



# Built Environment Performance Plan 2019/2020

Section **G**: Reporting Evaluation

Version: 3.00 **Final Draft**

16 May 2019

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# Abbreviations

BEPP	Built Environment Performance Plan
BEPPSCO	BEPP Steering Committee
BEVC	Built Environment Value Chain
BSC	Budget Steering Committee
CAPEX	Capital Expenditure
CAPS	Tshwane’s Capital Planning and Prioritisation System
CaPSCO	Capital Planning System Steering Committee
CaPSTTT	Capital Planning System Technical Task Team
CBD	Central Business District
CIF	Capital Investment Framework
CLDPs	Catalytic Land Development Programmes
CPM	Capital Prioritisation Model
COT	City of Tshwane
CR&R	Climate Responsiveness and Resilience
DIPS	Development Intervention Portfolios
DORA	Division of Revenue Act (2 of 2013)
EDPQ	Economic Development Priority Quadrant
GPG	Gauteng Provincial Government
GSDF	Gauteng Spatial Development Framework
IDP	Integrated Development Plan
IRPTN	Integrated Rapid Public Transport Network
MFMA	Municipal Financial and Management Act (56 of 2003)
MSA	Municipal Systems Act (32 of 2000)
MSDF	Metropolitan Spatial Development Framework
MSCOA	Municipal Standard Chart of Accounts
MTEF	Medium Term Expenditure Framework
MTREF	Medium Term Revenue and Expenditure Framework
PPP	Public Private Partnership
RSDF	Regional Spatial Development Framework
SCM	Supply Chain Management
SDBIP	Service Delivery and Budget Implementation Plan
SDF	Spatial Development Framework
SIPDM	Standard for Infrastructure Procurement and Delivery Management



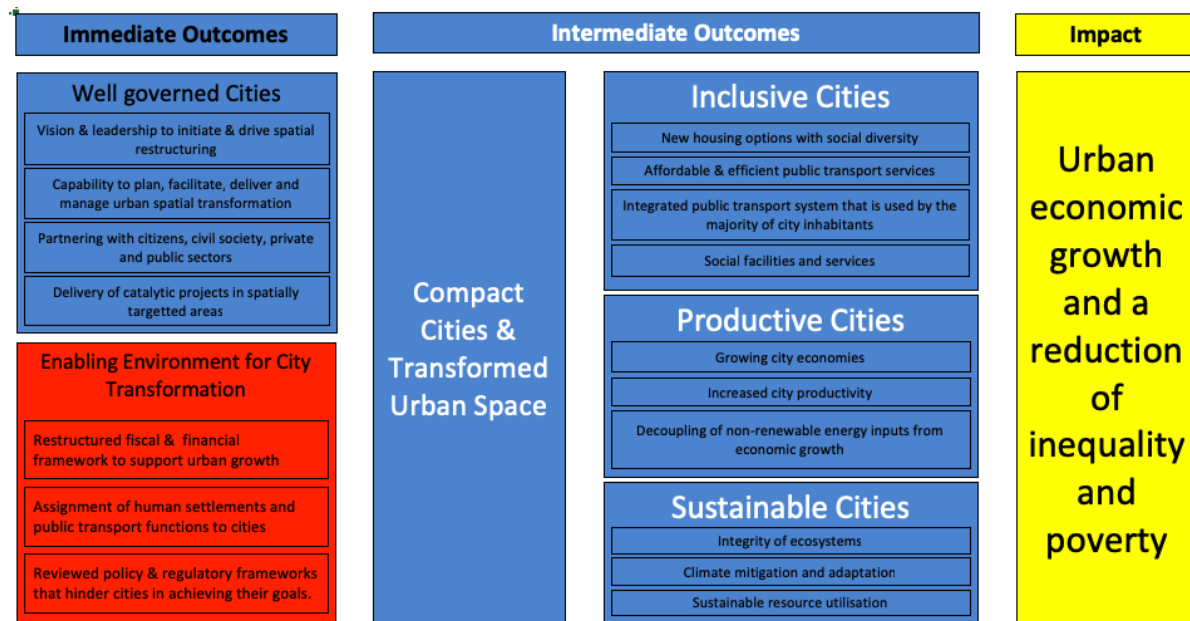
SPLUMA	Spatial Planning and Land Use Management Act (13 of 2013)
TOD	Transit Oriented Development
TRT	Tshwane Rapid Transit System
UDF	Urban Development Framework
UNS	Urban Network Structure
USDG	Urban Settlements Development Grant

## G Spatial Planning and Targeting

### G.1 Reporting

The BEPP performance indicators, as described by National Treasury, is a set of criteria which measures the progressive improvements within the urban build environment on which measurable targets can be established. These targets serve to ensure practices that strategically align with legislated planning and budgeting requirements for local and other spheres of government, as well as to monitor and evaluate progress (Cities Support Programme, National Treasury). The original list of indicators were designed to monitor and evaluate a set of BEPP performance outcome areas, which include a number of key objectives as displayed in Figure G-1.

Figure G-1: BEPP Performance Outcome Areas



In comparison to the 2017/18 BEPP requirements, the initial list of 54 outcome indicators were reduced for purposes of the 2018/19 BEPP reporting period. The 2019/20 BEPP guidelines refer to the indicators as set out for 2018/19 with no additional indicators included for the 2019/20 reporting period. Table G-1 provides an overview of the BEPP Performance Outcome Areas in relation to the governing body (National/Metro) responsible for reporting performance.

Table G-1: BEPP Indicator Reporting Framework

BEPP Outcome area	Number of Indicators – National Reporting Responsibility	Number of Indicators – Municipal Reporting Responsibility
Well governed (WG)	1	3
Compact (CC)		3
Inclusive (IC)	4	7
Productive (PC)		1
Sustainable (SC)		
<b>Total</b>	<b>5</b>	<b>14</b>

As indicated above, the requirements for the 2019/20 BEPP reporting cycle includes the reporting of performance indicators as outlined in the 2018/19 BEPP guidelines. These indicators are listed in Table G-2 and includes the BEPP outcome area associated with each indicator, as well as the spatial filter

applicable. The category identifies the governing entity responsible for reporting on each indicator, and outlines the content included within this section. Only indicators which should be reported on by the city has been included in Section G.

Table G-2: Reporting Outline

Code	BEPP Outcome Area	Indicator	Category	Target or intention	Spatial Filter
WG8	Well governed	The budgeted amount of municipal capital expenditure for catalytic programmes contained in BEPP, as a percentage of the municipal capital budget.	City	Target	BEPP Economic Development Priority Quadrants
WG13	Well governed	Percentage change in the value of properties in Integration Zones.	City	Intention	Integration Zones
WG16	Well governed	BEPP Evaluation Score.	National	Target	-
WG17	Well governed	Number of new partnerships entered into to strengthen the intergovernmental project pipeline.	City	Target	-
CC1	Compact	Hectares approved for future development outside the 2015 urban edge as a percentage of Hectares allocated for future development as defined by the 2015 SDF.	City	Target	Urban Edge
CC2	Compact	Number of land use applications processed in integration zones as a percentage of the total number of land use applications submitted city-wide.	City	Intention	Integration Zones
CC3	Compact	Number of building plan applications processed in integration zones as a percentage of the total number of building plan applications city-wide.	City	Intention	Integration Zones
IC1	Inclusive	New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide.	City	Target	Municipal Area
IC2	Inclusive	Gross residential unit density per hectare within integration zones.	City	Target	Integration Zones
IC3	Inclusive	Ratio of housing types in integration zones.	City	Target	Integration Zones
IC4	Inclusive	Ratio of housing tenure status in integration zones.	City	Intention	Integration Zones
IC5	Inclusive	Ratio of land use types (residential, commercial, retail, industrial) in integration zones.	City	Target	Integration Zones
IC6	Inclusive	%households accessing subsidy units in integration zones that come from informal settlements.	City	Target	Integration Zones
IC7	Inclusive	Number of all dwelling units within Integration Zones that are within 800 metres of access points to the integrated public transport system as a percentage of all dwelling units within Integration Zones.	City	Intention	Integration Zones

Code	BEPP Outcome Area	Indicator	Category	Target or intention	Spatial Filter
IC8	Inclusive	Percentage share of household income spent on transport costs for different household income quintiles city-wide.	National	Intention	-
IC9	Inclusive	Capital expenditure on integrated public transport networks as a percentage of the municipal capital expenditure.	National	Target	-
IC11a	Inclusive	% learners travelling for longer than 30 minutes to an education institution.	National	Intention	-
IC11b	Inclusive	% of workers travelling for longer than 30 minutes to their place of work.	National	Intention	-
PC4	Productive	Commercial and industrial rateable value within integration zone for a single metro as a % of overall commercial and industrial rateable value for that same metro.	City	Intention	Integration Zones

### G.1.1 BEPP Performance Indicators – Methodology

The following section is structured according to the BEPP outcome areas as listed in Table G-2 and includes an overview of the calculation methodology applied to each indicator. The contents of Table G-3 – Table G-16 is structured according to the following categories, which outlines the process followed in terms of calculating each indicator.

- **Target:** Includes the factors or data requirements associated with each indicator.
- **Source data:** Includes the information sourced for purposes of calculating each indicator.
- **Data integrity and comments:** Includes a summarised data audit of the datasets collected as well as limitation factors which impacted the calculation or result of each indicator.
- **Assumptions:** Indicates assumptions made with regards to the calculation methodology or source data, in order to conform to the criteria as set out by National Treasury.
- **Methodology:** Outlines an overview of the methodology applied with regards to the calculation of each indicator.
- **Results:** Includes the calculated target and a short evaluation of the results. A summarised table of the calculated targets and results are listed in Annexure 4.
- **Proposed methodology and data improvements:** Includes the proposed way forward in terms of calculating performance indicators for future reference. For indicators which could not be calculated, a proposed methodology has been included for implementation once outstanding or adequate datasets become available.

#### G.1.1.1 Well Governed Cities

The following BEPP performance indicators are focussed towards achieving well governed cities and aims to evaluate and track the following key objectives (refer to Figure G-1):

- Vision and leadership to initiate and drive spatial restructuring;

- Capability to plan, facilitate, deliver and manage urban spatial transformation;
- Partnering with citizens, civil society, private and public sectors, and;
- Delivery of catalytic projects in spatially targeted areas.

Table G-3 - Table G-5 outlines performance indicators which specifically align to the above-mentioned objectives and outcomes, together with the categories as outlined in Section G.1.1.

Table G-3: BEPP Indicator Number WG8

Category	Description										
Indicator Description	The budgeted amount of municipal capital expenditure for catalytic programmes contained in the BEPP, as a percentage of the municipal capital budget (WG8).										
Target	To calculate the percentage of capital expenditure allocated to catalytic projects in relation to the municipality's total capital expenditure. The outcome provides an indication of whether the municipality is emphasizing catalytic projects, in percentage rand value.										
Source Data	The source data includes the following: <ul style="list-style-type: none"> <li>• Catalytic Projects as delineated in Section C and Annexures 1, 2 and 3.</li> <li>• BEPP Economic Development Priority Quadrants (EDPQs) as delineated in Section B.</li> <li>• Capital budget based on the latest 2019/20 MTREF Annexure A.</li> </ul>										
Data Integrity and Comments	The capital expenditure for 2019/20 originates from the City's Capital Planning and Prioritisation System (CaPS). The identification of Catalytic Land Development Programmes (CLDP) has been described in Section C and includes projects as outlined in Annexures 1,2 and 3. The City has defined CLDP's as programmes located within BEPP EDPQs, which has been allocated capital budget for the 2019/20 MTREF.										
Methodology	The CaPS System allows for the filtering of projects located within BEPP EDPQs, through the use of spatial intersection calculations. Projects captured onto CaPS contain spatial locations, enabling the use of spatial functions to identify a portfolio of projects. CLDPs stems from the identification of a portfolio of projects located within BEPP EDPQs. In order to express the target as a percentage of rand value, the capital expenditure for CLDPs (refer to Section C) was compared to the total capital expenditure of the city.  <i>(Capital expenditure for catalytic projects) / (Total municipal capital budget) x100</i>										
Results	The calculation of the performance indicator resulted in capital budget allocated to CLDPs as a percentage rand value of the city's total capital budget. The results indicated that the city is investing more or less 20% of its capital budget within spatially targeted areas. <b>Targets:</b> <table border="1" data-bbox="496 1570 1410 1644"> <thead> <tr> <th>16/17 data</th> <th>17/18 target</th> <th>18/19 target</th> <th>19/20 target</th> <th>20/21 target</th> </tr> </thead> <tbody> <tr> <td>27%</td> <td>24%</td> <td>23%</td> <td>24%</td> <td>19%</td> </tr> </tbody> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target	27%	24%	23%	24%	19%
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
27%	24%	23%	24%	19%							
Proposed Methodology and Data Improvements	Due to the nature and timelines of the budgeting cycle within the city, this indicator could not be calculated in an accurate manner and was based on the draft capital budget as received by Group Financial Services. Once the final and approved version of the capital budget (Annexure A) becomes available, WG8 will be updated accordingly.										

Table G-4: BEPP Indicator Number WG13

Category	Description
Indicator Description	Percentage change in the value of properties in Integration Zones (WG13).
Target	The outcome aims to establish a trend in economic activity as well as private sector participation, by indicating either an increase or decrease in property value. The target




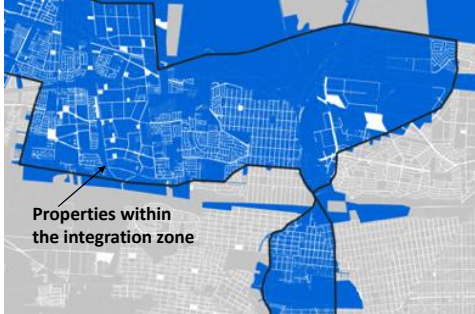
	should be expressed in percentage rand value.										
Source Data	<p>The source data includes the following and has been sourced from Metropolitan Corporate Geo-Information Management (Corporate GIS):</p> <ul style="list-style-type: none"> <li>• Valuation Role for 2018.</li> <li>• Cadastral Information which links with the valuation role information for 2018.</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>										
Data Integrity and Comments	<p>The 2018/19 BEPP document did not include the WG13 indicator, due to unavailability of data. Although data has been collected successfully for purposes of the 2019/20 BEPP document, the valuation role only indicates the value of properties for the 2018 year. Based on the availability of data, the WG13 indicator will be calculated for the 2018 year only and will not include the establishment of trendline data ranging from 2016/17 – 2020/21.</p>										
Methodology	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required in order to identify properties located within the integration zone. The valuation role for 2018 was spatially joined to the cadastral information which allowed for spatial calculations pertaining to the relation between property values and the integration zone.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Original Source Data</b></p>  </div> <div style="text-align: center;"> <p><b>Properties Intersecting the integration zone</b></p>  </div> </div> <p>To achieve a result which indicates the percentage of property value within the integration zone for 2018/19, the total property value within the integration zone was divided by the total property value city wide in order to achieve a percentage rand value.</p> <p><i>(Total property value within the integration zone) / (Total property value city wide) x100</i></p>										
Results	<p>The results of the indicator could not be interpreted for purposes of the 2019/20 BEPP submission, due to the limitation factor mentioned above. The valuation role only indicates property values for 18/19 and cannot be used to establish an increase or decrease in property values.</p> <p><b>Targets:</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="background-color: #e0e0e0;">16/17 data</td> <td style="background-color: #e0e0e0;">17/18 target</td> <td style="background-color: #e0e0e0;">18/19 target</td> <td style="background-color: #e0e0e0;">19/20 target</td> <td style="background-color: #e0e0e0;">20/21 target</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">14%</td> <td></td> <td></td> </tr> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target			14%		
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
		14%									
Proposed Methodology and Data Improvements	<p>Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on information available for year 3 (2018/19). To calculate a more accurate indicator, which conforms to the requirements as set out in the 2018/19 BEPP Guideline, value of properties is required for year 1 (2016/17) and year 3 (2018/19).</p>										

Table G-5: BEPP Indicator Number WG17

Category	Description
Indicator Description	Number of new partnerships entered into to strengthen the intergovernmental project pipeline (WG17).
Target	The outcome aims to establish a collaborative capital planning environment between the city and National/Provincial departments. The objective includes streamlining development, reducing wasteful expenditure and collectively focussing on areas with the

	<p>highest potential of investment and sustainable development. The following public entities have been identified as target groups:</p> <table border="1"> <thead> <tr> <th>National Government</th> <th>Gauteng Provincial Government</th> <th>State Owned Entities</th> <th>Public Private</th> </tr> </thead> <tbody> <tr> <td>           National Department of Education            National Department of Health            National Department of Human Settlements            National Department of Energy            National Department of Social Development            National Department of Economic Development            National Department of Public Works            National Department of Rural Development and Land Reform            National Department of Sports and Recreation            National Department of Water and Sanitation         </td> <td>           Infrastructure Development            Health            Human Settlements            Sports and recreation         </td> <td>           Airports Company of South Africa Limited (ACSA)            Broadband Infrastructure Company (Pty) Ltd            Development Bank of Southern Africa            ESKOM            Land and Agricultural Development Bank of South Africa            South African Express (Pty) Limited            Transnet Limited         </td> <td>           Gautrain         </td> </tr> </tbody> </table> <p>The outcome of this indicator will provide an indication of whether the municipality is emphasizing intergovernmental project pipeline planning in collaboration with National Government, Gauteng Provincial Government, State Owned Entities or Public entities.</p>	National Government	Gauteng Provincial Government	State Owned Entities	Public Private	National Department of Education National Department of Health National Department of Human Settlements National Department of Energy National Department of Social Development National Department of Economic Development National Department of Public Works National Department of Rural Development and Land Reform National Department of Sports and Recreation National Department of Water and Sanitation	Infrastructure Development Health Human Settlements Sports and recreation	Airports Company of South Africa Limited (ACSA) Broadband Infrastructure Company (Pty) Ltd Development Bank of Southern Africa ESKOM Land and Agricultural Development Bank of South Africa South African Express (Pty) Limited Transnet Limited	Gautrain		
National Government	Gauteng Provincial Government	State Owned Entities	Public Private								
National Department of Education National Department of Health National Department of Human Settlements National Department of Energy National Department of Social Development National Department of Economic Development National Department of Public Works National Department of Rural Development and Land Reform National Department of Sports and Recreation National Department of Water and Sanitation	Infrastructure Development Health Human Settlements Sports and recreation	Airports Company of South Africa Limited (ACSA) Broadband Infrastructure Company (Pty) Ltd Development Bank of Southern Africa ESKOM Land and Agricultural Development Bank of South Africa South African Express (Pty) Limited Transnet Limited	Gautrain								
Source Data	The source data is based on information received from Gauteng Provincial Government for the 2019/20 financial year.										
Data Integrity and Comments	The 2018/19 BEPP document included data from PRASA, Gauteng Provincial Government and the National Department of Public Works. For purposes of the 2019/20 BEPP submission, information from Gauteng Provincial Government was sourced.										
Methodology and Results	<p>The city forms part of a Tri-Metro Forum which was established in 2018. This platform enables public entities and neighbouring municipalities to collaboratively plan and share valuable information with regards to capital investment priorities. Information has been sourced from this forum and includes the data shared by Gauteng Provincial Government.</p> <p><b>Targets:</b></p> <table border="1"> <thead> <tr> <th>16/17 data</th> <th>17/18 target</th> <th>18/19 target</th> <th>19/20 target</th> <th>20/21 target</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>3</td> <td>1</td> <td></td> </tr> </tbody> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target			3	1	
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
		3	1								

### G.1.1.2 Compact Cities and Transformed Urban Space

The following BEPP performance indicators evaluate and track objectives which aim to achieve compact cities and transformed urban space. Table G-6 - Table G-8 outlines the performance indicators which specifically aims to achieve the above mentioned objective, together with the categories as outlined in Section G.1.1.

Table G-6: BEPP Indicator Number CC1

Category	Description
Indicator Description	Hectares approved for future development outside the 2015 urban edge as a percentage of Hectares allocated for future development as defined by the 2015 SDF (CC1).
Target	<p>To calculate the percentage of approved future development outside the urban edge in relation to all allocated future developments.</p> <p>The outcome indicates whether authorities within the municipality are adhering to long term plans for the city, together with the urban sprawl that the city is undergoing. The</p>

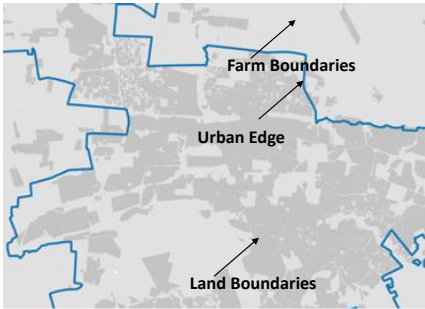
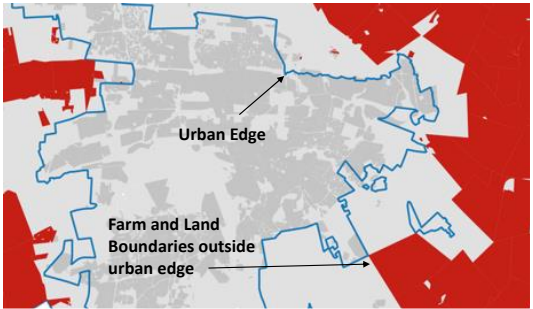
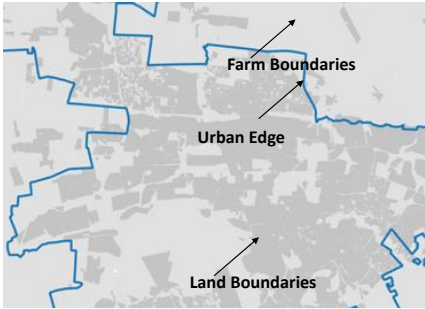
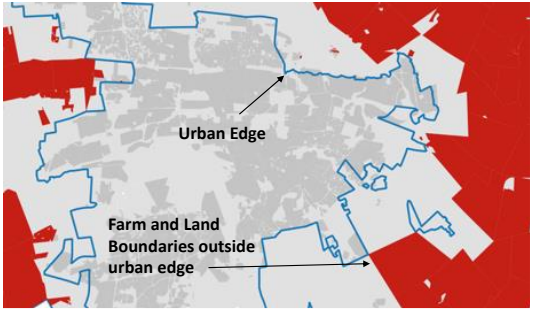
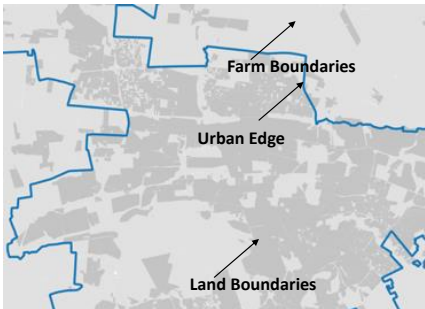
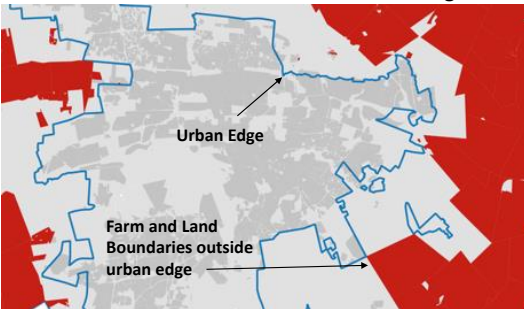
Category	Description										
	target should be calculated and expressed as a percentage hectare value.										
Source Data	<p>The source data includes the following and has been sourced from Metropolitan Corporate Geo-Information Management (Corporate GIS) and the Application Processing System (APS):</p> <ul style="list-style-type: none"> <li>• Application data as captured onto the APS, ranging from 2001 – 2018;</li> <li>• Cadastral Information which links with information extracted from APS, and;</li> <li>• The outline of the 2015 urban edge.</li> </ul>										
Data Integrity and Comments	<p>The 2018/19 BEPP did include the CC1 indicator based on information sourced from the “Build and under construction” and “Trends and Applications” trends analysis. For purposes of the 2019/20 BEPP submission, the indicator was recalculated based on new information sourced from APS and Corporate GIS. The records within the APS database could not be linked to erven boundaries due to inconsistencies within the data captured. Information has been linked to farm and land boundaries which contain less detail due to scale. Interpretation of the result should take cognisance of the above-mentioned data limitations.</p>										
Methodology	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required in order to identify farm and land boundaries located outside the urban edge. The APS data ranging from 2001 - 2018 was spatially joined to the farm and land boundaries which allowed for spatial calculations pertaining to the relation between hectares approved for future development and the urban edge.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Original Source Data</b></p>  </div> <div style="text-align: center;"> <p><b>Farm and Land Boundaries outside urban edge</b></p>  </div> </div> <p>To achieve a result which indicates the percentage of hectares approved for development outside the urban edge, the farm and land area (hectares) approved for future development outside the urban edge was divided by the total farm and land area (hectares) allocated for future development city wide.</p> <p><i>(Hectares approved for future development outside the urban edge) / (Hectares approved for future development city wide) x100</i></p>										
Results	<p>Interpretation of the results should take cognisance of the above-mentioned limitation factor.</p> <p>Results for the 2019/20 target amounts to 12% of hectares approved for future development outside the urban edge, which indicates that the city is improving in terms of adhering to long term plans and the management of urban sprawl.</p> <p><b>Targets:</b></p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>16/17 data</th> <th>17/18 target</th> <th>18/19 target</th> <th>19/20 target</th> <th>20/21 target</th> </tr> </thead> <tbody> <tr> <td>34%</td> <td>17%</td> <td>17%</td> <td>12%</td> <td></td> </tr> </tbody> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target	34%	17%	17%	12%	
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
34%	17%	17%	12%								
Proposed Methodology and Data Improvements	<p>Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on information which misrepresents hectares approved for future development. To calculate a more accurate indicator, which conforms to the requirements as set out in the 2018/19 BEPP Guideline, the APS data should be captured accurately in terms of spatial location.</p>										

Table G-7: BEPP Indicator Number CC2

Category	Description
Indicator Description	Number of land use applications processed in integration zones as a percentage of the total number of land use applications submitted city-wide (CC1).
Target	<p>To calculate the number of land use applications processed within the integration zone in relation to the total number of land use applications city-wide.</p> <p>The outcome indicates whether there is private sector investment interest within the integration zone. The target should be calculated and expressed as a percentage of number of applications.</p>
Source Data	<p>The source data includes the following and has been sourced from Metropolitan Corporate Geo-Information Management (Corporate GIS) and the Application Processing System (APS):</p> <ul style="list-style-type: none"> <li>• Application data as captured onto the APS, ranging from 2001 – 2018.</li> <li>• Cadastral Information which links with information extracted from APS.</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>
Data Integrity and Comments	<p>The 2018/19 BEPP did include the CC2 indicator based on information sourced from the “Trends and Applications” trends analysis. For purposes of the 2019/20 BEPP submission, the indicator was recalculated based on new information sourced from APS and Corporate GIS. The records within the APS database could not be linked to erven boundaries due to inconsistencies within the data captured. Information has been linked to farm and land boundaries which contain less detail due to scale. Interpretation of the result should take cognisance of the above-mentioned data limitations.</p>
Methodology	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required in order identify farm and land boundaries within the integration zone. The APS data ranging from 2001 - 2018 was spatially joined to the farm and land boundaries which allowed for spatial calculations pertaining to the relation between number of land use applications processed and the integration zone.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Original Source Data</b></p>  </div> <div style="text-align: center;"> <p><b>Farm and Land Boundaries outside urban edge</b></p>  </div> </div> <p>To achieve a result which indicates the percentage of land use applications processed within the integration zone, the number of land use applications processed (farm and land boundaries) within the integration zone was divided by the total number of land use applications processed city wide.</p> <p><i>(Number of land use applications processed within the integration zone) / (Number of land use applications processed city wide) x100</i></p>
Results	<p>Interpretation of the results should take cognisance of the above-mentioned limitation factor.</p> <p>Results for the 2019/20 target amounts to 47% of land use applications processed within the integration zone, which indicates that there is considerable interest from the private sector to invest within the integration zone.</p>

Category	Description										
	<p><b>Targets:</b></p> <table border="1"> <thead> <tr> <th>16/17 data</th> <th>17/18 target</th> <th>18/19 target</th> <th>19/20 target</th> <th>20/21 target</th> </tr> </thead> <tbody> <tr> <td>45%</td> <td>51%</td> <td>47%</td> <td>47%</td> <td></td> </tr> </tbody> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target	45%	51%	47%	47%	
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
45%	51%	47%	47%								
Proposed Methodology and Data Improvements	Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on information which misrepresents the location of land use applications processed. To calculate a more accurate indicator, which conforms to the requirements as set out in the 2018/19 BEPP Guideline, the APS data should be captured accurately in terms of spatial location and erven boundaries.										

Table G-8: BEPP Indicator Number CC3

Category	Description
Indicator Description	Number of building plan applications processed in integration zones as a percentage of the total number of building plan applications city-wide (CC3).
Target	To calculate the number of building plan applications processed within the integration zone, in relation to the total number of building plan applications city-wide. The outcome indicates the appetite for economic activity within a particular area. If building plan applications occur within the integration zone, it indicates that there is development interest from the private sector. The target should be calculated and expressed as a percentage of number of building plan applications.
Source Data	The source data includes the following and has been sourced from Metropolitan Corporate Geo-Information Management (Corporate GIS) and Building Plans and Inspections Management: <ul style="list-style-type: none"> <li>• Building Plan Application information, ranging from February 2018 – February 2019.</li> <li>• Cadastral Information.</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>
Data Integrity and Comments	The 2018/19 BEPP did not include the CC3 indicator, due to unavailability of data. Data was sourced for purposes of the 2019/20 BEPP submission which included building plan applications processed. The building plan information could not be linked to erven boundaries due to inconsistencies within the data captured. Information has been linked to farm and land boundaries which contain less detail due to scale. Interpretation of the result should take cognisance of the above-mentioned data limitations.
Methodology	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required in order identify farm and land boundaries within the integration zone. The building plan information was spatially joined to the farm and land boundaries which allowed for spatial calculations pertaining to the relation between number of building plan applications processed and the integration zone.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Original Source Data</b></p>  </div> <div style="text-align: center;"> <p><b>Farm and Land Boundaries outside urban edge</b></p>  </div> </div> <p>To achieve a result which indicates the percentage of building plan applications processed within the integration zone, the number of building plan applications processed (farm and land boundaries) within the integration zone was divided by the total number of building plan applications processed city wide.</p>



Category	Description										
	$(\text{Number of building plan applications processed within the integration zone}) / (\text{Number of building plan applications processed city wide}) \times 100$										
Results	<p>Interpretation of the results should take cognisance of the above-mentioned limitation factor.</p> <p>Results for the 2018/19 target amounts to 39% of building plan applications processed within the integration zone, which indicates that there is considerable interest from the private sector to invest within the integration zone.</p> <p><b>Targets:</b></p> <table border="1"> <thead> <tr> <th>16/17 data</th> <th>17/18 target</th> <th>18/19 target</th> <th>19/20 target</th> <th>20/21 target</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>39%</td> </tr> </tbody> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target					39%
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
				39%							
Proposed Methodology and Data Improvements	Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on information which misrepresents the location of building plan applications processed. To calculate a more accurate indicator, which conforms to the requirements as set out in the 2018/19 BEPP Guideline, the APS data should be captured accurately in terms of spatial location and erven boundaries.										

### G.1.1.3 Inclusive Cities

The following BEPP Performance indicators are focussed towards achieving inclusive cities and aims to evaluate and track the following key objectives:

- New housing options with social diversity;
- Affordable and efficient public transport services;
- Integrated public transport system that is used by the majority of city inhabitants, and;
- Social facilities and services located within integration zones.

Table G-9 - Table G-15 outlines the performance indicators which specifically align to the above-mentioned objectives and outcomes, together with the categories as outlined in Section G.1.1.

Table G-9: BEPP Indicator Number IC1

Category	Description
Indicator Description	New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide (IC1).
Target	To calculate the number of new subsidized units developed within Brownfields developments as a percentage of all new subsidized units. Brownfields developments are usually associated with urban infill and in-situ upgrading of informal settlements which is preferential to further urban expansion and sprawl. The target should be expressed as a percentage of subsidised units.
Source Data	<p>The following spatial information is required:</p> <ul style="list-style-type: none"> <li>• Number of new subsidised housing units in brownfields development (Department of Human Settlements);</li> <li>• Total number of newly provided subsidised housing units city-wide (Department of Human Settlements), and;</li> <li>• Location of Brownfields development areas.</li> </ul> <p>Critical input data was not made available for purposes of the 2019/20 BEPP document. The</p>

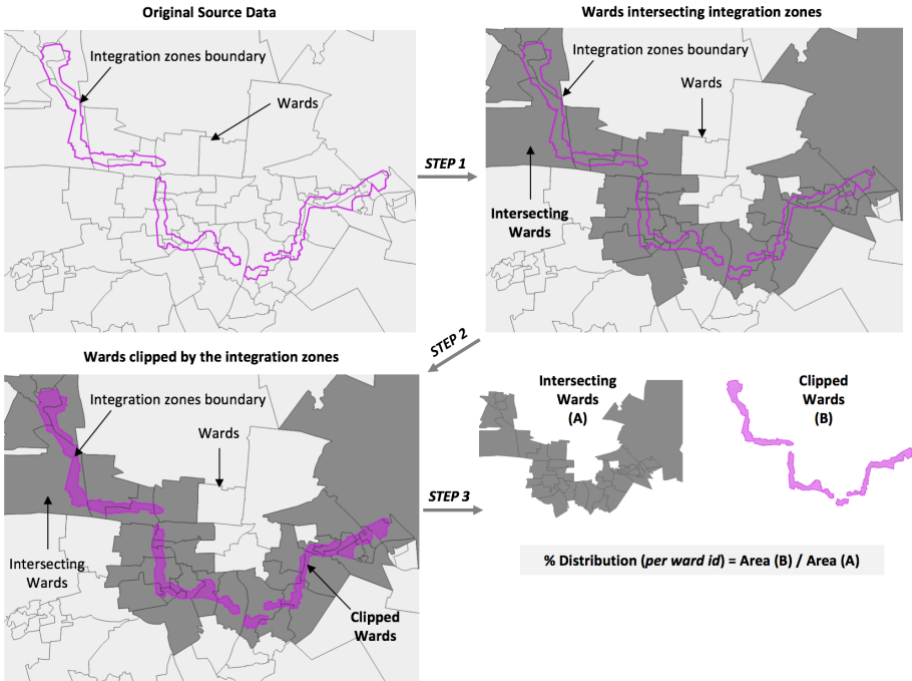
	calculation of this indicator will be finalised once the required datasets become available.
Proposed Methodology and Data Improvements	<p>Once the information becomes available, the indicator will be updated according to the following proposed calculation process:</p> <ul style="list-style-type: none"> <li>• Spatial calculation which determines the relation between new subsidised housing units within brownfields development areas and city-wide new subsidised housing units, and;</li> <li>• <math>(\text{Number of new subsidised housing units in brownfields development}) / (\text{Total number of newly provided subsidised housing units city-wide}) \times 100</math>.</li> </ul> <p>The city identifies the need to calculate and report on the above-mentioned indicator and intends to source the required information from the Department of Human Settlements.</p>

Table G-10: BEPP Indicator Number IC2

Category	Description
Indicator Description	Gross residential unit density per hectare within integration zones (IC2).
Target	<p>To calculate the ratio between the number of households within the integration zone and the area of the integration zone in hectares.</p> <p>The calculation of residential density within the integration zone is good measure of services utilized (public transport) as well as spatial transformation through densification. The target should be expressed as a ratio in its simplest form.</p>
Source Data	<p>The following spatial information is required:</p> <ul style="list-style-type: none"> <li>• Number of households expressed spatially;</li> <li>• Total coverage area of the integration zone, and;</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul> <p>Critical input data was not made available for purposes of the 2019/20 BEPP document. The calculation of this indicator will be finalised once the required datasets become available.</p>
Proposed Methodology and Data Improvements	<p>Once the information becomes available, the indicator will be updated according to the following proposed calculation process:</p> <ul style="list-style-type: none"> <li>• Spatial calculation which determines the relation between household density and the integration zone in hectares (Section B), in order to establish gross residential unit density within the integration zone.</li> <li>• <math>(\text{Number of households in integration zones}) : (\text{Area of integration zones (hectares)})</math></li> </ul> <p>The city identifies the need to calculate and report on the above-mentioned indicator and intends to source the required information.</p>

Table G-11: BEPP Indicator Number IC3

Category	Description
Indicator Description	Ratio of housing types in integration zones (IC3).
Target	<p>To calculate the ratio of different housing types within the integration zone.</p> <p>The outcome measures and provides an understanding of the mix and type of households vested within the integration zone. The target should be calculated and expressed as a ratio.</p>
Source Data	<p>The source data includes the following and has been sourced from STATSSA:</p> <ul style="list-style-type: none"> <li>• Geography by type of main dwelling, as recorded by STATSSA during the 2011 Census (per ward level);</li> <li>• Municipal Ward Boundaries which aligns spatial location with STATSSA datasets, and;</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>
Data Integrity and Comments	<p>The above-mentioned datasets were sourced from open-source platforms and has been recorded for year 2011. The STATSSA datasets does not conform to the data elements required for the target calculation as set out in the BEPP Indicator toolkit, but provides an indication in terms of housing typologies. Based on the availability of data, the IC3 target will include the 2011 data as proxy for 2016/17 and will not include the establishment of</p>

Category	Description
<p>Assumptions</p>	<p>trendline data ranging from 2016/17 – 2020/21.</p> <p>The categorization of dwelling types as recorded by STATSSA has been grouped into the following housing types, in order to conform to the data element requirements as outlined within the BEPP Indicator toolkit:</p> <ul style="list-style-type: none"> <li>• Formal dwellings consist of the following STATSSA classifications: <ul style="list-style-type: none"> <li>- House or brick/concrete block structure on a separate stand or yard or on a farm;</li> <li>- Flat or apartment in a block of flats;</li> <li>- Cluster house in complex;</li> <li>- Townhouse (semi-detached house in a complex);</li> <li>- Semi-detached house;</li> <li>- House/flat/room in backyard, and;</li> <li>- Room/flatlet on a property or larger dwelling/servants’ quarters/granny flat.</li> </ul> </li> <li>• Traditional dwellings consist of the following STATSSA classifications: <ul style="list-style-type: none"> <li>- Traditional dwelling/hut/structure made of traditional materials.</li> </ul> </li> <li>• Other households consist of the following STATSSA classifications: <ul style="list-style-type: none"> <li>- Caravan/tent, and;</li> <li>- Other.</li> </ul> </li> </ul> <p>An equal distribution assumption has been adopted regarding the location of dwelling units. <i>If a ward has 500 dwelling units its assumed to be distributed equally across the ward extent, as delineated by the ward boundary.</i></p>
<p>Methodology</p>	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required to establish a percentage distribution regarding housing typologies within the integration zone. The percentage distribution was calculated based on the total ward area within the integration zone divided by the total ward area located along the integration zone boundary.</p>  <p>To achieve a target expressed as a ratio, the percentage distribution calculated above was applied to the total of each dwelling type (Formal dwellings: Traditional dwellings: Other households) located within wards intersecting the integration zone. The above was then divided by the grand total to obtain a percentage value of the number of dwelling types within the integration zone.</p>

Category	Description																									
Results	<p>Interpretation of the results should take cognisance of the above-mentioned limitation factor.</p> <p>The results indicate that the majority of dwelling types within the integration zone includes formal dwellings.</p> <table border="1"> <tr> <td>Total Formal dwelling (Data element 1)</td> <td>/ Grand Total (Data element 4)</td> <td>x 100</td> <td>88,04705799</td> <td>88</td> </tr> <tr> <td>Total Informal dwelling (Data element 2)</td> <td>/ Grand Total (Data element 4)</td> <td>x 100</td> <td>10,96722916</td> <td>11</td> </tr> <tr> <td>Total Other (Data element 3)</td> <td>/ Grand Total (Data element 4)</td> <td>x 100</td> <td>0,556625463</td> <td>1</td> </tr> </table> <p><b>Targets:</b></p> <table border="1"> <tr> <td>16/17 data</td> <td>17/18 target</td> <td>18/19 target</td> <td>19/20 target</td> <td>20/21 target</td> </tr> <tr> <td colspan="5">88:11:01</td> </tr> </table>	Total Formal dwelling (Data element 1)	/ Grand Total (Data element 4)	x 100	88,04705799	88	Total Informal dwelling (Data element 2)	/ Grand Total (Data element 4)	x 100	10,96722916	11	Total Other (Data element 3)	/ Grand Total (Data element 4)	x 100	0,556625463	1	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target	88:11:01				
Total Formal dwelling (Data element 1)	/ Grand Total (Data element 4)	x 100	88,04705799	88																						
Total Informal dwelling (Data element 2)	/ Grand Total (Data element 4)	x 100	10,96722916	11																						
Total Other (Data element 3)	/ Grand Total (Data element 4)	x 100	0,556625463	1																						
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target																						
88:11:01																										
Proposed Methodology and Data Improvements	<p>Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on a number of assumptions. The city identifies the need to calculate and report on the above-mentioned indicator and intends to source the required information from the Department of Human Settlements.</p>																									

Table G-12: BEPP Indicator Number IC4

Category	Description
Indicator Description	Ratio of housing tenure status in integration zones (IC4).
Target	<p>To calculate the ratio between the different types of housing tenure status within the integration zone.</p> <p>The outcome measures and provides an understanding of the different housing types vested within the integration zone, which are intended to have a mixed range of housing typologies. The target should be calculated and expressed as a ratio.</p>
Source Data	<p>The source data includes the following and has been sourced from STATSSA:</p> <ul style="list-style-type: none"> <li>• Geography by housing tenure status, as recorded by STATSSA during the 2011 Census (per ward level);</li> <li>• Municipal Ward Boundaries which aligns spatial location with STATSSA datasets, and;</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>
Data Integrity and Comments	<p>The above-mentioned datasets were sourced from open-source platforms and has been recorded for year 2011. The STATSSA datasets does not conform to the data elements required for the target calculation as set out in the BEPP Indicator toolkit, but provides an indication in terms of housing tenure status. Based on the availability of data, the IC4 target will include the 2011 data as proxy for 2016/17 and will not include the establishment of trendline data ranging from 2016/17 – 2020/21.</p>
Assumptions	<p>The categorization of housing tenure status as recorded by STATSSA has been grouped into the following types, in order to conform to the data element requirements as outlined within the BEPP Indicator toolkit:</p> <ul style="list-style-type: none"> <li>• Rented: <ul style="list-style-type: none"> <li>- Rented.</li> </ul> </li> <li>• Partially owned: <ul style="list-style-type: none"> <li>- Owned but not yet paid off.</li> </ul> </li> <li>• Fully owned: <ul style="list-style-type: none"> <li>- Owned and fully paid off.</li> </ul> </li> <li>• Other: <ul style="list-style-type: none"> <li>- Occupied rent-free, and;</li> </ul> </li> </ul>

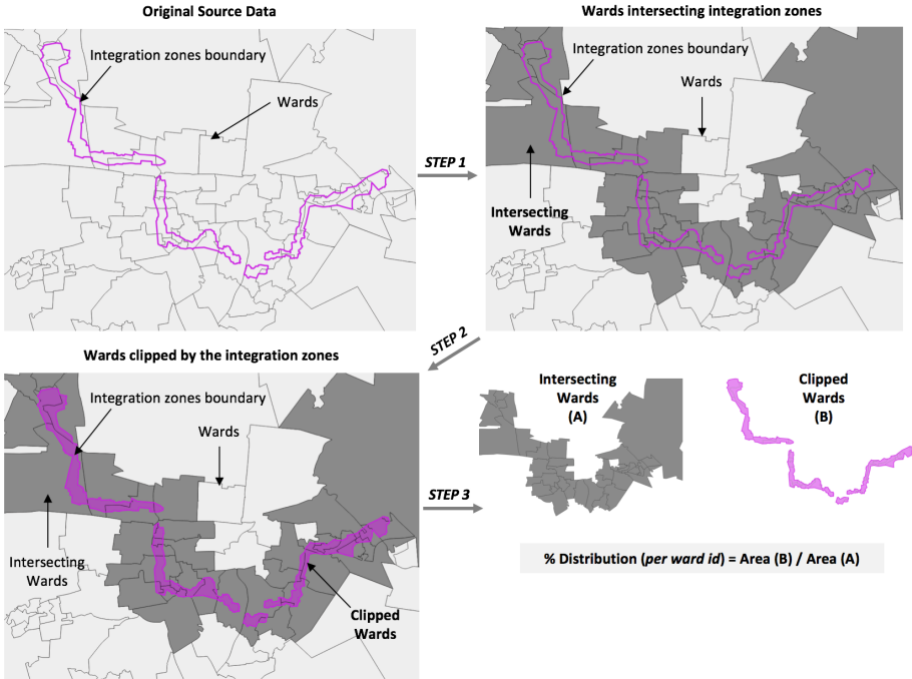
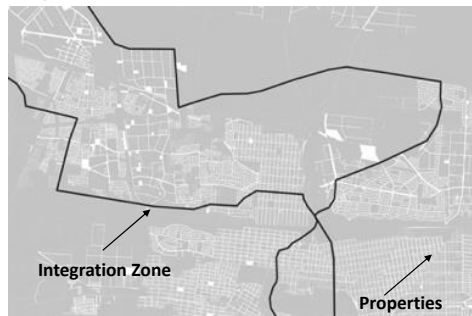
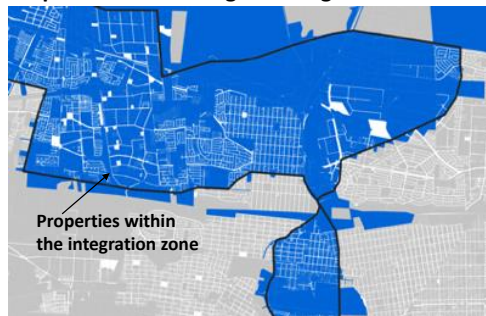
Category	Description																														
	<p>- Other.</p> <p>An equal distribution assumption has been adopted regarding the location of housing tenure status types (units). <i>If a ward has 500 units its assumed to be distributed equally across the ward extent, as delineated by the ward boundary.</i></p>																														
Methodology	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required to establish a percentage distribution regarding housing tenure status types within the integration zone. The percentage distribution was calculated based on the total ward area within the integration zone divided by the total ward area located along the integration zone boundary.</p> <div style="text-align: center;">  </div> <p>To achieve a target expressed as a ratio, the percentage distribution calculated above was applied to the total of each tenure status type (Rented: Partially owned: Fully owned: Other) located within wards intersecting the integration zone. The above was then divided by the grand total to obtain a percentage value of the tenure status types within the integration zone.</p>																														
Results	<p>Interpretation of the results should take cognisance of the above-mentioned limitation factor.</p> <p>The results indicate that the majority of tenure status types within the integration zone includes rented properties.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: left;">Total Rented (Data element 1)</td> <td style="text-align: center;">/ Grand Total (Data element 5)</td> <td style="text-align: center;">x 100</td> <td style="text-align: right;">85,04705799</td> <td style="text-align: right;">85</td> </tr> <tr> <td style="text-align: left;">Total Partially Owned (Data element 2)</td> <td style="text-align: center;">/ Grand Total (Data element 5)</td> <td style="text-align: center;">x 100</td> <td style="text-align: right;">8,96722916</td> <td style="text-align: right;">9</td> </tr> <tr> <td style="text-align: left;">Total Fully Owned (Data element 3)</td> <td style="text-align: center;">/ Grand Total (Data element 5)</td> <td style="text-align: center;">x 100</td> <td style="text-align: right;">2,000625463</td> <td style="text-align: right;">2</td> </tr> <tr> <td style="text-align: left;">Total Other (Data element 4)</td> <td style="text-align: center;">/ Grand Total (Data element 5)</td> <td style="text-align: center;">x 100</td> <td style="text-align: right;">3,568684369</td> <td style="text-align: right;">4</td> </tr> </tbody> </table> <p><b>Targets:</b></p> <table style="width: 100%; text-align: center;"> <tr> <td style="background-color: #e0e0e0;">16/17 data</td> <td style="background-color: #e0e0e0;">17/18 target</td> <td style="background-color: #e0e0e0;">18/19 target</td> <td style="background-color: #e0e0e0;">19/20 target</td> <td style="background-color: #e0e0e0;">20/21 target</td> </tr> <tr> <td colspan="5">49:15:24:12</td> </tr> </table>	Total Rented (Data element 1)	/ Grand Total (Data element 5)	x 100	85,04705799	85	Total Partially Owned (Data element 2)	/ Grand Total (Data element 5)	x 100	8,96722916	9	Total Fully Owned (Data element 3)	/ Grand Total (Data element 5)	x 100	2,000625463	2	Total Other (Data element 4)	/ Grand Total (Data element 5)	x 100	3,568684369	4	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target	49:15:24:12				
Total Rented (Data element 1)	/ Grand Total (Data element 5)	x 100	85,04705799	85																											
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Total Fully Owned (Data element 3)	/ Grand Total (Data element 5)	x 100	2,000625463	2																											
Total Other (Data element 4)	/ Grand Total (Data element 5)	x 100	3,568684369	4																											
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target																											
49:15:24:12																															
Proposed Methodology and Data Improvements	<p>Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on a number of assumptions. The city identifies the need to calculate and report on the above-mentioned indicator and intends to source the required information from the Department of Human Settlements.</p>																														



Table G-13: BEPP Indicator Number IC5

Category	Description										
Indicator Description	Ratio of land use types (residential, commercial, retail, industrial) in integration zones (IC5).										
Target	The outcome provides an indication of the relative land use mix present within the integration zone. Once the relationship between commercial, residential, retail and industrial is known, the target should be calculated and expressed as a ratio.										
Source Data	The source data includes the following which was sourced from Metropolitan Corporate Geo-Information Management (Corporate GIS): <ul style="list-style-type: none"> <li>Valuation Role for 2018 which includes land use types;</li> <li>Cadastral Information which links with the valuation role information for 2018, and;</li> <li>BEPP Integration Zones as delineated in Section B.</li> </ul>										
Data Integrity and Comments	The 2018/19 BEPP document did not include the IC5 indicator, due to unavailability of data. Although some of the data elements were collected for purposes of the 2019/20 BEPP document, additional data elements remain outstanding which includes gross lettable area (GLA) and number of households. Based on the availability of data, the IC5 indicator will be calculated for the 2018/19 year only.										
Methodology	<p>To calculate the above-mentioned indicator, spatial intersect queries and calculations were required in order to identify properties located within the integration zone. The land use information contained within the valuation role for 2018 was spatially joined to the cadastral information which allowed for the spatial calculations pertaining to the relation between different land use types and the integration zone.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Original Source Data</b></p>  <p>Integration Zone</p> <p>Properties</p> </div> <div style="text-align: center;"> <p><b>Properties Intersecting the integration zone</b></p>  <p>Properties within the integration zone</p> </div> </div> <p>To achieve a result which indicates the ratio between land use types within the integration zone for 2018/19, the land use mix was presented as a ratio between residential, commercial, retail, industrial.</p> <p>(% Commercial: % Industrial: % Residential)</p>										
Results	<p>Interpretation of the results should take cognisance of the above-mentioned limitation factor.</p> <p>The above-mentioned methodology resulted in the following ratio: 19% Commercial : 15% Industrial : 67% Residential</p> <p>The ratio indicates that the largest proportion of land use within the integration zone amounts to 67% for residential use. This ratio does not necessarily present true mixed-use developments. Aspects which should also be considered includes transport modes, population density, building density and access indices.</p> <p><b>Targets:</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td><b>16/17 data</b></td> <td><b>17/18 target</b></td> <td><b>18/19 target</b></td> <td><b>19/20 target</b></td> <td><b>20/21 target</b></td> </tr> <tr> <td></td> <td></td> <td>19:15:67</td> <td></td> <td></td> </tr> </table>	<b>16/17 data</b>	<b>17/18 target</b>	<b>18/19 target</b>	<b>19/20 target</b>	<b>20/21 target</b>			19:15:67		
<b>16/17 data</b>	<b>17/18 target</b>	<b>18/19 target</b>	<b>19/20 target</b>	<b>20/21 target</b>							
		19:15:67									

Category	Description
Proposed Methodology and Data Improvements	Due to the nature of the source data and the limitation factors mentioned above, this indicator could not be calculated in an accurate manner and was based on information available in terms of land use type. In order to accurately identify the ratio of land use types within the integration zone, household density and GLA should be considered. Once this information becomes available, the indicator will be updated to align to the requirements as set out in the 2018/19 BEPP guideline.

Table G-14: BEPP Indicator Number IC6

Category	Description
Indicator Description	% households accessing subsidy units in integration zones that come from informal settlements (IC6).
Target	To calculate the percentage of households that have access to subsidised housing units within the integration zone. The target measures the extent to which people from informal settlements are being catered for in terms of subsidised housing opportunities created within the integration zone. The target should be expressed as a percentage of households.
Source Data	The following spatial information is required: <ul style="list-style-type: none"> <li>• Number of subsidy units provided in integration zones (Department of Human Settlements);</li> <li>• Number of households from informal settlements accessing subsidy units within the integration zone, and;</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>
Proposed Methodology and Data Improvements	Once the information becomes available, the indicator will be updated according to the following proposed calculation process: <ul style="list-style-type: none"> <li>• Spatial calculation which determines the relation between number of households from informal settlements accessing subsidy units within the integration zone and the number of subsidy units provided within the integration zone.</li> <li>• <math>(\text{Number of households from informal settlements accessing subsidy units in the integration zone}) / (\text{Number of subsidy units provided in the integration zone}) \times 100</math>.</li> </ul> The city identifies the need to calculate and report on the above-mentioned indicator and intends to source the required information from the Department of Human Settlements.

Table G-15: BEPP Indicator Number IC7

Category	Description
Indicator Description	Number of all dwelling units within integration zones that are within 800 metres of access points to the integrated public transport system as a percentage of all dwelling units within integration zones (IC7).
Target	To calculate the number of dwellings that have access to an integrated public transport network, within an 800m radius. Access to a public transport system is an important component of an effective public transport system. 800m is generally accepted as the walkshed around a public transport node. The target should be calculated and expressed as a percentage value.
Source Data	The following spatial information is required: <ul style="list-style-type: none"> <li>• The spatial distribution and density of dwelling units;</li> <li>• Facilities that serve the integrated transport system (stations), and;</li> <li>• BEPP Integration Zones as delineated in Section B.</li> </ul>
Proposed Methodology and Data	Once the information becomes available, the indicator will be updated according to the following proposed calculation process:

Category	Description
Improvements	<ul style="list-style-type: none"> <li>Spatial calculation which determines the relation between the number of dwelling units within 800m of an integrated public transport system within the integration zone and the total number of dwelling units within the integration zone.</li> <li><math>(\text{Number of dwelling units within the integration zone located within 800m of public transport access points}) / (\text{Total number of dwelling units within the integration zone}) \times 100</math>.</li> </ul> <p>The city identifies the need to calculate and report on the above-mentioned indicator and intends to source the required information from the Department of Human Settlements and the Department of Roads and Transport.</p>

#### G.1.1.4 Productive Cities

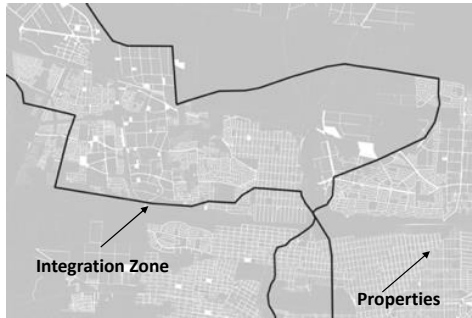
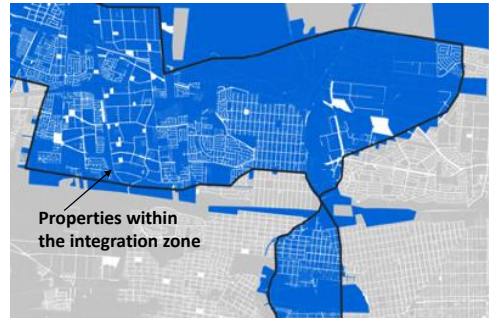
The following BEPP Performance indicators are focussed towards achieving productive cities and aims to evaluate and track the following key objectives:

- Growing city economies;
- Increased city productivity;
- Decoupling of non-renewable energy inputs from economic growth; and
- An enabling business environment.

Table G-16 outlines one of the performance indicators which aims to achieve the above-mentioned objectives and outcomes, together with the categories as outlined in Section G.1.1.

Table G-16: BEPP Indicator Number PC4

Category	Description
Indicator Description	Commercial and industrial rateable value within integration zone for a single metro as a % of overall commercial and industrial rateable value for that same metro (PC4).
Target	<p>To calculate the percentage of rateable value for commercial and industrial land use within the integration zone, in relation to the total rateable value for commercial and industrial land use city wide.</p> <p>The outcome of this indicator aims to establish the rate of economic activity within the integration zone. The comparison between rateable value of commercial/industrial land within the integration zone to that of the entire city indicates a proxy measure of the extent and intensity of commercial and industrial activity within the integration zone. The target should be calculated and expressed as a percentage value.</p>
Source Data	<p>The source data includes the following and has been sourced from Metropolitan Corporate Geo-Information Management (Corporate GIS):</p> <ul style="list-style-type: none"> <li>Valuation Role for 2018, which includes land use classifications.</li> <li>Cadastral Information which links with the valuation role information for 2018.</li> <li>BEPP Integration Zones as delineated in Section B.</li> </ul>
Data Integrity and Comments	The 2018/19 BEPP document did not include the PC4 indicator, due to unavailability of data. Although data has been collected successfully for purposes of the 2019/20 BEPP document, the valuation role only indicates the value of properties for the 2018 year. Based on the availability of data, the PC4 indicator will be calculated for the 2018 year only and will not include the establishment of trendline data ranging from 2016/17 – 2020/21.
Methodology	To calculate the above-mentioned indicator, spatial intersect queries and calculations were required in order to identify commercial and industrial land located within the integration zone. The valuation role for 2018 was spatially joined to the cadastral information which

Category	Description										
	<p>allowed for spatial calculations pertaining to the relation between commercial and industrial land property values and the integration zone.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>Original Source Data</b></p>  <p>Integration Zone</p> <p>Properties</p> </div> <div style="text-align: center;"> <p><b>Properties Intersecting the integration zone</b></p>  <p>Properties within the integration zone</p> </div> </div> <p>To achieve a result which indicates the percentage of commercial and industrial property values within the integration zone for 2018/19, the commercial and industrial property values within the integration zone was divided by the total commercial and industrial property values city wide in order to achieve a percentage rand value.</p> $\frac{((Commercial\ rateable\ value\ of\ land\ in\ integration\ zone) + (Industrial\ rateable\ value\ of\ land\ in\ integration\ zone))}{((Commercial\ rateable\ value\ of\ land\ city\ wide) + (Industrial\ rateable\ value\ of\ land\ city\ wide))} \times 100$										
Results	<p>The results of the indicator could not be interpreted for purposes of the 2019/20 BEPP submission, due to the limitation factor mentioned above. The valuation role only indicates property values for 18/19 and cannot be used to establish an increase or decrease in property value.</p> <p><b>Targets:</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>16/17 data</th> <th>17/18 target</th> <th>18/19 target</th> <th>19/20 target</th> <th>20/21 target</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>19%</td> </tr> </tbody> </table>	16/17 data	17/18 target	18/19 target	19/20 target	20/21 target					19%
16/17 data	17/18 target	18/19 target	19/20 target	20/21 target							
				19%							
Proposed Methodology and Data Improvements	<p>Due to the nature of the datasets, this indicator could not be calculated in an accurate manner and was based on information available for 2018/19 only. To calculate a more accurate indicator, which conforms to the requirements as set out in the 2018/19 BEPP Guideline, value of properties is required from 2016/17 – 2019/20.</p>										

### G.1.2 BEPP Performance Indicators – Way forward

Section G.1.1 above outlined the BEPP Performance indicators which have been calculated for the 2019/20 reporting period. The following indicators could not be calculated for the 2019/20 reporting period due to limited data source availability:

- New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide (IC1);
- Gross residential unit density per hectare within integration zones (IC2);
- %households accessing subsidy units in integration zones that come from informal settlements (IC6); and
- Number of all dwelling units within Integration Zones that are within 800 metres of access points to the integrated public transport system as a percentage of all dwelling units within Integration Zones (IC7).

The city is currently in the process of identifying possible entities and/or governing bodies which hosts the data elements required to calculate the above listed indicators. The proposed calculation methodology has been included for the indicators that could not be calculated (Refer to Table G-9; Table G-10; Table G-14 and Table G-15). The BEPPSCO and CaPS Technical Task Team, established and outlined in Section A, will serve as the administrative entity which facilitates the sourcing of information from various departments. The BEPPSCO and CaPS Technical Task Team will also guide departments with the calculation and reporting of BEPP performance indicators for future reference.