

# GREEN INFRASTRUCTURE CITYLAB



## Green Infrastructure CityLab 6 (Thursday 16 October 2014): REPORT

On 16 October 2014, the Gauteng City-Region Observatory (GCRO) held its sixth Green Infrastructure CityLab. The CityLab builds on the foundations laid by the 'State of Green Infrastructure in the GCR' report (SGIR), launched in July 2013. The CityLab provides a platform for the co-production of policy relevant knowledge between government practitioners and researchers. The aim of this CityLab is to collectively develop, over the course of two years, a Green Infrastructure Plan for the Gauteng City-Region (GCR). This will feed into the Gauteng Integrated Infrastructure Master Plan (GIIMP) being developed by the Gauteng Planning Commission (GPC).

The sixth session focused on reaching agreement on a set of investigative studies that will be conducted as part of the next phase of work. The aim of these studies is to inform the critical evidence base required to support the development of a Green Infrastructure Plan. The potential investigations were conceptualised through discussion in previous CityLab sessions with input from government officials and the three expert input pieces commissioned in the first half of 2014. These pieces were completed by Anton Cartwright and Gregg Oelofse, Myles Mander (FutureWorks) and Stuart Dunsmore (Fourth Element). At this CityLab, participants agreed on three investigative studies and defined their scope and budget requirements. A fourth project will be finalised following a site visit in the West Rand District Municipality. The site visit will take place in November 2014.

### **Attendance**

Graeme Gotz	GCRO
Kerry Bobbins	GCRO
Christina Culwick	GCRO
Claudious Chikozho	GCRO
Mahlodi Tau	SANBI
Timothy Nast	Gauteng Planning Commission
Theo Bernhardt	Johannesburg City Parks and Zoo
Susan Stoffberg	West Rand District Municipality
Stefan du Toit	Mogale City Local Municipality
Elsabeth van der Merwe	Ekurhuleni Metropolitan Municipality
Gemey Abrahams	Gemey Abrahams Consultants

### **Meeting proceedings**

The session began with a summary of the Green Infrastructure CityLab to date, including a brief background and the way forward. This was followed by a recap of the highlights from the expert commissioned expert inputs, and the key insights that came out of these studies and the CityLab discussions on each. The group then discussed each of the proposed projects, decided on the appropriateness of each study and approved the scope and budget for each project.

The CityLab participants approved the following projects:

### **1. Green infrastructure & municipal asset registries**

The aim of this project is to demonstrate the requirements for incorporating green assets into municipal asset registries and possible methodologies to achieve this with the hope that workable pilot methods could be scaled up in future. This project requires input from a number of sub-projects. This test case will explore how best to map green assets and to decide on which valuation exercises could be undertaken to quantify the provision of ecosystem services by green infrastructure. This project would involve the following sub-components:

- i. Investigation into how to capture green assets in municipal asset registries (e.g. through GIS and Lidar data).
- ii. Investigation into how ecosystem services provided by these assets should be included in an asset registry.
- iii. Financial measurements of green assets and their associated ecosystem services.

#### **Budget required 2014/15:**

- Data purchasing (R20 000)
- Commissioning expert (R80 000)

### **2. Re-imagining a settlement-wide stormwater plan: Diepsloot**

The aim of this project is to develop an alternative stormwater management intervention using green infrastructure for a large settlement without a formal drainage network. Diepsloot has been identified as a potential site for this research. This project responds to a recent study undertaken by the City of Johannesburg that estimated the cost of building a traditional stormwater system in the area would be roughly R140 million (in 2010), which is beyond the budget available for such a project.

This project will explore how a green infrastructure plan could be developed, in part through a participatory planning approach, as an alternative to the traditional infrastructure options. In 2014/15 this project will entail an exploratory set of engagements with international experts, city officials, local community leaders, and local specialists in the engineering fields, to determine how a settlement-wide green infrastructure plan could be developed.

#### **Budget required 2014/15:**

- International expert engagement and local workshops (R50 000)

### **3. Monitoring and evaluation of green infrastructure: Atlasville Assessment**

The aim of this project is to conduct a post project analysis and lifecycle costing of the flood relief scheme implemented in the Atlas Spruit, Gauteng. This project utilised a combined green-grey infrastructure approach to solve flooding problems in Atlasville, along the Atlas Spruit. Initial evaluations suggest that an alternative grey infrastructure approach (a simple concrete channel providing equivalent flood capacity) would have cost roughly R2 million more than the adopted green-grey infrastructure scheme (Dunsmore 2014). However, the green infrastructure option has a

number of additional benefits, the full value of which has not yet been accounted for. The output of this project will demonstrate, through a cost benefit analysis, how the ideas and approaches that were used to build a combined green-grey infrastructure scheme could be scaled up. This study will be undertaken by a commissioned expert who was involved in the Atlasville project.

**Budget required 2014/15:**

- Commissioning expert (R100 000)

**4. WRDM green infrastructure project**

The CityLab identified that a study located in the West Rand District Municipality (WRDM) should be conducted. It was agreed that the details of this project would only be finalised subsequent to a site visit by GCRO staff with officials from WRDM and Mogale City local municipality.

**Budget required 2014/15:**

- Scope to be defined (R50 000)

**Summary of investigative studies**

	<b>Project Detail</b>	<b>Budget Estimate (VAT incl)</b>
1	Green infrastructure & municipal asset registries	R100 000
2	Re-imagining a settlement-wide stormwater plan: Diepsloot	R 50 000
3	Monitoring and evaluation of green infrastructure: Atlasville Assessment	R100 000
4	WRDM green infrastructure project (tbc)	R 50 000
	<b>Total</b>	<b>R300 000</b>

The CityLab agreed that the terms of reference for these studies will be developed by the GCRO, and the participants will comment on these documents before commissioning or conducting the investigative studies.

**Action items**

*Note: Bold text indicates who is responsible for each item.*

1. Participant list – ensure the right people are included (**ALL PARTICIPANTS WITH GCRO**)
2. Define scope of the WRDM project (**WRDM/Mogale City officials & GCRO**)
3. Develop TORs for the 4 investigative studies (**GCRO**)
4. Participants to send comments on investigative study TORs when completed (**ALL PARTICIPANTS**).