Final Phase 3 Report
Braamfontein Spruit Adventure Trail Management Plan
Feasibility Study and Operational Business Plan

Submitted by:

Next Step Consulting

November 4, 2016
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**ACRONYMS:**

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<tr>
<td>ABCD</td>
<td>Assets Based Community Development</td>
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<td>ATI</td>
<td>Adventure Tourism Incubator</td>
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<td>ATMP</td>
<td>Braamfontein Spruit Adventure Trail Management Plan</td>
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<td>AMARIDER</td>
<td>African Mountain Biking Association</td>
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<td>Braamfontein Spruit Trail Trust</td>
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<td>CBA</td>
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<th>ROLE</th>
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<tr>
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<tr>
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<td>Independent mountain biker</td>
<td>Supplied photographs of outdoor gyms, and contributed to information on use of the Spruit</td>
</tr>
<tr>
<td>Grant Walliser</td>
<td>Independent mountain biker and Chairman of the Swamp Dogs MTB Club</td>
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</tr>
<tr>
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<td>Environmental Consultant</td>
<td>Provided key input into environmental legislation, and input into historical use on the Spruit</td>
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1. INTRODUCTION

1.1 THE BRAAMFONTEIN SPRUIT ADVENTURE TRAIL MANAGEMENT PLAN (ATMP) BACKGROUND

Next Step Consulting (NSC) has been appointed by Johannesburg City Parks (JCPZ) to develop the Braamfontein Spruit Adventure Trail Management Plan (ATMP). Resulting from the Project Commissioning Workshop held on Tuesday, 31 May 2016, an Inception Report was completed and submitted at the end of June 2016. The Inception Report confirmed the scope of the project (both geographical/physical scope).

Following the definition of scope, a period of primary and secondary research took place over July 2016, the findings of which were assimilated into the Phase 2 Research Report. This report included a situational analysis of the trail network that runs along the Braamfontein Spruit from Witkoppen Road in the north, to Alberts Farm and Marks Park in the south. The Situational Analysis comprised a detailed investigation into:

- **Institutions** (internal and external environment of the Braamfontein Spruit) that govern and shape the trail network. Institutional governance includes broad oversight by national departments (such as the Department of Environmental Affairs), but more specifically the MOEs such as JCPZ and others that manage various elements of the area where the trail networks fall. External environment institutions include the residents associations; trail builders, sports clubs and environmental organisations among others.

- **Markets** – the actual users of the Spruit, which include both recreational and non-recreational user groups (although the focus of this trail management plan is on recreational use of the Braamfontein Spruit trail network). Non-recreational users include commuters, pedestrians and the inhabitants of the informal settlements that have developed along the Spruit. Recreational users include walkers, dog walkers, birders, runners, mountain bikers, horse riders and family orientated users. A breakdown into the market drivers of these user groups is offered; including a brief overview of how to interpret or forecast demand based on macroeconomic variables and industry specific variables.

- **Legal Compliance** – broken down into three main areas: environmental compliance, business compliance and trail management compliance. Although not easy to define at this stage, environmental compliance (specifically pertaining to protected areas and the water act) will be covered in the environmental scoping section of the Phase 3 Report. Business compliance will be further developed in Phase 3 (recommendations) against the recommended business model to be put forward around trail management. Investigations into Public Private Partnerships have been made, and recommendations are made in the Phase 3 Report. Trail Management Compliance is approached through Amarider affiliation, linked to risk reduction and insurance.

- **Case Studies**: Case Studies from Australia, North America, Canada, Tasmania, New Zealand and the United Kingdom were referenced with regard to risk reduction when managing multi-use trail systems. Soft and Hard management practices and conflict reduction practices are outlined in the case study section, as well as an early recommendation towards utilising the IMBA (Australia) grading system, rules and regulations to fit in with international standards and recognisability.

- **Socio-Economic Impact Analysis**: The main socio-economic challenges associated to the trail networks were defined, based on research as well as trail user feedback. These include crime, conflict with other users, and pollution (linked mainly to the informal settlement populations). Possible solutions to these socio-economic impacts were outlined, including opportunities relative to the solutions and the costs associated to these. Additionally, job creation (enterprise development) opportunities related specifically to trail maintenance and development were presented.

1.2 GEOGRAPHICAL/PHYSICAL SCOPE

In terms of the geographical scope, through some refinement with JCPZ, the physical extent of the study site extends as far as the most prevalently used trail system extends. This is from Witkoppen Road in the north, down to the end of Marks Park in the South East and Alberts Farm in the South West:

![Figure 1: The ATMP Study Area](image-url)
1.2.1 NORTH, CENTRAL AND SOUTH

For manageability, the trail network has been further divided into three core sections. The division is based on who uses the areas (main zones of use), and points where main roads dissect the trail network.

The **NORTH ZONE** starts at Witkoppen Road, and ends at the point where the trail goes under William Nicol Road in Bryanston. The North Zone is approximately 8km in length. It includes several notable features such as the Riverside Mall, the Bryanston “Scout hall Jumps”, Field & Study Park (and the heavy informal settlement on the opposite bank from Field & Study) and the William Nicol Pick ‘n Pay centre.

The **CENTRAL ZONE** starts at William Nicol Road, and ends at Delta Park (includes Delta Park). The Central Zone is 4,3km to the start of the Delta Park area, and the loops around the park (various) cover approximately 5,4km. The total km covered in the Central Zone is 9,4km. It includes the “Miners Revenge” dual direction trail, the “Bundaberg Line” in the open grassland, and a large informal settlement at the long pedestrian bridge that crosses the Braamfontein Spruit at the Waterfall section.
The **SOUTH ZONE** is the most extensive, and runs from Delta Park exit to Alberts Farm in the west (10km in distance) and the boundary of Emmarentia and Marks Park in the East (6km in distance):

![Image of the South Zone]

Figure 4: The South Zone
1.2.2 THE MELVILLE KOPPIES

The Melville Koppies present an important but challenging section of the Braamfontein Spruit trail network. There are a number of factors that contribute to the complexity concerning trail management in that area, which include:

1. **Melville Koppies is separated into three areas:** Melville Koppies West, Melville Koppies Municipal Nature Reserve (Central) and Melville Koppies East.

2. Currently no mountain biking is allowed in Melville Koppies Municipal Nature Reserve (Central), and is strictly managed by the Friends of Melville Koppies (underpinned by the Melville Koppies Management Committee (MKMC)). The central area is locked, and only opened for organised and controlled walks. Melville Koppies East is open for walking and dog walking, but it is advised to leave valuables at home (incidents of crime)

3. **Melville Koppies West (MKW)** is managed by the Melville Koppies West sub-committee, some members of which also sit on the MKMC. MKW is different to the East and Central areas, in that it used by many different user groups including the African Independent Churches. The area has great religious significance, and worship platforms have been legally built across the MKW, and are utilised by many different churches. Roughly hewn mountain bike and walking tracks cross the area, and skirt around the West Park Cemetery. It is a popular link for people wanting to ride over from Alberts Farm to the Botanical Gardens area and up to the boundary of Marks Park. The area is known for a heavy criminal element, and mountain bikers, recreational and non-recreational walkers as well as the church groups have all suffered under this criminal element.

4. **Recent (2015) Plans:** In 2015 a formalisation of the trails in Melville Koppies was discussed, with a proposal put forward with trail recommendations based on IMBA standards. The chairman of the MKMC (Wendy Carstens) did not receive the proposal positively, and without buy in from the core committee (even if the MKW sub-committee are positive) any formalisation unlikely.

Consideration was given to including the Melville Koppies area in the Phase 1 or 2 Spruit ATMP. However, there were two reasons (leading from the above summary of factors) for rather moving management of the MKW trails into a future phase of the ATMP.

- Judging from the difficulties experienced in proposing better management of mountain bike trails to the MKMC, and from difficulties experienced when discussing possible use of a trail through Melville Koppies East during the Jozi Urban Mountainbike Adventure (JUMA); it is suggested that stakeholder engagement with the MKMC would delay the process of creating an integrated ATMP, and possibly cause unnecessary friction at this stage. It has been recommended by various stakeholders to exclude Melville Koppies West from the current planning.

- Much of the disagreement between any parties putting forward proposals and the MKMC has been around the idea that formalised trails will encourage more riders, and that riders will start to build further unregulated trails. It is felt that if Phase 1 (as per the geographical extent in Figure 1) is implemented successfully, it will provide evidence of a progressed mountain biking culture, effectively managed rules and regulations as well as environmental sensitivity. This would be a much stronger case to present to the MKMC, and as such we recommend MKW to be integrated into the Braamfontein Spruit ATMP Phase 2 plan.

- There has been discussion about using the firebreak areas in the Melville Koppies as potential trails, due to the fact that those areas need to be kept cleared and there is a natural synergy between the effect of a trail and the effect of fire breaks. This idea will be further considered and researched, but regulation of these (signage, maintenance work, rules and regulations implementation) will still need buy in from the MKMC, even in MKW.

![Figure 5: Map of Melville Koppies: East, Central and West](image-url)
1.3 STAKEHOLDER ENGAGEMENT AND PRIMARY RESEARCH

A major part of the research process involved with Braamfontein Spruit ATMP has been stakeholder engagement, as well primary research. Stakeholder engagement processes typically included public participation meetings, group meetings and one-on-one meetings with key stakeholders. Detailed notes were taken at all meetings, and in longer meetings voice recording technology was used to capture details and later transcribed.

Interviews and meetings with stakeholders were based on a semi-structured interview format. Key respondents would explain their perspective on the Braamfontein Spruit from their context (i.e. conservationist context, volunteer park manager context, mountain biker and trail builder context, resident association context), and NSC guided the conversation to ask questions around problems and solutions, as well as historical evidence of problems.

In terms of primary research, two user surveys were developed to capture input from all user types regarding their use of the Spruit and their experiences on the Spruit. The results of these surveys are available as Appendix E. The first survey was answered by 862 people, and the second survey (which was sent to respondents of the first survey who agreed to further communications) was answered by 262 people. NSC was guided by a senior researcher from Tourism Kwa-Zulu Natal on the design of the survey and wording of questions, as well as on the requisite sample size for the user community of the Braamfontein Spruit.

ESTIMATED SAMPLE SIZE

Our estimate on the sample size for the user community (total of all user groups) is 18,000. This figure is based on survey respondents explaining that when they use the Spruit, they typically run, walk or ride with 2 or 3 other people (862 x 3 = 2586). Based on that multiplier, and the influx of 1500 runners to Delta parkrun and 500 runners at Alberts Farm parkrun weekly, it is estimated that 4500 people a week use the Spruit.

Multiply 4500 by 4 weeks (a month's use), and the range of 18,000 is reached. This estimation excluded visitors to Emmarentia and Marks Park on weekends for picnics and family time that may not have seen the survey. Using the community size of 20,000, a confidence level of 95% and a margin of error of 5%, the sample size needed to be minimum of 377 respondents. Survey 1 met this requirement. Survey 2 incurred a margin of error of 7% due to its smaller sample size. However, the sample size with a margin of error of 7% was 195, hence Survey 2 met this requirement.

NSC would like to thank all of the survey respondents and people with whom we met for taking the time to provide feedback. The survey in particular was one of the most important parts of the Braamfontein Spruit ATMP and it was important for all user groups to be consulted, and to allow people's voices to be heard regarding the Spruit, which is clearly an important resource for all.

1.4 PHASING OF THE OVERALL MANAGEMENT PLAN

In considering the overall management plan and recommendations, there are two distinct phases:

Phase 1 looks at the current trail system that is in use by all user groups. The recommendations speak to formalising the trail system and defining the trails that will be managed, as well as better management practices for the trail system. Certain business and employment creation opportunities will be highlighted linked to this phase, in order to meet the Phase 1 objectives.

Phase 2 refers to the period after the formalised trail system and management practices have been well established and possibly refined after a period of transition and adjustment. It is anticipated that there will be some resistance from those who have previously been able to utilise the space with limited restrictions. However in NSC’s experience, good communication and project management generally allows for these challenges to be overcome. Phase 2 looks at how to improve on what exists, and opportunities for growth along the trail system. A large part of this is identifying business and income-generating opportunities along the Braamfontein Spruit linked into the trail network and facilities.

This Phase 3 Report: Feasibility Study and Operational Business Plan concludes the third milestone in accordance with the agreed project approach and methodology and comprises the following sections:

SECTION 2: Institutional Structuring Recommendations

The Phase 3 Report makes detailed recommendations in terms of the institutional structuring for the management of the Braamfontein Spruit trails.

SECTION 3: Risk Assessment

Adequately addressing and managing the risks associated to the project is crucial to its long-term sustainability. This section highlights the different types of risk that need to be considered in relation to the Spruit trails including business, environmental, social and the more specific trail related risk. It also
provides recommendations in terms of how these risks can be mitigated and it has been used to inform the ATMP Phase 1 (implementation) mitigation measures. It contains a detailed description of trail building best practices and makes further recommendations in this regard.

SECTION 4: Tourism Recommendations
This section describes the tourism economic activity hierarchy and provides examples of successful domestic and international tourist facilities. It goes on to recommend secondary and tertiary tourism based products and services that would have potential along the Spruit trails.

SECTION 5: SWOT Analysis
A SWOT analysis is a commonly used tool used to facilitate a strategic review of a particular organisation or project. The Spruit ATMP SWOT analysis has been conducted from the perspective of the trail network as it currently exists, and that of the proposed Braamfontein Spruit Club/ Trust. It is a high-level exercise that identifies strengths, weaknesses, opportunities and threats of the organisation/ project.

SECTION 6: Formulation of a Vision, Gap and Option Analysis and Key Strategic Objectives
Based on the preceding sections a proposed vision has been formulated. Whilst this Vision has been formulated from the outcomes of the research, it is presented in draft form for further debate and deliberations for all stakeholders to arrive at a consensus for an agreed and shared Vision. Based upon the proposed Vision, the immediate ‘Gaps’ that presently exist, which would prevent achievement of the Vision were identified. Against each of the ‘Gaps’, ‘Options’ are presented to how each of the ‘Gaps’ may be filled, thereby determining the Key Strategic Objectives (KSO’s) necessary for achieving the objectives of the Spruit trails, for inclusion within Business Plan.

SECTION 7: Operational Business Plan & Financial Recommendations
The Operational Business Plan (OBP) has been prepared through interlinked spreadsheets, which start with the Operational Discourse (Appendix A); leading through to Profit / Loss projections. The calculations are predicated on a variety of Assumptions, which by altering one or more, may provide a range of different scenarios.

Summary and conclusion
It is NSC’s recommendation that the Braamfontein Spruit Adventure Trail Management Plan should commence with Phase 1, which is aimed at formalisation and better management of the trail network. In order to make this more manageable the project study area has been broken down into three zones; southern, central and northern. Once Phase 1 has been successfully implemented it will provide a solid foundation for the implementation of Phase 2 and for the management of more sensitive areas such as Melville Koppies.

Summary of recommendations considered relevant to the way forward
• To undertake a project of this nature it is necessary for a ‘Special Purpose Vehicle’ (SPV), or some form of ‘ring-fenced’ legal entity to be formed that has legal responsibility / accountability for control over the project, including raising of funds and subsequent operations once the development phases have been completed. Such a legal entity would most probably be in the form of a Club or Trust;
• Managing risk is important to the long-term sustainability of the project and to the access enjoy by recreational trail users. It is also something that most potential funders would see as a prerequisite for any sort of funding agreement or arrangement.
• Although it falls outside of the scope of this project, the increasing prevalence of informal settlers along the Braamfontein Spruit is considered a serious threat to the ongoing sustainability of the Spruit trails and to the socio-economic benefits that they provide.
• The Operational Business Plan has taken shape in two Phases, each expected to take approximately one year to implement.
• The indicative development and operational costs for Phases 1 & 2 are as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Development costs</th>
<th>Operational costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R3 million</td>
<td>R5.70 million</td>
</tr>
<tr>
<td>2</td>
<td>R3.2 million</td>
<td>R6.76 million</td>
</tr>
</tbody>
</table>
• Job creation and skills development potential of each phase is as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Semi-skilled temporary construction/ trail building job opportunities</th>
<th>Permanent jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>52</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Number of individuals that will receive training and skills development = 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of individuals that will receive training and skills development = 20</td>
<td></td>
</tr>
</tbody>
</table>
Summary of environmental recommendations considered relevant to the way forward

- **National Water Act (NWA):** In terms of section 39 of the NWA, the Department could issue general authorisations (GAs) for activities normally requiring a Water Users License (WUL). This includes even minor deviations in flow, and or altering the bed, banks, course or characteristics. If the proposed activity is covered under the conditions applicable to GA, the activity must still be registered with the Department, registration calling for a far less onerous submission and level of detail than a WUL application.

- The ATMP should go through the General Authorisation 509 process to be registered under the General Authorisation. This will make compliance with the NWA of incremental development and maintenance of the trails much easier in the longer term.

- Large parts of the Spruit corridor are designated as Critical Biodiversity Area (CBA), and other conservation designations applicable at a number of points along the corridor.

- CBA status does not mean that development is not allowed in such areas, but that there may be more stringent limits on what is permissible, proposals will be carefully scrutinised and proponents will have to demonstrate that their planned interventions will not compromise the reaching of biodiversity conservation targets set for the regional CBAs.

- **Biodiversity and habitat conservation** issues are paramount (1) in the piece of Egoli Granite Grassland in the upper south-west corner of Alberts Farm (2) the crystalline ridge outcrop from which the Alberts Farm spring emerges (3) the wetland running across the eastern side of Alberts Farm; (4) the poplar and Eucalyptus woodland and adjacent long (unmowed) grassland in the centre of Delta Park; (5) the dams and wetlands connecting them running through the centre of Delta Park south-west to north-east; and (6) the wetland zone running downstream from the dams in Emmarentia Park.

- Physical stability/erosion issues are key in areas of Alberts Farm, Delta Park/ Craighall Park and at all bridge under passes. Congestion issues are associated with narrow passageways, and in these zones trail widening and hardening, stormwater channeling, separation of user groups where feasible, and accompanied by stringent speed limits for mountain bikes, should be implemented.

- For overall guidance, the application of the International Mountain Bicycling Association’s (IMBA’s) best practice guidelines for trail system layout, design and construction is recommended. These are sourced from the IMBA website.

- Given the extent of existing recreational and trail use in the Braamfontein Spruit corridor, it is unlikely that the adventure trails proposals will have any significant effect on biodiversity conservation target achievement, especially since the adventure trails project is being planned and designed with environmental concerns as part of the process. It ought in fact to enhance biodiversity conservation objectives by limiting degradation of remaining habitats.

- For the final proposed trails system, an environmental management plan should be drawn up that specifies construction methods and maintenance requirements for every new intervention or expansions of existing ones at sensitive environmental sites as listed above.
2. **Institutional Structuring Recommendations**

The following section focuses on preliminary recommendations in terms of the institutional structuring for the management of the Braamfontein Spruit Adventure Trail Management Plan. There are several levels to the management of the Braamfontein Spruit trail network, and the different types of management requirements and mandates separate them.

The Braamfontein Spruit is the longest stream in Johannesburg, and originates in Greymont, Roodepoort. It is canalised (and covered) near the source, but when it exits the Parkview Golf Course it runs open through the city and suburbs and includes features such as Emmarentia Dam, Westdene Dam and numerous natural waterfalls. A trail network has developed over time (recorded as far back as the 1970s by the Co-ordinating Committee for Open Space) that runs alongside the Braamfontein Spruit. There are many institutional structures that govern and manage the areas around the Braamfontein Spruit, as well as the river itself and the tributaries that feed into the Braamfontein Spruit.

### 2.1 Identified Government, Public and Private Structures

In the Phase 2 report, a detailed breakdown of the internal and external institutions key to functioning of the Braamfontein Spruit area and trail network was provided. This is summarised below:

#### National Government

<table>
<thead>
<tr>
<th>Department of Water Affairs</th>
<th>The Department of Water and Sanitation is the custodian of South Africa’s water resources.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Environmental Affairs</td>
<td>The Department of Environmental Affairs is mandated to give effect to the right of citizens to an environment that is not harmful to their health or wellbeing, and to have the environment protected for the benefit of present and future generations.</td>
</tr>
<tr>
<td>Department of Social Development</td>
<td>A caring and integrated system of social development services that facilitates human development and improves the quality of life.</td>
</tr>
</tbody>
</table>

#### Provincial Gauteng Government

| City of Johannesburg | CoJ has divided up its responsibilities into several key departments (Municipal Owned Entities):
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i) Planning and Urban Management *** Environment and Infrastructure</td>
</tr>
<tr>
<td></td>
<td>ii) Johannesburg City Parks and Zoo</td>
</tr>
</tbody>
</table>

#### City Directorate: Environment and Infrastructure Services Department

To create favourable surroundings for living, business and recreation, the City’s environmental planning and management section of the new department manages air, water, land and noise pollution and implements measures to moderate polluters.

The business focus of the environment portfolio divides responsibilities among the environmental planning and management department, which is responsible for policy and strategy; City Parks, which is responsible for parks, nature reserves and cemeteries; and the Johannesburg Zoo, which is responsible for the care of animals in the zoo and educational programmes.

The Infrastructure and services section of the department accommodates the needs of all city inhabitants. It combines several directorates such as energy, waste, water, and legal.

### City Directorate: Human Development (Social Development)

The Human Development Directorate is committed to improving the quality life of Johannesburg citizens, targeting vulnerable groups through the provision of safety nets, supporting and promoting initiatives which invest in human capital, and the development of their capabilities.

One of their departmental divisions is the **Displaced Persons Unit**, which manages facilities for displaced persons. They should be involved with managing the informal settlers along the Braamfontein Spruit.

### City Directorate: Social Assistance

Shared with its sister directorate, human development, the directorate’s social assistance vision is the emergence of a city in which community development and personal growth and social mobility are enhanced, so that the challenges of poverty and vulnerability, inequality and social exclusion are fundamentally
addressed by effectively, efficiently and accessibly connecting the poorest citizens with the full range of help available to them.

Citizen Relationship and Urban Management (CRUM)
CRUM used to be housed under Human Development but are now a stand-alone department. They are the interface between citizens and all other departments in responding to service delivery problems.

PARASTATALS
Eskom
A large portion of the area that the Braamfontein Spruit runs through is an Eskom servitude (on council land). Eskom pays JCPZ to cut grass in the servitude as part of the policy around keeping all the land around pylons clear.

CIVIL SOCIETY & PRIVATE SECTOR
Residents Associations
These are the Residents Associations that we have determined lie along the Spruit and that have made contact with us during the stakeholder engagement exercises that have been conducted. The Residents Associations are seen as a key communication channel and means of coordinating various exercises such as surveys.

- Blairgowrie Community Association
- Bordeaux South Residents Association
- Emmarentia Residents Association
- Greenside Residents Association
- Greymont Residents Forum
- Hurlingham Glenadrienne Craighall (HGC) Residents Association
- Parkview Residents Association
- Riverclub Residents Association

Environmental Associations
- Friends of Alberts Park Conservancy
- Friends of Field and Study Centre
- Friends of Melville Koppies

Trail Developers & Sports Clubs
- Informal trail building (unregulated) by mountain biking community
- The Spruit Fairy and associated Spruit Fund – private donations into a bank account managed by individual who maintains trails on the Spruit (including physical features that require maintenance).
- Mountain Bike Clubs
- JUMA/JURA
- Parkrun (Delta and Alberts Farm)

Table 1: Institutional Structuring

When looking specifically at the ATMP and JCPZ, it is important to understand the structures that sit above JCPZ. Essentially JCPZ is an implementing agent for the Environment and Infrastructure Services Department (EISD). EISD sits beneath the City Manager, and Chief Operations Officer along with Economic Development, Development Planning, Housing, Public Safety, Community Development, Transport, Health and Social Development. Evident in the below organogram is the implementing agent relationship between JCPZ and the City Manager. In other words, JCPZ helps EISD actualize their mandate.

Figure 7: CoJ Line Functions

Within EISD, the department is divided into the functional areas of Infrastructure and Planning Coordination; Climate Change, Energy and Air Quality; Water Resources and Biodiversity; Waste Management and Impact Management and Compliance Monitoring. Importantly, the EISD are responsible for managing Resource Sustainability, including Air Quality & Climate Change, Urban Water Management, River Health, Biodiversity Protection and Water Management.
To fulfill their mandate EISD need to utilise MOEs, and consequently JCPZ. Anything that takes place along the Braamfontein Spruit should then (in theory) go through EISD for approval and/or guidance in order to comply with the mandate of sustainable resource management.

The EISD has attempted to translate the City’s strategic imperatives to its own mandate and key performance areas. The following diagram depicts this scenario:

![Diagram showing the relationship between EISD Mandate, relevant City Priority and "The House".]

In this light, it is important that EISD are included in discussions going forward on the Spruit for guidance on environmental compliance. While JCPZ is the implementing agent, EISD has to be consulted and their human resources utilised towards successful implementation on the ATMP (i.e. consulting with EISD staff who can give environmental guidance in terms of policy and national law).

2.2 CURRENT TRAIL MANAGEMENT CONTEXT

With regards to the actual trail system, the policy, rules and regulations management structures are found higher up the table. When moving into the private sector and civil society realm, the physical management structures that apply to trail management exist.

![Figure 9: Trail Management: Existing Structures]

There are several factors that have contributed to how the division in management has developed. Firstly, the trail system has developed independently of JCPZs set list of resources. The trail has extended and grown inline with market trends, and this hasn’t happened in a formally planned or managed way. As such there are no prescribed maintenance requirements set against the trail (i.e. it is an ‘invisible’ resource in terms of the actual listed resources such as playground equipment), and therefore no budget set against its maintenance.

Secondly, JCPZ is facing several challenges (internal and external) as outlined in the JCPZ Business Plan 2016/2017, including JCPZ being over-subscribed in their mandate requirements in a complex socio-economic and socio-political environment. It leaves little room to consider the management and development of the trail system when the JCPZ are focussed on trying to fulfil their original prescribed mandate, which is more complex after the merger in 2013 between Johannesburg City Parks and the Zoo.

An example of over-subscription would be that while JCPZ is mandated to manage the public open spaces (public open space, public utility open space, recreational public open space, urban agricultural open space), they are also required to procure funding through payment by other MOEs and SOEs to work in these areas. This means that JCPZ are reliant on an inter-departmental payment (business) system, which does not always work as intended. Additionally, JCPZ are mandated with managing 20 000 hectares of public open spaces (1270 Parks and 459 public open spaces), and the Braamfontein Spruit forms a small portion of this overall area.
In terms of the current trail management context, the trail system runs through parks managed by JCPZ as well as through the public open spaces. Public open spaces are subject to specific by-laws (CoJ, 2004), and these are summarised below. The purpose of summarising the by-laws is to highlight the conditions in which the trail system and management plans should actually operate, and should comply with.

CHAPTER 2: MANAGEMENT AND ADMINISTRATION OF PUBLIC OPEN SPACES

Principles of By-laws
1. Public open spaces must be managed, and where appropriate developed, in the interests of the whole community, and in determining the interests of the whole community –
   - (a) the long-term collective interests of the people of Johannesburg, and of South Africa, must be prioritised over the interests of any specific interest group or sector of society;
   - (b) a long-term perspective, which takes account the interests of future generations, must be adopted; and
   - (c) the interests of other living organisms which depend on public open spaces must be taken into account.
2. Public open spaces must be managed in an environmentally sustainable manner.
3. Subject to the provisions of subsection (5) and section 7, people must be given access to public open spaces on a non-discriminatory and equitable basis.
4. If necessary, special measures must be taken to facilitate access to public open spaces by historically disadvantaged persons and by disabled persons.
5. Access to a public open space may be restricted in a manner which does not unjustifiably discriminate against any person or class of persons –
   - (a) if the restriction is authorised by these By-laws or by any other law; or
   - (b) in order to achieve the purposes of these By-laws.
6. The recreational, educational, social and other opportunities which public open spaces offer must be protected and enhanced to enable local communities, particularly historically disadvantaged communities, and the public to improve and enrich their quality of life.
7. Local communities must be encouraged to use and care for public open spaces in their areas.
8. The natural environment and heritage resources within public open spaces must be identified, preserved, protected and promoted, for the benefit of the local community, the public and future generations.

Application of Principles
The public open space management principles set out in section 4, and the national environmental management principles set out in section 2 of the National Environmental Management Act, 1998 (Act 107 of 1998), must be considered and applied by any person –

(a) exercising a power or function or performing a duty under these By-laws;
(b) formulating or implementing any policy which is likely to have a significant effect on, or which concerns the use of, public open spaces within the Council’s jurisdiction; or
(c) exercising a public power or function or performing a public duty which is likely to have a significant effect on, or which concerns the use of, public open spaces.

General powers of Council
The Council may in relation to any public open space –

(a) designate any area within a public open space as an area within which one or more activities otherwise prohibited in terms of these By-laws may be undertaken, and display a prominent notice to this effect at every entrance to the designated area;
(b) develop any public open space in accordance with the principles set out in section 4;
(c) erect, construct, establish or demolish municipal property; and
(d) exercise any other power reasonably necessary for the discharge of the Council’s obligations in terms of these By-laws relating to the management of public open spaces.

Fees
Any member of the public must pay –

(a) a prescribed fee to use recreational or other facilities which the Council provides within any public open space;
(b) a prescribed fee for entrance to any public open space which is significantly more expensive to maintain than other public open spaces, such as botanical gardens;
(c) a prescribed fee for the right to undertake a special event;
(d) a prescribed fee for the right to exclusively use municipal property for a specific period;
(e) a deposit prior to undertaking a prohibited activity permitted by the Council;
(f) an annual or monthly fee for the right to use urban agricultural public open space to the exclusion of any other person; and
(g) a prescribed fee for processing applications for permits or letters of permission under these By-laws, if such a fee or deposit has been determined by the Council.

Restricting Access
The Council may restrict access to any public open space or to any part of a public open space for a specified period of time –

(a) to protect any aspect of the environment within a public open space;
(b) to reduce vandalism and the destruction of property;
(c) to improve the administration of a public open space;
(d) to develop a public open space;
(e) to enable a special event which has been permitted in terms of section 22, to proceed; or
(f) to undertake any activity which the Council reasonably considers necessary or appropriate
to achieve the purposes of these By-laws.

Powers of authorised officials
In relation to any public open space, an authorized official may –
(a) to the extent authorised by the Council administer, implement and enforce the provisions of
these By-laws;
(b) issue a notice in terms of section 20;
(c) instruct any person to leave a public open space if the authorized official reasonably
believes that the person is contravening any provision of these By-
laws, and fails to
immediately terminate such contravention upon the instruction of that official; and
(d) if such official is a peace officer, exercise any power which may be exercised by a peace
officer under the Criminal Procedure Act, 1977 (Act No. 51 of 1977).

Obligations in relation to public open spaces
1. The Council must within a public) open space display any notice required under these By-
laws.
2. In relation to recreational public open spaces, the Council must –
(a) ensure that they are open to the public between sunrise and sunset, unless specified
otherwise in terms of a notice; and
(b) prominently display a notice at every entrance indicating:
(i) the opening and closing times of that recreational public open space; and
(ii) any rules made by the Council in relation to that recreational public open space.

CHAPTER 3: PROHIBITED CONDUCT

Prohibited Activities
1. Any person who undertakes an activity or behaves in a manner that is prohibited in terms of these
By-laws, commits an offence unless, in addition to any exceptions contained in sections 12 to 19,
that activity or conduct–
(a) takes place in a designated area within which that activity or conduct is allowed; or
(b) is authorised in terms of a permission granted or permit issued in terms of section 21, 22 or
23; or
(c) is deemed to be authorised by the Council under subsection (2).

2. Subject to the provisions of subsection (3), a person is not in contravention of any provision of
section 12 to 19 if that person needs to undertake the prohibited activity –
(a) to perform his or her obligations as an employee, agent or contractor of the Council under
his or her contract with, or mandate from, the Council or to achieve the purposes of these By-
laws;
(b) to carry out public duties as an employee, agent or contractor of an organ of State within a
public open space which is subject to a public utility servitude in favour of that organ of State;
(c) to fulfil his or her duties as an authorised official; or
(d) to fulfil his or her duties as a peace officer.

(3) Subsection (2) must not be interpreted to allow a contravention of section 12(a) or (e) or any
activity, which the Council has expressly refused to permit.

General Prohibition
No person may within a public open space –
(a) act in a manner which is dangerous to life or property;
(b) contravene the provisions of any notice within any public open space;
(c) unlawfully enter a public open space to which access has been restricted in terms of
section 8;
(d) cause a nuisance; or
(e) behave in an indecent or offensive manner.

Prohibited Use
No person may within a public open space –
(a) bathe, wade, or swim in or wash him- or herself, an animal or any object, including
clothing, in any water body;
(b) make, light or otherwise start a fire except in a facility provided by the Council for that
purpose;
(c) camp or reside;
(d) consume, brew, store or sell any alcoholic beverage;
(e) use any sound equipment, including a radio, portable hi-fi or car stereo;
(f) play an active game, except in an area designated for that purpose on a sport playing field
or on a golf course; or
(g) shoot a projectile of any nature.

Waste
No person may within a public open space –
1. deposit, dump or discard any waste, other than in a receptacle provided by the Council
for that purpose; or
2. pollute or deposit any waste or thing in a manner which may detrimentally impact on a water body.

Vehicles
No person may within a public open space –
(a) except at times specified and on roads or pathways provided by the Council, drive, draw or propel any vehicle other than a bicycle;
(b) drive, draw or propel a vehicle in excess of five kilometres per hour; or
(c) park a vehicle in a public open space, except in designated area or other area where parking is otherwise permitted by the Council.

Vegetation and Animals
Subject to the provisions of subsection (2), no person may within a public open space –
(a) disturb, damage, destroy or remove any tree, shrub or other vegetation;
(b) affix or place any printed matter on a tree;
(c) plant any vegetation;
(d) alter the slope or drainage pattern so as to interfere with the access of water, air or nutrients to any tree or other plant;
(e) capture or attempt to capture, chase, shoot at, injure, throw objects at, tease, molest or in any other way disturb any animal fish, or bird;
(f) disturb, damage or destroy any bird nest or egg;
(g) ride a horse, except –
   (i) in a public open space or any part thereof designated by the Council for that purpose; and
   (ii) a person who in the performance of his or her official duties, patrols a public open space on horseback;
(h) walk, carry, ride or bring an animal other than a horse or dog; or
(i) walk any dog unless-
   (i) it is in a public open space or any part thereof which has not been designated by the Council as an area where no dogs are allowed, and it is on a leash and under control of a person; or
   (ii) it is in a public open space or any part thereof designated by the Council as an area where dogs may run free:
Provided that if any dog excretes in a public open space, the person in control of the dog must immediately remove such excrement and dispose of it in a waste bin or other receptacle provided by the Council for that purpose.

Municipal Property and Erection of Structures
No person may within a public open space –
(a) deface, damage, destroy or remove any municipal property;
(b) disturb the surface of any land, whether by digging, undertaking any earthworks or otherwise;
(c) erect, build or assemble any structure, including a hut, tent, screen, bulletin board, pole, stand or stage;
(d) affix or place on any municipal property, or distribute, any printed matter; or
(e) plug, tamper with, or in any way damage any plumbing, electrical, heating or other fixtures or installations.

Selling and Special Events
No person may within a public open space –
(a) use municipal property in a way that unfairly restricts or prevents other users of the public open space from enjoying that municipal property; or
(b) except within a public open space or part thereof, which has been let to a person by the Council for that purpose, sell, hawk, offer or display any goods or articles for sale or hire;
No person may undertake a special event, except in terms of a permit issued I.t.o section 22.

Community Service
Except in terms of an agreement entered into in terms of section 24, no person may within a public open space undertake any community or voluntary work of any description.

Restoration or Removal Notices
Unless permission or a permit to do so has been obtained in terms of section 21, 22 or 23, an authorised official may issue a restoration or removal notice to any person who has in a public open space –
(a) damaged, defaced, disturbed, destroyed, demolished or removed vegetation or a municipal structure;
(b) erected, built or assembled a structure; or
(c) dumped, discarded or deposited any waste, other than in a receptacle provided by the Council for that purpose.

The restoration or removal notice may direct the person concerned within a reasonable time specified in the notice to take stated reasonable steps specified in the notice-
(a) to restore or rehabilitate the affected area to the reasonable satisfaction of the Council; or
(b) to remove a structure or thing and restore the affected site, as nearly as practicable, to its former condition.
CHAPTER 5: CO-OPERATIVE MANAGEMENT AGREEMENTS

Entering into agreements

(1) The Council may enter into a written agreement with any organ of State, local community or organization to provide for –

(a) the co-operative development of any public open space; or
(b) the co-operative management of any public open space; and
(c) the regulation of human activities within a public open space.

(2) The Council may not enter into an agreement in terms of subsection (1) (b) unless it reasonably believes that entering into such an agreement will promote the purpose of these By-laws.

(3) The Council must monitor the effectiveness of any agreement entered into in terms of subsection (1), in achieving the purposes for which it was entered into and may cancel the agreement after giving reasonable notice to the other party if the Council has reason to believe that the agreement is not effective, or is inhibiting the attainment of the purpose of these By-laws.

2.3 JCPZ: A DUAL FUNCTION MOE

2013 saw the merger between Johannesburg City Parks and the Zoo, in order to “streamline services, reduce duplication and enhance service outputs to reduce original costs”. Additionally, City Parks and the Zoo would “facilitate social cohesion through the provision of a holistic and sustainable outdoor experience for the residents of the City of Johannesburg”. Below is an organogram that illustrates the organisational structure of JCPZ.

![Organisational Structure of JCPZ](image)

The merger has brought together two broad stakeholder bases for one department to now manage, as they are acting as the structure to manage public recreational spaces and conservation. As presented in the JCPZ Business Plan 2016/2017, from a workflow perspective, the key consideration is that within JCPZ there are two distinct ‘cores’ – **Service Delivery** and **Conservation and Biodiversity**. This puts a dual pressures onto JCPZ in terms of procuring funding (JCPZ, 2016):

- As a local government, public service entity with a specific mandate to ensure desired priorities and outcomes are achieved with available resources. Here JCPZ competes for resources against other CoJ Departments and Municipal Owned Entities; and
As an environmental company operating in the parks, conservation, recreation and leisure industry, it competes against developers and other private and public stakeholders for land and resources, and with other NGO’s for resources and donor funding.

Highlighted in both of the above statements is the pressure placed on JCPZ for finding funding and resources in a competitive environment, combined with increased costs (from operational costs to actual increase in service delivery costs). Business Development (in particular New Business Development) and Stakeholder Management are the key department that are in place to tap into available funding and create new sources of revenue for JCPZ to fulfil its mandate. The Braamfontein Spruit and trail networks provide an avenue into new business development, with possibilities for the trail network to fund its own maintenance.

2.3 JCPZ: OPERATIONS AND KEY PRIORITIES

Despite the myriad external and internal challenges that JCPZ face, it operates as a company and has daily operations and key priorities linked to these daily operations, as seen below.

![Figure 11: JCPZ Daily Operations and Key Priorities](image)

Service Delivery and Core Business is the Executive Department that primarily deals with operations, in particular, maintenance. Considering that the trail system runs through several of the areas in which daily operations take place, it can be considered a different kind of recreational resource that may require a more flexible approach to maintenance.

![Figure 12: JCPZ Service Delivery and Core Business Structure](image)

Considering the above structures and the challenges that JCPZ faces in terms or funding, human resources and meeting their (dual) mandate, there are several options for a proposed trail management structure system, to be discussed below.

2.4 TRAIL MANAGEMENT STRUCTURES

A set of daily operations and key priorities for management and maintenance of the Braamfontein Spruit trail network are outlined below:

![Figure 13: Daily operations and key priorities for the Spruit trail network](image)
Figure 14: Daily operations and key priorities for the Spruit trail network

Considering the issues discussed previously around capacity of JCPZ to take on extra management responsibilities, it is unlikely that the daily operations and key priorities (as described above) could be funded and implemented through JCPZ. Even if funding were procured for an initial period of time, it would be difficult to ensure consistent and ongoing income streams (at least immediately), which could cause early collapse of the trail management system or project. Additionally, understanding the issue with skills training and capacity development within JCPZ, a lack of staff with appropriate trail management experience (and in particular, proven trail building and maintenance experience) is expected. However, New Business Development is a priority area for JCPZ, and the trail management plan offers a way to bring new income streams into JCPZ, as well as to build stakeholder engagement processes and partnerships up with residents and Spruit users. It is felt that through a public private partnership (PPP), it would be possible to overcome the challenges that face JCPZ as discussed. The following quote defines PPPs, as per the National Treasuries PPP Toolkit for Tourism:

A PPP is clearly defined in Treasury Regulation 16 to the Public Finance Management Act. It is essentially a contractual arrangement whereby a private party performs an institution’s functions, and/or makes use of state property for its own commercial purposes. The private party assumes substantial financial, technical and operational risks associated with those functions or the use of state property. In return, the private party receives a benefit according to pre-defined performance criteria. This benefit may be entirely from a service tariff or other user charges, an institution’s budget, or a combination of the two.

The private party’s responsibilities typically include the financing, design and construction of a facility, as well as its operation and maintenance, for a specified period of time. Where substantial capital investments are made by the private party under such arrangements, the PPP agreements tend to be of long duration. A distinct characteristic of a PPP is that it is for a fixed period, during which time ownership of the immovable assets typically vests with the state, and control over these assets reverts to the state at the termination of the PPP agreement.

It is recommended that a Special Purpose Vehicle (SPV) be developed to drive and steer the trail network (as per Chapter 5 of the Public Open Spaces By-Laws) and to create funding channels via the public and user groups. The SPV could be in the form of a Trust or Club. In this document for illustrative purposes we will refer to the Trust structure as the Braamfontein Spruit Trail Trust (BST). The BST would be the face of trail management, but would work in parallel partnership with JCPZ.

The complexity of managing the public utility open spaces has been noted, in particular the frustration JCPZ experienced in being reliant on other MOEs or government departments to play a role in operating in these areas. It is not anticipated that this complexity will fall away, and the BST can’t be expected to overcome issues on their own that JCPZ has not managed to overcome. For this reason, a parallel management structure is necessary to try and create better communication between departments around important issues such as illegal dumping of rubble, illegal dumping of rubbish, illegal settlements, sewage leaks, illegal habitat destruction and the like. On the following page, an organogram illustrating this suggested structure is presented, and detail related to this is found in the below table:

<table>
<thead>
<tr>
<th>JCPZ &amp; BST PARTNERSHIP</th>
<th>The core recommended structure for management of the trail network is a working partnership between the JCPZ and a new Braamfontein Spruit Trail Trust (BST)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This removes responsibility/risk to BST, and allows JCPZ to guide trail management against by-laws, while allowing the BST to do the management and spending (reducing possible delays in government procurement and supply chain).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PARALLEL GOVERNMENT STRUCTURES BOARD/COMMITTEE</th>
<th>Consists of those institutions responsible for elements of the Spruits functioning.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recommended - one key contact from each of these institutions</td>
</tr>
</tbody>
</table>

JCPZ, JRA, ESKOM
JHB WATER (& SANITATION)
SPRUIT TRAIL TRUST
**Possible Additions**

These institutions would be included based on instances that require their input or responses regarding developments or happenings within the trail network area.

- JPC, Urban Planning, JMPD, PIK-IT-UP, DPU

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**BST Structure & Responsibilities**

The BST would be the 'face' of the trails, in formal partnership with JCPZ. The BST would have trustees, with the trustees being representatives from all the recreational user groups.

The number of trustees per user group would be based on the estimated percentage of different users per group on the Spruit (TBC).

JCPZ, JRA, ESKOM and JHB WATER would set the boundaries of engagement (outline what rules and regulations have to be abided by along the Spruit in terms of trail use, development and management). This would form part of the BSTs mandate.

**BST Responsibilities would include:**

- Appointment of a management team to handle the day to day operations of the organisation.
- Implementing trail management plan ‘on the ground’ – signage, repair work etc.
- Trail Maintenance and Management – through procuring the services of trail maintenance teams/companies, and professional trail builders with proven experience
- Communication with user groups (shared responsibility with JCPZ)
- Marketing of trail network (shared responsibility with JCPZ)
- Implementing funding schemes, and developing new channels and mechanisms of funding (shared responsibility with JCPZ)
- Security on the trails – hiring/partnering with security firms for 24 hour monitoring of the Spruit.
- Reporting to JCPZ – General Manager of Regional Maintenance

**Functional Requirements**

- Bank Account
- Accountant
- Annual Audit
- Financial Officer (to make payments and dispense funds on approved costs against budgets)

**Sources of Funding**

- Generation of funds through community donations/membership
- Generation of funds through BST organised events
- Percentage of branding income paid to BST as JCPZ Partnership Funding annually
- Others as per opportunities outlined in the Operational Discourse and Business Plan

**BST General Manager**

The responsibilities of the BST would be onerous, but ultimately would allow the public to be in control of their public facility, through a partnership with JCPZ. In order to fulfil their responsibilities, it is recommended a full time manager be employed by the BST.

Manager Responsibilities:

- Trail Management
- Reporting
- Fundraising
- Co-ordination
- Risk Management
- Community Initiatives i.e. Spruit Day

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**Table 2:** Suggested trail structures and responsibilities
Figure 15: Suggested structure for management of the trail network.
It is recognised that more detail and consideration needs to be given to the structuring of the Club or Trust, however it would also be necessary to consult with the communities that will form the Club or Trust on the requisite roles and responsibilities that would be required on the Executive Committee. NSC recommends the above as a starting point to work from, and further recommend that a legal expert be brought in to facilitate the formation of the Trust against South African legislation. However, a guideline of the key attributes of the most common forms of legal structures that volunteer, non-profit organisations will take has been adapted from a toolkit developed by the Education and Training Unit for Democracy and Development, and this is attached as Appendix F.

Figure 16: Suggested structure for management of the trail network as an organogram
### 2.5 TRAIL MANAGEMENT STRUCTURES - REQUIREMENTS

**Management Package: Braamfontein Spruit Trail Trust**

<table>
<thead>
<tr>
<th>Position</th>
<th>No of Ppl</th>
<th>Level of Qualification</th>
<th>Experience &amp; Training Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trustees</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trustee 1: Representing the running user group</td>
<td>1</td>
<td>Level of Qualification is not NB</td>
<td>Experience serving on committees/boards, willingness to take on responsibility, work as a team. Active social media use, an advantage. Linked to ParkRuns – advantage.</td>
</tr>
<tr>
<td>Trustee 2: Representing the walking user group (including dog walkers)</td>
<td>2</td>
<td>Level of Qualification is not NB</td>
<td>Experience serving on committees/boards, willingness to take on responsibility, work as a team. Active social media use, an advantage.</td>
</tr>
<tr>
<td>Trustee 3 &amp; 4: Representing the mountain bike user group</td>
<td>2</td>
<td>Level of Qualification is not NB</td>
<td>Experience serving on committees/boards, willingness to take on responsibility, work as a team. Strong links to mountain bike media and industry an advantage.</td>
</tr>
<tr>
<td>Trustee 5: Representing the birding user group</td>
<td>1</td>
<td>Level of Qualification is not NB</td>
<td>Experience serving on committees/boards, willingness to take on responsibility, work as a team. Links to birding tourism an advantage.</td>
</tr>
<tr>
<td>Trustee 6: Representing the environmental groups</td>
<td>1</td>
<td>Level of Qualification is not NB</td>
<td>Experience serving on committees/boards, willingness to take on responsibility, work as a team. Some environmental knowledge or work experiences an advantage.</td>
</tr>
<tr>
<td>General Manager</td>
<td>1</td>
<td>Tertiary Education</td>
<td>This position is unpacked further in the next table.</td>
</tr>
<tr>
<td>General Admin Assistant</td>
<td>1</td>
<td>Matric minimum</td>
<td>Must be computer literate, experience in administrative duties (possibly half day position)</td>
</tr>
<tr>
<td>Bookkeeper/Financial Officer</td>
<td>1</td>
<td>Bachelor of Accounting Science</td>
<td>Must have proven bookkeeping experience and able to prepare accounts/books for annual audits</td>
</tr>
</tbody>
</table>

### Duties

1. The core function of the BST Manager is to implement the trail management plan, with support of the trustees. They will become the face of the trail network, and the person through which Spruit Users can communicate directly about the trail network.
2. Specific duties include:
3. Procuring of trail maintenance services for the Northern, Central and Southern Zones of the trail network (advertising, assessing and appointing)
4. Developing trail maintenance plans (calendar), and making sure that all aspects are being covered by the service providers
5. Checking of all work (monitoring and evaluation)
6. Implementing the signage development plan
7. Managing a budget (as developed by the Board)
8. Marketing of the trail network (creating links with media, being active on social media, developing communication tools to speak to all user groups)
9. Creating links with community initiatives i.e. Spruit Day, Neighbourhood Watch etc.
10. Developing Strategic Alliance Partnerships
11. Fundraising: implementing fund raising plans as developed by the Board
12. Risk Management: On-going assessment of risks, with development of pro-active responses (in consultation with board)
13. Reporting

### Experience & Training Required

Ideally, the person would have had experience in trail management, but if they are a practical person who actively participates on the Spruit (in more than just one discipline i.e. a runner, walker and mountain biker) and are able to perform management tasks that are both desk-top based and in-field that would be acceptable.

**Experience in project management would be an advantage, as this is multi-faceted position that deals with trail infrastructure as well as fund-raising and managing of budgets.**

**Possible Training Requirements:**

- Trail Building Basics (for understanding of best practice)
### Management Package: Braamfontein Spruit Trail Trust

#### SERVICE PROVIDERS

<table>
<thead>
<tr>
<th>Position/Task</th>
<th>No of Ppl</th>
<th>Level of Qualification</th>
<th>Experience &amp; Training Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Trail Builders/Mentors</td>
<td>2</td>
<td>Level of Qualification not NB</td>
<td>Proven experience in multi-faceted trail building projects. Possible further training or workshop towards Spruit specific building</td>
</tr>
<tr>
<td>Trail Building Apprentices</td>
<td>8</td>
<td>Level of Qualification not NB</td>
<td>To be trained under the mentors, and trained in basic bike mechanics, guiding and possibly basic skills training (to tie into marketing recommendations and Operation Business Plan).</td>
</tr>
<tr>
<td>Signage Company</td>
<td>1</td>
<td>Level of Qualification not NB</td>
<td>Possible to work with preferred signage supplier, and workshop around ongoing signage needs and maintenance</td>
</tr>
</tbody>
</table>

Table 3 - 5: Trail Management Structures and Responsibilities

### 2.6 SUMMARY OF KEY FINDINGS REGARDING INSTITUTIONAL STRUCTURING

- JCPZ are limited in terms of available human resources and funding towards fulfilling their mandate.
- It is seen as more sustainable in the long run to place the management of the Braamfontein Spruit Trail Network within a structure that allows meaningful community involvement, engagement and access to consistent streams of funding.
- The identified structure would most likely be in the form of a Trust or Club.
- The Trust/Club would comprise trustees/committee members, with implementation occurring through a (paid) General Manager, Administration Assistant and Financial Officer.
- Service Providers will be directed by the General Manager, including Trail Builders and Security Forces.
- When looking into Phase 2 of the ATMP, further service providers and activities would be engaged. This is unpacked in the Operational Business Plan.
3. Risk Assessment

When considering risk along the Braamfontein Spruit trail network, there are several lenses through which risk has to be identified to create a holistic risk assessment. These are the business lens, environmental lens, social lens and the more specific trail related activities lens.

![Figure 17: Types of risks and associated risk assessment process](image)

The aim of assessing risks is to identify causes of the problems at hand, and to develop preventative (long term), corrective (medium term) or remedial solutions (short term) to these problems. Some risks require fewer resources, or are simpler to fix, while those with deeper root causes require in-depth analysis techniques to truly be able to address the symptoms that have become evident along the trail network.

3.1 User Perception:

NSC investigated use of the Spruit through an online survey where all types of users could meaningfully contribute to the study. There were 862 responses, with the split in gender being 59% male and 41% female. This included questions around perceived risk along the Spruit trail network, as well as negative experiences along the Spruit. The information on risk was obtained through asking a question with prescribed options, and then further in the survey asking about negative experiences where the question was open-ended. In this way a wider range of risks was captured.

To start the discussion it is worth noting the breakdown in users of the Spruit, as this highlights who the major users of the Spruit are. A question was asked whereby users were asked to select what user group they are a part of, but they were able to select more than one option as many people use the Spruit for more than one activity. Thus the answers need to be viewed in with this in mind, as many mountain bikers could also have identified as runners or walkers too.

As can be seen by Figure 15 below, the majority of male users (81%) identified as mountain bikers, whereas the majority of female users identified as dog walkers (54%), followed closely by residents who live near the Spruit (50%). More females use the Spruit trails for walking (47%) than females who use it for running (37%) and mountain biking (41%). It is also evident the females (32%) identify as family users more than males (24%), with a difference of 8% between the two.

![Figure 18: Graph displaying the segmentation of users](image)

Understanding this dynamic is important as it reflects in the perceived risks data. Moving onto the statistics from perceived risks, Figure 16 below highlights that being assaulted (74%) is seen as the most serious threat to the safety of males, closely followed by being bike jacked (73%). With females however, 87% of users are concerned with being assaulted, and only 42% are concerned about bike jacking; but this correlates with the difference in numbers of female mountain bikers out of the total user group. With both males and females, colliding with another user is seen as the next biggest threat after assault and bike jacking, but it is of lower concern (43% of males and 33% of females).
Figure 19: Graph displaying perceived threats

The fact that all user groups point to assault as their biggest concern about utilising the Spruit trail networks points to security measure needs, as well as the state of mind of City of Johannesburg residents, and the crime rate in Johannesburg. Perceived threat verse actual threats are not necessarily the same thing, however perception of threat or risk changes use patterns, which ultimately affect the trail network in positive or negative ways.

In the open-ended question regarding negative experiences along the Spruit, 527 (61% of the total respondent group) responded. To analyse the varied results, common themes from the descriptions of the events were created, and the answers were tabulated under these themes. The following table offers an explanation of the themes, as well as what percentage of the user groups identified those themes/issues.

<table>
<thead>
<tr>
<th>THEME</th>
<th>EXPLANATION</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vagrants / Informal Settlers</td>
<td>Respondents mentioned the word ‘vagrant’ in their response. This was the most common issue cited, but there were splits within this category referencing different reasons why the informal settlers create negative experiences in the Spruit. 26% of those who cited vagrants linked it to violence or intimidation, 31% said the vagrant population are linked to the recyclers who cause the massive litter/dumping issue on the Spruit, and 43% explained that the increasing presence made them feel uncomfortable with riding, walking or running alone even if they had no direct reason for this. A large portion of the respondents also mentioned the deforestation caused by informal settlers cutting down trees for firewood.</td>
<td>41%</td>
</tr>
<tr>
<td>Litter</td>
<td>Respondents commented on litter in general in the parks and surrounds, with an emphasis on mass dumping created by the informal settlers who sort rubbish for recyclables.</td>
<td>21%</td>
</tr>
<tr>
<td>Cyclists – Behaviour</td>
<td>Out of all the user groups who completed the survey, cyclists were cited as being the most problematic in terms of their behaviour and consideration towards other users. Many respondents mentioned they were actually cyclists themselves and did not appreciate the behaviour of other cyclists. Mainly, comments around cyclists refusing to give way and forcing people off the trails were mentioned, as well as those using the Spruit as a race track and refusing to slow down in areas where children, animals, walkers and runners all intersect.</td>
<td>19%</td>
</tr>
<tr>
<td>Crime/Violence</td>
<td>11% of the respondents mentioned that they or someone they were close with had been violently assaulted, chased, mugged or bike jacked. Commonly, stabbing and knives were mentioned as the weapons evident in the assaults. Walkers felt most threatened in terms of muggings, and cell phones were the most common item taken in the incidents.</td>
<td>11%</td>
</tr>
<tr>
<td>Dogs off leashes</td>
<td>11% of respondents have had negative experiences involving dogs that have not been on leashes at the time of the incident. Several incidents of riders hitting dogs when coming around a corner, and several dog bites were also mentioned.</td>
<td>11%</td>
</tr>
<tr>
<td>Sewage Leaks</td>
<td>Sewage on the trails (sewage leaks) and sewage flowing into the</td>
<td></td>
</tr>
</tbody>
</table>

1 Please note that many respondents mentioned more than one type of theme. Hence the percentages mentioned in the above table reflect what percentage of the total respondents mentioned the theme, and the percentages will not add up to 100%.
Braamfontein Spruit were mentioned by 8% of the respondents. During the rainy season this tends to be most prevalent.

| Water Pollution | 8% of the respondents spoke of water pollution in terms of unidentified substances in the water (some mentioned the colour blue), as well as large quantities of litter gathering at points like bridges. Many spoke of ‘smelly’ water and said they didn’t like letting their pets into the water. | 8% |
| Human Excrement | 6% of the respondents complained of incidents involving human excrement, in the parks and in the servitude areas. Some respondents blamed it on the informal population, while others linked it to a lack of public facilities. | 6% |
| Walkers – Behaviour | Compared to 19% of people who found cyclists to cause problems, 6% of the respondents felt walkers caused problems, primarily from walking 2 or 3 people abreast and blocking the whole trail. Riders and runners are forced to ride around them and off the path, which can cause problems or accidents. | 6% |
| Runners – Behaviour | Runners were seen as the least problematic group, with only 4% of people feeling that runners caused problems. These complaints were mostly cited by cyclists, who felt that it is should be easier for a runner to move off the path. In their experiences, runners had held their lines and forced riders off the path. | 4% |
| Dog Faeces | 4% of respondents complained that dog faeces was an issue for them, both the odour and stepping in dog mess. This was largely attributed to the lack of rules around cleaning up after ones dog in the park. | 4% |
| Collisions Between Users | 4% of the respondents felt that collisions (in general) were the most negative experience for them. These were collisions between user groups, and users in the same groups. | 4% |
| Long Grass | 3% of respondents felt that long grass (lack of cutting by JCPZ) caused problems for them, by obscuring the line of vision on the trails and providing hiding places for criminal elements. | 3% |
| Lack of Rules | Interesting to note that 3% of respondents felt that the lack of an established set of rules on the trails caused their negative issues on the Spruit, because there is no set precedent on how to engage with other users. This is a deeper understanding of the user conflict problems that are mentioned above. | 3% |
| Erosion | 2% of respondents felt that erosion caused by poorly built trails and run-off created environmental issues. | 2% |
| Dog Bites | 2% of the respondents had experienced dog bites from dogs off leashes. | 2% |
| Trails are too busy | 2% of respondents felt the trails had become unpleasant to use due to the number of other users. | 2% |
| Builders Rubble | 2% of respondents mentioned that illegal dumping of builder’s rubble was unsightly and unsafe. | 2% |
| Poor Env. Mgmt | 1% of the respondents spoke of poor environmental management practices that were resulting in situations such as high densities of invasive alien plants. | 1% |
| Church Goer Issues | 1% of the respondents felt that the African Independent Churches were causing problems with noise (drums) as well as parking on pavements and other areas not intended for cars, in order to access the baptism areas. | 1% |
| No Police | A small segment of the respondents commented on the lack of police presence that made them feel unsafe, and this affected their perception of their time on the Spruit. | 0.5% |
| Motorbikes | A small segment of the respondents commented that they had noticed motorbikes on the Spruit, damaging trails. | 0.5% |

Table 6: Table with thematic display of negative experiences as mentioned by users
Figure 20: Graphic displaying the most cited negative experiences as per user survey

It is clear that the most prevalent issue along the Spruit is that of the informal settlers, who cause a number of impacts including litter, human waste, deforestation, reported intimidation/violence and a general sense of unease for recreational users. It should be noted that many respondents felt that the informal settlers were not the instigators of crime, and although they understood that the informal settlers were just trying to exist and create a space to live, their presence is in contravention of many of the by-laws of public open spaces (prohibited conduct).

527 people (61% of the total group) chose to comment on their negative experiences on the Spruit. Above are the most frequently mentioned.

Litter is the second most mentioned negative experience on the Spruit, with many respondents linking the extreme dumping situations with the recycling sorters. The sorters use the steep sections of the Spruit banks to sort through rubbish bags taking out the valuable items and leaving the items with no value behind. This has resulted in large informal waste dumps that are unsightly and unhygienic.

Following closely behind litter, is the behaviour of cyclists. There is a strong negative perception linked to the behaviour of cyclists along the Braamfontein Spruit, and this finding ties in directly with the recent 2016 International Mountain Biking Association survey finding, that 70% of IMBA members (6229 respondents in the survey group) see the negative perception of mountain bikers as the biggest threat to enhancing current access or gaining new mountain bike access. Much of the negative perception around cyclists is linked to a lack of rules of engagement, and a lack of awareness of trail courtesy. In other case studies (such as in British Columbia, Canada) it has been presented that mountain bikers tend to be a law unto their own in terms of trail building, and can have a negative impact on the environment. Environmentalist citizens have taken things into their own hands with sabotage techniques that have actually caused accidents and injury to cyclists.

The behaviour of cyclists was seen as the most problematic, when compared to walkers and runners.

Figure 21: Graphic displaying user perceptions of most problematic user group

In the Spruit context, the negative perception of cyclists is largely linked to riders moving at an extremely fast pace in areas where it would be wiser to slow down. The internationally recognised methodology to deal with conflict between users is by employing both hard and soft management techniques (technical/physical techniques and through rules, regulations, communication and education). The education aspect of the techniques is important not only in educating riders on how to modify their behaviour on shared trails, but also in educating the general public and other users on the correct way to interact with a rider when encountering them along the trail. Additionally, education on the importance and sustainability of well built trails, as well as highlighting the environmental impacts of all the different users on the trails moves the bulls eye of the back of cyclists and shares the responsibility for trail maintenance and upkeep across all user groups.

The following section looks at specific risks along the Spruit, including business/economic risk, environmental risk, social risk and specific trail related activities risks.
### 3.2 BUSINESS/ECONOMIC RISK

<table>
<thead>
<tr>
<th>RISK</th>
<th>CAUSE</th>
<th>SOLUTION</th>
<th>RESOURCES</th>
<th>LEVEL</th>
</tr>
</thead>
</table>
| **1. CRIME:** Affects business productivity along the Spruit, as a high criminal element forces people to take their business to other areas. Additionally it changes the use patterns of the Spruit, as some people prefer to avoid certain areas, and increases business in the less crime prevalent areas. | High crime rates are prevalent along the Spruit. Generally high crime rates are linked to systemic reasons (unemployment, access to education etc.), but along the Spruit it is directly linked to the valuable items Spruit users have (bicycles, cell phones, GPS devices etc.), the cover that the grass, bush and trees provide for attack; and to the relatively easy ‘getaway’ channel that the greenbelt provides straight out to transport routes. | Immediate solutions include a much stronger and active security presence, upholding of public open space by-laws by all departments, securing of vulnerable areas with fencing/gates and locks. An upgraded and stronger security presence would include partnerships between JCPZ, JMPD, RAs and private security firms. | • Private Security Firms  
• Patrolling Security Personnel  
• Maintenance team (fences etc.)  
• Monitoring and evaluation systems (ongoing) | HIGH |
| **2. DEVALUING PROPERTY:** Residents and businesses with properties along the Spruit are facing economic risk from devaluation of the area. This is affecting potential return on investment, and the economic stability of the areas surrounding the Eskom servitudes and the parks. | The main cause for the devaluation of property is the continued presence of the informal settlers and their impacts (deforestation, mass litter problems, informal housing, growing of vegetables, water pollution), but moreover the apparent lack of plan to tackle the situation by the City of Joburg. | CRUM to activate the correct departments responsible for upholding the by-laws in the public open spaces and parks, combined with the correct departments for facilitating a humane and dignified relocation of the informal settlers – linked to work opportunities and transport. Security patrols to prevent resettlement is imperative. May make sense to work with a company such as ADreach who have experience in community benefitation projects (i.t.o. Wastepreneurs) | • CRUM – Key Contact and Project Task Team  
• Patrolling Security Personnel  
• Possible community beneficition partner | HIGH |
| **3. FIRE RISK:** Due to the open fires burning all along the Spruit in the informal settlements, there is a real risk of spread of fire into business and residential areas. | Linked directly to the informal settlers is the risk of spread of fire. Mass cutting of trees along the green belt has been identified by many residents (some informal settlers have chainsaws to facilitate quick felling). The wood is primarily used for fires, which are in open camps surrounded by veld. This is a high-risk fire situation, and runaway fires have occurred on several occasions necessitating the fire departments services. | This solution is directly linked to the above. If the informal settlers were not in need of wood, there would be limited fire risk. Informal settlers need wood for warmth and cooking (basic need), and this should be considered in the action plan facilitated by CRUM (service delivery is part of their mandate). | • As per above | MEDIUM |
| **4. LOSS OF CLIENTELE:** There is a risk of loss of business (through loss of clientele) if people start to feel unsafe, or if business relies on view of the Spruit (i.e. pretty views become unsightly). | This is becoming apparent in terms of the use patterns on the Spruit, with certain market segments avoiding highly vegetated areas that are not well maintained, avoiding areas where the informal settlers are and where dumping occurs. Thus the cause is linked to informal settlers, general pollution and low levels of maintenance. More regular maintenance and clean ups through MOEs and Parastatals paying JCPZ to do maintenance. Additionally, monitoring and fining of transgressors of by-laws (i.e. rubble dumpers), and possible inclusion of litter removal into job descriptions of the trail maintenance teams. | | • Trail Team  
• JCPZ Support | MEDIUM |

Table 7: Business Risk
### 3.2 ENVIRONMENTAL RISK

<table>
<thead>
<tr>
<th>RISK</th>
<th>CAUSE</th>
<th>SOLUTION</th>
<th>RESOURCES</th>
<th>LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. EROSION:</strong> Noticeable erosion exists along certain sections of trail, as well as in river channels (banks). This has long-term impacts in terms of stability of the soil bed, vegetation health and in some cases structural stability.</td>
<td>Erosion is caused by improper trail construction, or in the Spruit context - quite often where a pedestrian pathway has become a running and riding pathway.</td>
<td>Pro-active: build trails that are more sustainably constructed, using switchback techniques, utilise rock armouring for eroded areas, wet areas and trails that exceed the 10% average rule. Use chokes and corralling to prevent straight lining. Reactive: Short term erosion control techniques</td>
<td>IMBA trail building guidelines, Trail building experts, Trail Team</td>
<td>MEDIUM TO HIGH</td>
</tr>
<tr>
<td><strong>2. LITTER:</strong> General litter, but also litter associated with recycling sorting that takes place on the edge of the riverbanks. This caused pollution and environmental degradation in the riverine habitat. This in direct contravention of Public Open Spaces By-Laws, Prohibited Conduct regarding waste (refer to Page 5 of this report)</td>
<td>It isn’t for lack of rubbish bins that littering is occurring. The Spruit offers a large, open and mostly unmonitored space for people to dump rubbish bags when they don’t want to take waste to a municipal disposal facility, and for the informal settlers to sit and sort out valuables from people’s domestic waste.</td>
<td>Pro-active: create better systems linked to Pik-It-Up and WastePreneurs (ADreach) that removes the attractiveness of using the Spruit for sorting. Reactive: More consistent and aggressive security patrolling, possible fencing (and monitoring of fencing for damage). Including litter removal/clean ups into the role of the trail team (creates further work opportunities for them, particularly for quite patches.</td>
<td>Partnership with WastePreneurs, Trail Team, Security Patrolling, Possible fencing partnership</td>
<td>HIGH</td>
</tr>
<tr>
<td><strong>3. CONSTRUCTION RUBBLE DUMPING:</strong> Small and Medium scale construction companies take short cuts to save time and money, dumping rubble in the green belt. This in direct contravention of Public Open Spaces By-Laws, Prohibited Conduct regarding waste (refer to Page 5 of this report)</td>
<td>There is a cost to dumping rubble from construction sites, so small-scale operators scout out vacant land and dump their rubble. Sometimes this is for cost purposes, and in other cases it’s because they don’t want to travel the distance to the official rubble disposal facilities.</td>
<td>According to the By-Laws (see Page 5) this is a major transgression, and dumpers should be fined. In order to fine transgressors, there needs to be more security presence and the security presence has to have the official power to issue fines.</td>
<td>Possible partnership JCPZ and Private Security, Security Patrolling</td>
<td>MEDIUM</td>
</tr>
<tr>
<td><strong>4. SEWAGE LEAKS:</strong> Sewage leaks appear along certain areas of trail where older pipelines occur. This creates a health hazard and often winds up in water pollution and a terrible smell. This affects water life such as fish and birds.</td>
<td>An aging pipeline system results in cracks in pipes as well as blockages, and this can cause sewage to overflow and in some cases seep up from the ground.</td>
<td>This is not simple issue that can be resolved by trail management, however it is reported that Joburg Water are quick to respond when people identify and complain about sewage leaks. Making the complaints channels known to all Spruit Users through an education programme (or part of a bigger education programme) which can be activated through printed signage and listed online.</td>
<td>Media, Online platforms, Joburg Water</td>
<td>LOW TO MEDIUM</td>
</tr>
<tr>
<td><strong>5. DEFORESTATION:</strong> Trees are cut down for firewood, in particular for the informal settlers needs. In many cases the informal settlers are cutting down alien invasive</td>
<td>Trees are cut down for firewood, in particular for the informal settlers needs. There is also disruption of the grassland (although how natural the grassland is at this stage is debateable) to plant crops, which is also in</td>
<td>Repeat: CRUM to activate the correct departments responsible for upholding the by-laws in the public open spaces and parks, combined with the correct departments for</td>
<td>CRUM – Key Contact and Project Task Team, Patrolling Security Personnel, Possible community beneficiation</td>
<td>MEDIUM</td>
</tr>
</tbody>
</table>
species such as blue gum, but some indigenous trees have been cut too. This in direct contravention of Public Open Spaces By-Laws, Prohibited Conduct regarding vegetation and animals (refer to Page 6 of this report) transgression of the By-Laws. (see page 6). Again, this is linked directly to the informal settlers – and a multi-pronged and multi-levelled approach is needed. facilitating a humane and dignified relocation of the informal settlers – linked to work opportunities and transport. Security patrols to prevent resettlement is imperative.

| 6. HABITAT DAMAGE AND BIODIVERSITY DAMAGE: | Informal settlers live in the actual Spruit area/habitat, causing impact on the ecosystems and the surrounding environment. This in direct contravention of Public Open Spaces By-Laws, Prohibited Conduct regarding erection of structures (refer to Page 6 of this report). However, trail related activities also cause impacts, they are just much more isolated and really exist around the perimeter of the trail. In some cases trails are built illegally or have developed from foot paths and go straight down fall lines. |
| | To prevent further habitat damage, informal settlers need to be moved and in some areas rehabilitation would need to take place (removing the crops and letting natural veld regrow). Regarding trail impacts, this can be managed with trail design and trail repair or reconstruction. In some cases, closing trails is necessary – especially hastily built trails that cause erosion. Any areas that are considered wetland should be have particular attention, as they act as natural water filters and are often sights of high biodiversity. |
| partner | • CRUM – Key Contact and Project Task Team  
• Patrolling Security Personnel  
• JCPZ: Conservation Department  
• Trail team  
• Trail builders  
• Park Rangers (possibly)  
• IMBA Guidelines |

| Table 8: Environmental Risk |

| MEDIUM TO HIGH |

| 4 November 2016 |
3.2.1 HIGH-LEVEL OVERVIEW OF ENVIRONMENTAL ISSUES & LEGAL ASPECTS OF TRAIL DEVELOPMENT

EXECUTIVE SUMMARY PREPARED BY EMC

CONTEXT
Next Step Consulting has been contracted to develop the Braamfontein Spruit Adventure Trail Management Plan, for what is called the Braamfontein Spruit corridor that runs from Braamfontein through northern Johannesburg for some 30 km to Paulshof, where the Braamfontein Spruit joins the Jukskei River. Open space areas along several tributaries are included in the study area as are the managed/manicured parks, Alberts Farm, Emmarentia, and Delta Park. Melville Kopjes, a nature reserve, is excluded from further trails development due to very strict access and use controls. It is not considered further in this report, however it is considered as a possible future extension of the trail network when a successful management plan is in place.

The purpose of this report is to focus on key environmental issues associated with the Braamfontein Spruit ATMP project and to propose approaches to addressing them, namely:
1. Legal requirements for environmental authorisation with respect to trails development;
2. Other relevant permitting requirements;
3. Sensitive points / areas identified and mitigation measures proposed.
4. Guidelines for minimizing environmental damage in trail development.

This report does not constitute an environmental Scoping Report as contemplated in the environmental impact assessment regulations of the National Environmental Management Act (No 107 of 1998). It is a high-level overview of environmental issues and legal aspects associated with trails development, and it will indicate the legal procedures to be followed in concluding the ATMP. This report also does not reflect the overall stakeholder engagement processes undertaken by lead consultants Next Step Consulting in support of the project, and it addresses social issues only insofar as these coincide with biophysical impacts of trails along the Braamfontein Spruit corridor.

LEGAL ASPECTS
The principal applicable laws and regulations attached thereto are the National Environmental Management Act (NEMA; No 107 of 1998) and the Environmental Impact Assessment Regulations 2014 (with proposed Amendments 2015), and the National Water Act (NWA; No 36 of 1998).

ENVIRONMENTAL AUTHORISATION (NEMA)
The author’s interpretation of the latest (2014 and 2015 proposed) EIA Regulations is that trail development in an urban area such as the Braamfontein Spruit would not trigger the requirement for a NEMA environmental authorisation, even with the cumulative area of river/ stream banks disturbed by footbridge and other construction exceeding the thresholds for listing under Listing Notice 1, because relevant listed developments in urban areas are excluded even where scale triggers apply.

However, the system is ‘caught’ in the environmental authorisation net under Listing Notice 3 because of the designation of large parts of the Spruit corridor as Critical Biodiversity Area (CBA), and other conservation designations applicable at a number of points along the corridor.

The designation of large parts of the Spruit corridor as CBA in terms of the provincial C-Plan 3(3) means that an environmental authorisation would almost certainly be called for by the competent authority of Gauteng Province. A Basic Assessment procedure would be required to fulfil the application requirements for environmental authorisation.

WATER USE LICENSE OR GENERAL AUTHORISATION (NWA)
Given the location of the ATMP project along river corridors, in terms of the broad definitions of a ‘regulated water course’ and ‘water uses’ established by the National Water Act (NWA; No 36 of 1998), virtually any new activity or expansion of an existing activity associated with trails development along the river corridors under examination would be subject to a water use license (WUL) application. For activities under the NWA that require a water use license application (WULA), the submission of an EIA report is a requirement. Where an application under NEMA is also required, the same EIA report fulfils the requirements of both Acts. Where both the NWA and NEMA apply, the EIA procedures to be followed are those specified in the EIA Regulations, and DWS will not issue a WUL until an environmental authorisation has been obtained. In this way, a NEMA and WUL application are integrated to some extent.

However, in terms of section 39 of the NWA, the Department could issue, under particular circumstances, general authorisations (GAs) for activities normally requiring a WUL. Government Notice 509 of 26 August 2016 details the conditions for a GA covering water uses defined in sub-sections 21(c) c) [impeding or diverting the flow of water in a watercourse, even temporarily] and 21(i) [altering the bed, banks, course or characteristics of a watercourse]. If the proposed activity is covered under the conditions applicable to GA, the activity must still be registered with the Department, registration calling for a far less onerous submission and level of detail than a WUL application.

It will be worthwhile going through the General Authorisation 509 process to try to get the ATMP registered under the General Authorisation. This will make compliance with the NWA of incremental development and maintenance of the trails much easier in the longer term.
ENVIRONMENTAL ISSUES OF BRAAMFONTEIN SPRUIT TRAILS DEVELOPMENT

In considering the Spruit corridor as a whole, the following key aspects have emerged:

- Biodiversity and habitat conservation in limited areas
- Wetlands that are crossed or closely approached
- Stream/river crossings
- Areas where trails run right on the river banks (within 2 metres of steep riverbanks)
- Narrow areas where all users are forced to use a narrow corridor between the river channel and property boundaries or fences for other purposes
- Constricted areas where particular issues of safety come into play e.g. children's playground area in Delta Park
- Steeper slopes vulnerable to erosion
- Particular structures vulnerable to compaction and erosion (dam walls)
- Areas of congestion coinciding with physical constraints to human passage
- Road crossings where safety risks dictate that underpasses be built (or have been built) that is, interventions in river/stream channels

Biodiversity and habitat conservation issues are paramount:

1. in the piece of Egoli Granite Grassland in the upper south-west corner of Alberts Farm
2. the crystalline ridge outcrop from which the Alberts Farm spring emerges
3. the wetland running across the eastern side of Alberts Farm;
4. the Poplar and Eucalyptus woodland and adjacent long (unmowed) grassland in the centre of Delta Park;
5. the dams and wetlands connecting them running through the centre of Delta Park south-west to north-east; and
6. the wetland zone running downstream from the dams in Emmarentia Park.

Physical stability/erosion issues are key on the dam wall at Alberts Farm and in the narrow passageway out of the Delta Park/Craighall Park zone going northwards across the stormwater channel and the 50m narrow stretch adjacent to a high, steep riverbank thereafter; the in-channel stretch of track that branches into the river channel just north of that; and at all road bridge underpasses. In general, the costs associated with erosion repair are much higher than regular trail building, due to the extra materials that have to be brought in to stabilise eroding areas, as well as to replace lost materials. Although Alberts Farm dam wall erosion is not related to mountain bikers, it does explain that erosion (caused by any means) is an expensive degradation to repair.

Congestion issues are associated with these narrow passageways, and in these zones trail widening and hardening, stormwater channeling, separation of user groups where feasible, and accompanied by stringent speed limits for mountain bicycles, should be implemented.

MANAGEMENT GUIDELINES

For overall guidance, the application of the International Mountain Bicycling Association’s (IMBA’s) best practice guidelines for trail system layout, design and construction is recommended. These are sourced from the IMBA website.

Nevertheless, for the final proposed trails system, an environmental management plan should be drawn up that specifies construction methods and maintenance requirements for every new intervention or expansions of existing ones at sensitive environmental sites as listed above.

Mountain biking will have to be excluded from a few areas (rocky ridge behind spring and dam wall (temporarily) at Alberts Farm; central woodland and adjacent long grassland, wetland and children’s playground in Delta; wetland through Emmarentia Park).

All trail development (including for hiking) will have to be minimized in others:
- Egoli Granite Grassland and wetland zone of Alberts Farm; all wetland zones of Emmarentia Park; Delta Park central areas (although it is this author’s opinion that a trail option through the middle of Delta Park should be considered if the peripheral MTB trail is to be uni-directional, because MTB riders are likely to get bored with being confined to one trail in one direction and will simply start to make others).

MTB trail and ‘play area’ development should be maximized in other, non-sensitive areas – for example in the new wooded area developing below Delta Park where the City has planted large numbers of trees – in order to account for the IMBA warning that urban mountain bikers need options otherwise they will get bored and start opening up new routes for themselves.
### 3.3 SOCIAL RISK

<table>
<thead>
<tr>
<th>RISK</th>
<th>CAUSE</th>
<th>SOLUTION</th>
<th>RESOURCES</th>
<th>LEVEL</th>
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</thead>
<tbody>
<tr>
<td>1. CONFLICT BETWEEN USERS.</td>
<td>The main cause of conflict is when one user group feels they are not being treated with respect, or their view of who should have trail priority conflicts with another users view. It seems that cyclists are perceived as the group who feel they have the strongest rights on the Spruit, however this could also be because there are simply a much larger quantity of cyclists compared to runners or walkers who use the Spruit. Statistically it’s likely conflict will occur with cyclists, as there is a greater chance of encountering them. However, deeper to the causal reasons of conflict is the lack of a common set of rules of engagement – these are rules on how to interact with the trail system and how to interact with other users.</td>
<td>The core solution to conflict (based on international best practice) is that of trail management through soft and hard techniques – i.e. education, rules and regulations and implementation of the rules and regulations through signage and trail construction and trail features. Building a culture of respect for one another and obeying rules that facilitate mutually beneficial trail experiences for all user groups is imperative in any major trail network or recreational facility.</td>
<td>• Trail team&lt;br&gt;• Trail builders&lt;br&gt;• IMBA Guidelines&lt;br&gt;• International Case Studies i.e South Australia</td>
<td>HIGH</td>
</tr>
<tr>
<td>2. PETTY CRIME</td>
<td>Opportunistic crime based on the ease of grabbing a small valuable item. These are items people can run away with easily, especially if the criminal takes the user by surprise. It is unlikely that this global issue will disappear anytime soon, petty crime exists worldwide.</td>
<td>Educating users of the risks involved with carrying valuable items is important, coupled with increased security presence (as per earlier recommendations)</td>
<td>• Private Security Firms&lt;br&gt;• Patrolling Security Personnel&lt;br&gt;• Maintenance team (fences etc.)&lt;br&gt;• Monitoring and evaluation systems (ongoing)</td>
<td>HIGH</td>
</tr>
<tr>
<td>3. VIOLENT CRIME</td>
<td>Bicycles are extremely valuable items, and criminals are aware of this value to people in need of transport. In order to get a rider off a bike, criminals use force and often this force is violent coupled with intimidation. Additionally, car theft and car break ins in parking lots surrounding the trail system occur, because criminals are aware the owner of the vehicle will most likely be occupied with their recreational activity for an hour or two. Similarly to petty crime, educating users about the risks involved with using the trail network at certain times is important, and tips to be prepared for serious criminal attacks is important, coupled with increases security presence (as per earlier recommendations).</td>
<td></td>
<td>• Private Security Firms&lt;br&gt;• Patrolling Security Personnel&lt;br&gt;• Maintenance team (fences etc.)&lt;br&gt;• Monitoring and evaluation systems (ongoing)</td>
<td>HIGH</td>
</tr>
<tr>
<td>4. INFORMAL SETTLEMENTS</td>
<td>There is very little insight among users as to who actually lives in the communities, where they are from and what they do. It is hard to feel trusting of people who are illegally settled in an area, and where the institutions who manage the areas don’t have full control over the situation.</td>
<td>The solutions here are linked to the solutions mentioned in Economic and Business Risk: CRUM to activate the correct departments responsible for upholding the by-laws in the public open spaces and parks, combined with the correct departments for facilitating a humane and dignified relocation of the informal settlers – linked to work opportunities and transport. Security patrols to prevent resettlement is imperative.</td>
<td>• CRUM – Key Contact and Project Task Team&lt;br&gt;• Patrolling Security Personnel&lt;br&gt;• Possible community beneficiation partner</td>
<td>HIGH</td>
</tr>
</tbody>
</table>

Table 9: Social Risk
### 3.3 TRAIL RELATED ACTIVITIES RISK

<table>
<thead>
<tr>
<th>RISK</th>
<th>CAUSE</th>
<th>SOLUTION</th>
<th>RESOURCES</th>
<th>LEVEL</th>
</tr>
</thead>
</table>
| 1. INJURY | Risk of injury to all user groups from using the trail network. | The core solution is to make sure that users are adequately informed of all potential hazards associated to their sport, and to how to engage with the trail features using the IMBA grading system – as well as the “look before you leap” principle. With proper trail management systems (using Amarider trail maintenance report system that helps identify and correct problems regularly) in place, this can greatly reduce risk of injury. | • IMBA Regulations  
• Amarider Guidance/ Workshops  
• Signage  
• Rules and Regulations  
• Zoning of areas (MTB only, Walkers/Runners only etc.)  
• Education of users | HIGH |
| 2. CRIME | As per above (social risks) | Education programmes and higher levels of security services. A larger presence of people using and managing the Spruit results in less chance for criminal activities to occur – the opportunities for criminals to plan a robbery are this limited. | • Private Security Firms  
• Patrolling Security Personnel  
• Maintenance team (fences etc.)  
• Monitoring and evaluation systems (ongoing) | HIGH |
| 3. CONFLICT | As discussed under section 3.1 User Perceptions, conflict between users is one of the biggest social risks along the Spruit. It threatens trail use, good governance and potential to implement plans for better trail management. | The core solution to conflict (based on international best practice) is that of trail management through soft and hard techniques – i.e. education, rules and regulations and implementation of the rules and regulations through signage and trail construction and trail features. Building a culture of respect for one another and obeying rules that facilitate mutually beneficial trail experiences for all user groups is imperative in any major trail network or recreational facility. | • Trail team  
• Trail builders  
• IMBA Guidelines  
• International Case Studies e.g. South Australia  
• Signage  
• Education system | HIGH |
| 4. LOST/DIRECTIONS | While the Spruit is generally well known by its local users, getting lost or muddled up in directions is still a risk faced by users. This is one of the large risks associated in other recreational facilities such as hiking parks, trail parks and forestry areas. | Mapping and signage are the main solution for reducing chances of users getting lost, or going the wrong way in one-way direction systems (such as in the parks). | • Trail builders  
• IMBA Guidelines  
• International Case Studies e.g. South Australia  
• Signage  
• Education system | LOW |

Table 10: Trail Related Risk
**3.5 TRAIL MANAGEMENT PLAN (BASIS OF DESIGN)**

In the Braamfontein Spruit context, to understand how to actualise the proposed solutions and resources that have been recommended to mitigate risk (as per above tables), it is necessary to present the decisions, assumptions and specifications that are being used to develop the ATMP. A simple Basis of Design (BOD) document transforms the vision (needs: what the trail system could look and feel like) into a detailed, technical and actionable plan (requirements: how to make it look and feel that way) (Briones & McFarlane, 2013).

In terms of the institutional requirements (forming a trust or club, funding streams, partnerships etc.) the actionable plans are found in the Operational Business Plan (Section 8). In terms of actionable plans around City of Joburg problems (such as the informal settlers, illegal dumping, litter etc.), it is recommended that through a stronger official partnership with JCPZ and links into other MOEs, a more sustainable solution can be built with the help of the Citizen Relationship and Urban Management Department. However, creating plans to solve these problems are outside of the scope of the ATMP, and as such we have only made brief recommendations.

Various strategy documents and review reports have been used in this section to establish how multi-use trail networks are managed, and to understand the scope of conflicts and risks that come from the running of multi-use trails. The United Kingdom, Australia, Canada and America offer the most accessible information on the topics of trail management, however most European countries such as France, Italy, Spain, Germany and many others are popular trail destinations and will have more information. However, in the context of this study we have chosen to work with North American, Australian and British examples.

The main documents referred to were:
- Adelaide Hills 20 Year Trail Strategy & Action Plan
- Toronto Multi-Use Trail Design Guidelines
- Report of the Multiple Use Trail Guidelines Team
- City of Mitcham Mountain Bike Strategy (Towards Sustainable Development)
- City of Mitcham Trail Management Plan, 2014
- Victoria’s Trails Strategy 2014 – 2024
- Conflicts in Multi-Use Trails: Synthesis of the Literature and State of Practice
- Discussion Paper: Strengthening Ontario’s Trails Strategy

Typically, risk reduction (internationally) involves the creation of rules of engagement with the trails. Outside of the correct insurance (to meet the risk assessment needs of the land owners and the trail custodians, be they private or government/state run); the most effective way to manage risks are by presenting them to the users of the trails via educational methods. Without the information and methods of information access in place, the room for assumption and miscommunication is large.

The following section provides a reference guide for the on trail specifications and plans, in response to the risks cited prior.

**3.5.1 PHYSICAL RESPONSES VERSE MANAGEMENT RESPONSES**

According to the USA based National Recreational Trails Advisory Committee (NRTAC), responses to managing risk and user conflict are broadly split into physical responses (hard) and management responses (soft). Physical responses include trail design, layout and maintenance. “Influencing proper behaviour through the subtleties of design is preferable and often more effective than attempting to do so after the fact through education programs or regulations. For example, it is easier and more effective to prevent shortcutting of switchbacks by designing climbing turns in rugged, well-screened areas than by posting educational signs at poorly designed switchbacks.” There is considerable overlap between physical and management responses, and management responses can be further broken down into information and education, user involvement and regulations and enforcement.

To meet international standards, and to use systems that are familiar to many trail users, the International Mountain Biking Association (IMBA) is recommended as the key reference point to trail management and design along the Braamfontein Spruit. There are, however, Australian specific design points that are more suitable to the South African context that should be followed.

Two core reference books from IMBA that are used by trail facilities world wide are:

Along the Braamfontein Spruit there are several management and physical responses (some are already in place and are occurring through the informal trail community) that will occur.
3.5.2 TRAIL DESIGN

The trails have mostly developed organically in the past, from walking trails used for recreation and for commuting purposes to a multi-use trail network. Over the last +/- 10 years, the mountain biking community have informally invested in the trail network, building new trails with features suited to varying degrees of mountain bike skill. Additionally, they have put in physical infrastructure features such as underpass bridges to make the Spruit safer to ride along without having to cross major roads. This has reduced the overall risk associated to riding in an urban environment.

What is also noticeable about the existing trail network is that the trail building techniques have become more advanced over time, with some of the newer trails exhibiting drainage features, imported materials and sound building logic like rock armouring.

Conversely, because of a lack of regulation over who is allowed to build where, when and with what materials, occasionally features are built with little thought to environmental impact or safety for all users. In these incidences it is not the well-known trail custodians (unofficial) who have been responsible for the building of the features.

Trail design and building is likened to an artistic form of construction, as builders strive to find the balance between practicality, environmental sensitivity and flow for the sport they are intended for. IMBA provides guidelines on how to achieve this balance and while it is recommended to refer to the full published guidelines, there are certain principles that always apply to trails (whether they are walking, running or mountain bike trails).

1. GENERAL

Master trail builders aim for three goals when designing and building trails:

- Limit environmental impacts (erosion, natural bush/veld destruction, altering of river banks/flow)
- Keep maintenance requirements to a minimum (use natural features and lay of the land verse built structures that require maintenance i.e. bridges)
- Avoid user conflicts (through physical and management practices)

2. CONTOUR TRAILS

A contour trail is a path that gently traverses a hill or side slope. It's characterised by a gentle grade, undulations called grade reversals (grade reversals are short sections of trail that change from climbing to descending, then return to climbing). The reversal shortens the water flow path and enhances the rider experience, and a trail that usually tilts or outslopes slightly toward the outer edge. These features minimize tread erosion by allowing water to drain in a gentle, non-erosive manner called sheet flow. When water drains in thin, dispersed sheets, dirt stays where it belongs - on the trail.

CONTOUR TRAIL TIPS:
- Do everything you can to keep the water off the tread, and users on it
- Build on the contour and use frequent grade reversals - surf the hillside
- Follow the half-rule: A trail's grade shouldn't exceed half the grade of the side slope
- Maximum grade should be 15 percent (except for natural or built rock structures)
- Average grade should stay under 10 percent (with grade reversals)
- Route trails to positive control points (viewpoints, water, other attractions)
- Use bench-cut construction, and excavate soil from the hillside
- For reroutes, reclaim old trail thoroughly - the visual corridor as well as the trail tread
- For highly technical trails where grade will sometimes exceed 15 percent, use natural rock, rock armouring or other rock features to add challenge and improve sustainability.

Figure 22: Rolling contour trail with regular grade reversals (low points to add drainage) (City of Mitcham, 2014)

Figure 23: Open clear sightlines to prevent user collisions (City of Mitcham, 2014)
3. TWO CRITICAL TRAIL BUILDING TIPS

Avoid the Fall Line

Fall line trails usually follow the shortest route down a hill - the same path that water flows. The problem with fall line trails is that they focus water down their length. The speeding water strips the trail of soil, exposing roots, creating gullies, and scarring the environment.

Avoid Flat Areas

Flat terrain lures many trailbuilders with the initial ease of trail construction. However, if a trail is not located on a slope, there is the potential for the trail to become a collection basin for water. The trail tread/surface must always be slightly higher than the ground on at least one side of it so that water can drain properly.

In the context of the Braamfontein Spruit, there are many areas where the existing trails run through flat areas – simply because there are no other options (in particular, the Eskom servitude areas and in some areas of the parks). While some trails have a natural outslope towards the river, drainage problems do occur (usually seasonally). Additionally, soil type plays a role in drainage and the erodibility of the trail, and this can necessitate import of more robust materials. Basically, it isn’t always possible to follow the IMBA recommendations in an environment that is heavily impacted by urban development features and is naturally quite flat in many areas. However, this points to the need for extra care and creative thinking when planning sustainable trail solutions along the Braamfontein Spruit; using the IMBA regulations to guide design, but not to hamper it.
4. FIVE SUSTAINABLE TRAIL PRINCIPLES

An ideal trail will simultaneously incorporate all five sustainable trail principles:

- The Half Rule
- The 10 Percent Average Guideline
- Maximum Sustainable Grade
- Grade Reversals
- Outslope

3.5.1.2 TRAIL LAYOUT & BEHAVIOUR CONTROL

Trail layout refers to how the trails lie on the land, and what systems are in place for moving users around the trails. Working with trail layout requires mapping all the existing trails in order to apply planning practices, and as part of the ATMP this initial mapping has been completed. Once the decision to construct a trail has been made, the design (which falls under trail scoping and planning in the implementation programmes – Section 8 of this report) of the trail and the position of the trail in the landscape is an important element in terms of long term trail sustainability and the way mountain bike riders will use the trail. Poorly designed trails often create further risk management headaches. Poor design and trail flow may result in riders taking short-cuts or regular accidents and injuries which could have been prevented through proper trail design.

ONE-WAY SYSTEMS

One of the recommendations that have been made towards trail layout is using one-way systems in the park areas. 50% (431) of the Braamfontein Spruit ATMP Stakeholder Survey respondents felt that trails should be split in order to create less user conflict issues, and one of the methods for conflict reduction that can work in trail systems is enforcing one-way directional movement around a trail. It has been recommended by several users to employ this system as a trial in Delta Park, and to formalise the one-way system in Emmarentia/Botanical Gardens, and to review the results of this. It should be noted that in some cases one-way systems don’t always work, particularly if a large number of people want to use trails see providing separate trails as a last resort. They feel positive interactions among users on the trail is the best way to foster communication, understanding and a strong cooperative trail community” (NRTAC).

DIVERTING FROM DANGEROUS AREAS

With regards to the Braamfontein Spruit in specific, crime is a problem that affects all trail users. Even if a person hasn’t experienced crime, they are aware of the potential of criminal activity. Trail layout can help in reducing this type of anxiety by diverting users away from areas that are crime hot spots. For example, it would be possible to design a 15km loop between the Botanical Gardens and Delta Park that avoids crime hot spots, which trail users could then follow feeling less exposed to potential crime. The community trail builders are already using diversion techniques to move users away from danger, such as with the underpass bridges mentioned previously.

TRAIL FILTERS, QUALIFIERS, CHOKES & OBSTACLES

Additional trail layout (and design) features can be added to prevent user conflict and injury. Trail filters are obstacles that are built early on into a segment of trail so that a user can make a decision as to whether they will cope on the trail, and it gives them the option to back out before committing too soon. A qualifier is a feature that would immediately eliminate a user if they didn’t have the skill to actually tackle the upcoming trail, but perhaps thought they could (i.e. their confidence outweighs their skill). For example the entry point to a raised section of board walk trail may be very narrow to ensure that only those who have the skill to ride the section pass that point (City of Mitcham, 2004). A choke is a technique used to slow users down, and often are found in the form of wooden barriers that a user has to slow right down to get through, or in the case of cyclists they are required to get off their bikes and push (in some instances).

3.5.3 TRAIL MAINTENANCE

Key to keeping risk reduced is effective trail maintenance, and a systematic approach is required when managing larger areas. Trail inspections need to take place regularly (between one and four months depending on the area and propensity for damage), and can include the following types of checks:

- If signage is adequate and in good condition
- If rubbish has been left along the trail areas
- If infrastructure adjacent to the trail are in good condition
- If crossings and built structures are in good condition
• If there are any unauthorised trail changes
• If passive drainage is working or if there are any drainage issues
• If the trail surface is in good condition
• If the surrounding vegetation is being impacted by the trail use
• Is there fallen debris, timber or vegetation obstructing the trail where pruning/clearing is required
• Whether there are any trail surface issues
• Whether the dimensions of trail obstacles / features are adequate and in good condition

Once completing a trail inspection methodically, the trail manager can schedule the required maintenance work. When the maintenance work is completed, a report needs to be generated to show that issues were identified and addressed, which has insurance implications.

If the trail venue or club is an Amarider affiliate, quarterly trail maintenance reports need to be completed and submitted to Amarider. They supply a report template which is generally quite easy to use once it has been set up for the trail system, and can be adapted to perform other functions such as calculations of trail maintenance costs, time on the job etc.

3.5.4 SIGNAGE

Signage is seen as one the most critical elements of a trail management system. Firstly, it provides the information that reduces risk for the users. Secondly, signage is what directs behaviour that should reduce impacts on the natural environment. Thirdly, it shows that the trail management or owner has shown due care to warn users of how to use the trail safely, which is important in liability cases. And lastly, signage provides an opportunity for income potential through branding space (to be further discussed in marketing recommendations).

IMBA provides guidelines for signage, which is employed at the majority of ski, bike and hiking parks around the world. Utilising simple colour systems, users are easily able to distinguish the type of trail that they are entering and make decisions about how to approach the trail through a grading system.

Signs are roughly divided into trail head signs (or information boards); trail totems that help explain where users are on the trail, what kind of trail it is and whether it is shared use or specific use; and trail direction signs that point users in the correct direction but also display trail grading.

Examples of the above follow adjacent:
Figure 28: Australian IMBA Grading System linked to Trail Description (City of Mitcham, 2014)

Figure 29: Examples of signage that can be used on the Spruit trail network
Figure 30: Examples of Information Board with Branding Space
3.5.5 USER CONFLICT PRINCIPLES

“Multiple-use trails (often called "shared use," "mutual use," or "diversified" trails) are becoming the norm. It is increasingly common for trail users to encounter other users (or evidence of use) on trails. Some encounters are with users participating in the same activity, and some are with fellow trail users engaged in different activities. While most trail encounters seem to be pleasant or neutral, some are unpleasant. The conflicts that can result from unpleasant encounters may spoil individual experiences and threaten to polarize trail users who could be working together rather than at odds with one another. As the number of trail users grows and diversity of trail activities increases, the potential for conflict grows as well. It is the responsibility of managers, researchers, and trail users to understand the processes involved in recreational conflicts and do everything possible to avoid and minimize them on multiple-use trails” (NRTAC, USA).

In the context of North America and Canada, trail use conflicts are more complicated because of the extreme seasonal variations (i.e. from hot summers to freezing, snowbound winters) that allow many more forms of trail related sport. Hiking, running and mountain biking trails became snow-walking, ski, snowboard and snow mobile trails in winter, which infers a large range of trail use stakeholders.

In terms of managing trails, the literature explains that there are three main objectives for managers to work against: 1. Maintaining user safety, 2. Protecting natural resources, and 3. Providing high quality user experiences. Within each of these objectives, conflicts arise between users of multi-use trail networks, between users and managers, between users of the same disciplines and between users of different disciplines. For example, conflicts between beginner riders and more experienced riders can occur, conflicts between runners and riders can occur, and conflicts between users and management can occur. Researchers have concluded that conflicts occurs between users through:

- Different levels of technology (i.e. a hiker versus a mountain biker)
- Asymmetrical conflict (one way – from the hiker towards the mountain biker)
- Attitude to and perceptions towards the environment (one group feels the other is not considerate of the environment)
- Others as ‘different’ (i.e. hikers see mountain bikers as rude and classify the whole group as rude)
- Violation of norms (in particular, behavioural norms and what is considered as societally acceptable)
- Level of tolerance (how tolerant all groups are of each other)
- Environmental dominance (differing perceptions of what being outdoors is about, dominating the environment or simply exercising/experiencing the environment)

It should be noted that in the international context of trail-use, conflict is much more apparent due to the numbers of users on the trails. In South Africa, the landscape is vast and the density of people who use trail networks is far smaller than North American, British or Australian contemporaries. While these countries are physically large, their trail networks are far more accessible to all via public transport (train access in particular), which sees many more recreational trail-users than in South Africa where private vehicles are required to get to most trail dense areas. However, it is useful to understand the conflicts that occur with a view to the growth in popularity of mountain biking and trail running in particular, to prevent these types of conflicts occurring in the future.

In 2014 and 2015, trail-use conflict has become a real issue, particularly in North America, where hikers and mountain bikers have had serious clashes based on many of the factors described on the previous page. Hikers feel compromised by mountain bikers who ride at high speeds, and in contrast, mountain bikers find it frustrating to have to slow down for walkers with their dogs who feel they have right of way on the trails. Walkers tend to be environmentally minded and perceive the mountain biking trails as destructive, and have formed petitions and lobbyist groups to try and ban mountain biking (particularly in Canada). Physical fighting has occurred between the groups when tempers reach a high, and hikers have gone to extreme lengths to destroy features of the trails that have subsequently caused mountain bikers physical harm. For example, anonymous hiking vigilantes have destroyed wooden bridges or placed huge boulders on the landings of steep jumps or drops causing riders to break arms and worse.

In the South African context, this has happened along The Spruit in Johannesburg, where home owners who found mountain biking behaviour annoying placed nails in the pathways near their houses. Conflicts between runners, dog-walkers, and mountain bikers on the popular Spruit trails are also commonly discussed in social media platforms, with the typical source of conflict being disregard for each others experiences – each believe the other is in the wrong. This has also led to physical harm and threats.

NRTAC PRINCIPLES FOR REDUCING CONFLICT

12 principles for minimising conflicts on multiple-use trails were presented by NRTAC. These are useful as they are based on a much longer historical use of multi-use trail networks, and provide a base from which to understand potential conflicts.

1. Recognise Conflict as Goal Interference -- Do not treat conflict as an inherent incompatibility among different trail activities, but goal interference attributed to another's behaviour.

2. Provide Adequate Trail Opportunities -- Offer adequate trail mileage and provide opportunities for a variety of trail experiences. This will help reduce congestion and allow users to choose the conditions that are best suited to the experiences they desire.

3. Minimize Number of Contacts in Problem Areas -- Each contact among trail users (as well as contact with evidence of others) has the potential to result in conflict. So, as a general rule, reduce the number of user contacts whenever possible. This is especially true in congested areas and at trailheads. Disperse use and provide separate trails where necessary after careful consideration of the additional environmental impact and lost opportunities for positive interactions this may cause.
4. Involve Users as Early as Possible -- Identify the present and likely future users of each trail and involve them in the process of avoiding and resolving conflicts as early as possible, preferably before conflicts occur. For proposed trails, possible conflicts and their solutions should be addressed during the planning and design stage with the involvement of prospective users. New and emerging uses should be anticipated and addressed as early as possible with the involvement of participants. Likewise, existing and developing conflicts on present trails need to be faced quickly and addressed with the participation of those affected.

5. Understand User Needs -- Determine the motivations, desired experiences, norms, setting preferences, and other needs of the present and likely future users of each trail. This "customer" information is critical for anticipating and managing conflicts.

6. Identify the Actual Sources of Conflict -- Help users to identify the specific tangible causes of any conflicts they are experiencing. In other words, get beyond emotions and stereotypes as quickly as possible, and get to the roots of any problems that exist.

7. Work with Affected Users -- Work with all parties involved to reach mutually agreeable solutions to these specific issues. Users who are not involved as part of the solution are more likely to be part of the problem now and in the future.

8. Promote Trail Etiquette -- Minimize the possibility that any particular trail contact will result in conflict by actively and aggressively promoting responsible trail behaviour. Use existing educational materials or modify them to better meet local needs. Target these educational efforts, get the information into users’ hands as early as possible, and present it in interesting and understandable ways (Roggenbuck and Ham 1986).

9. Encourage Positive Interaction Among Different Users -- Trail users are usually not as different from one another as they believe. Providing positive interactions both on and off the trail will help break down barriers and stereotypes, and build understanding, good will, and cooperation. This can be accomplished through a variety of strategies such as sponsoring “user swaps,” joint trail-building or maintenance projects, filming trail-sharing videos, and forming Trail Advisory Councils.

10. Favour “Light-Handed Management” -- Use the most "light-handed approaches" that will achieve area objectives. This is essential in order to provide the freedom of choice and natural environments that are so important to trail-based recreation. Intrusive design and coercive management are not compatible with high-quality trail experiences.

11. Plan and Act Locally -- Whenever possible, address issues regarding multiple-use trails at the local level. This allows greater sensitivity to local needs and provides better flexibility for addressing difficult issues on a case-by-case basis. Local action also facilitates involvement of the people who will be most affected by the decisions and most able to assist in their successful implementation.

12. Monitor Progress -- Monitor the ongoing effectiveness of the decisions made and programs implemented. Conscious, deliberate monitoring is the only way to determine if conflicts are indeed being reduced and what changes in programs might be needed. This is only possible within the context of clearly understood and agreed upon objectives for each trail area.

3.5.6 RULES & REGULATIONS

Based on the above risk reduction management practices and principles, a set of rules and regulations needs to be created and agreed upon, most specifically by the Club/Trust and approved by JCPZ (against any By-Laws that may necessitate fine-tuning of the rules).

Currently used sets of rules and regulations are provided below, normally used in conjunction with signed indemnity forms (that indemnify the land owners as well as the trail management body). Typically, those trail systems utilising IMBA grading also base their rules and regulations off the IMBA recommendations, and modify to suit their context.

The current rules as stated on signage at the Karkloof Country Club are as per below:

- No helmet – no Ride
- Ride open trails
- Leave no trace
- Control your bicycle
- Yield appropriately
- Never Scare Animals
- Plan ahead
- Take note of emergency phone numbers
- Adhere to FDI warnings
- No Smoking
- Avoid operational areas and activities
3.5.7 EMERGENCY PROCEDURES

One of the most important parts of trail management, which is often overlooked, is that of emergency procedures and incident reporting. Having a systematic and sensible way to deal with an emergency (be it a fire, an injury, a crime etc.) is important in creating calm, and for responding to the emergency as quickly as possible. Emergency procedures/plans should include:

- Maps of the trails with all access and evacuation points clearly marked with GPS locations
- All related emergency numbers (fire department, JMPD, emergency medical services etc.)
- A step-by-step procedure for anyone to follow, and training should be given to all staff on how to deal with an emergency from their specific context (i.e. a trail maintenance staff member out on the trails finding an injured rider will have to deal with the emergency differently to a person sitting in an office who gets a call from a trail user who has fallen and broken a leg).
- First Aid: all trail staff should be trained to at least Level 1 First Aid in order to stabilise an injured party until professional help arrives.
- Medical Aid Kits
- Incident report Forms: Amarider recommends using IMBA standard incident report forms for recording incidents, that should be filled in by the person affected if possible, as well as a trail management official.

There are a number of good emergency service products that are very helpful to both trail users and trail managers, such as MySOS, which are linked to Smart Phone technology. It would be worth the management structures while to investigate partnerships with companies such as MySOS to increase safety practices on the Spruit.
4. Tourism Recommendations

Tourism contributed 3% to the South African National Economy in 2014, which was higher than the agricultural sector at 2.5%, and provided employment to an estimated 680,817 individuals in that year (www.statssa.gov.za). Adventure Tourism is a sub-sector of traditional tourism, and involves multi-day or single day ‘tours’ (or paid for experiences) that involve some element of outdoor activity and risk. According to the South African Adventure Tourism Survey 2014, adventure tourism in South Africa generated R4.6 billion (excluding safaris and cultural tours), and provided 25,000 people with employment (excluding adventure venues, safaris and third parties). 14,000 people had full time employment, and 11,000 part time employment. Among those employed were 5,283 full time adventure guides and 5,150 part time adventure guides.

These statistics illustrate that tourism, and more specifically adventure tourism, is a healthy and growing industry that often supports smaller businesses. 55% of the market is made up of domestic tourists, with smaller companies dominating the industry (over 50% of adventure tourism companies earn under R5 million a year, and are considered small).

4.1 Tourism Economic & Activity Hierarchy

In all tourism related developments a hierarchy exists in terms of the primary and secondary attractions in the area, and the tourist facilities which are the essentials in tourism that spin the industry. Figure 29 on the right illustrates this concept. For any tourism development to be financially successful, a primary tourist attraction is required. This is the fundamental component of the area (the highlight), which attracts people to the destination. Examples cited are the beach, beautiful scenery, wildlife sightings and interactions, or interesting and exciting cultures (or a combination of these). In the Braamfontein Spruit context the green belt (rare open space in the middle of the city) and river provide the unique highlight to visitors, and attract people to the destination.

Secondary tourist attractions are then required that keep people for longer in the area, and these are essentially diverse ways to interact with the area. On the Braamfontein Spruit the trail network, park facilities, botanical garden and zoo are all secondary tourist attractions that result in people spending more time in the area- but not necessarily spending more money (or not significant amounts).

Paramount to increasing Tourism Revenue (TR – ref to Phase 2 Report) into an area, and creating job opportunities, are tourist facilities. These are tourism products that tourists require and contribute to the length of stay in an area. Such products include accommodation, restaurants, shopping facilities etc. While a few of these facilities exist along the Spruit (such as café’s and a few bike orientated shops), there is potential for more facilities that are further diversified.

4.2 Braamfontein Spruit ATMP – Specific New Secondary Tourism Opportunities

The Braamfontein Spruit trail network is mainly considered a local resource (easily accessible to people who live in central Johannesburg), but also attracts a number of visitors who are considered domestic tourists, and domestic business tourists. It provides an excellent recreational resource from which many complimentary adventure tourism products and services could be offered.

The key identified products and services are discussed below.
4.1.1 MAJOR BICYCLE & TRAIL RUNNING CENTRED TOURISM FACILITY 

There are several examples of successful bicycle centred tourism facilities in South Africa and overseas, and NSC believes there is potential for such a facility along the Spruit. The characteristics that the successful examples share are that they are multi-faceted, and provide important services such as adequate bathroom facilities, restaurants of a high quality, adequate and safe parking, retail options (gift shops). GASS Architects has provided a concept design (below) for such a facility, which is modelled on the examples that are presented on the following pages.

DELTA PARK
RESTAURANT & PLAY PARK, BIKE SKILLS & PUMP TRACKS

ADJACENT THE DELTA PARK CENTRE, THE ARCHITECTURE AIMS TO MEDIATE BETWEEN MAN AND NATURE. INTRODUCING A RESTAURANT, A PLAY AREA AND A BIKE SKILLS/PUMP TRACK, ALLOWS FOR A RE-INTEGRATION WITH THE LANDSCAPE, CURRENTLY, IT'S A DEAD END AND REQUIRES A NEW INTERFACE.

Figure 32: Concept Design of bike centred tourism facility
**GIBA GORGE**

Based in Durban, Giba Gorge is one of the most successful bike and trail running park examples in South Africa. While they have undergone many transitions over time, the business has been flexible enough to adapt to changing trends and requirements in adventure tourism and the health and fitness industry. The keys to Giba Gorge’s success have been accessibility to the Durban and upper-highway market or mountain bikers, runners, walkers and fitness enthusiasts; providing well maintained trails and facilities such as the BMX track and children’s party area, organising regular community based events (club events), having restaurant facilities and a well stocked and well priced gift shop, and keeping their fees affordable. It should also be noted that they are based in a steep sided gorge that offers attractive terrain for outdoor enthusiasts.

<table>
<thead>
<tr>
<th>PRIMARY TOURIST ATTRACTION (HIGHLIGHTS)</th>
<th>Scenic gorge with natural bush, large area, includes waterfalls and stream etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECONDARY TOURIST ATTRACTION (DIVERSITY)</td>
<td>Exercise opportunities, trails, regular events, access to nature (birds, mammals, reptiles), good gradient for outdoor sports, close to local communities (cultural attraction).</td>
</tr>
<tr>
<td>TOURIST FACILITIES (REVENUE)</td>
<td>Afros Chicken, good coffee, kids parties packages, gift shop, bicycle sales and repairs, guides, horse riding, exercise boot camps, liquor licence, offer camping, hot showers, functions, BMX track for national and provincial events, host provincial MTB series events.</td>
</tr>
</tbody>
</table>

Table 11: Giba Gorge Tourism Hierarchy

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![Image](Figure 33: Collage of pictures from Giba Gorge. Source: Giba Gorge Facebook Page)
PWC BIKE PARK
The PWC Bike Park in Bryanston has recently undertaken to invest in their facilities to upgrade the trails and related services. This has seen more interest in the park. They attract family groups using children’s related activities and facilities, and party packages. They have also focussed on skills development, and only allow certain affiliated riders to offer skills training in their park. PWC also promote trail running in the park. They are, however, not directly on the Spruit trail network, and as such don’t tap into the naturally occurring traffic along the Spruit.

Figure 34: Collage of pictures from PWC. Source: PWC Facebook Page

| PRIMARY TOURIST ATTRACTION (HIGHLIGHTS) | Green open space in central Johannesburg (Nature) |
| SECONDARY TOURIST ATTRACTION (DIVERSITY) | Wetland on perimeter and small forest, exercise opportunities, trails, regular events, skills development |
| TOURIST FACILITIES (REVENUE) | Kids parties packages, braai rental, trail running, bike hire, team building, coffee shop |

Table 12: PWC Tourism Hierarchy
THE THATCH CAFÉ

The Thatch Café is a recent development found out in the Cradle of Humankind area, situated alongside the Rhino and Lion Nature Reserve. It slots into a slightly different market than that of Giba and PWC, in that it offers large-scale conferencing facilities and large-scale restaurant facilities, game viewing opportunities, as well as the X-stream Bike and Adventure Park. It is rare to see such a full flush of cycling facilities, as they offer a kids track, full BMX track, pump track, jump track, mountain bike trails and a child road-safety awareness track. It is targeted firmly at the family market, and has endeavoured to make their restaurant facility comfortable for adults, so that children can ride in close vicinity.

| PRIMARY TOURIST ATTRACTION (HIGHLIGHTS) | Scenic, near natural bushveld and cultural interests. |
| SECONDARY TOURIST ATTRACTION (DIVERSITY) | Game parks and the heritage interest of the Cradle of Humankind |
| TOURIST FACILITIES (REVENUE) | Conferencing, functions, restaurant, game drives, bike facilities to suit all tastes. |

Table 13: Thatch Café Tourism Hierarchy

Figure 35: Collage of pictures from Thatch Café. Source: Thatch Café Facebook Page
WHISTLER BIKE PARK

Whistler Bike Park is an international example of a mountain bike facility that is heralded as possibly the best in the world. It is found in British Columbia, Canada, and sits on the West Coast in the Whistler Valley. It has developed a world-renowned pedestrian village, flanked by some of the most incredible mountain bike trails in the world. It is seen as very commercial and expensive, but due to its location and facilities, it is on every mountain bikers tick list and sees vast numbers of visitors each year. It also has extensive adventure activities from hiking to rock climbing and bear viewing, so it isn’t just a tourist location for mountain bikers.

<table>
<thead>
<tr>
<th>PRIMARY TOURIST ATTRACTION (HIGHLIGHTS)</th>
<th>Scenic, Wildlife, Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECONDARY TOURIST ATTRACTION (DIVERSITY)</td>
<td>Mountain biking, hiking, running, adventure activities, game viewing</td>
</tr>
<tr>
<td>TOURIST FACILITIES (REVENUE)</td>
<td>Conferencing, functions, restaurant, retail experiences, accommodation, spas, night life, etc.</td>
</tr>
</tbody>
</table>

Table 14: Whistler Tourism Hierarchy

Figure 36: Collage of pictures from Whistler. Source: Whistler Facebook Page
As mentioned prior, there is potential for a facility similar to Giba Gorge, PWC and Thatch Café (with Whistler Bike Park providing the extreme example) to be based along the Braamfontein Spruit, possibly tying into the trail network. Potential sites for this kind of development would be Emmarentia Dam and the Field and Study Centre. The lack of food and beverage options along the full extent of the Spruit (people usually have to leave the trail network and sit down at cafés in malls or further into the suburbs) is noticeable, as are other types of facilities that encourage visitor spend and extension of stay time.

As a Phase 2 development, it is recommended that JCPZ are open to engaging in discussions around new business venture development.

4.1.2 SKILLS AREAS & PUMPTRACKS

Several sites for skills areas and pump tracks have been identified along the Spruit, which would add to the portfolio of unique features that currently exist on the trail network. Pumptracks are popular with both adults and children, and don’t necessarily have to be built near a café or other such facility. Often the pump track itself draws other services (such as ice cream or cool drink vendors). Ideally though, to service children and parents, a café or benches in a shaded area for parents to sit and watch their children is generally a good combination. Recommendations have been made towards kiosks, to be placed opportunistically around features such skills areas or pumptrack (and possibly skateboard park zones etc.). Please refer to Appendix B, Braamfontein Spruit Adventure Trail Map and to Appendix C, Concept Designs.

4.1.2 HERITAGE TRAILS & BOTANICAL GARDENS

Johannesburg has a rich history of urban trails that is somewhat unknown to the average Joburger or tourist. Valuable maps of urban walking trails and heritage trails that offer insights into historical Joburg have been developed, but have not been used (overly) in tourism related capacities. There is much potential to highlight these walks/tours, and develop them to be accessible to the domestic and international market. Upskilling of guides to offer these walks is a possibility that would increase job potential along the Braamfontein Spruit and other tributaries. It is possible to expose these trails through use of the main Spruit trail network information boards and specific marketing activations. An example from the historical Johannesburg Trails booklet (we are not certain of the date it was produced) is displayed adjacent.

Figure 37: Cover of the Johannesburg Trail Booklet. Source: JCPZ

Figure 38: Map in the Johannesburg Trail Booklet. Source: JCPZ

A comment that was noted from the User Survey indicated a different take on trails, by referring to “Art Walks”. The User felt that art in the format of sculptures or land art would be a potential tourism draw card, as art walks with informative guides (or possibly audio guides or SnapScan/Zapper guides as has been used in various park theatre productions such as Wickedly Odd at the Durban Botanical Gardens). The User also suggested that some of the waterfalls and rapids along the Spruit could be used for picnic spot bookings and link into local restaurants that could organise picnic baskets. However, while a nice idea, the rapids and waterfalls are often the site of many of the illegal transgressions that take place, and tackling some of these problems (such as informal settlers, dumping and sewage leaks) would have to occur before investigating this idea further.
4.2 BRAAMFONTEIN SPRUIT ATMP – SPECIFIC NEW TERTIARY TOURISM OPPORTUNITIES

Tertiary tourism opportunities look to servicing tourists, and include three main categories. **Accommodation** is the first of these categories, as tourists require hotels, B&Bs, self-catering cottages and backpacker accommodation in order to overnight comfortably when they are visiting the area. There is potential for current accommodation options surrounding the trail network to market the trail network, and if the trail network is well managed and becomes a visible asset (i.e. visible via social media and marketing channels), it makes sense for establishments to promote the fact that they are close to the trail. This brings tourists looking for trail opportunities to the accommodation establishments, and vice versa.

**Shopping (retail) and Bike Hire** is the second tertiary opportunity, offering tourists products to buy that may be related to the Spruit, the activities on the Spruit or generally to South African products and goods. Bike Hire facilities would also fall into this category, and bike and equipment hire is one aspect of tourism services that will have to be thoroughly investigated as this will be key to allowing tourists to experience the Spruit on two wheels. However, bike hire only makes financial sense with large quantities of people using the bikes, as maintenance of the bicycles is an expensive and important aspect of this service.

**Food and Beverage** services are the third main opportunity that exists. Currently, trail users have to travel away from the main trail network to visit coffee shops or sit down for a meal, or they return to where they have parked their cars to have a meal or refreshment after they have ridden. Sites to place food and beverage kiosks have been marked on the planning map for further discussion. A myriad opportunities exist for the kiosk stands, from branding and revenue exercises, to upskilling of local food entrepreneurs, franchise opportunities and co-service venues (i.e. food and beverage stand, with a minor bike service area or bike hire). This model has worked well on the Durban Beachfront, and bike hire coupled with good quality, modern, contemporary African styled food and beverage services have been a winning combination.

Potential in the parks for more ‘boutique’ type foods to service the weekend picnic and family crowds has also been noted. Concepts such as Maverick and Jane popcorn (Rosebank) could be transferred to the kiosk infrastructure, as well as boutique coffee and ice-cream stands. Having the kiosks operate as ‘pop-up’ or rotate their offerings depending on the season allows flexibility to adapt to market demands, and this is concept, which can also be explored further.

*Figure 39:* Picture from Maverick & Jane. Source: Maverick & Jane Facebook Page

*Figure 40:* Picture from Afros Chicken. Source: Afros Chicken Facebook Page
4.23 POTENTIAL COMPLIMENTARY TOURISM OPPORTUNITIES/PROJECTS/SERVICES

The potential for complimentary tourism opportunities, projects and services along the Spruit is large, with a consistent flow of ideas coming through to JCPZ from individuals, small companies, large companies, NGOs etc. The trick to understanding which are worth pursuing lies in developing a set of guidelines to quickly evaluate the merit of a project against economic, social and environmental viability. Further research and development would need to take place to formulate the guidelines, however, below are some of the suggestions received from stakeholders as well as those identified by NSC.

Ubuntu Benches

Ubuntu Benches is a concept of interest, where waste concrete is turned into simple benches that can be coloured and branded in any fashion. The company has a vision for social upliftment, and have business models where private individuals can buy a bench for their home, and the company then donates one to the city of Johannesburg. Benches are useful, but the concept of intercepting the concrete, which would otherwise go to waste facilities is interesting, and there may be potential to intercept waste concrete for use in other facilities around the Spruit too. This is a clever concept with a strong environmental and social message.

Figure 41: Collage of pictures from Ubuntu Benches. Source: Ubuntu Benches Website
Dual Slalom Canoe Course/ Adventure Park

Interest in developing a Dual Slalom Canoe Course (as part of an overall adventure theme park) along the Spruit below Emmarentia Dam has been expressed. The idea is creative but large-scale, and requires a prefeasibility study to assess what parameters would need to be considered towards the development. If considered viable (there are several component ideas to the overall park), a full feasibility study and operational business plan would need to be developed. The park (or a version of it) is considered a potential Phase 2 feature as it would enhance the overall appeal and offering of the Braamfontein Spruit trails.

Tour Guiding

Guiding along the Braamfontein Spruit is seen as a potential service that could be linked to an upskilling project. As mentioned prior, the potential of the Braamfontein Spruit acting as a hub to enter into other trails/walks, including heritage trails is a viable project and would need further research and development, and perhaps partnerships with organisations such as the Adventure Qualifications Network as has been noted in the training and skills development recommendations in the ATMP.

MTB Skills Training

MTB Skills trainers have indicated that there is an opportunity to grow skills training on the Braamfontein Spruit. This opportunity would become more feasible once certain features such as skills areas and pump tracks have been developed.

4.3 PRIORITY ISSUES

The two main priority issues that the Braamfontein Spruit faces are crime, and controlling waste and litter. Polluted and dangerous areas are simply not attractive for recreational activities, and to extend tourist stays in Johannesburg would require solutions towards these issues. While some mitigation methods have been built into the ATMP, the problems are not confined to the trail network, require support from the MOEs and fall out of the scope of this project.
5. **SWOT Analysis**

This SWOT Analysis section has been formulated as a combined result from the previous sections and from which, key issues, gaps and options analysis will be presented to inform strategic recommendations for this project.

A SWOT analysis is a tool commonly used to facilitate a strategic review of a particular organisation or project. This analysis has been conducted from the perspective of both the trail network as it currently exists to the proposed Braamfontein Spruit Club/Trust. It is a high-level exercise that identifies strengths, weaknesses, opportunities and threats of the organisation/project. The strengths and weaknesses are internal factors that the organisation/project may control. Opportunities and threats are those factors external to the organisation/project and, therefore, the organisation/project has little or no control over these macro-environment factors.

The SWOT analysis does not identify what should be done. Rather, it provides a framework for identifying where strategic opportunities may exist and how to avoid weaknesses inherent in the organisation/project or external threats from limiting future expansion and growth.

The purpose of the SWOT analysis is to identify and assess the strengths, weaknesses, opportunities and threats in respect to Braamfontein Spruit trails and the proposed Club/Trust that is envisaged as managing the trails. The identification of strengths, weaknesses, opportunities and threats within the area provides the basis upon which the pillars of the management plan may be built.

The SWOT analysis is based upon the situational analysis, the review of existing documentation as well as further research undertaken for the study.

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<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximity to upmarket areas</td>
<td>Conflict between user groups</td>
<td>Making the Braamfontein Spruit a World Class Facility and Attraction</td>
<td>Crime</td>
</tr>
<tr>
<td>Access</td>
<td>• Located amongst upmarket areas, with a mix of residential and commercial property.</td>
<td>• The opportunity exists to make the Spruit trails a world class recreational, social and economic upliften example by improving the trail standards, mitigating weaknesses such user conflict and threats such as crime.</td>
<td>• Crime levels and public perception of crime along the Spruit. In the Braamfontein Spruit Stakeholder survey, 64% of all respondents indicated that their safety was a concern to them when using the Spruit.</td>
</tr>
<tr>
<td>Access</td>
<td>• Easy access via numerous entry and exit points.</td>
<td>• The implementation of the Spruit ATMP will result in more appropriate trail design and better standards.</td>
<td>Informal settlers &amp; Waste recycling</td>
</tr>
<tr>
<td>Access</td>
<td>• The Spruit is free for people to use.</td>
<td>• The IMBA (Australia) trail standards and guidelines should be used to form the basis of the Spruit trail design.</td>
<td>• Throughout the development of the Spruit ATMP, the threats that are related to informal settlers and waste recycling along the Spruit have been highlighted. If these problems and threats continue to grow, they may well render the Spruit trails unusable or undesirable. These problems also increase certain risks and may deter potential sponsors from getting involved in the funding of the trail project.</td>
</tr>
<tr>
<td>Access</td>
<td>• Infrastructure (such as bridges and underpasses has been developed to facilitate better access.</td>
<td>• An trail design specification guideline should be developed in consultation with engineers and other specialists.</td>
<td>Illegal Development</td>
</tr>
<tr>
<td>Existing Trails</td>
<td>• The Spruit trails have mostly developed from footpaths created by commuters. In certain areas these paths are not conducive to sports such as mountain biking, trail running and walking/hiking</td>
<td>• New trails features have been outlined in the Operational Discourse attached to this report.</td>
<td>• It has been noted by certain authorities and stakeholders that an increasing amount of illegal development is taking place along the Spruit. If not managed this could result in the Spruit trails being fragmented.</td>
</tr>
<tr>
<td>Passionate Users/Trail Community</td>
<td>• There is limited coordination and management of the Spruit trail users.</td>
<td>Economic Development &amp; Job Creation</td>
<td><strong>Banning of Certain Activities</strong></td>
</tr>
</tbody>
</table>
| Passionate Users/Trail Community              | • There are a number of risks related to the Spruit trails that need proper management | • The Spruit ATMP has excellent potential to create job opportunities for the local community (construction phase and operations). | • If it is deemed that certain activities or uses of the Spruit are significantly detrimental to the environment or that the activities...
Established Events
- The JUMA/ JURA are well established events that invest a significant amount each year into the development of trails.
- The Delta and Alberts Farm Parkruns are very popular and illustrate the potential for smaller but more regular events.

Supportive Authorities
- JCPZ and other authorities responsible for the Spruit are very supportive of the development of recreational trails and complimentary facilities and activities.

Not much marketing of the Spruit trails takes place.

Marketing
- By implementing a comprehensive marketing strategy that includes social media, the Spruit trails would see increased usage.
- Marketing would be a vital ingredient to the success of the proposed Club/ Trust that is envisaged as managing the trails.

Partnerships
- Partnerships between the proposed Club/ Trust, the public sector, private sector and other stakeholders and organisations will be very important and present an exciting opportunity for the Spruit trails.
- Collaborative partnerships with other trail networks such as the Cradle of Humankind MTB Trail, Karkloof, Modderfontein, Red Barn, PWC Bike Park, Northern Farms and international trail venues could also be of great benefit to the Spruit trails.

Other Events
- Corporate team builds
- Trail running
- Mountain biking

Commuting
- The Spruit has traditionally been used as a means of getting from place to place. However the number of people using it as a means of commuting via foot or bike appears to be increasing and could be grown.

Adventure Tourism
- Adventure tourism is one the fastest growing tourism segment worldwide and the Spruit has significant potential as an adventure tourism facility and attraction.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established Events § The JUMA/ JURA are well established events that invest a significant amount each year into the development of trails. § The Delta and Alberts Farm Parkruns are very popular and illustrate the potential for smaller but more regular events.</td>
<td>Not much marketing of the Spruit trails takes place.</td>
<td>Once properly developed and managed the Spruit trails will also provide opportunities such as guiding, bike mechanics, skills training and others.</td>
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</tr>
<tr>
<td>Supportive Authorities § JCPZ and other authorities responsible for the Spruit are very supportive of the development of recreational trails and complimentary facilities and activities.</td>
<td>Funding § There is currently very limited funding available to ensure the trails are adequately maintained and managed.</td>
<td>Marketing § By implementing a comprehensive marketing strategy that includes social media, the Spruit trails would see increased usage. § Marketing would be a vital ingredient to the success of the proposed Club/ Trust that is envisaged as managing the trails.</td>
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<td></td>
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</tr>
</tbody>
</table>

Table 15: Strengths, Weaknesses, Opportunities and Constraints (SWOT) Table
6. **Formulation of a Vision, Gap and Option Analysis and Key Strategic Objectives**

6.1 **Vision**

The Phase 2 Research Analysis Report and above sections of the Phase 3 Report provide the current status of the Braamfontein Spruit trails. From this a number of issues are identified and highlighted in the SWOT Analysis. The achievement of goals contained within a vision for the Braamfontein Spruit trails will be dependent on effective best practices and sound strategic planning processes. A sound strategic planning process requires that a clear vision for the future objectives of the project is agreed at the outset.

A vision can best be defined as a view, or a perception, of where and what one aims to be in the future, in other words ‘to know where you are going’.

The development of a vision for the Spruit trails should be conducted in order that there is an all-inclusive understanding of where the trails are at present, in order that there is consensus on the point of departure as well as consensus as to where project is going and what it wants to achieve in the future.

The objective of developing a vision is to identify “what is the primary focus of the Braamfontein Spruit trails”, “where the trails want to go”; “what the trails want to achieve”; “what the trails want to be”; and by “when do the trails want this to be achieved by?”. Between the current status of the project and attainment of the vision, there will be a number of critical gaps, each with various options that will need to be identified as key strategic objectives (KSO). These KSO’s will be broken down into implementable phases, which, whilst being integrated in order to achieve the overall vision, will comprise separate and often sequential components. The key aspect for the Business Plan is that without an agreed vision amongst all key stakeholders clearly defined, KSO’s are not possible.

The following graphic illustrates the above process:

**Figure 42**: Graphic explaining the development of Vision served by Key Strategic Objectives that formulate a Business Plan

It is recommended that the emphasis for this project be a more long-term focus of successful trail and infrastructure development from a market demand perspective.

It is considered to be important that when formulating a shared vision, the focus be given on the ‘operational’ aspects and nature of the organisation/project in a timeframe of about 5 years. The ‘developmental’ stage of the project (when it is designed, built and operational skills development and training undertaken) should only be seen as the initial part of the process to enable the future operational success; and not purely as a means to a short-term end.

Based on the research, the following key elements were taken into consideration in the formulation of a Vision. Whilst this Vision has been formulated based also upon the outcomes of the research, it is presented in draft form for further debate and deliberations for all stakeholders to arrive at a consensus for an agreed and shared Vision. It has purposely been kept short but impactful.
Core elements in the formulation of the shared Vision
The potential exists to develop the Spruit trails into a world-class recreational facility that generates significant socio-economic benefits in a sustainable fashion;

- The Spruit runs through the heart of the city of Johannesburg;
- It is already a very popular facility that receives high levels of community support and involvement;
- There is a strong demand for trail networks and associated facilities such as pump tracks, skills areas and restaurants. This was confirmed in the Braamfontein Spruit Stakeholder and User Surveys as well as by successful case study examples in this report.
- The establishment of Strategic Alliance Partnerships is considered important;
- This project has the potential to improve the tourism appeal of Johannesburg and Gauteng;
- This project has the potential to create sustainable and decent jobs for previously disadvantaged members of the community;
- The project will lead to skills development and enterprise developed in the form of businesses providing trails related services.

It is also very important to bear in mind that there are a multitude of user groups including mountain bikers, hikers, walkers, dog walkers, trail runners and birders.

The purpose of the initial vision is to create a picture of the future of the trails in order to provide strategic direction for subsequent phases of the assignment. It is not intended to align with or to satisfy any public sector or other objectives at this juncture. It is solely based on the development of a sustainable strategic direction for the success of the product. As the project progresses, so may the project vision be further developed.

With the above elements in mind, it is therefore proposed that the shared vision for the Braamfontein Spruit trails be along the following lines, which forms the basis for the development of the Business Plan.

“In five years, the Braamfontein Spruit trails are recognised as an environmentally conscious world-class facility and a showcase for successful development, job creation, social cohesion, maintenance and operations”

6.2 GAP & OPTIONS FOR THE PROJECT

Based upon the above proposed Vision, the next step is to identify what are the immediate ‘Gaps’ that presently exist, which would prevent achievement of the Vision. Against each of the ‘Gaps’, ‘Options’ are presented as to how each of the ‘Gaps’ may be filled, thereby determining the Key Strategic Objectives (KSO’s) necessary for achieving the objectives of the Spruit trails, for inclusion within Business Plan.

<table>
<thead>
<tr>
<th>Gaps:</th>
<th>Options (Do nothing or Do something scenarios)</th>
</tr>
</thead>
</table>
| 1. Lack of an effective legal institutional structure to proceed with the ATMP once it has been approved. | To undertake a project of this nature it is essential that a ‘Special Purpose Vehicle’ (SPV), or some form of ‘ring-fenced’ legal entity be formed that has legal responsibility / accountability for control over the project, including raising of funds and operations both during and after the development phase. Such a legal entity would most probably be in the form of a Club or Trust.  
The founding members of the SPV will attend meetings and will administer, manage, oversee and take strategic decisions regarding implementation of the approved ATMP. This SPV should also be able to enter contracts and secure funding to undertake the project.  
The recommended SPV will need to seek legal, financial, and operational advice on certain aspects of running the project. |
| 2. Identify and secure funding                                      | Potential funding partners will need to be identified by the SPV and a Funding Proposal document prepared and presented to those funders who express an interest. Such a Funding Proposal may be based upon this document. |
| 3. Strategic Alliance Partnerships                                   | The SPV will be responsible for creating strategic alliances with other stakeholders in order to ensure successful developmental and operational implementation of the project. |
| 4. Decision on Operations of the project.                           | Two options of management structures have been identified i.e.:  
a) Trust  
b) Club  
At this early stage it is considered inappropriate to decide which form of operating top structure should be adopted. There needs to be further stakeholder consultation before the decision can be made. |
Furthermore, it is considered critical that local involvement in operations should be maximised. This can be in the form of paid individuals on the SPV team or through volunteer contributions.

It is proposed that the issue of operational management be reviewed further after the key decisions have been taken based upon the outcomes of this document.

5. Marketing Plan

As part of its operational function, an annual Marketing Plan will need to be prepared by the SPV, as part of its annual business planning and budgeting processes.

It is proposed that the Annual Marketing Plan be based upon the Outline Marketing Strategy included as Section 7 of this report.

6. Training and Skills Development

The SPV will need to undertake the training and Skills Development Programme as outlined in Section 8 of the report. Specific Training Programmes must be finalised and call for proposals from training entities can be issued.

<table>
<thead>
<tr>
<th>Table 16: Gap Analysis Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5. Marketing Plan</strong></td>
</tr>
<tr>
<td>As part of its operational function, an annual Marketing Plan will need to be prepared by the SPV, as part of its annual business planning and budgeting processes. It is proposed that the Annual Marketing Plan be based upon the Outline Marketing Strategy included as Section 7 of this report.</td>
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<tr>
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</tr>
<tr>
<td>The SPV will need to undertake the training and Skills Development Programme as outlined in Section 8 of the report. Specific Training Programmes must be finalised and call for proposals from training entities can be issued.</td>
</tr>
</tbody>
</table>

6.3 **Key Strategic Objectives**

Based upon the Gap and Options analysis the following Key Strategic Objectives (KSOs) are recommended for development within the Operational Business Plan and for the Implementation Programmes; Timeframes and Budgets.

**KSO 1: Institutional Structuring**

The SPV needs to be mandated and empowered to implement the project in accordance with the approved ATMP.

**KSO 2: Strategic Alliance Partnerships**

These are required to be established in order to ensure support and buy in, as well as successful developmental and operational implementation of the project.

**KSO 3: Funding Strategy**

A funding strategy will need to be prepared in order to assist in securing funding for the implementation of the project. The Funding Strategy should be based upon the outcomes of the ATMP, once approved, and take cognisance of the various Strategic Alliance Partners.

**KSO 4: Operations**

The SPV will determine how the trails are operated. It is understood that JCPZ would like to see the project being private sector driven and operated.

**KSO 5: Marketing Plan**

An Annual Marketing Plan to be prepared for the Braamfontein Spruit trails project. This plan should be reviewed by the relevant institutional structure and included in the annual budgets, once the Outline Marketing Strategy has been accepted by the SPV.

**KSO 6: Training & Skills Development Programme**

A Needs Assessment and Skills Audit should be undertaken together with a Skills Training Programme.

**KSO 7: Implement the Spruit ATMP**

Once the ATMP has been finalised and sufficient funding secured, the project can proceed to the contracting phase of a professional team and contractors to design and build the trails - Phase 1 mitigation measures and Phase 2 interventions. A two year period should be considered for these phases after funding has been secured.
7. **Outline Marketing Strategy & Input into Events Strategy**

A marketing strategy for the Braamfontein Spruit trail network is important, as it allows for promotional, communication and awareness creation/education requirements. Marketing channels and platforms are used to pass on information about the trails, grow awareness of the trails and how to use them correctly (which grows the culture of shared trail use), and to create revenue streams that will fund the continual upgrade, maintenance and development of the trail network. Marketing also facilitates revenue streams into JCPZ, which creates funds for JCPZ to meet their mandate.

In general, it is recommended that the Club/Trust manage the marketing of the trail network using several marketing channels. This management would include financial management of funding generated by sponsorship and branding rights. The marketing channels as well as branding of the trails will be discussed below.

7.1 **Branding of the Trail**

In the past, by-laws around advertising in natural areas and public-open spaces prevented sponsorship and paid for advertising that could support trail networks. However, JPC have since adjusted the by-laws to allow for revenue streams to help departments meet their mandates.

As such, branding is now allowed but it must adhere to signage size guidelines and quality and aesthetic principles. The maximum size for signage with branding is 2m x 1,5m, which is considered fairly large. However, NSC has consulted with JCPZ about the size of the proposed trail information boards, which may be larger (3m x 1,5m, double-sided); and JCPZs response was that the practicalities of the information boards would have to be considered at a later stage. However offering branding to potential sponsors is now possible.

The main branding infrastructure includes signage (information, totems, directional); branding on litterbins, possibly on benches, bicycle stands, marketing materials and digital platforms.

Further to branding along the trail is the concept of crowd source funding, where members of the public (users) can opt to contribute to the trails systems for special features and projects, which may be out of the Club’s planned expenditure. Another fundraising option for features or new builds is payment apps such as SnapScan. For example, if a new bridge or upgrade of a section is necessary a temporary sign can be posted at the site of the planned feature with a QR code (using a payment system like SnapScan or Zapper). Support for such a system was indicated by the survey results, where 87% of survey respondents indicated they would be willing to contribute privately to funds to improve the Spruit trail network if they were able to choose what elements of the trail their money supports. An example of a sign to activate this idea is shown on the following page.

7.2 **Primary Title Club/Trust Sponsor**

It is recommended that the Club/Trust consider having one main sponsor that would secure the branding rights as per section 7.1. The sponsor would need to be selected/approached based on their ability to support the sponsorship over a set number of years (in order to prevent having to rebrand signage too soon), and based on a ‘good fit’ to the Club/Trust identity. Considering the companies BBEE status, social development objectives, environmental ethos and actual business type would be important. It would make sense to work with a company that naturally relates to users of the Spruit, and whose brand doesn’t create friction with users of the Spruit.

It is recommended that the sponsorship amount be R2.5 million per annum (increasing by an agreed percentage per year), with 30% (R750 000) apportioned to the JCPZ revenue share. This is reflected in Appendix D, Forecast Profit and Loss. This is merely a proposal and will need to be discussed further.
7.3 MARKETING OF THE TRAILS

Implementation of the main marketing activities would be the responsibility of the Club/Trust, and be managed by the General Manager. It is recommended to gain further insights and guidance from social media and communication experts (such as Nomadic Media), who are already involved with the Spruit trail network.

Marketing of the trails in the digital and print capacity can also encompass branding for Friends of the Spruit Trails, which is a subsidiary sponsor concept. (Discussed in Section 8, Financial Recommendations and Operational Business Plan). For example, key “Friends of the Spruit Trails” would have branding space/mentions on the website, Facebook page, eNewsletter and the like. Linking to this idea is an opportunity for companies who may want to offer services versus financial contributions. For example, if a media company wanted to manage communications for the Club/Trust (Set up all the social media accounts, design work, Website etc.) their work can be offset against branding rights or similar.

Table 17: Marketing Channels Table

<table>
<thead>
<tr>
<th>Marketing - Consumer and Trade Shows</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Africa Cycle Fair</strong></td>
</tr>
</tbody>
</table>

For indicative budgets related to marketing please refer to Appendix D, Forecast Profit and Loss.

Figure 44: Marketing Platforms and Tools

<table>
<thead>
<tr>
<th><strong>BRANDING OF THE TRAIL</strong></th>
<th><strong>MARKETING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIGNAGE:</strong></td>
<td><strong>DIGITAL:</strong></td>
</tr>
<tr>
<td>● INFORMATION</td>
<td>● WEBSITE</td>
</tr>
<tr>
<td>● TOTEMS</td>
<td>● GOOGLE ADSWORDS</td>
</tr>
<tr>
<td>● DIRECTIONAL</td>
<td>● FACEBOOK</td>
</tr>
<tr>
<td><strong>INFRASTRUCTURE:</strong></td>
<td>● TWITTER</td>
</tr>
<tr>
<td>● BENCHES</td>
<td>● INSTAGRAM</td>
</tr>
<tr>
<td>● LITTER BINS</td>
<td>● INSTAGRAM</td>
</tr>
<tr>
<td>● BICYCLE STANDS</td>
<td>● ENEWSLETTER</td>
</tr>
<tr>
<td>● WEB ADVERTISING</td>
<td><strong>PRINT:</strong></td>
</tr>
<tr>
<td></td>
<td>● MAPS</td>
</tr>
<tr>
<td></td>
<td>● EDITORIAL STORIES</td>
</tr>
<tr>
<td></td>
<td>● MERCHANDISE</td>
</tr>
<tr>
<td></td>
<td>● AFRICA CYCLE FAIR</td>
</tr>
<tr>
<td></td>
<td>● EUROBIKE</td>
</tr>
</tbody>
</table>
7.4 INPUT INTO EVENTS STRATEGY

Events will form part of the annual marketing plan of the Club/Trust. Essentially it is seen that all event applications will go through the Club/Trust, and all profit shares and investments into trail infrastructure from events should go to and through the Club/Trust. This will allow the Club Trust to retain control over the trails and will provide an additional income stream. It is seen as financial compensation for the Club/Trust’s role in managing and maintaining the trails and providing event support.

As has been seen with events in the past such as JUMA, the event organising company pays to have trails changed or upgraded as per the events requirements, and estimates from previous years expenditures have been included in the Forecast Profit & Loss (Appendix D) as an income budget line. The payments made are for physical work done, and as such the work will need to be outsourced to senior trail builder and team via the Club/Trust. The aim of running events through the Club/Trust is to create a more co-ordinated approach between event and recreational use of the trails. As was voiced by several Spruit Users, the conditions for events to be held on the trails should not be obstructive or ‘red-tape’ in nature, as this could dissuade organisers from using the trails in the future. However, it was suggested that the requirements should include a fee that would be directed into trail maintenance by the Club/Trust.

To provide a similar example, the Sappi MTB Project utilises such a system for event applications, but they are arguably more onerous (due to the high risk nature of the forestry business and risk of fire) than the Club/Trust system would need to be. However, the application process itself is an excellent way to reduce risks by compelling event organisers to create plans to deal with emergencies, and to be explicit about fees. While Sappi doesn’t charge event organisers anything to use their land, they do insist that a specific amount per rider/runner is donated to the local fire protection association for any event held on their land.

Currently the main sporting event utilising the trail network is the JUMA and JURA, now held in May each year. The event has contributed to many trail advancements along the Spruit network, including the major underpass infrastructure at Tana Road.
8. OPERATIONAL BUSINESS PLAN & FINANCIAL RECOMMENDATIONS

The Operational Business Plan (OBP) has been prepared through interlinked spreadsheets, which start with the Operational Discourse (Appendix A), leading through to Profit / Loss projections. The calculations are predicated on a variety of Assumptions, which by altering one or more, may provide a range of different scenarios.

8.1 OPERATIONAL DISCOURSE

Appendix A takes on the form of the Operational Discourse for the Spruit ATMP. It looks at the trails in terms of:
- Description of the activity point
- Strategic Concept Discourse
- Visitor Accessibility
- Operational Revenue, Activities & Maintenance
- Development Planning & Infrastructure
- Resources
- Indicative Development & Operational Costs

For the purposes of the Business Plan and Operational Discourse, the Spruit has been split into three zones (northern, central and southern) and two phases.

The northern zone starts at Witkoppen Road, and ends at the point where the trail goes under William Nicol Road in Bryanston. It contains approximately 8km of trail.

The central zone starts at William Nicol Road, and ends at Delta Park (includes Delta Park). The Central Zone is 4.3km to the start of the Delta Park area, and the loops around the park (various) cover approximately 5.4km. The total distance of trails in the Central Zone is 9.4km. It includes the “Miners Revenge” dual direction trail, the “Bundaberg Line” in the open grassland, a large informal settlement at the long pedestrian bridge that crosses the Braamfontein Spruit.

The southern zone is the most extensive, and runs from Delta Park exit to Alberts Farm in the west (10km in distance) and the boundary of Emmarentia and Marks Park in the East (6km in distance).

The Operational Discourse and the Implementation Programmes under Section 8.2 below are important tools in the Braamfontein Spruit ATMP as they take the document from a theoretical to a practical level. These tools have been developed to a point at which they can be used to take the project forward, detailing the phases and related budgets.

The Braamfontein Spruit trails pass through a number of residential and commercial areas. The trails have the potential to create a number of jobs and positive socio-economic impacts. During Phase 1 it is estimated that the trails could potentially create 16 semi-skilled temporary construction job opportunities and 29 permanent jobs and lead to skills development for approximately 8 individuals. During Phase 2 it is estimated that the trails could potentially create 52 semi-skilled temporary construction job opportunities and 8 permanent jobs and lead to skills development for approximately 20 individuals in the form of basic and advanced training related to the trails.

The indicative development and operational costs for Phases 1 & 2 are as follows:

Phase 1:
- Development costs = R3 million
- Operational costs = R5.70 million

Phase 2:
- Development costs = R3.2 million
- Operational costs = R6.76 million

It should be noted that R1 million of the development costs in Phase 1 are for Mitigation Measure 4 (MM4) which is a proposed paved area between GPS coordinates 26° 7' 48.52"S : 28° 0' 57.42"E and 26° 7' 20.54"S : 28° 0' 57.19"E (section of trail running along the river at the bottom of Delta Park). In respect to operational costs, R250 000 per month or R3 million per annum is for 25 trail patrolmen/wardens (security costs). There is also a stipend amount of R36 000 per month or R432 000 per annum which is to be paid to the 8 semi-skilled labourers who are proposed to be involved in the project. Only 50% of this cost is included in the operating costs of the Club/ Trust as it is envisaged that matching funding will be raised through a public or private sector partner and funder.

Under Phase 2 the security costs are R270 000 per month or R3.24 million per annum and the semi-skilled labour costs are R99 000 per month or R1 188 000 per annum for 20 labourers. Again only 50% of this cost is included in the operating costs of the Club/ Trust as it is envisaged that matching funding will be raised through a public or private sector funder.

It will be important to secure funding and sponsorship for these two cost components. It is anticipated that once the development under Phases 1 & 2 of the project is complete, the cost of semi-skilled labour, which will be required for trail building and maintenance will decrease as is illustrated in Section 8.4, Figure 44 below. It is envisaged that a group of approximately 8 individuals from the semi-skilled labour team, will continue as trail builders and maintainers, and that from year 3 this team will be contracted by the Club/ Trust for on-going trail maintenance and building work.
8.2 IMPLEMENTATION PROGRAMMES, TIMEFRAMES & BUDGETS

The implementation programmes, timeframes and budgets for items such as further route mapping, trail design, stakeholder and community consultation, training and obtaining environmental authorisation and development rights (if necessary) are dealt with in sections 8.2.1 to 8.2.4 below. Sections 8.2.5 to 8.2.8 deal with the individual processes specifically related to design, project planning, tenders and procurement and construction. This recommended approach is based on the assumption that it will be more efficient and cost effective to manage most of these project processes centrally, with JCPZ taking the lead during sections 8.2.1 - 8.2.4 (whilst the required funds for the subsequent sections and the appointment of a management team by the Club/Trust are raised) and the Club/Trust taking the lead thereafter.

8.2.1 PROPOSED ACTIVITIES FOR REVIEW & APPROVAL OF THE ADVENTURE TRAIL MANAGEMENT PLAN (THIS FORMS PART OF THE CURRENT/PLANNING PHASE)

<table>
<thead>
<tr>
<th>Implementation Actions and Sub Actions</th>
<th>Action By</th>
<th>Timeframe and Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Review and determine way forward regarding Operational &amp; Development Methodology to be taken forward for the implementation of this ATMP</td>
<td>JCPZ/ NSC/ Relevant Stakeholders</td>
<td></td>
</tr>
<tr>
<td>1.3 Review and determine way forward for the Institutional Structures to be taken forward for the implementation of this ATMP.</td>
<td>JCPZ/ NSC/ Relevant Stakeholders</td>
<td></td>
</tr>
<tr>
<td>1.4 Issue Final ATMP to Client &amp; stakeholders.</td>
<td>NSC</td>
<td></td>
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</tbody>
</table>

**BUDGET:** Included in current planning phase budget
8.2.2 INSTITUTIONAL STRUCTURING (IMPLEMENTATION PHASE)

From an institutional perspective, it is considered that JCPZ do not have an institutional structure capable of implementing, managing and marketing the Spruit ATMP project and trails. Therefore it is recommended that a Club/Trust be established to carry out these functions. It is envisaged that in the short-term a Project Steering Committee (PSC) and a project management consultant will be required to support JCPZ during the implementation phase of the ATMP. If the members of the current PSC agreed, they could remain in place and serve as the PSC during the initial implementation phases. The aim would then be to establish a Club/Trust as the top structure. This structure would then appoint the required human resources. It is envisaged that the project management consultant would assist the Club and its management team with the implementation of Phases 1 and 2 of the project. During this time skills will be transferred from the project management consultant to the management team so that they can manage subsequent phases more independently.

Objectives:
- Establish a set of implementation actions relating to the formation of a PSC, Club/Trust, appointment of a project management consultant to be tasked with taking the project through the implementation phases.
  - JCPZ to engage with internal and external project stakeholders on the subject of forming a PSC.
  - JCPZ to agree on a PSC for the ATMP.
  - Appointment of a specialist project management consultant to assist with implementation of Phases 1 & 2. Identification of key individuals and stakeholders to implement Project as per sections below.

Key Responsibilities:
The PSC and then subsequently the Club/Trust functions and responsibilities will include:
- Strategic direction of the entire trails project
- Input into the legal structuring of the trail network. Agreement as to how the existing key stakeholders are included in the Project
- Agreement on key individuals and stakeholders to be given responsibility to implement the approved aspects of the ATMP

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</thead>
<tbody>
<tr>
<td>2.1 Selection of PSC from public and private sector stakeholder groups</td>
<td>JCPZ/ Relevant stakeholders</td>
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<tr>
<td>2.2 JCPZ to facilitate engagement with the PSC to determine way forward</td>
<td>JCPZ/ PSC</td>
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<tr>
<td>2.3 Preparation of a terms of reference and tender process for a specialist project manager to assist with implementation of the project</td>
<td>JCPZ/ PSC</td>
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<tr>
<td>2.4 Put out a call for proposals for the position of specialist project manager</td>
<td>JCPZ</td>
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<tr>
<td>2.5 Evaluate proposals and appoint a Project Manager (PM)</td>
<td>JCPZ</td>
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<tr>
<td>2.6 JCPZ, PSC, project manager and legal experts to finalise top structure (Club/Trust)</td>
<td>JCPZ/ PSC/ PM</td>
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<td>2.7 Form a Club or Trust to take on the management of the Spruit Trails</td>
<td>JCPZ/ PSC/ PM</td>
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<td>2.8 Go through the processes required to appoint club committee members or trustees</td>
<td>JCPZ/ PSC/ PM</td>
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<tr>
<td>2.9 Prepare a Public Private Partnership Agreement (PPP Agreement) which will provide the Club/Trust with a mandate to manage the trails.</td>
<td>PM/ JCPZ/ PPP Legal Experts</td>
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<tr>
<td>2.10 Provide assistance to the Club/Trust on complying with the criteria in PPP Agreement and submitting the required documentation.</td>
<td>PM</td>
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<td>2.11 Sign the PPP Agreement.</td>
<td>JCPZ/ Club/Trust</td>
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</table>

BUDGET: Project Management/Professional Fees included in indicative development and operational costs estimates in the Operational Discourse
### 8.2.3 IDENTIFICATION & ENGAGEMENT OF STRATEGIC ALLIANCE PARTNERS & STAKEHOLDERS

**Formation of Strategic Alliance Partnerships**

**Objectives:**

Based upon the premise that the Club/Trust, with the support of the PM and JCPZ, have taken responsibility for implementation of the Project it is recommended that key strategic alliances be developed in order to strengthen the project’s success. However it should be noted that until such a time as the Club/Trust management team has been appointed, the Club/Trust will most likely have limited capacity to engage in the formation of strategic alliances. Therefore it is recommended that JCPZ and the PM should lead the process. Once the Club/Trust management team has been appointed, they should be formally introduced to all SAPs so that they can manage these partnerships going forward.

Key Strategic Alliances have been identified to date as follows:

<table>
<thead>
<tr>
<th>Key Strategic Alliances</th>
</tr>
</thead>
<tbody>
<tr>
<td>The National Department of Tourism (NDT), Department of Environmental Affairs (DEA) and Department of Water Affairs (DWA), Department of Sport and Recreation SA (SRSA), Department of Transport (DoT), Department of Small Business Development (DSBD) and the Department of Arts and Culture (DAC) are considered to be key national departments that should be approached with a request to provide guidance, funding and technical support. Key to this is CRUM and the DPU as mentioned in the Risk Analysis and Institutional Structuring.</td>
</tr>
<tr>
<td>The Expanded Public Works Programme (EPWP) – Working for Tourism, Environment and Culture and other sectors should be considered as potential partners.</td>
</tr>
<tr>
<td>It is recommended that the relationship with the NDT be maintained as strategic alliance partners in order to assist with identification of further funding institutions such as the IDC, and the National Lottery Distribution Trust Fund and National Empowerment Fund (NEF).</td>
</tr>
<tr>
<td>The Department of Cooperative Governance and Traditional Affairs (COGTA)</td>
</tr>
<tr>
<td>It is recommended that the Club/Trust/PM present the summary of the ATMP to the City of Johannesburg Metropolitan Municipality, Gauteng Tourism Authority (GTA) and to the Gauteng Department of Economic Development (GDED), in order to align the Project with the objectives of these authorities and departments and to gain their support for development and marketing.</td>
</tr>
<tr>
<td>Relevant community/tourism organisations such as the Residents Associations along the trail network.</td>
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<td>Business chambers and forums.</td>
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<tr>
<td>The African Mountain Bike Association (Amarider).</td>
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<tr>
<td>Local and international adventure sports tour operators.</td>
</tr>
<tr>
<td>It is recommended that partnerships be formed with private sector companies with an interest in reaching the communities and users of the Spruit.</td>
</tr>
<tr>
<td>MOEs as identified under the institutional structuring recommendations section.</td>
</tr>
<tr>
<td>Identify other potential Strategic Alliance funding partners.</td>
</tr>
</tbody>
</table>

**Key Responsibilities:**

The Club/Trust with the support of the PM and JCPZ are responsible for establishing the strategic alliances for the benefit of the Project. In this regard the key functions and responsibilities of the Club, the PM and JCPZ include:

- Review ATMP and prepare presentations and copies of the ATMP to be given to various potential Strategic Alliance Partners (SAPs)
- Arrange and attend presentation to various potential SAPs
- Formulate the types of strategic alliance partnership best suited for each potential SAP
- Prepare a Memorandum of Understanding (MOU) with each SAP that agrees to be involved in the future of the Project, including the extent of such involvement and obligations of each party
- Sign MOU with each SAP
<table>
<thead>
<tr>
<th>Implementation Actions and Sub Actions</th>
<th>Action By</th>
<th>Timeframe and Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Alignment with National Tourism &amp; Environmental Organisations</td>
<td>JCPZ/ PM</td>
<td></td>
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<tr>
<td>Organisations identified to date include:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- National Department of Tourism</td>
<td></td>
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<tr>
<td>- National Department of Environmental Affairs</td>
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<tr>
<td>- Department of Water Affairs</td>
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<tr>
<td>- Department of Sport and Recreation</td>
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<tr>
<td>- Department of Co-operative Governance and Traditional Affairs</td>
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<tr>
<td>- Department of Small Business Development</td>
<td></td>
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<tr>
<td>- Department of Transport</td>
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</tr>
<tr>
<td>Prepare a copy of ATMP to hand to each organisation and if required arrange dates to present to each</td>
<td>JCPZ/ PM/ Club/</td>
<td></td>
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<tr>
<td>organisation</td>
<td>Trust</td>
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</tr>
<tr>
<td>Elicit response from each organisation as to best form of strategic alliance arrangement</td>
<td>JCPZ/ PM</td>
<td></td>
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<tr>
<td>Preparation of Strategic Alliance MOU/ agreement with those departments accepting the arrangement</td>
<td>JCPZ/ PM/ Club/</td>
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<tr>
<td></td>
<td>Trust</td>
<td></td>
</tr>
<tr>
<td>Sign MOU with accepting organisations</td>
<td>JCPZ/ Club/ Trust</td>
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</tr>
<tr>
<td>3.2 Alignment with Provincial Tourism Authority and Destination Marketing Organisations</td>
<td>JCPZ/ PM/ Club/</td>
<td></td>
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<tr>
<td>Key organisations identified to date include:</td>
<td>Trust</td>
<td></td>
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<tr>
<td>- Gauteng Tourism Authority (GTA)</td>
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<td>- Gauteng Department of Economic Development (GDED)</td>
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<td>- Joburg Tourism</td>
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<td>- N3 Gateway Tourism Association</td>
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<td>- Others as may be appropriate</td>
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<tr>
<td>Prepare presentation and copy of ATMP to present to each organisation</td>
<td>JCPZ/ PM/ Club/</td>
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<td></td>
<td>Trust</td>
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</tr>
<tr>
<td>Elicit responses from each organisation as to best form of working arrangement</td>
<td>JCPZ/ PM</td>
<td></td>
</tr>
<tr>
<td>Preparation of MOU and agreement with those organisations accepting arrangement</td>
<td>JCPZ/ PM/ Club/</td>
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<td></td>
<td>Trust</td>
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</tr>
<tr>
<td>Sign MOU with accepting organisations</td>
<td>JCPZ/ Club/ Trust</td>
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</tr>
<tr>
<td>3.3 Alignment with appropriate funding institutions (Funders)</td>
<td>JCPZ/ PM/ Club/</td>
<td></td>
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<tr>
<td>Key Institutions identified to date include:</td>
<td>Trust</td>
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<tr>
<td>- NDT</td>
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<tr>
<td>- GTA</td>
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<tr>
<td>- Department of Sport and Recreation (DSR)</td>
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<tr>
<td>- Gauteng Department of Economic Development (GDED)</td>
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<td></td>
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<tr>
<td>- National Empowerment Fund (NEF)</td>
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<tr>
<td>- National Lottery Distribution Fund</td>
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<tr>
<td>- Development Bank of Southern Africa</td>
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</tbody>
</table>
- Industrial Development Corporation
- Anglo American Chairman’s Fund
- N3TC Touching Lives Programme
- Others as may be appropriate (particularly in the private sector)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrange dates to present to each Institution</td>
<td>JCPZ/ PM</td>
</tr>
<tr>
<td>Prepare presentation and copy of ATMP to present to each Institution</td>
<td>JCPZ/ PM/ Club/ Trust</td>
</tr>
<tr>
<td>Elicit responses from each Institution as to best form of funding arrangement, if any</td>
<td>JCPZ/ PM</td>
</tr>
<tr>
<td>Preparation of MOU and agreement and/or complete funding proposal to those Institutions offering a funding arrangement</td>
<td>JCPZ/ PM/ Club/ Trust</td>
</tr>
<tr>
<td>Sign MOUs/ agreements with Institutions offering support which may include funding</td>
<td>JCPZ/ Club/ Trust</td>
</tr>
</tbody>
</table>

**BUDGET:**
Project Management/ Professional Fees included in indicative development and operational costs estimates in the Operational Discourse
8.2.4 FINANCIAL AND ECONOMIC ANALYSIS AND FUNDING STRATEGY

Review Financial & Economic Analysis contained within this ATMP and prepare a Funding Strategy in order to secure Funding for implementation of the Project

Objectives:
Section 3.4 of the Phase 3 Report of the ATMP provides the financial and economic analysis for the ATMP. It is recommended that JCPZ, Club/Trust and PM review the financial and economic analysis and prepare a funding strategy and funding proposal document for the project. The key objective is to secure adequate funding to undertake the development and commence operations. However it should be noted that until such a time as the Club/Trust management team has been appointed, the Club/Trust will most likely have limited capacity to engage in fundraising. Therefore it is recommended that JCPZ and the PM should lead the process. Once the Club/Trust management team has been appointed (this is anticipated to be towards the end of 2017), they should be formally introduced to funders so that they can manage these partnerships going forward.

Key Responsibilities:
The JCPZ and the Club/Trust with the support of the PM, should undertake the following activities;
- Review and understand the financial requirements of the Project
- Prepare a Funding Strategy to be used to approach potential funders as per 8.2.3 above
- Prepare Funding Proposal Documents for presentation/submission to potential funders
- Enter discussions and/or negotiations to secure adequate funding to undertake the Project
- Finalise securing of funds necessary for the Project and commence implementation with adequate financial controls in place

<table>
<thead>
<tr>
<th>Implementation Action and Sub Actions</th>
<th>Action By</th>
<th>Timeframe and Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>2017</td>
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<tr>
<td>4.1 Review and understand the financial analysis and funding requirements of the Project</td>
<td>JCPZ/ Club/ Trust/ PM</td>
<td></td>
</tr>
<tr>
<td>4.2 Prepare a Funding Strategy to be used to approach the Financial Institutions as per 9.2.3 above</td>
<td>JCPZ/ Club/ Trust/ PM</td>
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<tr>
<td>4.3 Prepare a Funding Proposal Document for presentation to the Funding Institutions/Organisations</td>
<td>PM/ JCPZ</td>
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<tr>
<td>4.4 Enter discussions and/or negotiations to secure adequate funding to undertake the Project</td>
<td>JCPZ/ Club/ Trust/ PM</td>
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<tr>
<td>4.5 Finalise securing of funds necessary for the Project and commence implementation with adequate financial controls in place</td>
<td>JCPZ/ Club/ Trust/ PM</td>
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</tr>
<tr>
<td>4.6 Sign agreements with Institutions offering funding</td>
<td>JCPZ/ PM/ Club/ Trust</td>
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</table>

Budget:
Project Management/Professional Fees included in indicative development and operational costs estimates in the Operational Discourse
8.2.5 OPERATIONAL AND DEVELOPMENT IMPLEMENTATION PROGRAMME – PHASE 1

Schedule of Activities, Timeframes and Budgets for Operational and Development Implementation

Objectives:
Once funding has been secured the Club/Trust should appoint a management team including a General Manager, Admin Assistant, and two senior trail builders. This management team will provide the capacity needed for the Club/Trust to take the lead in terms of implementing the ATMP. It is recommended that the project management consultant be retained for a period of time to facilitate a smooth handover and to provide certain types of sustained support if required.

Phase 1: Implementation of Mitigations Measures and Trail Enhancements

Key Responsibilities:
Phase 1 must be led by the Club/Trust management team with the support of the PM and needs to be completed by finalising the Business Plan and implementing the Phase 1 mitigations measures and trail enhancements. It is envisaged that the senior trail builders could also possibly also be appointed to carry out the work required for implementation of the Phase 1 mitigation measures and trail enhancement interventions.

Implementation Action and Sub Actions | Action By | Timeframe and Budget
--- | --- | ---
  - Selection and appointment of a management team to handle operational management and development of the trails
  - Review ATMP Business Plan and make necessary amendments
  - Finalise the ATMP Business Plan and proceed with implementation
  - Detailed Design; Tender Documents; Tender Adjudication and Award of trail building contracts.
  - Carry out required development approval processes and applications including Basic Environmental Assessment of the mitigation measures and trail enhancements that may require environmental authorization and development approval. This relates to the General Authorisation (GA) 509 processes with the full ATMP (Phase 1) being submitted for GA, and before implementation goes ahead it will be necessary to check that none of the P1 activities require GA.
  - Identification of semi-skilled labour and trail building apprentices
  - Once necessary approvals have been obtained commence with construction through to Practical Completion
  - Implement Marketing Strategy and Plan as outlined under 8.2.7 below
  - Implement Phase 1 Training and Skills Development Programme as per 8.2.8 below

BUDGET:

Project Management/Professional Fees included in indicative development and operational costs estimates in the Operational Discourse
8.2.6 OPERATIONAL AND DEVELOPMENT IMPLEMENTATION PROGRAMME – PHASE 2

### Schedule of Activities Timeframes and Budgets for Implementation

**Objectives:**

Phase 2 is aimed at improving the trails through a range of interventions which involve enhancing the trails further, creating job opportunities, providing skills development and enterprise development opportunities. As per the Environmental Scoping Report it will be necessary to consider NEMA, NWA, WUL and General Authorisation 509 Process to comply with NEMA and the NWA.

Phase 2: Implementation of Interventions aimed at improving the trails

**Key Responsibilities:**

Phase 2 is dependent on the successful completion of Phase 1. It must be led by the Club/Trust and needs to be completed by developing the Phase 2 interventions as outlined in the Operational Discourse. Certain interventions such as the food & beverages kiosks will need to be considered more carefully as a range of implementation options exist. If it is decided to create a fully-fledged enterprise development programme, JCPZ and organisations such as the Department of Economic Development, Small Business Development and others will need to be involved. The option also exists to allow suitable franchise businesses to become a partner in the implementation of these interventions. For example the food and beverages kiosks could be established as franchise outlets such like AFRO's Chicken which is outlined in Section 8 of the report. The bike maintenance kiosks could become satellite outlets of larger cycling retailers. The benefits of involving established brands in the development of the business opportunities along the Spruit, is that they would possibly pay for the capital, training and development costs. They would also bring a certain quality standard and level of sustainability.

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<tbody>
<tr>
<td><strong>6.1</strong> Phase 2: Implementation of Phase 2 interventions aimed at improving the trails:</td>
<td>Club/ Trust/ PM/ JCPZ</td>
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<tr>
<td>▪ Review ATMP Business Plan and make necessary amendments to Phase 2</td>
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<tr>
<td>▪ Finalise the ATMP Business Plan and proceed with implementation</td>
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<tr>
<td>▪ Detailed Design; Tender Documents; Tender Adjudication and Award of trail building contracts.</td>
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<tr>
<td>▪ Carry out required development approval processes and applications including and EIA or General Authorisation (509) of the interventions that may require environmental authorization and development approval.</td>
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<tr>
<td>▪ Identification of semi-skilled labour and trail building apprentices</td>
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<tr>
<td>▪ Once necessary approvals have been obtained commence with construction through to Practical Completion</td>
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<td>▪ Implement Phase 2 of the Marketing Strategy and Plan as outlined under 8.2.7 below</td>
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<tr>
<td>▪ Implement Phase 2 Training and Skills Development Programme as per 8.2.8 below</td>
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<tr>
<td><strong>6.2</strong> Phase 2: Conduct Feasibility Studies and develop Operational Business Plans for Phase 2 job creation and enterprise development (business) Interventions:</td>
<td>JCPZ/ Relevant Government Departments/ PM</td>
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<tr>
<td>▪ Develop Operational Business Plans (OPBs) for interventions such as the kiosks which includes the following:</td>
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<tr>
<td>○ Specific market demand analysis &amp; visitor number projections</td>
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<td>○ Potential &amp; specific operational revenue streams &amp; values</td>
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<td>○ Determine operational functions and associated equipment and resource needs (human and</td>
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<table>
<thead>
<tr>
<th>Financial</th>
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<tbody>
<tr>
<td>• Identify operational expenses per month &amp; per year over 10-year period</td>
<td></td>
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<tr>
<td>• Indicative capital development costs &amp; start-up funding</td>
<td></td>
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<tr>
<td>• Business models &amp; structuring</td>
<td></td>
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<tr>
<td>• Brand development &amp; applications</td>
<td></td>
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<tr>
<td>• Marketing Strategy leading through to annualised marketing plans</td>
<td></td>
</tr>
<tr>
<td>• Identification of development &amp; operational strategic partnership opportunities</td>
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</tbody>
</table>

- Finalise design work for buildings/infrastructure such as the kiosks
- Preparation and advertisement of construction tenders
- Procurement of service providers and contractors
- Training and Mentorship of emerging entrepreneurs – for operational activities
- Handover of the business facilities to the emerging entrepreneurs

**Budget:**

Project Management/Professional Fees included in indicative development and operational costs estimates in the Operational Discourse
### Implementation of the Marketing Strategy and Preparation of Annual Marketing Plans – Phases 1 & 2

#### Objectives:
Section 7 in the Phase 3 Report of the ATMP contains an Outline Marketing Strategy, which is proposed to be used as the basis of the annual operating marketing plan for the ATMP.

#### Key Responsibilities:
The Club/Trust with the support of JCPZ and the PM should take responsibility for undertaking the following activities:
- Review the Outline Marketing Strategy contained within the ATMP and finalise in terms of any specific needs for the project
- Develop an initial Marketing Plan for Phases 1 & 2 of the Project, including re-launching of the trails and preparation of initial marketing collateral and public relations activities
- Implement activities as set out within the approved Marketing Plan
- Prepare annual Marketing Plans and implementation thereof

<table>
<thead>
<tr>
<th>Implementation Action and Sub Actions</th>
<th>Action By</th>
<th>Timeframe and Budget</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>7.1 Review Outline Marketing Strategy recommendations &amp; finalise with any specific needs of the project</td>
<td>Club/ Trust/ JCPZ/ PM</td>
<td>2017</td>
</tr>
<tr>
<td>7.2 Develop an initial Marketing Plan for Phases 1 &amp; 2 of the Project</td>
<td>Club/ Trust/ JCPZ/ PM</td>
<td>2017</td>
</tr>
<tr>
<td>7.3 Confirm funding availability for marketing plan implementation</td>
<td>Club/ Trust/ JCPZ</td>
<td>2017</td>
</tr>
<tr>
<td>7.4 Prepare terms of reference for tender process for appointment of marketing specialists (if determined as being required - steps below also dependent on whether a specialist is required. The Club/Trust may feel that the management team is capable of implementing the marketing plan without any assistance.)</td>
<td>Club/ Trust/ JCPZ</td>
<td>2017</td>
</tr>
<tr>
<td>7.5 Call for Proposals from marketing specialists</td>
<td>JCPZ</td>
<td>2017</td>
</tr>
<tr>
<td>7.6 Adjudication of marketing tender proposals &amp; appointment(s), including finalisation of scope of work</td>
<td>Club/ Trust/ JCPZ/ Marketing Specialist</td>
<td>2017</td>
</tr>
<tr>
<td>7.7 Commence implementation of marketing activities in accordance with approved scope of work</td>
<td>Marketing Specialist</td>
<td>2017</td>
</tr>
</tbody>
</table>

**BUDGET:** Project Management/ Professional Fees included in indicative development and operational costs estimates in the Operational Discourse
8.2.8 TRAINING & SKILLS DEVELOPMENT PROGRAMME – PHASES 1 & 2 (FOR APPRENTICE TRAIL BUILDERS/ BIKE MECHANICS/ SKILLS TRAINERS/ TOUR GUIDES. DOES NOT INCLUDE TRAINING OF INDIVIDUALS INVOLVED IN BUSINESS OPPORTUNITIES SUCH AS THE KIOSKS)

**Undertake a Needs Assessment and Skills Audit; Develop Training Programmes; & Implement Training**

**Objectives:**

It is recommended that a Skills Development and Training Programme be implemented during Phases 1 and 2 of the ATMP.

The recommendations are as follows:

- Project Management and Development – building of structures and trails (Phases 1 & 2)
- Operational and business specific skills for the tour guides, skills trainers and bike mechanics that may form part of the Final ATMP Business Plan under Phase 2.

**Key Responsibilities:**

The Club/ Trust management team with the support of the PM and input from JCPZ should take responsibility for undertaking the following activities:

- Preparation of a terms of reference and tender process for the appointment of training specialists
- Review of Project employment and skills needs for developmental and operational functions
- Identification of candidates for training
- Implementation of approved training programmes

<table>
<thead>
<tr>
<th>Implementation Action and Sub Actions</th>
<th>Action By</th>
<th>Timeframe and Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2 Confirm funding availability for training programme implementation</td>
<td>JCPZ/ PSC</td>
<td></td>
</tr>
<tr>
<td>8.3 Call for Proposals from Trainers</td>
<td>JCPZ/ PSC/ IA</td>
<td></td>
</tr>
<tr>
<td>8.4 Adjudication of training tender proposals &amp; appointment(s), including finalisation of scope of work</td>
<td>JCPZ /PSC/ IA Trainers</td>
<td></td>
</tr>
<tr>
<td>8.5 Commence Training Programmes in accordance with approved scope of work</td>
<td>JCPZ /PSC/ JA/ Trainers</td>
<td>Subject to outcome of tenders (training budget allowance included in Development Cost Estimates)</td>
</tr>
</tbody>
</table>

**BUDGET:**

Project Management/ Professional Fees included in indicative development and operational costs estimates in the Operational Discourse

8.3 TIMEFRAME
## Implementation Timeframe

### Phase 1
- Review and Approval of the ATMP
- Institutional Structuring
- Identification & Engagement of Strategic Alliance Partners
- Financial & Economic Analysis & Funding Strategy
- Operational and Development Implementation Programme

### Phase 2
- Operational and Development Implementation Programme
- Marketing Strategy & Preparation of Annual Marketing Plans (Phases 1 & 2)
- Training & Skills Development Programme (Phases 1 & 2)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review and Approval of the ATMP</td>
<td></td>
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<tr>
<td>Institutional Structuring</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Identification &amp; Engagement of Strategic Alliance Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial &amp; Economic Analysis &amp; Funding Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational and Development Implementation Programme</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Strategy &amp; Preparation of Annual Marketing Plans (Phases 1 &amp; 2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training &amp; Skills Development Programme (Phases 1 &amp; 2)</td>
<td></td>
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</tbody>
</table>
8.4 Financial Recommendations

This section of the report focuses on the development of a business model for the Club/Trust that is envisaged as managing the trails. In order for the true potential of the Spruit trails to be realised, the organisation mandated with managing the trails needs to be financially sound and have adequate capacity to carry out its mandate. Appendix A of this report, the Operational Discourse was used to guide the business model and Forecast Profit & Loss; Appendix D of this report.

Based on our understanding of sustainable South African trail management models as well as research conducted during Phase 2 of the Spruit ATMP, it is recommended that a top structure be developed to manage the Spruit trails and that this structure be set up as if it were a business with the objective of becoming sustainable. Since it is likely that the Club/Trust that is proposed to fulfil this function is likely to be a Non Profit Organisation (NPO), the objective cannot be to maximise profit. However the principles of business management will remain the same and the more successful the structure is in maintaining and developing the trails, the more successful it is likely to be at raising the required funds to ensure its long-term survival. If surplus funds are generated as per the Forecast Profit & Loss (Appendix D), these can be used to upgrade the trails and continue the Skills Development Programmes that are established under Phases 1 and 2 of the project.

The most significant costs in the model are related to trail maintenance and development. In addition to creating a better trail network, it is very important that the project leads to job creation, enterprise development and transformation which are key economic priorities and which can be used to motivate for funding and sponsorship. It is for this reason that a fair amount of detail is provided in respect to training and skills/enterprise development. The indicative costs used in the Operational Discourse were obtained through research and discussion with experienced trail developers and builders. The cost per km of trail and of Phase 2 interventions such as pump tracks and skills areas was something which was discussed with Meurant Botha (Amarider). Hein Pienaar (Deputy Director: Development Management – Cradle of Human Kind WHS and initiator of the Cradle MTB Trail), Hylton Turvey (Karkloof Trails) and Neil Evans (Braamfontein Spruit).

Hein was very helpful and provided calculations produced for the Cradle MTB Trail Plan by an engineering firm as well as costs provided to him for the construction of a section of trail at Tokai. The cost estimate for the Cradle trail ranged between R104 642 – R134 803 per km of trail. The Tokai trail cost estimate came out at R134 803 per km, excluding VAT. Both cost estimates were derived from a fairly detailed breakdown of material and labour costs. However, Neil Evans made the point that the Spruit trails already exist and hence the development costs will be significantly lower than would be the case if they were to be built from scratch. This is true but the Phase 1 mitigation measures and Phase 2 interventions involve the building of new trail in certain instances and it is therefore important to estimate these costs as accurately as possible. There are also other factors to consider if the trails are to be developed to a truly world-class standard such as the need for better risk, quality and environmental management. This may necessitate the involvement of specialists such as engineers, quantity surveyors and environmental consultants. Therefore a range of R5000 – R35 000 was used for the majority of the trail building cost estimates in the Operational Discourse. For certain mitigation measures and Phase 2 interventions a higher value was used, especially where it is anticipated that specialist input, machinery and imported materials will be required. In terms of trail maintenance, the input from Neil Evans was extremely helpful and highlighted his understanding of local conditions. Again, the increased number of trail features, especially under Phase 2 of the ATMP were taken into account, as was the fact that semi-skilled (apprentice trail builders) and skilled (senior trail builders) costs are already budgeted for.

The proposed Club/Trust is unlikely to ever be able to generate enough income through the provision of services (to its members, businesses, events and the general public) to fund the level of work required to make the Spruit trails a world-class facility. Therefore the proposed business model is a hybrid of service related income (such as membership fees), donations, sponsorship and public sector funding.

It should be noted that there is a difference in the operating costs reflected in the Operational Discourse (OPD - Appendix A) and the Forecast Profit & Loss (Appendix D). The reason for this is that only a portion of certain costs such as semi-skilled labour which is reflected in the OPD have been included in the Forecast Profit & Loss. The operating costs as reflected in the Profit & Loss are what the Club/Trust will need to consider.

The Forecast Profit & Loss can be seen below. The full Profit & Loss is available as Appendix D.

---

2 Sustainability may include ongoing sponsorship and funding
### APPENDIX D: SPRUIT ATMP FORECAST PROFIT & LOSS

#### ASSUMPTIONS

<table>
<thead>
<tr>
<th></th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Friends of the Spruit Trails - Growth Rate</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Growth in Club Title Sponsorship</td>
<td>15%</td>
<td>13%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Growth in Brochure Advertising Sales</td>
<td>120%</td>
<td>30%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Growth in Website Business Directory Listing Revenue</td>
<td>400%</td>
<td>200%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Growth in Trail Facility Usage Fees</td>
<td>200%</td>
<td>200%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>Growth in Partner Contributions to Join Marketing Exercises</td>
<td>30%</td>
<td>20%</td>
<td>20%</td>
<td>15%</td>
</tr>
</tbody>
</table>

#### BRAAMFONTEIN SPRUIT CLUB/ TRUST - FIVE YEAR FORECAST

**OPERATING BUDGET**

**DATE PREPARED**

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Income</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership Fees</td>
<td>414,375</td>
<td>702,000</td>
<td>758,160</td>
<td>818,813</td>
<td>884,318</td>
</tr>
<tr>
<td>Friends of the Spruit Trails - contributions or donations</td>
<td>145,000</td>
<td>195,750</td>
<td>264,263</td>
<td>356,754</td>
<td>481,618</td>
</tr>
<tr>
<td>Club sponsorship - naming sponsor</td>
<td>2,500,000</td>
<td>2,875,000</td>
<td>3,234,375</td>
<td>3,557,813</td>
<td>3,913,594</td>
</tr>
<tr>
<td>Security sponsorship - patrolmen/wardens</td>
<td>2,100,000</td>
<td>2,268,000</td>
<td>2,449,440</td>
<td>2,645,395</td>
<td>2,857,027</td>
</tr>
<tr>
<td>Marketing support funding - Provincial &amp; National Tourism Authorities</td>
<td>120,000</td>
<td>129,600</td>
<td>139,968</td>
<td>151,165</td>
<td>163,259</td>
</tr>
<tr>
<td>Kiosk revenue share</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Event profit share - JUMA JURA</td>
<td>300,000</td>
<td>324,000</td>
<td>349,920</td>
<td>377,914</td>
<td>408,147</td>
</tr>
<tr>
<td>Event profit share - other (such a monthly Spruit trail run/ride)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Website business directory listing fees</td>
<td>10,000</td>
<td>40,000</td>
<td>80,000</td>
<td>104,000</td>
<td>124,800</td>
</tr>
<tr>
<td>Brochure/Trail Map advertising sales</td>
<td>70,000</td>
<td>154,000</td>
<td>200,200</td>
<td>220,220</td>
<td>242,242</td>
</tr>
<tr>
<td>Joint venture profit share</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trail facility usage fee</td>
<td>25,000</td>
<td>50,000</td>
<td>100,000</td>
<td>130,000</td>
<td>156,000</td>
</tr>
<tr>
<td>Partner contributions to Africa Cycle Fair Stand &amp; Other Joint Marketing Exercises</td>
<td>20,000</td>
<td>26,000</td>
<td>31,200</td>
<td>37,440</td>
<td>43,056</td>
</tr>
<tr>
<td>Crowd source funding - special trail related features and projects</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sundry Income</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td>5,704,375</td>
<td>6,764,350</td>
<td>7,607,526</td>
<td>8,399,514</td>
<td>9,274,060</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total expenses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Costs</td>
<td>4,296,500</td>
<td>5,143,503</td>
<td>4,888,735</td>
<td>5,231,665</td>
<td>5,734,333</td>
</tr>
<tr>
<td>Digital Marketing</td>
<td>249,250</td>
<td>376,400</td>
<td>407,512</td>
<td>568,213</td>
<td>451,170</td>
</tr>
<tr>
<td>Brochures &amp; Print</td>
<td>265,000</td>
<td>436,400</td>
<td>455,760</td>
<td>469,757</td>
<td>484,873</td>
</tr>
<tr>
<td>Consumer and Trade Shows</td>
<td>85,000</td>
<td>91,800</td>
<td>99,144</td>
<td>107,076</td>
<td>115,642</td>
</tr>
<tr>
<td>JCPZ Revenue/Title Sponsorship Share</td>
<td>750,000</td>
<td>862,500</td>
<td>970,313</td>
<td>1,067,344</td>
<td>1,174,078</td>
</tr>
<tr>
<td>Other</td>
<td>82,500</td>
<td>99,468</td>
<td>107,425</td>
<td>116,019</td>
<td>137,301</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>6,178,550</td>
<td>7,010,071</td>
<td>6,908,889</td>
<td>7,612,074</td>
<td>8,097,397</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Profit/Loss</strong></td>
<td>23,875</td>
<td>24,721</td>
<td>698,636</td>
<td>787,440</td>
<td>1,176,663</td>
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<tr>
<td>Income Streams</td>
<td>Notes/ comments</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
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</tr>
<tr>
<td>Membership Fees</td>
<td>Starting at 250 and increasing by 100 members per month. A cap of a 1000 members is considered achievable. It is assumed that a maximum of a 1000 members will be achieved towards the end of year 1 and that this number of members will remain around the 1000 mark going forward.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends of the Spruit Trails - contributions or donations</td>
<td>The Friends of the Spruit Trails has significant potential as a revenue source, especially if it can be proven that the Spruit Trail Club/ Trust is effective and transparent in the way it spends funds.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Club sponsorship - naming sponsor</td>
<td>From a branding and management perspective, it would be best to try and secure one sponsor for the project. However there are disadvantages to this approach in that finding a sponsor who will invest R2.5 million from the start may be a challenge. It may be necessary to find a few co-sponsors as a start. Each would be provided with branding and marketing benefits commensurate with their investment.</td>
<td></td>
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</tr>
<tr>
<td>Security sponsorship - patrolmen/ wardens</td>
<td>It is envisaged that up to 70% of the cost of patrolmen/ wardens will be sponsored. The sponsor would receive the rights to brand these individuals as well as the publicity around the improved safety of along the Spruit as a result of this intervention.</td>
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<td></td>
</tr>
<tr>
<td>Marketing support funding - Provincial &amp; National Tourism Authorities</td>
<td>As the Braamfontein Spruit is already a tourism attraction and will become more appealing to tourists as time goes by, it is recommended that the provincial and national tourism authorities be approached for funding to assist with the marketing carried out by the Club/ Trust.</td>
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</tr>
<tr>
<td>Kiosk revenue share</td>
<td>It is envisaged that the kiosk owners will pay a certain portion of their profits to the Club for the value derived for being a part of the trails system.</td>
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</tr>
<tr>
<td>Event profit share - JUMA/ JURA</td>
<td>According to the event organisers (BAM Events), they have invested approximately R800 000 into the Spruit trails over the past 3 years. Instead of JUMA/ JURA investing R270 000 into the trails each year, they could pay this money to the Club/ Trust who in turn would carry out certain trail enhancements and upgrades for the event. This money would mainly be spent on paying senior and apprentice trail builders.</td>
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</tr>
<tr>
<td>Event profit share - other (such a monthly Spruit trail run/ride)</td>
<td>The Club could either establish its own events and or/ it could form partnerships with event organisers and series. It would most likely be best to pursue the latter option as it is unlikely the Club will have the capacity to host a range of events itself.</td>
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</tr>
<tr>
<td>Website business directory listing fees</td>
<td>A business directory will be created on the Club/ Trust website. Businesses will be able to list on the website for a fee and there will be tiers or categories of paid listings which provide additional value such as featured listings on the home page.</td>
<td></td>
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</tr>
<tr>
<td>Brochure/ Trail Map advertising sales</td>
<td>Brochure adverts will take time to sell but once the trail map/ brochure has been in circulation for some time, sales should improve.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Joint venture profit share</td>
<td>It has been noted that there are several potentially complimentary developments such as those being considered by JPC in areas such as the Field and Study Centre. The Braamfontein Spruit Club could potentially position itself as a business partner and service provider when it comes to these developments.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Trail facility usage fee/ Corporate Membership Fee</td>
<td>The trail facility usage fee would be paid by businesses wishing to use the Spruit Trails for commercial purposes. For example for skills training or bike demonstrations.</td>
<td></td>
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</tr>
<tr>
<td>Partner contributions to Africa Cycle Fair Stand &amp; Other Joint Marketing Exercises</td>
<td>The Club could invite business partners such as bike shops to jointly market at shows such as the Africa Cycle Fair.</td>
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<td></td>
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</tr>
<tr>
<td>Crowd source funding - special trail related features and projects</td>
<td>This is to ensure that the structure is able to attract financial support from a younger audience. One of the stakeholders felt that Clubs were a bit outdated and may not be supported by the youth.</td>
<td></td>
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</tbody>
</table>

Table 18: Income generating opportunities for the Club/ Trust
Certain income generating and business opportunities are described in more detail under Section 4 of this report.

<table>
<thead>
<tr>
<th>Operating Costs</th>
<th>Notes/ comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Trail Builders</td>
<td>By year 3 a team of 8 skilled trail builders, bike guides, bike mechanics, skills trainers will have been developed and it will most likely only be necessary to have one senior trail builder in place.</td>
</tr>
<tr>
<td>Semi-skilled labourers/ apprentice trail builders</td>
<td>It is envisaged that 8 semi-skilled labourers/apprentice trail builders will be involved in the project in year 1. This number will increase to 20 in year 2 when the building of Phase 2 interventions takes place. The Skills &amp; Enterprise Development Programme will end in year 2. From year 3 onwards it is envisaged that a team of 6 - 8 trail builders will remain. These individuals will also have received additional training as outlined in the Skills &amp; Enterprise Development section of the report. By the end of year 2 the apprentice trail builders will have become fully competent and from year 3 it is envisaged that this team will be employed by the Club/Trust.</td>
</tr>
<tr>
<td>Office Rent (30 - 40m²)</td>
<td>It is proposed that an office be rented at S P2 5 - Parkhurst Bowling Club Premises at which the development of a Cycle Shop/ Coffee Shop and Medical Centre is proposed.</td>
</tr>
</tbody>
</table>
In years 1 and 2 there is a forecast loss and from year 3 onwards the Club/Trust will break even and begin to make a profit. The main reason for the loss in years 1 and 2 are the high costs associated to trail development and maintenance in Phases 1 & 2 (years 1 – 3 of the project). As can be seen in Table 19 above, 8 semi-skilled labourers are proposed to be involved in the project in Phase 1 and in Phase 2 another 12 semi-skilled labourers will be necessary to implement the Phase 2 interventions. Only 50% of the costs associated to the semi-skilled labour have been included in the budget as it is envisaged that a partnership will be established with Jozi@Work and the Expanded Public Works Programme which will hopefully provide matching funding for the remaining 50% of these costs. In year three these costs drop significantly due to a reduction in semi-skilled labour and senior trail builders which decrease from 2 to 1. From this point onwards the Club is anticipated to make a profit which could be reinvested in trail development work or other programmes that may be created over time.

Questions 5 and 17 in the Braamfontein Spruit User Survey were asked in order to gauge user’s willingness to support a fund or Club which would be used to maintain and develop the Spruit trails. The response to both questions was positive with 87% of respondents (227 people) answering yes to question 5 and 63% (165 people) answering yes to question 17. It should however be noted that many people chose to qualify their answers to these questions and that comments included the fact that transparency would be very important. Certain respondents also mentioned that they felt that the maintenance and development of public spaces such as the Braamfontein Spruit should be paid for by the public sector. Others commented that if the fund or Club resulted in increased security it would definitely make sense. Assuming the decision was to establish a Club, in terms of setting a membership fee, one of the comments from a user was that R600 – R1000 per annum would be acceptable.
Based on the positive response to questions 5 and 17 in the User Survey, membership fees are seen as an important source of income assuming a Club is established. Starting at 250 and increasing by 100 members per month, a maximum of a 1000 members is considered achievable. It is assumed that this will be achieved towards the end of year 1 and that the number of members will remain around the 1000 mark going forward. It is also recommended that a Friends of the Spruit Programme be developed in order to provide a partnership and funding platform for organisations such as Parkrun, SMMEs and individuals who either benefit from the Spruit trails or feel the desire to contribute towards further development. The Friends would receive a certain basket of benefits such as branding and marketing through the Braamfontein Spruit Club marketing tools such as the website and map/brochure. Income streams such as brochure advertising and trail facility usage fees could be developed into sustainable and sizeable contributors to Clubs finances. Website directory listings and featured listings could also be grown into a significant income stream. With respect to brochure adverts and website listings, the quality and reach of the brochure and website will be directly correlated with what can be generated in terms of income from these opportunities. Therefore fairly substantial budgets have been included for brochure design and printing as well as website design and optimisation.
9. References

Web
- City of Joburg: www.joburg.co.za

Documents
- Australia. Government of South Australia. (Date Unknown). Guidelines for the Planning, Design, Construction and Maintenance of Recreational Trails in South Australia
- Dirty Boots. (2014). SA Adventure Industry Survey published by Dirty Boots