness outcomes and lower academic achievements¹¹.

A pump track at the Sports Complex would increase the range of activities available and provide a safe area for bike, scooter and skateboard riding and skills development. DIRT's proposal to build a bike Family Skills Park will make this area a focal point for off road riding and cater to all ages. Being a low cost activity it will be accessible to people from all backgrounds. Providing children and young people with an off-road track for recreational riding will improve road safety for all users.

⁸ Douglas Shire Council 2014, Corporate Plan

⁹ Cairns Regional Council 2010, Cycling & Walking Strategy Review – Part A: Background Research.

¹⁰ Letter of support from Officer in Charge attached

¹¹ Curtin University 2015, Brain Boost:: how sport and physical activity enhance children's learning

The area where the track will be built is an unused portion of the Port Douglas Sports Complex which may otherwise become the site of anti-social behaviours. These behaviours are more common in areas where there is limited surveillance. Clearing the area, increasing the number of people using it and making it more visible will make the site less attractive, deterring potential offenders. If anti-social behaviours at the Pump Track become problematic, CCTV cameras and lighting can be installed in the area to deter offenders. Council, with the assistance of Police, should monitor the area for such behaviour and take action as necessary.

TABLE 4: SUMMARY OF SOCIAL ISSUES AND OPPORTUNITIES

Social issues or opportunities	Strategy to manage/exploit
Lack of activities for children and young people	Pump track will provide low cost, safe activity for all ages
Few facilities for off road bike/scooter/skateboard riding or skills development	Pump track will provide low cost, safe activity for recreation and skills development
Focal point for DIRT club activities	Organised activities will increase use and develop riding skills
Anti social activity at pump track	Monitor situation and consider surveillance options to reduce opportunity

10 Complexity

While Douglas Shire Council has experience in road and trail building, the pump track, especially an asphalt pump track, is more specialised, therefore Council will contract out the project to a company experienced in bike trail design and construction.

11 Risk analysis

The risks to Council with this project are mainly connected to the use of the track, rather than the construction phase. Using a contractor with experience in building similar tracks removes much of the construction risk and building in the dry season mitigates the threat of weather delays.

Usage risks include the site being used for anti-social behaviours such as drinking or fighting; track deterioration; and physical injury to users. Anti-social behaviours can be discouraged through surveillance of the site, by other users, CCTV, or regular patrols. The risk of track deterioration is a point of difference between the two options: a high risk for a dirt track, but a low risk for the asphalt track. Physical injury to users is a moderate risk for both track types. Council already has BMX and skate parks operating in the shire and has public liability insurance commensurate with the risk, however riders use the tracks at their own risk and Council is able to mitigate some of the risk by ensuring the tracks are always in good repair and fit for use. In this sense an asphalt track which does not deteriorate quickly is safer than a dirt track which quickly shows wear and is easily damaged by wet weather.

A full risk table is included at appendix C.

TABLE 5: KEY RESIDUAL RISKS FOR EACH OPTION

OPTION 1: ASPHALT PUMP TRACK – MODERATE RISK RATING

Risk event	Risk rating
Anti social behaviour at facility	Moderate risk
Weather event delays construction	Moderate risk
Injury to riders	Moderate risk
Track deterioration	Low risk
Low usage	Low risk
HIGHEST RISK LEVEL	Moderate

OPTION 2: DIRT PUMP TRACK – HIGH RISK RATING

Risk event	Risk rating
Track deterioration	High risk
Anti social behaviour at facility	Moderate risk
Weather event delays construction	Moderate risk
Injury to riders	Moderate risk
Low usage	Low risk
HIGHEST RISK LEVEL	High

12 Cost-benefit analysis

12.1 Whole of life cost analysis

The two build options for a pump track differ widely in terms of initial outlay for construction and ongoing maintenance costs.

An asphalt pump track, while more costly to construct, at \$125,000, has several long term advantages. As the track is formed, compacted and covered in asphalt, it is not subject to the same degree of wear and tear as a dirt pump track making maintenance for the track minimal, being limited to mainly cleaning. An asphalt track would not need to be rebuilt after the wet season and will remain in good condition for up to 30 years. Some repairs to the asphalt surface may be required over the life of the track but these are unlikely to be very costly. Annual maintenance for the asphalt pump track is estimated at \$2,500. This figure does not include any major repairs or rebuilds that may be required over the life of the asset. The whole of life costs are shown in the table 6.

A dirt pump track, as part of DIRT’s proposal, would be built and maintained by DIRT using grant funds, donations and volunteer labour. DSC has contributed a Community Service Program grant of \$10,000. This option however, is expensive to maintain, needing regular

maintenance and extensive rebuilds after each wet season and this may become problematic for the Club and in turn Council if it is forced to maintain the area for safety reasons. The whole of life costs are shown in table 6. The costs of maintaining and rebuilding a dirt pump track over the 30 year life of a comparable asphalt pump track are also shown in table 6.

Using the comparative costs the asphalt pump track provides a more cost efficient outcome over the long term than a dirt pump track.

TABLE 6: WHOLE OF LIFE COSTS

Option	Build cost	Life	Average maintenance ¹²	Whole of life cost	30 year cost
Asphalt pump track	\$125,000	30	\$3,980	\$244,408	\$244,408
Dirt Pump Track	\$20,000	10	\$12,393	\$143,933	\$431,799

12.2 Non-financial cost-benefit analysis

The benefits to the community of a pump track in Port Douglas centre on the provision of activities for children and young people in the area. There are currently limited low cost, physical activities for young people in Port Douglas and this can translate into boredom and anti-social behaviour. Studies show physical activity and sport enhances not only children's health and fitness but also their cognitive functioning, concentration and on-task behaviour.¹³ Improvements in these areas have flow on effects such as a reduction in the costs of providing health services, policing anti social behaviour and the cost of education.

13 Funding options

The two pump track options differ widely in construction costs and methods of delivery. DIRT would be solely responsible for building a dirt pump track with no service or cost implication for council other than the \$10,000 grant already contributed.

An asphalt track would be contracted out to an experienced builder and cost approximately \$125,000. Funding for the full cost of an asphalt track is not likely to be available in the short or medium term so this option would require grant funding such as NPSR's Get Playing Places and Spaces and a co-contribution from Council of \$25,000 to \$30,000 which may be able to be found within the capital works budget.

14 Timeframe

Any construction needs to take into account the effects of the wet season in the Shire. This means construction cannot start until April and would need to be finished by November. Construction of the asphalt pump track is expected to take one month.

¹² Average maintenance includes annual maintenance plus rebuilds and repairs over the life of the asset

¹³ Curtin University 2015, Brain Boost:: how sport and physical activity enhance children's learning

Construction of a dirt pump track would be dependant on the availability of DIRT members and volunteers.

15 Summary of project options

TABLE 9: SUMMARY OF RISKS, COMPLEXITIES AND OTHER ISSUES

Option	Option A Asphalt pump track
Will this option affect existing service levels?	No
Legislative / policy issues	None
Which stakeholders are required to support this option?	Bike groups, police, residents
Social issue or opportunity	Low cost activity needed
Complexity	High
Residual risk	Moderate
Funding Method	Grant and Council contribution
Council contribution	\$25,000 cash
Timeframe	1 month construction
Ongoing maintenance cost	\$3,980/year
Life of asset	30 years
Used by	Cycle, rollerblade, skateboard, scooter

16 Recommendation

Port Douglas lacks sufficient avenues for active recreation for children and young people. This Business Case has examined a proposal to alleviate this through the construction of a bike pump track on part of Lot 99 on SP 150469, Reserve for Recreation, Port Douglas Sports Complex, to be integrated into DIRT's proposed Family Skills Park.

It is recommended that Council approves the project to proceed to with an asphalt pump track on part of Lot 99 on SP 150469, Reserve for Recreation, at the Port Douglas Sports Complex co-located with DIRT's Family Skills Park. Funding should be through a grant application to NPSR's Get in the Game Places and Spaces fund for \$100,000 and a Council contribution of the remaining cost, expected to be \$25,000.

17 Appendices

TABLE 11: APPENDICES

Appendices	Included
Appendix A	Quote

Appendices	Included
Appendix B	Plans
Appendix C	Risk Register
Appendix D	Letter of Support – Police
Appendix E	Whole of Life Costs – Dirt Track
Appendix F	Whole of Life Costs – Asphalt Track

Appendix A: Quote



Quote

From **World Trail Pty Ltd as trustee
for World Trail Unit Trust**
 ABN: 96 794 484 623
 ACN: 126 067 847

www.world-trail.com

 P.O Box 6108
 Cairns, QLD, 4870
 Australia

Quote For **Port Douglas Shire Council**

Quote Id **47**

Issue Date **05/07/2016**

Job Description **Port Douglas Sports Reserve - Asphalt Pump Track**

Item Type	Description	Quantity	Unit Price	Amount
Materials	Stormwater drainage pits and pipes, road base, basic turf landscaping (650m2)	1.00	\$12,500.00	\$12,500.00
Materials	Clean Fill (674t of min CBR 10)	1.00	\$8,500.00	\$8,500.00
Machine & Operator	Machine and equipment hire (roller, bob cat, excavator, survey equipment)	1.00	\$18,300.00	\$18,300.00
Construction	Asphalt overlay	1.00	\$21,000.00	\$21,000.00
Labour	Labour for stormwater drainage, earthworks, compaction, shaping and compacting the pump track	1.00	\$56,700.00	\$56,700.00
Design & Project Management	Design and Project Management Exclusions: - 3D design has not been allowed for	1.00	\$8,000.00	\$8,000.00

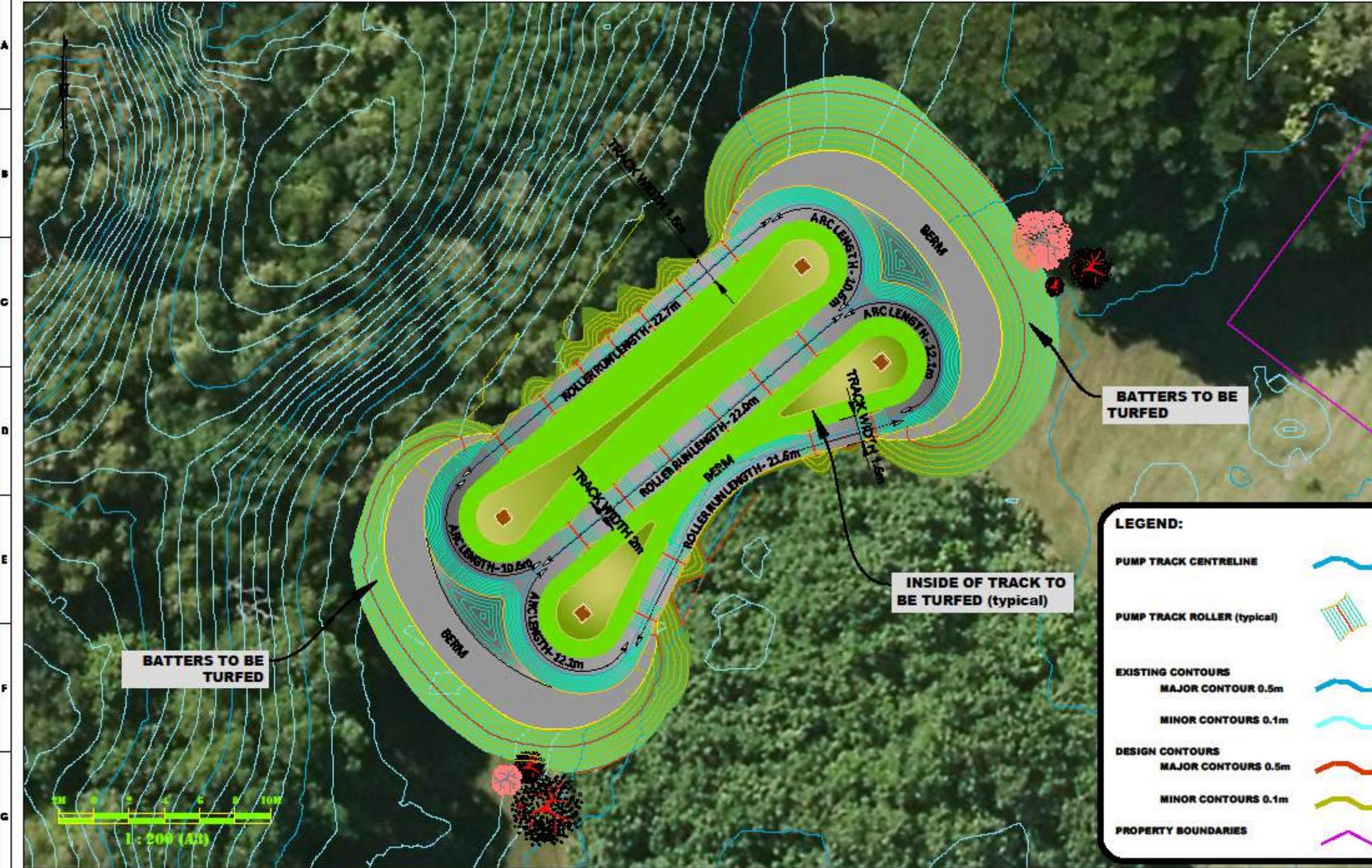
Subtotal **\$125,000.00**
 GST (10.00%) **\$12,500.00**
Quote Total \$137,500.00

Notes

- All invoices to be paid within 14 days of date written on invoice.
- World Trail Pty Ltd reserve the right to submit variations required for completion of scope of works detailed in this proposal/quote, for any information or requirements that World Trail Pty Ltd has not been made reasonably aware of, or excluded from this quote/proposal.
- This quote/proposal is valid for 30 days after the date written.
The preceding clause is nullified if the 30 day period occurs during end of financial year (June 30).
- World Trail Pty Ltd shall not be liable for any defects liability period.
- All quotes exclude GST unless otherwise stated.

Appendix B: Plans

1 2 3 4 5 6 7 8 9 10 11 12



LEGEND:

- PUMP TRACK CENTRELINE**
- PUMP TRACK ROLLER (typical)**
- EXISTING CONTOURS**
 - MAJOR CONTOUR 0.5m
 - MINOR CONTOURS 0.1m
- DESIGN CONTOURS**
 - MAJOR CONTOURS 0.5m
 - MINOR CONTOURS 0.1m
- PROPERTY BOUNDARIES**



CLIENT	DOUGLAS SHIRE COUNCIL		
CHECKED BY	DS	APPROVED BY	DJ
DESIGNER	DS	DRAFTER	JR
PROJECT			

TITLE
PROPOSED ASPHALT PUMP TRACK PLAN VIEW
PORT DOUGLAS SPORTS RESERVE
PORT DOUGLAS

Location of Pump Track - Port Douglas



©2016 Douglas Shire Council (DSC). Based on or contains data provided by DSC and the State of Queensland Department of Natural Resources & Mines (DR&M) [2016]. In consideration of these agencies permitting use of this data you acknowledge and agree that these agencies give no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accept no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws.

Scale 1cm = 20m at A4

Map Grid of Australia Zone 55 (GDA94)



Appendix C: Risk register

Project Risk Register - Planning

Option (All)

Refresh table

Risk	Description of cause, likelihood and effects	Category	Mitigation strategy	Description of mitigation strategy	Likelihood	Consequence	Rating	Contingency
injury to riders	injury caused by collision, slip or fall while using track	Technical	Risk transfer	riders use at own risk; council has current public liability cover for bike tracks; ensure track is fit for purpose	Likely	Minor	Moderate	
low usage	unpopular location or facility results in low usage	Political	Risk prevention	publicise building and opening of track and Family Skills Park; encourage local bike groups to use for training or recreation	Unlikely	Minor	Low	
damage by vandals	damage to mounds or track	Economic	Risk prevention	Asphalt track reduces opportunity for vandalism or damage to track and mounds	Possible	Moderate	Moderate	\$ 10,000
anti social behaviour at site	use of alcohol, drugs; fighting etc	Political	Risk prevention	collocation with other sports facilities reduces likelihood; regular patrols by police; lights and CCTV if necessary	Possible	Moderate	Moderate	\$ 15,000
dirt track deterioration	caused by weather events or usage	Economic	Risk acceptance	undertake to keep track in good repair and fit for use	Almost certain	Moderate	High	\$ 30,000
asphalt track deterioration	caused by weather events or usage	Economic	Risk prevention	Asphalt track reduces need for maintenance	Unlikely	Minor	Low	\$ 5,000
weather event delays construction	wet season, cyclone prevents or interrupts construction	Technical	Risk prevention	delay construction until after wet season	Possible	Moderate	Moderate	
Unsuitable soil or foundations at site	Bring in fill or additional materials from other sites	Technical	Impact mitigation	allow contingency to cover if additional materials needed; check site and test soil before project start	Possible	Moderate	Moderate	\$ 5,000
Increase in construction cost	delays, unsuitable materials, weather events increase the cost to complete the project	Economic	Risk prevention	use fixed price contract for construction	Possible	Minor	Moderate	

Appendix D: Letter of Support – Police



QUEENSLAND POLICE SERVICE

ABN: 29 409 225 500

Port Douglas Police Station

11 Wharf Street, Port Douglas, Qld 4877

PO Box 515 Port Douglas, Qld 4877

TELEPHONE (07) 4087 1999 FACSIMILE (07) 4087 1951



QPS
11-14
34

Our Ref:

Your Ref:

15th July 2016

Annette Trament
Grants Officer
Douglas Shire Council
64-66 Front Street
Mossman, Qld 4873

Letter of Support – Port Douglas Pump Track

Dear Annette,

The Queensland Police Service (QPS) strongly encourages engagement of youth through healthy alternatives as a means to deter and prevent unlawful activity. There is ample anecdotal evidence to support the fact that youth who are provided with healthy active lifestyles are less likely to become involved in crime and anti-social behaviour.

Port Douglas has a growing youth population and although statistics do not suggest that there is an increase in unlawful youth activity, through the provision of targeted youth sport and leisure activities I envisage this trend to continue and even decrease.

The Douglas Region is fortunate to have a significant number of active community groups, non-government and government agencies working in unison to provide alternatives to maintain the interests of youth within the region.

The provision of cycle based activities in Port Douglas township not only promotes healthy lifestyle choices, but further encourages social interaction with likeminded individuals.

One such alternative is the provision of a 'Pump' track due to the cost effectiveness of the facility and the ease of use enabling children of all ages and cycling skill to utilise the facility.

I am aware that the Douglas Shire Council intend to make application for a grant to enable the construction of a 'Pump' track at the Port Douglas Sport Grounds and I strongly support this initiative. There can only be positives achieved from the successful application and construction within the community.

Yours sincerely,

Damian Meadows
Officer in Charge
Port Douglas Police

QUEENSLAND POLICE SERVICE

Appendix E: Whole of Life Cost – Dirt Track

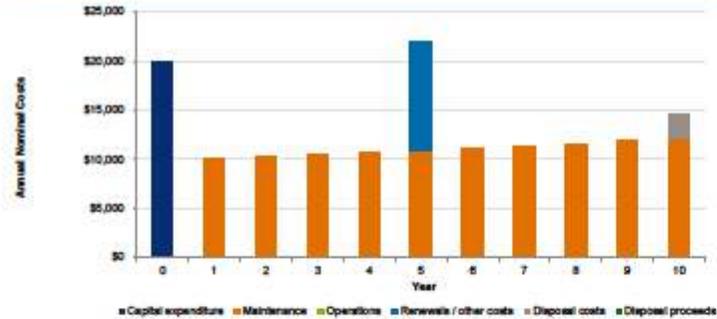


Item	Year 0 (Purchase)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Maintenance	\$ 10,100	\$ 10,301	\$ 10,506	\$ 10,718	\$ 10,932	\$ 11,151	\$ 11,374	\$ 11,601	\$ 11,833	\$ 12,070	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Renewals / other costs	\$ -	\$ -	\$ -	\$ -	\$ 10,902	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Disposal costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,414	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 10,100	\$ 10,301	\$ 10,506	\$ 10,718	\$ 21,864	\$ 11,151	\$ 11,374	\$ 11,601	\$ 11,833	\$ 14,484	\$ -					

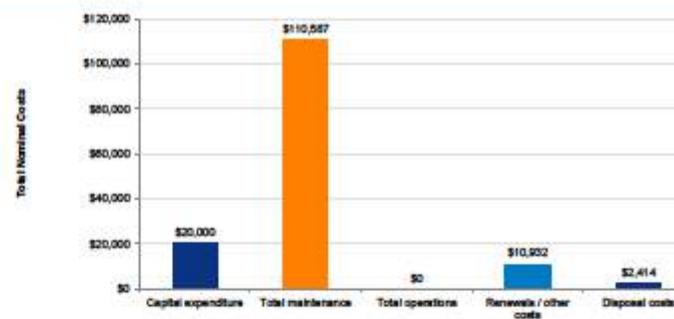
Note 1 - It is also important to consider other financial statement impacts such as: annual depreciation expense, movements in asset values and proceeds from the sale of the asset.

Note 2 - Where renewing or replacing an asset, be sure to consider the impact of existing maintenance and operations costs.

Annual Nominal Costs - Dirt Pump Track, Port Douglas



Total Nominal Costs - Dirt Pump Track, Port Douglas



Whole of Life Cost & Capex Multiple

Nominal Whole of Life Cost	(\$) 143,933	7.2x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	(\$) 132,000	6.6x
Whole of life cost on a discounted cash flow basis		

Appendix F: Whole of Life Cost – Asphalt Track

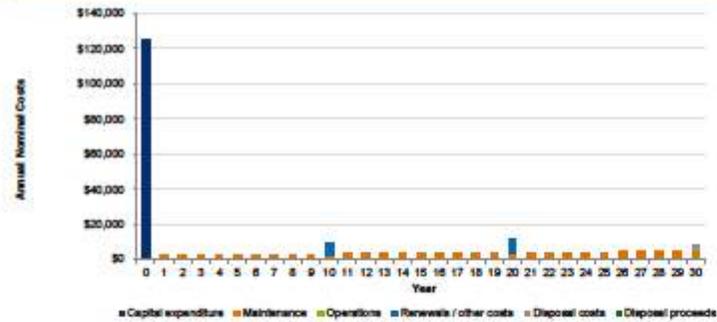


Item	Year 0 (Purchase)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
Maintenance		\$ 2,525	\$ 2,575	\$ 2,627	\$ 2,679	\$ 2,733	\$ 2,788	\$ 2,843	\$ 2,900	\$ 2,958	\$ 3,017	\$ 3,078	\$ 3,139	\$ 3,202	\$ 3,266	\$ 3,332
Operations		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Renewals / other costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,026	\$ -	\$ -	\$ -	\$ -	\$ -
Disposal costs		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total		\$ 2,525	\$ 2,575	\$ 2,627	\$ 2,679	\$ 2,733	\$ 2,788	\$ 2,843	\$ 2,900	\$ 2,958	\$ 9,042	\$ 3,078	\$ 3,139	\$ 3,202	\$ 3,266	\$ 3,332

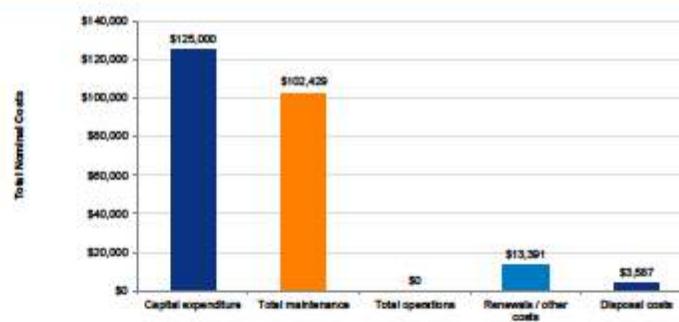
Note 1 - It is also important to consider other financial statement impacts such as: annual depreciation expense, movements in asset values and proceeds from the sale of the asset.

Note 2 - Where renewing or replacing an asset, be sure to consider the impact of existing maintenance and operations costs.

Annual Nominal Costs - Asphalt Pump Track, Port Douglas



Total Nominal Costs - Asphalt Pump Track, Port Douglas



Whole of Life Cost & Capex Multiple

Nominal Whole of Life Cost	(\$) 244,408	2.0x
Whole of life cost without the consideration of time value		
Discounted Whole of Life Cost	(\$) 212,000	1.7x
Whole of life cost on a discounted cash flow basis		