







# TABLE OF CONTENTS

	. INTRODUCTION & ADOPTION PROCESS	4
2.	2. THE S&J INDUSTRIAL ESTATE ECODISTRICT BOUNDARY	5
).	PRIORITY-BASED ASSET MAP	8
ļ.	. CENSUS OF LOCAL PLANS	10
).	ongoing and imminent activities by other	16
).	PRIORITIES, OBJECTIVES & INDICATORS	16
	. UNDERSTANDING THE TARGETS AND ANTICIPATED OUTCOMES	21
3.	8. EXISTING CONDITIONS & BASELINE PERFORMANCE ASSESSMENT	22
	8.1 Co-Ownership Endorsement and Support for the S&J NPC Sustainability Ambitions and EcoDistrict	
	Aspirations	22
	8.1.1 Redefine	22
	8.1.2 Abland	24
	8.2 Contextual Overview	25
	8.2.1 Economy:	25
	8.2.2 Employment:	26
	8.2.3 Demographic Highlights:	26
	8.2.4 Land Use:	27
	8.2.5 Housing:	27
	8.2.6 Recreation Facilities & Programs:	27
	8.2.7 Education Facilities & Programs:	28
	8.2.8 Historic & Cultural Resources:	30
	8.2.9 Health & Human Services:	31
	8.2.10 Public Safety:	31
	8.2.11 Access Roads:	32
	8.2.12 Transportation (All Modes):	33
	8.2.13 Gatehouses	37
	8.2.14 Water Supply:	37
	8.2.15 Wastewater Treatment	37
	8.2.16 Natural Environment:	38
	8.2.17 Climate:	40
	8.2.18 Baseline Year Indicator Results	41
	8.3 Baseline Performance Assessment	41
	8.3.1 Modelling Protocol	41
	8.3.2 Energy Use Profile	41
	8.3.3 CO <sub>2</sub> Emissions Inventory	42
	EXISTING LOCAL TARGETS & PARALLEL EFFORTS	43
	9.1 LOCAL TARGETS – EKHURHULENI	43
	9.2 PARALEL EFFORTS – CITY OF JOBURG	43
0	O. ROADMAP HORIZON YEAR	44

10.	1 DISTRICT BUILD-OUT ESTIMATE	44
10.	2 HORIZON YEAR PERFORMANCE TARGETS	45
11.	POTENTIAL STRATEGIES	45
12.	STRATEGIES ASSESSMENT	49
12.	.1 Carbon Emission Calculations	50
1	12.1.1 General Model Inputs	50
1	12.1.2 Neighbourhood Inputs - Current Development	50
1	12.1.3 Area Inputs	50
12.	.2 Pathway to Carbon Neutrality Updates	52
13.	RESPONSIBILITIES, FUNDING, AND IMPLEMENTATION SCHEDULE	52
ANNE	XURE A - FULL ROSTER OF ATTENDANCE TO ROADMAP DEVELOPMENT ACTIVITIES	54
ANNE	XURE B - SIGNATORIES	55
ANNE	XURE C - ROADMAP PRIORITIES, OBJECTIVE CATEGORIES, OBJECTIVES, INDICATORS, BASELINES AND 2030 TARGETS	56
ANNE	XURE D - SPATIAL DEVELOPMENT FRAMEWORK LAND USE MAP OF SURROUNDING NODE (EMM)	57
ANNE	XURE E - SPATIAL DEVELOPMENT FRAMEWORK LAND USE MAP OF SURROUNDING NODE (COJ)	58
ANNE TIMEL	XURE F - ROADMAP STRATEGIES, STRATEGIES ASSESSMENT, RESPONSIBILITIES, FUNDING, AND IMPLEMENTATION LINES	59
	OF TABLES	
	2 1: Steering Committee and Principal Authors	
	2: S&J Steering Committee & External Meeting Schedule Overview	
	e 3 S&J Industrial Estate Development Timeline	
	e 4: Preliminary Assets of the S&J EcoDistrict	
	e 5: Existing policies, programmes, and plans applicable to the S&J EcoDistrict	
	e 6: S&J Roadmap Priorities, Objectives, and Indicators	17
Table EcoDi	e 7: Redefines' commitment to the Primary SDGs within their direct sphere of influence and the link to the istrict Protocol	23
	8: Redefines' commitment to the Primary SDGs within their direct sphere of influence and the link to the istrict Protocol	24
Table	9: S&J Specific Demographics	.26
Table	e 10: Educational Facilities (filtered according to distance from S&J)	.28
Table	e 11: Clinics and Government Hospitals Closer than 10km in Proximity (filtered according to distance from S&J)	31
Table	e 12: S&J Industrial Estate Estimated baseline energy consumption in million BTU/year for the 2021 calendar ye	
	213: S&J Industrial Estate Estimated baseline CO <sub>2</sub> emissions in metric tons/year for the 2021 calendar year	
	214: COJ Climate Action Plan Targets	
	e 15: S&J Industrial Estate Development Timeline	
	e 16: S&J Roadmap Potential Strategies	
	e 17: Ranking Criteria and Scoring Descriptions for S&J Industrial Estate EcoDistrict Recommendations	
Table	e 18: S&J Industrial Estate EcoDistrict Input Sources	.50

Table 19: Area Contribution Assumptions	51
Table 20: EcoDistricts Carbon Emissions Reduction Targets	51
LIST OF MAPS	
Map 1: The site location in Context	5
Map 2: S&J Industrial Estate access and boundary delineation	6
Map 3: Macro Locality	7
Map 4: Spatial Development Framework Land Use Map of Surrounding Node (EMM)	27
Map 5: Spatial Development Framework Land Use Map of Surrounding Node (COJ)	28
Map 6: Police Precinct Applicable to S&J	32
Map 7: Internal street network of the S&J Indus trial Estate	33
Map 8: Signage Entrance Wall	34
Map 9: Street Furniture - Public Litter Bins	34
Map 10: Street Furniture - Sidewalk Details	35
Map 11: Street Furniture - Streetlights	35
Map 12: Streetscape Design Guidelines	36
Map 13: Private road reserve	36
Map 14: Public road reserve	36
Map 15: The extent of the delineated wetland area	38
Map 16: Location of alien vegetation	39
Map 17: Landscaping zones and maintenance responsibility areas	
Map 18: South African Energy Zone Map	40
LIST OF ARTISTIC RENDERINGS	
Artistic Render 1: Imagined aerial view of the S&J Industrial Estate	6
Artistic Render 2: The proposed retail centre (layout and look and feel)	29
Artistic Render 3: The Winding House events centre (layout and look and feel)	30
LIST OF PHOTOS	
Photo 1: Look and Feel of Retail Space	29
Photo 2: Look and Feel of Events Space	30
Photo 3: Additional perspective view of the proposed eventing space	31
Photo 4: Photos of developed gatehouses	37
Photo 5: Category 1b species - stands of Cortaderia Selloana and Arundo Donax predomin wetland	9
LIST OF FIGURES	
Figure 1: The Corporate Net Zero Pathway	
Figure 2: Carbon emissions reduction	
Figure 3: Carbon offset rollout	52

## 1. INTRODUCTION & ADOPTION PROCESS

The S&J Industrial Estate EcoDistricts Steering Committee<sup>1</sup> was established in 2020 by S&J Industrial Estate Owners Company Not-For-Profit Company (NPC)<sup>2</sup> to enhance the vision of the S&J Industrial Estate<sup>3</sup> to set the gold standard for all industrial developments in South Africa. This team of representatives engaged through workshops and discussion sessions to ensure that the goals of boosting the Estates' developmental focus, long-term operational performance, integrating the requirements of the EcoDistricts methodology of equity, resilience and working toward the positive environmental outcome of achieving carbon neutrality at a future date, aligned with the sustainability strategies and commitments of the Co-Ownership and other stakeholders involved with and affected by the EcoDistrict certification process and related commitments.

Table 1: Steering Committee and Principal Authors

Drimary Authors	Steering Committee	Steering Committee				
Primary Authors:	Core Working Group	Planning & Implementation	Team			
For Redefine:	Victor Mathey	Adam Koekemoer	Morgan Wratten			
Johann Nell	Adam Koekemoer	Anelisa Keke	Retha Bezuidenhout			
Victor Mathey	Morgan Wratten	Chantelle Mathomes	Roan Stewart			
	Retha Bezuidenhout	Grant Silverman	Tebogo Mojapelo			
For Solid Green:	Tebogo Mojapelo	Hein Papenfus	Victor Mathey			
Adrie Fourie	Mike Ruttell	Joshua van Tonder				
Chilufya Lombe		Mike Ruttell				

A Core Working Group was created to allow for a smaller, but representative group of participants to work closely with the Solid Green Team to develop submission report content, which required a more substantial time commitment to participate in workshops or meetings.

All members of the Steering Committee also formed what is known as the Planning & Implementation Team which was the interim decision-making structure for the S&J EcoDistricts certification process. This larger group of people are convened for workshops to consider final drafts of content, strategy development or to provide further input, clarify or correct any content issues that might not have been picked up by the Core Working Group. Once approval from this group was secured, the documentation and content were presented to the Board of the respective companies that constitute the S&J NPC for final approval.

Refer to Annexure A for a full roster of the Steering Committee members and other participants that were involved in the various Roadmap development discussion and workshop sessions, and Annexure B for the names and affiliations of the mandated signatories acting on behalf of the S&J Industrial Estate EcoDistrict NPC Trustees in signing off the S&J EcoDistrict Roadmap.

Specific workshop sessions included an overview of the EcoDistricts Protocol, several in-depth sessions to unpack what the requirements for certifications were, several sessions specifically focussed on refining the S&J EcoDistricts Imperative Commitments, a session providing an overarching view of the formation requirements and how the collaborative commitment will be operationalised, the roadmap process while several sessions focussed on the roadmap content development activities.

Due to the ongoing restriction imposed on the S&J EcoDistricts team because of a hard lockdown in South Africa to curb the spread of Covid, a range of integrated, immersive online working sessions in addition to a safe site visit workshop session were undertaken on the following dates:

Table 2: S&J Steering Committee & External Meeting Schedule Overview

14 May 2020	10 February 2021	3 May 2021	26 August 2021	8 November 2021	27 January 2022
27 July 2020	11 February 2021	10 May 2021	13 September 2021	19 November 2021	2 February 2022
31 July 2020	15 February 2021	1 June 2021	27 September 2021	22 November 2021	14 March 2022
30 October 2020	25 February 2021	24 June 2021	29 September 2021	23 November 2021	6 April 2022

<sup>&</sup>lt;sup>1</sup> All steering committee members are listed in the table below. These representatives were supported by Adrie Fourie as the lead EcoDistricts AP, and Chilufya Lombe driving the carbon emissions modelling component with input from the S&J NPC, relevant service providers responsible for strategic investigations (i.e., Traffic Impact Assessments, security, development status tracking, etc).

<sup>&</sup>lt;sup>2</sup> Referred to as the S&J NPC from this point forward. Registration Number 2018/364144/08.

<sup>&</sup>lt;sup>3</sup> Also referred to as the 'Estate'.

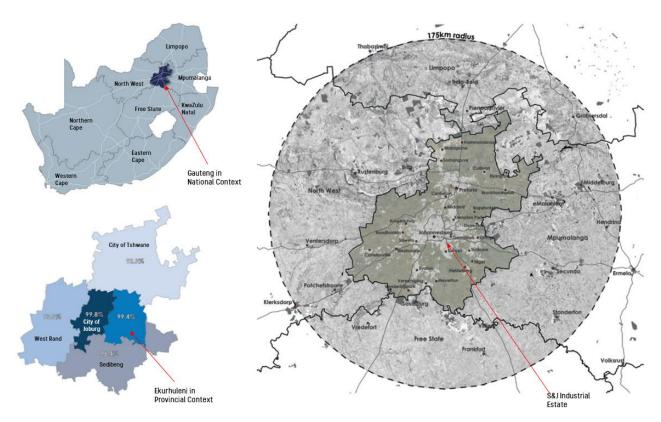
19 November 2020	8 March 2021	5 July 2021	30 September 2021	24 November 2021	13 April 2022
24 November 2020	18 March 2021	13 July 2021	4 October 2021	26 November 2021	
2 December 2020	12 April 2021	29 July 2021	14 October 2021	29 November 2021	
28 January 2021 <sup>4</sup>	30 April 2021	5 August 2021	26 October 2021	22 November 2021	

Each member of the Steering Committee was provided with the opportunity to provide both verbal and written input. Once a consensus on the content of this report was reached, the relevant S&J NPC trustees requested approval from their company boards for the certification process to proceed. These engagements ensured a strong collaborative approach, and collective buy-in which ultimately culminated in the creation of both the Declaration of Collaboration<sup>5</sup> and this Roadmap.

### 2. THE S&J INDUSTRIAL ESTATE ECODISTRICT BOUNDARY

The S&J Industrial Estate is a newly formed site consisting of a portion of the Remaining Extent of Portion 2 of the farm Elandsfontein No 90, Registration Division IR, Province of Gauteng, Republic of South Africa on which the Jupiter Extension 9, 10, 16–28, 30–34 Townships were established. The properties are located within the jurisdiction of the Ekurhuleni Metropolitan Municipality (EMM) and covers a land area of approximately 160ha. This is also the boundary of the proposed S&J Industrial Estate EcoDistrict.

Map 1: The site location in Context<sup>6</sup>



Situated in the South-Eastern corridor of Johannesburg adjacent to the N3 & M2 highways, S&J offers great visibility and convenient access to and from the M2, N12, N17 & N3 highways, within a 24-hour access-controlled precinct with fibre connectivity.

With a shared vision, Redefine and Abland have joined forces to establish S&J Industrial Estate as a unique industrial environment. As active stakeholders in local based property investment and development these industry stalwarts

<sup>&</sup>lt;sup>4</sup> Site-based workshop discussion.

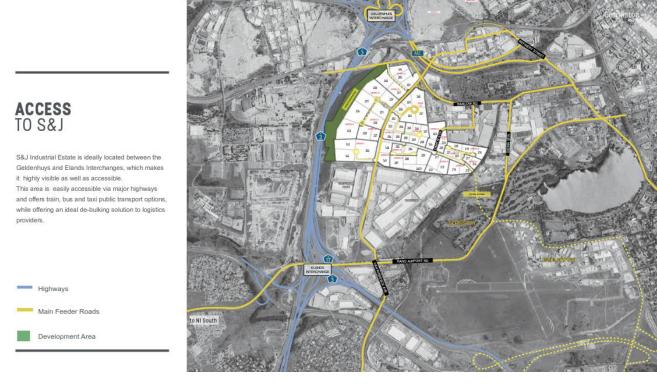
<sup>&</sup>lt;sup>5</sup> Approved and adopted on the 8<sup>th</sup> of June 2021 clearly setting out the interim and long-term arrangements for the backbone organisation behind the S&J Industrial Estate EcoDistrict. Endorsement of the Imperatives Commitment and Declaration of Collaboration received on the 31<sup>st</sup> of March 2022.

<sup>&</sup>lt;sup>6</sup> The map inserts indicating the Gauteng provincial city context is also providing the percentage of people in urban areas per Gauteng Municipality. Map created from a combination of images taken from the Gauteng Spatial Development Framework 2030 report and adapted specifically for this roadmap document.

have combined resources to create the S&J Industrial Estate as a sustainable and smarter choice for industry, business, and the public.

The intent is to provide a prime environment to anchor businesses, with high visibility and convenient access enabled through exceptional location relative to the network of commerce at large. S&J brings convenience retail, supply-chain hubs, light industrial operators, and conferencing facilities together in a secure environment that is served by an established public transport network that is well integrated with the local and provincial transport network.

Map 2: S&J Industrial Estate access and boundary delineation



Surrounded by other industrial sites, the S&J Industrial Estate ("S&J") sets the benchmark for industrial precincts in Gauteng. It is a forward-looking, service-driven development that is business centric, embracing diverse cultural heritage and inclusiveness. It is committed to creating a cohesive and active community defined by its centricity to economic and ecological sustainability.



Artistic Render 1: Imagined aerial view of the S&J Industrial Estate

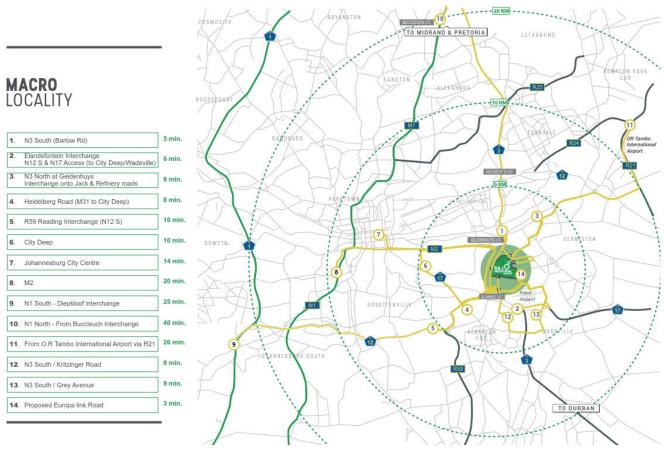
The S&J Industrial Estate is classified as a Strategic Urban Development (SUD) or Special Project by EMM, and the strategic relationship will continue to be nurtured and explored to ensure that the EcoDistrict and what it aims to achieve, along with the climate protection aspirations of the city is considered, shared, and explored.

The City of Ekurhuleni<sup>7</sup> (CoE; 'the City') is a city focussed on strengthening social cohesion and the pursuit of prosperity – for all its residents. Pronounced 'e-koo-roo-le-ni', Ekurhuleni is a Tsonga word meaning 'place of

<sup>&</sup>lt;sup>7</sup> Also referred to as the Ekurhuleni Metropolitan Municipality when referring to the wider geographic area covered by the governance structure.

peace'. It is a city where you can live, work and play. It is a city of the future. Home to approximately 3.4 million people it is commonly referred to as the manufacturing hub of the country. But there is much more to this developing city. As Africa's first Aerotropolis, the City of Ekurhuleni is filled with over 238 lakes and dams, world-class casinos, and entertainment centres, as well as premium lifestyle estates and world class golf courses.

Map 3: Macro Locality



The City is also home to OR Tambo International Airport, the busiest airport in Africa, serving the entire continent and linking to major cities across the globe. Many of the world's leading airlines fly into the airport. Supporting this is a network of roads, rail lines, telephone, electricity, and telecommunication grids that rival first world countries – infrastructure supporting a well–established industrial, commercial, and residential complex.

Regarded as an important industrial and logistics hub in South Africa, the City aims to become a "delivering, capable, sustainable" city by 2055. As part of these efforts, the City has prioritized responding to climate change through various initiatives. The EMM's Green City Action Plan<sup>8</sup> has identified actions—including city-level policies, investments, and planning strategies—that can help the City meet its climate mitigation and sustainability targets.

Specific targets pursued in the Green City Action Plan are aligned with the City's existing Ekurhuleni+ Challenge 2030 targets, as follows9:

- a) 25% reduction in fossil fuel energy use\*
- b) 20% reduction in private fossil fuel vehicle kilometres travelled\*\*
- c) 20% improvement in water security\*\*
- d) 50% reduction in waste sent to landfill\*
- e) 20% reduction in greenhouse gas (GHG) emissions\*.

The S&J EcoDistrict currently comprise of developable land, and in order to measure adherence to these interim targets, the intent would be to assess all relevant aspects associated with the development in comparison with reference cases. More detail on this would however be provided on the biennial reports that will commence after certification is secured.

<sup>&</sup>lt;sup>8</sup> City of Ekurhuleni. 2021. Draft Green City Action Plan.

<sup>9 \*</sup>Ekurhuleni+ Challenge 2030 target; and \*\*New target but aligned with Ekurhuleni+ targets.

## 3. PRIORITY-BASED ASSET MAP

Set to be one of the largest industrial parks in Johannesburg, the S&J Industrial Estate will span an impressive 160ha. The following extract provides insight into the specific sites of the development, which links to the table below (see Table 3) which provides a status overview of construction on site to date.

Table 3 S&J Industrial Estate Development Timeline

Description	Dates
Land acquired	Aug-15
Infrastructure Phase 1	April 2016 - One element was the main road
Infrastructure phase 2	March 2017 - Second access point to S&J-Main precinct
Infrastructure Jupiter Ext 9 Internal roads & infrastructure of this township	Nov-17
Start Stamp Mill -Top structure -In Jupiter Ext 9	Oct-18
Infrastructure Jupiter Ext 28- Roads and infrastructure	Jul-20
Start Spare Pro - Top structure	Aug-20
Infrastructure Jupiter Ext 10,17,18 -Internal roads and infrastructure	Targeting Nov 2023
Infrastructure Jupiter Ext 16, 34 -Internal roads and infrastructure	Targeting 2024
Infrastructure Jupiter Ext 10,17,18 -Internal roads and infrastructure	Targeting 2024
Infrastructure Jupiter Ext 19,20 - Internal roads and infrastructure	Targeting 2026
Infrastructure Jupiter Ext 21,22,23,24 -Internal roads and infrastructure	Targeting 2030

One township, namely Jupiter Extension 9 comprising of multiple erven has been established and the proclamation of Jupiter Extension 28 is imminent, which will add additional erven to the established zones within the precinct. Although the remainder of the development will unfold as market forces dictate, the vision behind the development is significant and the intent is to set the gold standard for industrial precincts in South Africa, using the EcoDistricts™ urban development protocol guided by the three imperatives: Equality, Resilience and Climate Protection, thus moving further and further away from the tainted legacy of the mining operations that previously occupied this land.

To develop the figurative asset map (see Table 4) which describes the S&J Industrial Estate's priority-based assets organised according to the six EcoDistrict Priorities, it was necessary to assess both existing as well as planned interventions to accommodate for the fact that although S&J has seen the extensive development of enabling bulk infrastructure, it is still in the early stages of top-structure roll-out, albeit supported by a detailed Master Development Plan guiding that implementation. In line with the requirements of the EcoDistricts Certified Handbook, due to the fact that the S&J Industrial Estate is a greenfield development currently mostly vacant, the Steering Committee considered an 800m or one-half mile radius from the district boundary to inform this assessment.

Assets are set out by location and organised around each of the six EcoDistrict priorities. Primary assets are located and controlled within the S&J Industrial Estate, secondary assets are located within but controlled by an entity outside of S&J, and tertiary assets are located and controlled by an entity outside of S&J $^{10}$ .

Table 4: Preliminary Assets of the S&J EcoDistrict<sup>11</sup>

DISTRICT	PRIORITIES					
ASSETS	PLACE	PROSPERITY	HEALTH & WELLBEING	CONNECTIVITY	LIVING INFRASTRUCTURE	RESOURCE REGENERATION
Primary Located & Controlled	Winding House - main and secondary halls, smaller venues, back of house, existing shaft which will become a new feature and	Stamp Mill Warehouse	Green open space	Pedestrian- friendly pavements /sidewalks	Green streetscape	Industrial tenant green guideline

 $<sup>^{\</sup>rm 10}$  There is no association between the EcoDistrict and these 'assets or Points of Interest.

<sup>&</sup>lt;sup>11</sup> The intent of the roadmap will be to give guidance on which future assets link to the various priorities and as part of the performance phase feedback, the S&J EcoDistrict will be reporting on progress made in developing the different assets as part of the overall development roll-out.

DICTRICT	PRIORITIES						
DISTRICT ASSETS	PLACE	PROSPERITY	HEALTH & WELLBEING	CONNECTIVITY	LIVING INFRASTRUCTURE	RESOURCE REGENERATION	
within the EcoDistrict	potential photo shoot location						
	Landscaped events court, upstairs event space and rooftop, painted glass- framed courtyard	Spare Pro	CCTV network	Wi-Fi network and/or access	Wetland and assoc Rehabilitation Plan		
	Street Furniture (bins, benches, taxi/bus shelters, street lighting)			S&J Industrial Estate Facebook Page / twitter account / Instagram / marketing plan	Mine shaft for wat and associated Gro Rehabilitation Plan	oundwater	
	Retail centre (with anchor shops, sub-anchor shops, line shops, ablutions & fast/fresh food/restaurants			S&J site office			
	Promotions court, piazza, parking & kiosk			1 x S&J Primary Gatehouse			
				4 x Secondary Gatehouses			
				S&J website			
Secondary Located in EcoDistrict, controlled outside EcoDistrict	Public Transport Stops (minibus taxis, rail)		EMM Emergency Services (SAPS, Fire Services, Ambulance Services)	Public transport options			
Tertiary	Germiston Golf Club		Simmer Angling Club			ESKOM Power Supply	
Located & Controlled outside the EcoDistrict	Victoria Lake		Germiston Aquatic Club			EMM Waste Management Services	
2002/31/101	Gosforth Park		VLC Rowing				

In the medium to long-term, the intent is to incorporate the priority-based asset data onto the interactive map already present on the S&J Industrial Estate website once more of the assets are developed and in place.

The Steering Committee acknowledged that this asset mapping process will be an important step in identifying the existing gaps in priority infrastructure, in terms of social-, economic- and organisational assets that might be lacking in the currently planning framework of the S&J Industrial Estate that could be addressed through interaction and engagement with appropriate stakeholders, including other Not-for-Profit organisations that might have an interest in the activities of the EcoDistricts, EMM and COJ departments and potentially non-governmental agencies whose services might benefit the S&J community and the vision that is being defined for the S&J EcoDistrict.

As more of the planned development comes online, this asset map will be expanded continuously. This asset map informed and will continue to inform the selection of objectives linked to each of the 6 priorities and assisted with setting the EcoDistricts sustainability agenda.

## 4. CENSUS OF LOCAL PLANS

The following table sets out various policies, programmes, and plans (on national, provincial, and local scale) that could impact the S&J Industrial Estate EcoDistrict planning and implementation roll-out and will identify specific targets set on national, provincial, and local scales that the S&J EcoDistrict should coordinate and align with in terms of their own objectives and goals identified for the three imperatives or the 6 EcoDistrict Priorities. These plans, policies and programmes could identify potential sources of information, assist with the identification of suitable objectives and appropriate indicators, but more importantly, these documents highlight areas where the concept of collective impact and collaborative approaches to development of S&J and moving it toward carbon neutrality can be supported by different government departments alongside the private sector partners behind the S&J development.

Each document is listed along with a simplified narrative describing the main aim of that document, its adoption date, and it briefly notes the Priorities to which the plan applies and how if not already clear from the short narrative or document title.

Table 5: Existing policies, programmes, and plans applicable to the S&J EcoDistrict<sup>12</sup>

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
National		
The District Development Model (2021) The District Development Model was initiated by President Cyril Ramaphosa in his Budget Speech in 2019. Subsequently, the District Development Model was discussed and adopted by Cabinet, the 2019 Presidential Coordinating Council (PCC), the March 2020 extended PCC and various MINMECs. The Model consists of a process by which joint and collaborative planning is undertaken at local, district and metropolitan by all three spheres of governance resulting in a single strategically focussed One Plan for each of the 44 districts and 8 metropolitan geographic spaces in the country, wherein the district is seen as the 'landing strip'.  The District Development Model builds on the White Paper on Local Government (1998), which seeks to ensure that "local government is capacitated and transformed to play a developmental role". The White Paper says developmental local government "is local government committed to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives". To which end, developmental local government is seen as having four interrelated characteristics of "maximising social development; and leading and learning". In order for local government to advance this, the Constitution calls on "national and provincial governments [to] support and strengthen the capacity of municipalities to manage their own affairs".  Therefore, the model is a practical Intergovernmental Relations (IGR) mechanism to enable all three spheres of government to work together, with communities and stakeholders, to plan, budget and implement in unison.	National	Equity, Resilience, Climate Protection, Place, Prosperity, Health & Wellbeing, Living Infrastructure
The South African Constitution, Act 108 (1996)  The Constitution sets out South Africa's values, the rights of the people, how Parliaments and other legislatures work, how the national and provincial executives are chosen and how the courts work. It also establishes six institutions to support our democracy.	National	Equity, Resilience, Climate Protection, Place, Prosperity, Health & Wellbeing, Living Infrastructure
Employment Equity Act No. 55 (1998)  The purpose of the Act is to achieve equity in the workplace by promoting equal opportunity and fair treatment in employment through elimination of unfair discrimination and implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups, to ensure equitable representation in all occupational categories and levels in the workforce. This Act provides for additional reporting requirements employers with the additional burden of submitting an Employment Equity Report.	National	Equity, Prosperity
Promotion of Equality and Prevention of Unfair Discrimination Act (2000)  Created specifically to enact the rights set out in Section 9 of the South African  Constitution, this Act is a comprehensive South African anti-discrimination law. It  prohibits unfair discrimination by the government and by private organisations and	National	Equity, Health & Wellbeing

<sup>12</sup> This is not an exhaustive list but is regarded as an appropriate list providing sufficient insight for the EcoDistrict processes.

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
individuals and forbids hate speech and harassment. The act lists race, gender, sex, pregnancy, family responsibility or status, marital status, ethnic or social original, HIV/AIDS status, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language, and birth as "prohibitive ground" for discrimination, but also contains criteria that courts may apply to determine which other characteristics are prohibited grounds.		
The Broad-based Black Economic Empowerment Act No. 53 (2003)	National	Equity
The Act is a socio-economic program geared towards the promotion of economic change in South Africa whilst enforcing equality within the business arena; establishing a legislative framework for the promotion of black economic empowerment; empowering the Minister to issue codes of good practice and publishing transformation charters; establishing the Black Economic Empowerment Advisory Council; and providing for matters connected therewith.		
Spatial Planning and Land Use Management Act 16 (SPLUMA) (2013)  This act aims to provide a framework for spatial planning and land use management in the Republic; to specify the relationship between the spatial planning and the land use management system and other kinds of planning; to provide for the inclusive developmental, equitable and efficient spatial planning and the different spheres of government; to provide a framework for policies, principles, norms and standards for spatial development planning and land use management; to address past spatial and regulatory imbalances; to promote greater consistency and uniformity in the application procedures and decision–making by authorities responsible for land use decisions and development applications; to provide for the establishments, functions and operations of Municipal Planning Tribunals; to provide for the facilitation and enforcement of land use development measures; and to provide for matter connected herewith.	National	Equity, Connectivity
National Development Plan (2012)	National	Climate Protection
Commits to Energy Efficiency (EE) requirements in SA National Standards to achieve NZC building standards by 2030.		
National Climate Adaptation Strategy for 2020 Supports the country's ability to meeting its obligations in terms of the Paris Agreement on Climate Change. The document sets out the vision which is to transition to a climate resilient South Africa, which will follow a sustainable development path, guided by anticipation, adaptation and recovery from a changing climate and environment to achieve our development aspirations. It will be a country-driven approach, based on best available science and traditional knowledge. It is also based on the principles of participation, it is people-centred, and it aims at promoting Equity. It will be gender-sensitive and it will aim to promote the participation of vulnerable groups and build resilience and adaptive capacity of the most vulnerable people. The development and implementation of the NCCAS will promote the protection of ecosystems and biological diversity that are required to support South Africa's adaptation to climate change; it will promote the development of capacity in climate change adaptation throughout South Africa while also promoting the integration of adaptation in the policies and planning of sectors as well as all three spheres of government. The intent is to ensure that the NCCAS has a strong Monitoring and Evaluation (M&E) System and that further iterations of the NCCAS will be influenced by outcomes of M&E.	National	Equity, Resilience, Climate Protection
South Africa's Low Emission Development Strategy 2050 (2020) SA-LEDS sets out a direction of travel for South Africa as we refine our low carbon emission development pathway to meet our commitments to the international community and address our developmental agenda/priorities and needs. We know that success will require decades of dedicated effort. Therefore, this Strategy is a living document, the beginning of our journey towards ultimately reaching a net zero carbon economy by 2050.	National	Climate Protection
Climate Mainstreaming in South African Cities High-level analysis of key strategic planning documents (2018)  This report examines whether climate change mainstreaming is visible in a select set of city-level strategic planning documents and, if so, to what extent. Given National Treasury's interest in further mainstreaming climate change response at the city	National	Resilience, Climate Protection

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
level, the instruments chosen for assessment those that National Treasury is able to leverage and influence most directly.		
National Integrated Resource Plan (electricity supply plan) (2019) - Sets out Renewable Energy (RE) targets/ plan.	National	Resilience, Climate Protection, Resource Regeneration
WORKING DRAFT Green Finance Taxonomy (2021)  A green finance taxonomy is an official classification or catalogue that defines a minimum set of assets, projects, and sectors that are eligible to be defined as "green" in line with international best practice and national priorities. It can be used by investors, issuers, and other financial sector participants to track, monitor	National	Resilience, Climate Protection, Resource Regeneration
Sustainable Financing Initiative Report - National Treasury (2020) - Aims to regularize, build capacity and awareness across financial sector to redirect R2tn capital to lower carbon and climate change risk future.	National	Resilience, Climate Protection, Resource Regeneration, Prosperity
Energy Performance Certificates (EPC) are mandatory for non-residential buildings (2020) - EPCs are to be issued by an accredited body and displayed - valid for 5 years. Monitored by the Department of Mineral Resources and Energy (DMRE).	National	Resilience, Climate Protection, Resource Regeneration
Amendment to Section 34 Electricity Amendment Act (2020) - Enables municipalities to develop their own power generation projects and to procure from IPPs.	National	Resilience, Climate Protection, Resource Regeneration
National Building Regulations - Amendment SANS10400XA v2 (2021) - The South African National Standards (SANS) 10400-XA provides for the application of Regulation XA, or the minimum requirements of the South African National Building Regulations on energy efficiency and environmental sustainability in building design.	National	Resilience, Climate Protection, Resource Regeneration
Getting to Zero - A guide to developing Net Zero Carbon buildings in South Africa (2020) - The guide gives an overview of net-zero carbon buildings in South Africa and shows those shaping the built environment is possible (ASHRAE, 2020).	National	Resilience, Climate Protection, Resource Regeneration
Provincial		
Gauteng Provincial Environmental Management Framework (GPEMF) (2018) – The GPEMF Standard is a tool developed to streamline the requirements for environmental impact assessment (EIA) procedures to reduce timeframes for approvals and to contribute towards reducing the cost of doing business in Gauteng.	Provincial	Resilience, Climate Protection
Gauteng City Region Overarching Climate Change Response Strategy and Action Plan (2020)  The Gauteng City Region Over-arching Climate Change Response Strategy and Action Plan aims to address four broad over-arching outcomes. These outcomes can be seen as broad descriptions of what a well-adapted and resilient GCR must look like. Specifically, the climate change response outcomes identified for the GCR relate to ecosystems, quality of life, disaster risk management and a green economy. These outcomes intentionally integrate mitigation and adaptation outcomes to maximise the opportunities for co-benefit outcomes.  Ekurhuleni Metropolitan Municipality (EMM)	Provincial	Resilience, Climate Protection
	M - 1 - 1 - 1 / 0 1	Destillation Office In
Growth and Development Strategy 2055 (In Development)  With a population of over 3,3 million, with a very youthful skills base, the future of Ekurhuleni rests on the implementation of a bold vision for social and economic transformation. Ekurhuleni's economy makes up 21% of the total economic output of the Gauteng province equalling 7,7% of the national production.  Ekurhuleni is an integral part of the Gauteng City-Region, an integrated cluster of cities, towns and urban nodes that together make up the economic heartland of South Africa. Inspired by a desire to see Ekurhuleni taking the lead as a powerhouse in the economy of the entire continent, city planners have put the Ekurhuleni Aerotropolis at the core of its development strategy. A part of the broader National Strategic Infrastructure Plan (NSIP), the Ekurhuleni Aerotropolis is at the heart of a broader programme of urban revitalisation.	Municipal/City	Resilience, Climate Protection, Prosperity, Living Infrastructure
To this end, the Metropolitan Spatial Development Framework (MSDF) dovetails with the overarching vision of the city, which is encapsulated in the Growth and Development Strategy 2055 (GDS 2055).		

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
The GDS 2055 identifies five strategic imperatives:		
Re-industrialise for job creation and economic growth purposes;		
Re-urbanise: to achieve sustainable urban integration;		
Re-govern: Effective cooperative governance.		
Re-mobilise: To achieve social empowerment;		
Re-generate sustainable environmental benefit.		
Draft Green City Action Plan (2021)	Municipal/City	Resilience, Climate
This plan has identified actions, including city-level policies, investments and planning strategies that can help the City meets its climate mitigation and sustainability targets. As such, it aims to increase the pipeline of public and private climate-related investments, which can be influenced by city-level policies and plans.		Protection, Living Infrastructure
The specific targets pursued in the Green City Action Plan are aligned with the City's existing Ekurhuleni+ Challenge 2030 targets (which are captured elsewhere in this report).		
Urban Heat Island Assessment (2021)	Municipal/City	Climate Protection,
The City of Ekurhuleni is currently receiving technical assistance from the World Bank through National Treasury's City Support Programme to undertake an Urban heat island assessment. The urban heat island assessment will provide a spatial view on heat across the City, thereby addressing the long-term heatwave risk for the City. This assessment will generate urban heat data for the City, using vehicle transverse method where volunteers would drive across the City with heat sensors attached to vehicles. The readings from this would be used to create area-wide heat and humidity maps. The assessment would require about 20 - 40 volunteers.		Health & Well-being, Living Infrastructure
The urban heat assessment will:		
Strengthen city systems and tools to plan and prioritize capital investment in resilience building projects;		
Strengthen capability within the City to package and prepare capital investments projects/ projects and portfolios and mobilise private investments		
City of Ekurhuleni Free Wi-Fi Programme - Among its achievements in the last 20 years is the City's installation of Wi-Fi hot spots to 223 offices in Ekurhuleni. The wireless nature of such networks allows users to access network resources from nearly any convenient location. Hot spot Wi-Fi is available 24/7, and communities make use of or facilities including libraries. In addition, communities, customer, learners, and university students use the Wi-Fi any time of the day for study research and for personal needs.  The benefit of having Wi-Fi allows mobile users to access real-time information. City	Municipal/S&J	Connectivity
employees also have access to the Wi-Fi network which allows them to be productive even when they are out of the office.		
City of Ekurhuleni Bioregional Plan (2020)  The purpose of a bioregional plan is to inform land-use planning, environmental assessment and authorisations, and natural resource management, by a range of sectors whose policies and decisions impact on biodiversity. This is done by providing a map of biodiversity priority areas, including Critical Biodiversity Areas and Ecological Support Areas, with accompanying land-use planning and decision-making guidelines.	Municipal/City	Resilience, Climate Protection, Living Infrastructure
Ekurhuleni+ Challenge <sup>13</sup> (2020)	Municipal/City	Resilience, Climate Protection
EMM Climate Change Response Strategy (2017) <sup>14</sup>	Municipal/City	Resilience, Climate Protection
Ekurhuleni Strategic Urban Developments (2017) This document provides a summary of all the projects identified as SUDs in EMM.	Municipal/City	Place, Prosperity
Ekurhuleni Urban Design Policy Framework (2017)	Municipal/City	Equity, Place, Health & Well-being,

This provides a set of targets leading the City to become a more resilient city by 2050.

He This strategy is currently being revised to a Climate Action Plan which will be more aligned with the Paris Agreement and the United Nations Sustainable Development Goals (SDGs).

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
The policy aims to guide decision making around the growth and form of the built environment within the Municipality, with specific emphasis on the impact that the built form has on the functioning of the city's public realm and in essence the city as a whole. With that said, the Urban Design Policy is intended to provide guidance to the City Administrators in decision making on development applications, while also serving as a guide to developers and other professionals in the built environment, in regard to the way in which they design both public and private developments/ urban spaces.		Connectivity, Living Infrastructure
Renewable Energy Loss Mitigation Policy (2017)	Municipal/City	Climate Protection,
The policy aims to mitigate against revenue loss as a result of the traditional electricity grid no longer being the only option in supplying electricity to a captive group of customers. Technology and new materials advances are now creating the opportunity for customers to supplement grid supply with alternative energy, at installation costs that are continuously becoming more affordable.		Resource Regeneration
The policy is not created to take a stance against renewable and alternative sources of energy, but rather to embrace these technologies and adopt them as part of the CITY OF EKURHULENI grid.		
Ekurhuleni Youth Policy (2013)	Municipal/City	Equity, Prosperity
This policy reflects the City's political and strategic intention on the mainstreaming of youth development in all policies, programmes and plans with a specific view of mainstreaming youth in socio-economic life.		
Grand Open Space Plan Ekurhuleni (2013)	Municipal/City	Climate Protection,
The objective of the Grand Open Space Plan (GOSP) lies within the notion that it will aim to identify a specific purpose for open space within the Ekurhuleni region.		Place, Health & Well- being, Living Infrastructure
Regional Spatial Development Framework for Region A (2012)  The aim of this document is to propose a Spatial Plan to guide development in the region for the next 20 years. The Plan should:  Ensure efficient functioning of the urban system;  Equity between different income groups; and  Environmental sustainability.	Municipal/City	Place, Prosperity, Health & Well-being, Resource Regeneration
EMM Environmental Policy & Implementation Plan (2013)	Municipal/City	Climate Protection,
The revision of the policy provides a bigger opportunity to align EMM Environmental Policy with sustainability initiatives, future considerations, e.g., the impacts of climate change, the green economy, mining reclamation and pollution, and land reform and agrarian transformation. Importantly, as the Growth and Development Strategy for EMM is currently being revised there is enormous potential to align the environmental policy and vision to the growth and development vision for the region.		Living Infrastructure
Air Quality Management Plan for the EMM (2005)  Ekurhuleni Metropolitan Municipality, which comprises a mixture of industrial, mining, commercial, agricultural, and residential land use activities in close proximity to one another, faces complex and pressing air pollution challenges. The collation, analysis, and presentation of relevant and recent existing information on sources, emissions, ambient air quality and air pollution control represented an important first step in the intensive air quality management plan development process initiated by Ekurhuleni Metro. This includes reference to the Germiston node within which the S&J Industrial Estate is located.	Municipal/City	Climate Protection, Resource Regeneration
The City of Johannesburg Metropolitan Municipality (COJ)		
Draft Green Building Policy (2021) In response to growing climate change concerns and an imperative to transition to sustainability, the City of Johannesburg <sup>15</sup> has formulated this policy to guide the development of new green buildings within the City. The aim of the City's first GBP is to promote resource efficiency and set high-performance standards for all new	Municipal/City	Climate Protection, Resource Regeneration

Led by the Development Planning Department and supported internally by inter-departmental project steering committee. The policy formulation was informed by extensive stakeholder engagements and supported by the C40 South African New Buildings Programme (Towards Net Zero Carbon).

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
buildings within Johannesburg's built environment, on a pathway towards a low carbon future.		
Climate Action Plan (2020) The City of Johannesburg Metropolitan Municipality (abbreviated City of Johannesburg) is South Africa's largest and fastest growing city, and capital of Gauteng Province, the smallest and wealthiest of South Africa's nine provinces. As a response, C40 together with its member cities, including the City of Johannesburg, have committed to playing their part. Signing up to C40's Deadline 2020 initiative, a public commitment to develop and implement ambitious climate action plans (CAPs) in line with science-based targets to limit global temperature rise to 1.5°C, the City has committed to delivering on the most ambitious goals of the Paris Agreement.  Since 2020, the COVID-19 pandemic has decimated economies worldwide and exposed stark inequalities, with poorer communities disproportionately burdened by the virus itself and its social and economic consequences. Overall global economic contraction is estimated at over 3% in 2020. According to the Minister of Finance, the South African economy is estimated to contract by over 7% in 2020, a depression that according to Minister Mboweni, has not seen in 90 years. Metropolitan municipalities across the country have noted significant drops in revenue collection, impacting their services and operations. The South African government has responded by injecting one of the biggest stimulus packages in the global south, totalling R500 billion (nearly US\$30 billion) to support COVID-19 recovery.  As the country began to chart a path towards a post-COVID future, the City of Johannesburg, which was one of the world's worst affected cities, has reaffirmed its commitment to supporting the well-being and livelihoods of all its citizens through a sustainable and just recovery. The implementation of the Climate Action Plan (CAP) will help the City to forge a 'new normal', one which addresses systemic risks, one that will be transformative in the longer term, while meeting the immediate needs of creating sustainable jobs, improving service delivery, and allev	Municipal/City	Resilience, Climate Protection
Draft Integrated Development Plan (2020/21) - The Municipal Systems Act, Act 32 of 2000 requires that a municipality develops a five-year Integrated Development Plan (IDP) to guide it in executing its constitutional mandate of a developmental local government. This five-year strategic plan guides the City's plan in delivering services.	Municipal/City	Equity, Resilience, Climate Protection, Place, Prosperity, Health & Wellbeing, Connectivity, Living Infrastructure, Resource Regeneration
Joburg Smart City Strategy Revised 2019-2021 Provides a new way to engage our citizens to build a sustainable, safe, resilient, and	Municipal/City	Climate Protection
liveable City by providing an overview of how the City will go about disrupting the landscape of city governance through the use of digital platforms.		
Joburg Growth and Development Strategy 2040 (2019) - The GDS encapsulates the City's long-term perspective on urban development into succinct outcomes and outputs aimed specifically at achieving smart and inclusive growth by 2040, effectively establishing Joburg as world class in its development approach. The 2006 GDS sought to consolidate the aforementioned strategies into a single, comprehensive city-wide strategy, while the 2011 GDS provided a renewed focus on sustainability, liveability, and resilience as key issues.	Municipal/City	Equity, Resilience, Climate Protection, Place, Prosperity, Health & Wellbeing, Connectivity, Living Infrastructure, Resource Regeneration
Air Quality Management Plan City of Johannesburg (2017) While air quality management activities have been on-going since 2003, there has been a lack of a continuous concerted effort to improve air quality. Currently, the air pollution in the City is not in compliance at many sites of the NAAQS. In order to improve air quality in the City of Johannesburg, it was identified that air quality management needed to improve, and emission reductions are needed in prioritised sectors.  Thus, it is critical that the AQMPs and the air quality management activities across Gauteng are well aligned. In addition, due to the close proximity of the metropolitan/district municipalities to each other, trans-boundary pollution is a	Municipal/City	Climate Protection, Resource Regeneration, Living Infrastructure

Existing Policies, Programmes and Plans	Geography	Applicable Priorities
common problem. Thus, the alignment between municipal and Provincial AQMPs, and between municipalities, is critical to effectively manage and improve air quality in the Province.		
S&J Industrial Estate		
S&J Master Development Plan	S&J	Governance, Place
Wetland Rehabilitation & Landscape Management Plan for the Wetland Rehabilitation and Sewer Pipeline Construction Activities associated with the Abland Mixed Use Development (2019)	S&J	Living Infrastructure
S&J Industrial Estate Development Manual (2017) - The design philosophies set out in these guidelines encourage simplicity, scale and vertical proportions, refined details, and the use of the prescribed colour palette. Thus, establishing a recognizable and notable node in this area. This document should be read in conjunction with the National Building Regulations ["NBR"] and related National and Local Authority laws, the Town planning scheme, and bylaws. None of the guidelines herewith should be read as not to comply with any laws of the Republic of South Africa.	S&J	Climate Protection, Place, Health & Wellbeing, Connectivity, Living Infrastructure, Resource Regeneration
Archaeological Impact Assessment (2015) - ArchaeoMaps was appointed by SEF to	S&J	
coordinate the basic HIA for the development. The basic HIA comprises a Phase 1 AIA and in accordance with the SAHRIS palaeontological sensitivity map, a 'palaeontological protocol for finds' study. This report represents the Phase 1 AIA only, with findings and recommendations thereof to be included in the EIA and EMPr.		
Wetland Rehabilitation & Landscape Management Plan for the Wetland Rehabilitation and Sewer Pipeline Construction	S&J	
Stormwater Management Report (2016) - Ekurhuleni Metropolitan Municipality (EMM) requires on-site attenuation facilities for all new developments regardless of size. This document provides an overview of the stormwater management system to be put in place for the S&J Estate in line with Ekurhuleni Metropolitan Municipality requirements.	S&J	Resilience, Climate Protection, Living Infrastructure
Economic Impact Assessment (2015) - this is an economic impact assessment conducted on the proposed development.	S&J	Prosperity
Traffic Impact Assessment (2014) - this is a traffic impact assessment conducted on the proposed development. This information was also used to inform the carbon emissions calculation for the development.	S&J	Connectivity
Memorandum of Incorporation of S&J Industrial Estate Owners Company NPC (2018)	S&J	Governance
PROPERTY OWNERS COMPANY MANAGEMENT AGREEMENT - S&J INDUSTRIAL ESTATE OWNERS COMPANY NPC - Registration Number 2018/364144/08	S&J	Governance

The preceding table provides an overview of the priorities covered by national, provincial, and local policies, programmes and plans and created a clear framework for ongoing strategic engagement for the S&J Industrial Estate EcoDistrict to facilitate collaborative approaches to objectives that will address the three imperatives and six priorities that form the EcoDistrict Methodology.

We have also listed the documents, studies, or plans that were created specifically for the S&J Industrial Estate and indicated how these link to the Imperatives and the respective Priorities.

### 5. ONGOING AND IMMINENT ACTIVITIES BY OTHER

There are no ongoing or imminent activities by entities other than the Co-Ownership and potential new members of the S&J NPC that required consideration during Roadmap preparation.

## 6. PRIORITIES, OBJECTIVES & INDICATORS

The S&J EcoDistrict Roadmap is organised by EcoDistrict Priorities and Objective Categories as set out in the Certification Handbook and includes at least one objective for each of the Priority Objective Categories, with at least one indicator selected for each Objective as shown in the table below (in some cases more than one indicator was identified).

It is important to acknowledge that the indicators identified here, might be a valuable departure point, but once complete build out is reached, certain indicators in and of itself might have served its temporary purpose, and would then need to be replaced by other indicators that would have longer term tracking potential. As a master planned EcoDistrict, the intent behind some indicators were to capture the planned growth of this entirely new development. It is also this anticipated growth, which could be planned and controlled through the master planning process, that informed all decisions and targets set out below. The same was also true, for the processes involved with identifying strategies, projects and programs set out in Section 11.

The intention at this point is not to identify all possible indicators that would ever have relevance to the S&J EcoDistrict, but rather to create a kick-off point that could foster a strong partnership approach to data management, collective impact management and an EcoDistrict-wide tracking focus.

Table 6: S&J Roadmap Priorities, Objectives, and Indicators

EcoDistrict Priority	Objective Categories	Objectives	Indicators <sup>16</sup>
PLACE	Engagement & Inclusion	Ensuring engagement of the S&J community in EcoDistrict planning and project implementation is robust and inclusive.	% of community engaged in public consultation processes (e.g., S&J NPC Forum attendance rates, number of social media subscribers, worker / employee survey participation rates, number of vulnerable group representative organisations within the S&J community that are engaged with <sup>17</sup> )
	Culture & Identity	The (proposed) character of the S&J Industrial Estate EcoDistrict is communicated and strengthened through positive engagement.	# of times the S&J EcoDistrict is positively mentioned in the media (through media tracking to be put in place)
	Public Spaces	Public spaces are accessible to the S&J community <sup>18</sup> .	Length of road are designed and constructed for accessibility pedestrians /cyclists/disabled) expressed as a % of total road built in the S&J EcoDistrict
		Public spaces are high quality, engaging and active.	Extent of street furniture installed on site (# of bins, # streetlights - information to be shown per km²)
	Housing	A diversity of housing is available within reasonable proximity to public transportation and alternative modes of	% of affordable housing units accessible from the S&J Industrial Estate through existing public transport routes
		travelling to and from the EcoDistrict.	Extent of housing diversity within travel distance (i.e., 5km) from the S&J EcoDistrict (perhaps captured in terms of type of housing and potentially state per mode of transport) [Note: this is just an indicative number, and information to be sourced from employee transport surveys and as part of the development of a Green Travel Plan - see strategy table]
PROSPERITY	Access to Opportunity	Career pathways and training are available for employees within the S&J EcoDistrict to allow multi-skilling and	Number of training programs available either through businesses within the S&J EcoDistrict or within in the wider node

<sup>&</sup>lt;sup>16</sup> Refer to Annexure C for details on the specific benchmarks against which progressed in each of these will be measured moving forward. This is mostly based on the current performance or status.

<sup>&</sup>lt;sup>17</sup> This indicator was originally defined in the Equity Imperatives Commitment and will assist with measuring progress in terms of equity conditions over time.

<sup>&</sup>lt;sup>18</sup> The definition for S&J Community as set out in the Imperatives Commitment and Roadmap reports refers. For ease of reference, For the EcoDistrict processes, the S&J Industrial Community was defined as the community that includes the S&J property owners, development partners/developers, tenants, employees (of tenants or businesses within S&J, employees of the management company, visitors, and service providers (and or suppliers).

EcoDistrict Priority	Objective Categories	Objectives	Indicators <sup>16</sup>		
		resilience between different employment opportunities.	matched to EcoDistrict-specific job opportunities <sup>19</sup>		
			# of eligible <sup>20</sup> EcoDistrict participants enrolled in training programs.		
			Nr of Business within the S&J community linked to training facilities in the surrounding node		
	Economic Development	New job creation occurs through economic development.	# of jobs created through construction in the EcoDistrict (to be pulled by Abland during construction from the main contractors & provided to the S&J NPC)		
			# of people employed by the NPC directly (security, gardeners, etc.)		
			# of permanent jobs created through economic development (i.e., through new businesses located in the area) - pulled from all companies by S&J NPC		
	Innovation	Interaction between entrepreneurs is fostered (could take the form of SMME support or engagement between	# of SMMEs that participated in a pop- up event for start-ups, held in the EcoDistrict		
		businesses within the S&J EcoDistrict to facilitate a strong industrial estate dynamic.	# of incubators, accelerators, maker spaces and co-working spaces in the EcoDistrict		
			# of programs, pop-up events for SMMEs and enrolment levels to cultivate business innovation (for instance events on circular economy)		
HEALTH & WELLBEING	Active Living	Pedestrians are prioritized by making walking, biking, and public transportation easier and safer.	Extent of street length in the district with sidewalks on both sides (expressed as a % of total road built in the S&J EcoDistrict)		
	Health	Previous operation impact areas are remediated and regenerated.	Volume of rehabilitated groundwater expressed as a % of total water consumption in the S&J area for reuse for irrigation		
			% of the wetland habitat rehabilitated		
		Ensure that employee health within the EcoDistrict is regarded as important to overall precinct well-being.	# of Employee Health Plans that are in place on site (linked to each business).		
	Safety	The built environment is designed for public safety.	# of safety-related incidents reported (type of incidents include motor vehicle accidents / thefts / pedestrian accidents / etc) [Reported to SAPS or the Security Company present in area]		
			# of engagements with 'at risk' <sup>21</sup> groups and sharing knowledge and information on anticipated shocks and stresses that might affect them. <sup>22</sup>		

\_

<sup>&</sup>lt;sup>19</sup> This indicator was originally defined in the Equity Imperatives Commitment and will assist with measuring progress in terms of equity conditions over time.

<sup>&</sup>lt;sup>20</sup> People employed in the EcoDistrict.

<sup>&</sup>lt;sup>21</sup> 'At risk' groups are not the same as vulnerable groups, although vulnerable groups could be 'at risk'. In this context, 'at risk' refers to groups of people that might be impacted negatively by anticipated shocks and stresses. For instance, businesses located close to the wetland on site might be more 'at risk' for flooding.

<sup>&</sup>lt;sup>22</sup> This indicator was originally defined in the Resilience Imperatives Commitment and will assist with measuring progress in terms of resilience conditions over time.

EcoDistrict Priority	Objective Categories	Objectives	Indicators <sup>16</sup>
			Extent of area covered by remote monitoring.
			Nr of security guards in the EcoDistrict
			# of CCTV cameras installed
	Food Systems	Healthy and affordable fresh food is accessible.	% of commercial / industrial space with access to at least 1 fresh food source (nearby grocery stores / food garden) [Perhaps start of by looking at the travel distance of facilities external to the S&J EcoDistrict and then look to decrease this distance by advocating for internally located facilities]
		Number of people educated on healthy food preparation or consumption who improve their knowledge, awareness, skills, or attitudes.	# of people that participated in healthy food options related training sessions.
CONNECTIVITY	Street Network	The street network supports all travel	# of intersections per square km
		modes (vehicles, pedestrian, cycling, other).	# of public transportation stops per square km
			% of total street length with bicycle / pedestrian sharing (expressed as a % of total road built in the S&J EcoDistrict)
		The street network accommodates people of diverse ages and abilities.	Total length of road with pavements/sidewalks designed for universal access (expressed as a % of total road built in the S&J EcoDistrict)
	Mobility	EcoDistrict travel, internally and externally, is safe, efficient, and multimodal.	Vehicle km travelled daily per capita
			Mode split of daily person trips
		matti noddi.	# of EV charging points provided at strategic locations
			# of projects that increase the walkability and/or improve access to amenities for cyclists or pedestrians within the S&J EcoDistrict
	Digital Network	Quality fibre networks and wireless connectivity is available throughout the EcoDistrict.	% of the EcoDistrict with access to good quality fibre or wireless networks % of public spaces with free wi-fi
LIVING INFRASTRUCTURE	Natural Features	The quality and functions of habitat are enhanced.	Number of street trees and % of the EcoDistrict with tree canopy cover <sup>23</sup>
WE MOOTONE		Natural features are protected.	% alien vegetation removed from the S&J Wetland and NPC will monitor future invasion of alien vegetation in the attenuation pond area
	Ecosystems Health	Money is invested in projects that create green infrastructure.	# of projects and investments made in green infrastructure projects <sup>24</sup> (this could look into the investment made into the wetland rehabilitation, the extent of investment made into the landscaping on site, etc.)

<sup>&</sup>lt;sup>23</sup> This indicator was originally defined in the Climate Protection Imperatives Commitment and will assist with measuring progress in terms of climate protection conditions over time.

<sup>&</sup>lt;sup>24</sup> This indicator was originally defined in the Resilience- and Climate Protection Imperatives Commitment and will assist with measuring progress both in terms of resilience- and climate protection conditions over time.

EcoDistrict Priority	Objective Categories	Objectives	Indicators <sup>16</sup>
		Previous operation impact areas are remediated and regenerated for use as land for redevelopment into the S&J Industrial Estate.	Extent of land converted from previous operation impact area into the S&J Industrial Estate (tracking the conversation rate)
	Connection with Nature	Access to nature is improved.	Area of green streetscape/landscaping provided/developed.
			Number of active owl boxes installed/bat boxes (to note that this will require an Integrated Pest Management Strategy to be put in place to ensure ALL pest control on site is non-toxic, and this will ensure that the owls are the pest control, and it would also keep the wetland free from toxins washed down in stormwater)
RESOURCE REGNERATION	Air & Climate	All sectors improve energy efficiency, reduce waste, and increase natural	# of new buildings that are net zero carbon by 2030
		carbon sinks.	Energy savings from implemented initiatives (measured in kWh) through smart metering (and water)
			% of energy generated through renewables (possible future target)
	Water	Potable water is used efficiently.	Volume of water used daily per capita (indoors and outdoors) (expressed as megalitres)
			Extent to which landscaping on site includes water wise plants (to be linked to the development manual)
		Alternative water sources are used for non-potable purposes.	% of buildings connected to non-potable water sources
		People are educated on water safety impacts and prevention to improve their knowledge, awareness, skills, or attitudes.	# of people educated on water safety impacts and prevention who improved their knowledge, awareness, skills, or attitudes
		Stormwater is retained through green infrastructure.	Annual volume of stormwater attenuated on site (measured in ml)
	Waste	Waste is diverted from landfills through reduction, reuse, and recycling.	% of non-hazardous waste diverted from landfill annually
		The residual value of organic waste (from canteens or from the restaurants within the S&J Estate) is captured.	% of organic waste diverted for energy recovery or composting annually

The decision was made to develop the Priorities, Objectives, and Indicators section of the Roadmap as in integrated table for easy review and consideration by all parties involved. The intention is to use this framework as a dynamic, changeable framework as the development builds-out to allow a greater number of participants to the S&J NPC to join the discussion and determine the final set of objectives and indicators that will be implemented and tracked long-term. The expectation is also that some goals will be reached and removed from the list and replaced with new goals and targets through interactive engagement among the S&J community over the lifetime of the Estate.

As the first project to pursue an EcoDistrict certification in South Africa, S&J aligned their Roadmap Development process closely to the Certification Handbook, with slight deviation where the situation called for such. As would be noted in the following sections, Indicators were linked to the activities planned as part of the S&J Master Development Plan, with gaps addressed as part of the development process.

A preliminary, integrated list of the Roadmap Priorities, Objective Categories, Objectives, Indicators, Baselines and 2030 Targets can be found in Annexure C. It is anticipated that this will remain a dynamic plan that will expand and evolve as the development itself unfolds with the aim of reaching carbon neutrality at a future date remaining one of the most important constants of this process.

## 7. UNDERSTANDING THE TARGETS AND ANTICIPATED OUTCOMES

The following diagram provides a simplified way of understanding the important terminology used throughout this report.

According to the diagram, there are three main elements to the corporate net zero pathway:

- 1. The starting point is climate neutrality;
- 2. With the intent of the journey really being to achieve net zero by mid-century.
- 3. It is however imperative that the journey extends beyond zero and aspires to reach climate positive or carbon negative at a future date.

**Climate neutrality** combines an organisation's need to account for their greenhouse gas (GHG) footprint and to establish a clear reduction strategy, ideally before offsetting unavoidable emissions<sup>25</sup>.

**Carbon neutrality** is a state of net-zero carbon dioxide emissions. This can be achieved by balancing emissions of carbon dioxide with its removal (often through carbon offsetting) or by eliminating emissions from society (the transition to the 'post-carbon economy')<sup>26</sup>. This is also where the target is set by the EcoDistricts Certified Protocol. Projects are required to reach carbon neutrality at a future date.

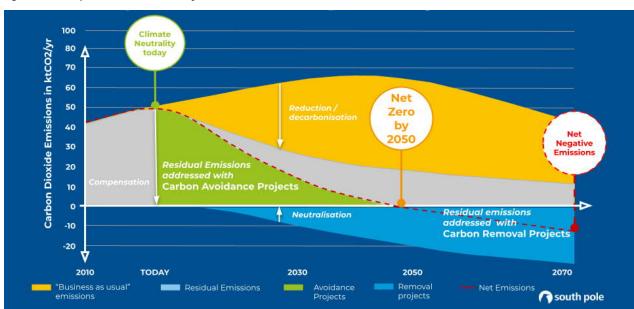


Figure 1: The Corporate Net Zero Pathway

Source: https://www.southpole.com/blog/guide-to-climate-neutral-net-zero-climate-positive

**Net Zero** is a similar concept to *carbon neutral*, however it goes beyond just carbon (unless specifically only referencing carbon) and is typically on a larger scale. Net Zero refers to when all greenhouse gases being emitted into the atmosphere are equivalent to the greenhouse gases being removed from the atmosphere on a global scale<sup>27</sup>.

Lastly, according to the Green Building Council of South Africa<sup>28</sup>, a **Net Zero-/Net Positive Carbon building** according to the GBCSA is defined as a 'building that is highly energy-efficient, and the remaining energy use is from renewable energy, preferably on-site but also off-site where absolutely necessary, so that there are zero net carbon emissions on an annual basis (Net Zero), or if the energy from renewable energy results in more energy being produced than what is used on site (Net Positive)'.

As part of its EcoDistricts commitment, the S&J Industrial Estate is committed to reaching carbon neutrality at a future date, but there will also be aspirations to guide the S&J NPC members to move beyond the carbon neutrality targets, and while not a mandatory requirements it is currently setting for its members as it is expected that this will fall within the scope of government legislation, this will be a focus of the advocacy role the S&J Industrial Estate EcoDistrict would play in creating awareness, sharing information and engaging the S&J NPC members on specific interventions that could be implemented to drive a comprehensive net zero pathway.

<sup>&</sup>lt;sup>25</sup> https://www.southpole.com/blog/guide-to-climate-neutral-net-zero-climate-positive

<sup>26</sup> https://en.wikipedia.org/wiki/Carbon\_neutrality#:~:text=Carbon%20neutrality%20is%20a%20state,post%2Dcarbon%20economy%22).

<sup>&</sup>lt;sup>27</sup> https://ecometrica.com/carbon-neutral-net-zero/#:~:text=Net%20Zero%20is%20a%20similar,scale%20(ClimateSeed%2C%202021).

<sup>&</sup>lt;sup>28</sup> 2019 Net Zero/Net Positive Certification Scheme Technical Manual v1.0 (released 2019-03).

## 8. EXISTING CONDITIONS & BASELINE PERFORMANCE ASSESSMENT

The S&J Master Development Plan was influenced by several investigations carried out over the lifespan of the project to date. This Plan formed the departure point for the Roadmap development process with further input provided by the various EcoDistricts working group participants. Information set out in this section, touching on the existing conditions as well as the baseline performance is drawn from various sources, including:

- 1. An Economic Impact Assessment conducted in 2015.
- 2. A Stormwater Management Report developed in 2016.
- 3. The S&J Industrial Estate Development Manual created in 2017, currently being updated to incorporate EcoDistrict-specific requirements.
- 4. A Wetland Rehabilitation & Landscape Management Plan for the Wetland Rehabilitation and Sewer Pipeline Construction Activities associated with the Abland Mixed Use Development developed in 2019.

As mentioned in an earlier section of this report, the development vision for the S&J Industrial Estate, was driven by the respective Sustainability Goals set by Abland and Redefine, the two companies that form the majority shareholders of the Co-Ownership<sup>29</sup>, and who were also the earliest members of the S&J NPC. These sustainability aspirations were further supported by the development goals and targets of the City of Ekurhuleni, acting as an additional motivation for the development to pursue a formal EcoDistricts certification to further drive wider market transformation on a wider scale.

Information set out in the sections below touches on these guiding elements to create an overview of the existing and formative conditions shaping the S&J Industrial Estate's sustainability ambitions and EcoDistrict aspirations.

## 8.1 Co-Ownership Endorsement and Support for the S&J NPC Sustainability Ambitions and EcoDistrict Aspirations

The S&J NPC have taken on the ambitious goal of creating the first EcoDistrict in South Africa, which will also be the first of its kind outside of North America and the hope is that this type of thought leadership will catalyse S&J's efforts to reach net-zero carbon targets.

The original Co-Ownership that created the S&J NPC, and which still supports the efforts and aspirations that drives it toward a goal of reaching net zero carbon at a future date wholeheartedly endorses the sustainability ambitions and the EcoDistrict aspirations it is pursuing. Each Co-Owner is motivated by their own agenda, and the intent is to set out the sustainability drivers for Redefine and Abland as part of the contextualisation process.

#### 8.1.1 Redefine

Redefine is the majority shareholder behind the S&J development, and as agreed by the various EcoDistrict Working Group participants, the ESG strategy of the company provided strong motivation and direction to the S&J NPC for pursuing an EcoDistricts certification for this node. Redefine has prioritised the 2030 United Nations Sustainable Development Goals (UN SDGs) as part of their governance priorities and identified primary and secondary SDGs based on their relevance to their core business that will guide how resources and commitments are prioritised across their value chain.

Overall, Redefine determined through their investigations that they are able to impact each of the 17 SDGs in one way or another and it is therefore that the secondary SDGs, that could potentially have an impact on and that can enable the achievement of the primary SDGs that they identified based on their relevance in SA and in the local real estate industry, was included in their overall ESG framework.

Redefine uses widely adopted measures to communicate their environmental performance to their stakeholders and to provide comparability and context. In this way, they ensure that they remain relevant in the context of global environmental protection efforts. Because they benchmark and disclose their performance through public platforms such as CDP climate change, CDP water security, GRESB and SAM CSA it ensures accountability in the processes they have committed to. This commitment will also be pulled through into the EcoDistrict Performance stage of implementation.

<sup>&</sup>lt;sup>29</sup> Redefine (45%), Pivotal (45%) and GGP (10%). Redefine and Abland are co-owners of Pivotal while Abland will be appointed by Pivotal and GGP as developer on a turnkey basis. Abland represents GGP on the Steering Committee, but all documents created as part of the EcoDistrict processes are presented to each of the respective Boards that constitute the S&J NPC for final approval to proceed with submission for endorsement.

Table 7: Redefines' commitment to the Primary SDGs within their direct sphere of influence and the link to the EcoDistrict Protocof<sup>80</sup>

Primary SDGs	Identified Activities to Contribute to Achieving the Intent of the SDG <sup>31</sup>	Link to EcoDistrict Protocol
3 GOOD HEALTH AND WELL-BEING	Action is taken to identify potential impacts of future pandemics on employees (wider than COVID19). Supplier code of conduct is enforced through self-assessments of suppliers, confirming that they have measures in place to promote the well-being of their employees. Community education initiatives around health and well-being are expanded to include all aspects of health, safety, and well-being, particularly for vulnerable communities.	Equity Imperative; Place; Health & Wellbeing; Prosperity; and Resource Regeneration
5 GENDER EQUALITY	Gender equality will be promoted in succession planning; new ways of accommodating caregiver employees will be introduced; gender-based pay disparities between employees doing work of equal value will be eliminated.  Community impacts on women and vulnerable communities are integrated into their end-to-end responsible investment approach.	Equity and Property
7 AFFORDABLE AND CLEAN ENERGY	Increased renewable energy installations throughout the portfolio will allow Redefine to unlock green/sustainable funding opportunities.  Incentive or cost sharing agreements between Redefine and tenants are rolled out.  Renewable energy is offered at the majority of their properties.	Climate Protection and Resource Regeneration.
8 DECENT WORK AND ECONOMIC GROWTH	Job creation through the supply chain will be measured; Redefine will commit to paying a living wage and reducing the Gini coefficient over time.  Measurable long-term job creation through enterprise and supplier development (ESD) programmes, which then empowers ESD beneficiaries to become tenants.	Resilience and Prosperity
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Redefine has a fully articulated and have implemented a responsible investment approach. Water and energy savings technologies are implemented throughout their portfolio. Redefine works with municipalities (through lobby groups) to reduce the regulatory impediments to green energy initiatives at scale.  Partnerships with industry bodies / government / financial institutions to increase accessibility of credit for qualifying and sustainable small, medium, and micro enterprises (SMMEs).	Equity; Climate Protection; Collective Impact and Prosperity
11 SUSTAINABLE CITIES AND COMMUNITIES	By partnering with social impact organisations, Redefine can understand the changing needs of its communities and how this can drive social investment. There is a fully articulated approach to social investment that considers, inter alia, investment in infrastructure.	Equity; Resilience, Climate Protection; Formation and Performance
13 CLIMATE ACTION	Climate scenario planning is conducted and incorporated into their risk and asset management strategy. Asset and property managers have guidance on how to practically incorporate scenario planning into their decision-making. An environmental management system is implemented, where physical climate risks are effectively managed and measured. Tenant awareness campaigns around climate risk management is routinely carried out for new and existing tenants. A climate risk approach will be integrated into management, maintenance & development of assets.	Climate Protection; Resilience; Formation and Performance
PEACE JUSTICE AND STRONG INSTITUTIONS	Human rights / community impact assessments will become part and parcel of our due diligence framework. Anti-bribery and corruption protocols are included in tenant selection. Tenants are provided with access to training on ethics, and anti-bribery and corruption. Community and human rights impacts will inform how we manage our operations. Internal governance will be streamlined, and related risks will be managed. Anti-bribery and corruption protocols are implemented in supplier selection and through ongoing due diligences.	Equity; Prosperity; Formation and Performance

The table below contains the secondary SDGs that Redefine could implement, which will influence the achievement of the primary SDGs. The table sets out the link between the chosen SDG and the EcoDistrict Protocol.

 $<sup>^{30}</sup>$  Created with reference to the 2020 Redefine Environmental, Social and Governance Report.

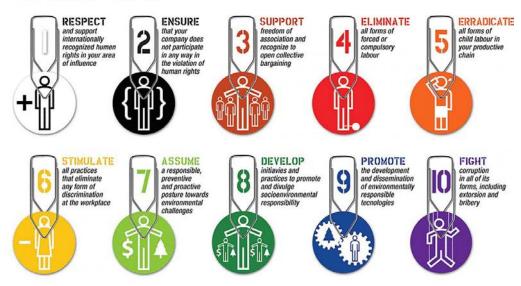
<sup>&</sup>lt;sup>31</sup> The already identified activities were used to define the Roadmap strategy, but it was deemed essential to ensure that the Roadmap had direct, and concrete links to the S&J Master Development Plan to provide longevity and relevance to the long-term commitments and strategies of the S&J EcoDistrict to move toward carbon neutrality.

Table 8: Redefines' commitment to the Primary SDGs within their direct sphere of influence and the link to the EcoDistrict Protocol<sup>92</sup>

Secondary SDGs	Identified Activities to Contribute to Achieving the Intent of the SDG	Link to EcoDistrict Protocol
4 QUALITY EDUCATION	Partnerships with South African property owners Association (SAPOA), SA REIT Association (SA REIT), etc., could help improve the training and empowerment of women, lesbian, gay, bisexual, transgender, questioning (or: queer), intersex (LGBTQI+) individuals, talented black individuals, and other underrepresented demographic groups throughout the real estate sector.	Equity; Collective Impact; Prosperity
6 CLEAN WATER AND SANITATION	Ambitious water reuse initiatives, e.g., net-zero water measures, positively impact water usage and management in the context of ailing sanitation and water infrastructure in major South African cities.	Resilience; Climate Protection and Resource Regeneration
10 REDUCED INEQUALITIES	Internal Gini coefficient is gradually reduced through wealth creation initiatives for junior employees.	Equity and Prosperity
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Focus on programmes to encourage responsible consumption, which will include carbon reduction programmes within the value chain.	Climate Protection and Resource Regeneration
17 PARTNERSHIPS FOR THE GOALS	Redefine drives ESG awareness and impact through local industry bodies (e.g., SAPOA, SA REIT), and partner with local municipalities to drive ESG through its investments.  Partnering with financial institutions to help increase access to microfinancing for SMMEs and measuring our impact in this regard	Collective Impact; Formation and Prosperity

Furthermore, S&J Industrial Estate, like the approach Redefine is taking, is also guided by the Ten Principles of the UN Global Compact<sup>33</sup>:

## GLOBAL COMPACT PRINCIPLES



### 8.1.2 Abland

Abland strives to create best-in-class, sustainable developments which meet their clients' exacting requirements both as investors and occupiers. They continue to be trend-setters and innovators, responsibly developing property

<sup>&</sup>lt;sup>32</sup> Created with reference to the 2020 Redefine Environmental, Social and Governance Report.

<sup>33</sup> https://www.culturalsurvival.org/publications/cultural-survival-quarterly/changing-way-business-done-un-global-compact

assets which enhance clients' and investors' businesses. Building on the cornerstones of excellence, commitment, and enthusiasm, Abland tirelessly pursue new growth opportunities for sustainable long-term value creation through cutting-edge commercial property development.

Abland, together with its associated companies, has been providing a fully integrated property development, asset management and property management service for more than 30 years.

### **GREEN BUILDING PRINCIPLES**

At Abland, the belief is that sustainable building is the way forward. They take the principles of green building seriously and make 'being green' an integral part of their business and building processes. As members of the Green Building Council of South Africa (GBCSA), they are committed to creating a better built environment. They have a Strategic Green Building Philosophy in place through which they apply key energy efficiency principles in all aspects of their projects and have successfully implemented a number of these, together with other green building measures in projects. In addition to the benefits to the environment, they identified numerous benefits to clients: cost savings through energy efficiency, healthier buildings, and environments to work in, and assets which are future proofed.

Abland stays abreast of the latest technologies and research in energy saving, sustainability and carbon footprint reduction. As a market leader in this field, it is important to them to ensure that their clients make informed decisions about the green building measures they wish to implement. Each new project is approached with an eye on energy saving, sustainability and the commercial benefits that can be achieved by means of payback period analysis.

A number of their buildings have already achieved Green Star South Africa<sup>34</sup> ratings from the Green Building Council of South Africa (GBCSA). This includes the recently rated four-star buildings namely Alice Lane Phases One, Two and Three (70 000m² in total); Nedbank Lakeview Phases One and Two (34 000m² in total); Monte Circle Phase One and Two (9 900m² in total) and Rosebank Towers (25 000m²). Current developments being submitted for Green Star SA ratings include Loftus Park (20 000m²), Monte Circle Phase Three (7 200m²), 35 Lower Long, Sandton Gate and Galleria.

No building or development exists in isolation. Each has a relationship to its surrounding buildings and to the urban environment. At Abland, they believe in the sustainable transformation of the built environment. Abland conceptualises each development they undertake with the surrounding urban fabric in mind, with a view to contributing positively to the immediate neighbourhood rather than standing in isolation. It is with this same aspirational viewpoint that the S&J Industrial Estate development master plan and tenant guideline was approached. Additional reference to these documents will be provided elsewhere in this roadmap document.

### 8.2 Contextual Overview

Insight into Redefines' ESG Strategy and Abland's approach and commitment to sustainability and green building design, and how it shaped the S&J EcoDistrict Roadmap development and overall commitment of the Co-Ownership and the S&J NPC to the EcoDistrict certification provides one side of the picture. Understanding the other formative contextual elements that will shape the roll-out of the certification as well as the development itself provides the other.

For the contextual overview, the roadmap will take a view on the wider node around the S&J Industrial Estate which is currently still under development. Where relevant, specific reference will be made to elements that will be contained within the S&J Estate itself as it is set out in the development master plan.

## 8.2.1 Economy:

The Germiston sub-economy in which the S&J EcoDistrict is located represents 6.5%<sup>35</sup> of the total geographic area of the Ekurhuleni Metropolitan Municipality, while contributing 5.9% toward the Metro Gross Value Added (GVA).

<sup>&</sup>lt;sup>34</sup> The Green Star South Africa Environmental Rating System is a voluntary certification scheme implemented by the Green Building Council of South Africa. The Green Star suite of tools are based on those developed by the Green Building Council of Australia, which in turn was based on other international rating. Green Star tools currently available in the South African market include New Buildings & Major Refurbishments, Existing Building Performance, Interiors, Green Star Public and Education Buildings, Custom Healthcare, Sustainable Precincts, Net Zero (Carbon, Water, Waste and Ecology), Energy Water Performance and EDGE systems, but has been totally customised for the South African context and conditions.

<sup>35</sup> A number which is expecting to increase to 7-9% once the S&J development is complete according to the 2015 Demacon Economic Impact Assessment.

## 8.2.2 Employment:

The employment pillars of the Germiston sub-economy include<sup>36</sup> Trade, Finance and Business Services, Community, Social and Personal Services; Manufacturing and General Government Services - contributing approximately 84.7%.

- The Trade Sector represents the largest employment contributing sector with its contribution increasing from 22.7% to 23.5% between 2009 and 2013.
- The Finance and Business Services Sector represents the second largest employment contributing sector its contribution declining from 23.7% to 22.6% between 2009 and 2013.
- The Community, Social and Personal Services Sector represents the third largest employment contributing sector with a contribution of 15.2% in 2013 the sector's contribution increased from 14.9% in 2009.
- The Manufacturing Services Sector (to which the proposed S&J development could contribute significantly) represents the fourth largest employment contributing sector with its contribution declining from 14.3% to 13.0% between 2009 and 2013.
- General Government Services Sector represents the fifth largest employment contributing sector with its contribution increasing from 8.9% to 10.5% between 2009 and 2013.

## 8.2.3 <u>Demographic Highlights:</u>

Germiston covers an area of 143.27km<sup>2</sup> with a population of approximately 256,000 people (51% male and 49% female), which represents just over 91,000 households. Most of the population fall between the ages of 20–49<sup>37</sup> and population group composition is almost 63% Black, 31.28% White, 3% Indian or Asian, 2.35% Coloured<sup>38</sup> and just over 1% classifying as 0ther.<sup>39</sup>

Table 9: S&J Specific Demographics

Gender	Stam p Mill - Unit 1	Stamp Mill - Unit 2	Stamp Mill - Unit 3	Stamp Mill Gardener s	Stamp Mill Managers	Stamp Mill Cleaner	Security - Ganymede Guardhouse	Vacant Land	Precinct	Sparepro
	Perman	ent								
Male										
Female										
Sub- Total	113	Between 2 and 10 when on site	Currently Vacant	6 every week 10 workers bi-weekly for grass cutting	1 Site Manager 1 Operation s Manager (2-3 days per week)	1	1 Day Guard 1 Night Guard	1 Day Guard 1 Night Guard	1 Day Guard 1 Night Guard in Patrolling Vehicle	Day Shift Triton SCS = 260 Night Shift Triton SCS = 160 Current SparePro Site (incl. Permane nt contracto rs i.e., couriers, security, etc.) estimate of 75
Sub- Total	113	8	0	16	2	2	2	2	2	495
Total	642 <sup>40</sup>									

<sup>36</sup> Demacon, 2015.

<sup>37</sup> 2011 RSA Census: https://census2011.adrianfrith.com/place/797008

<sup>&</sup>lt;sup>38</sup> It should be noted that the term 'coloured' is currently treated as a neutral description in Southern Africa, classifying people of mixed racial ancestry, and is specially not regarded by the communities that this term refers to as a offensive terms as is the case in some other western countries, such as the United Kingdom or the United States. As a consequence of Apartheid policies and despite the abolition of the Population Registration Act in 1991, Coloureds are regarded as one of four race groups in South Africa.

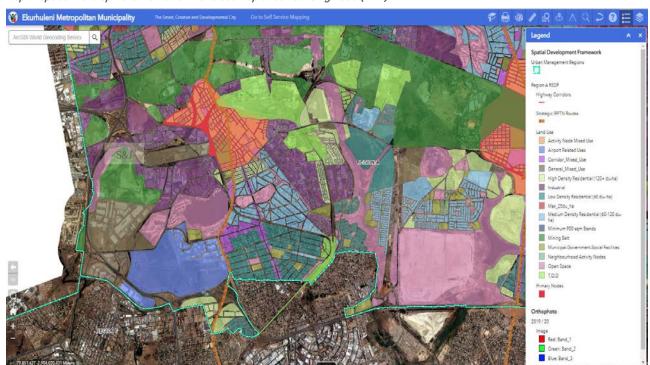
<sup>&</sup>lt;sup>39</sup> This mirrors the demographics of the greater Ekurhuleni.

<sup>&</sup>lt;sup>40</sup> This is based on information provided by Retha Bezuidenhout, Abreal. A detailed breakdown of the demographic composition of the staff contingent was not yet available but will be sourced when more detailed employee/tenant engagement processes commence.

### 8.2.4 Land Use:

The S&J EcoDistrict, in accordance with the Germiston Town Planning6 Scheme and the Spatial Development Framework (SDF), will host an end land use which will be a mixed use / Industrial Zone 1 zoning. Surrounding land comprise primarily of built-up industrial areas and major roadways, including the N12 / N3, and a railway line borders the northern section of the study site. The land on which the S&J industrial Estate is located, along with a large band of land across the Germiston node, shown are still classified as the Mining Belt. Although some of this land in the greater Germiston area has been earmarked for development, much of this land is currently occupied by mining dumps, slimes dams and informal settlements (EMM, 2012<sup>41</sup>).

As shown in the following map, S&J sits on the boundary of Region A, with the to the west forming part of the City of Johannesburg. The land uses surrounding the site is identified as general mixed use to the south, corridor mixed use to the north and east with some open space (the Germiston Golf Club and Victoria lake) to the south-east. The Rand Airport is shown in blue to the south. Similarly, the land that falls within the jurisdiction of the City of Johannesburg, is zoned mainly as *Demarcated* Mining *Land, Industrial, Industrial 3 and Business 4* as shown in Map 5 below.



Map 4: Spatial Development Framework Land Use Map of Surrounding Node (EMM)<sup>42</sup>

Source: EMM Online Self-Service Mapping

## 8.2.5 Housing:

There will be no residential component within the S&J EcoDistrict due to the nature of the industrial development that it will contain, and no residential offerings are provided within an 800m<sup>43</sup> buffer zone – which consists almost exclusively of industrial land uses. As part of the initial investigations conducted during the Imperatives Commitments formulation stage of the S&J EcoDistricts project, the required 800m (half-mile) buffer zone was further extended to 1.8km<sup>44</sup> (1.13 miles) to further assess the housing context within the vicinity.

No housing was identified even within the extended buffer zone, and a decision was made that as part of the roadmap objectives, strategies and programmes and projects, the S&J EcoDistrict would endeavour to address housing accessibility through advocacy with the EMM.

## 8.2.6 Recreation Facilities & Programs:

The S&J Master Plan includes plans to develop a retail centre and events centre. will provide retail and food outlets complimented by the Winding House that will serve as a new conference or events centre. The Winding House, which

<sup>&</sup>lt;sup>41</sup> Ekurhuleni Metropolitan Municipality. 2012. Regional Spatial Development Framework Region A. Spatial Concept.

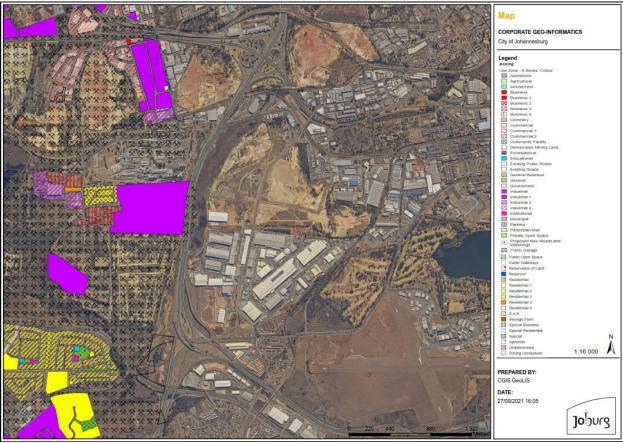
<sup>&</sup>lt;sup>42</sup> See Annexure D for a larger version of this map.

<sup>&</sup>lt;sup>43</sup> 800m is equivalent to the half-mile radius the EcoDistricts Certification Handbook requires projects to describe for a surrounding sphere-of-influence.

<sup>&</sup>lt;sup>44</sup> This more than doubles the original buffer requirement.

dates back to the 1950s was left behind by the mine which previously occupied the site, and the plan is to incorporate it into the aesthetics of the estate as a new events centre. The following images provide some insight into the vision for these spaces on site.

Map 5: Spatial Development Framework Land Use Map of Surrounding Node (COJ)  $^{45}$ 



Source: City of Johannesburg, Corporate Geo-Informatics

## 8.2.7 <u>Education Facilities & Programs:</u>

The S&J EcoDistrict does not contain any educational facilities *per se*, but the intent, as set out in the Roadmap indicators, is to include various forms of educational programmes or the facilitate relevant training sessions in line with the chosen priorities and objective categories identified as appropriate for this node.

As mentioned in an earlier section, there will be no residential component reliant on educational facilities and the focus on proposed programmes will be to address Priority Areas – more information is set out in the relevant sections of this report and could include facilitating matchmaking between training institutions and venues in the wider community surrounding the S&J Estate and the businesses that form part of the S&J community.

There are currently no schools within the S&J Industrial Estate EcoDistrict or within the immediate surroundings. The nearest facilities that have been identified during the preliminary assessment is set out in the table below:

Table 10: Educational Facilities (filtered according to distance from S&J)

Facility Name	Address	Distance from S&J
Ekurhuleni West College Germiston	6 Driehoek Rd, Germiston, Johannesburg, 1401	3.8km
The Lynn Harris Reading Centre & Primary School	3 Selkirk St, Germiston South (Industries E A), Germiston, 1401	4.4km
Eager beaver pre-school & day care	17 Queen & Cross street 2nd floor Revelas Towers Germiston West, Georgetown, 1401	4.9km
Boston City Campus - Germiston	2nd F1 Trustbank Building Corner Victoria & Odendaal Germiston, Johannesburg, 1402	5.3km

<sup>&</sup>lt;sup>45</sup> See Annexure E for a larger version of this map.

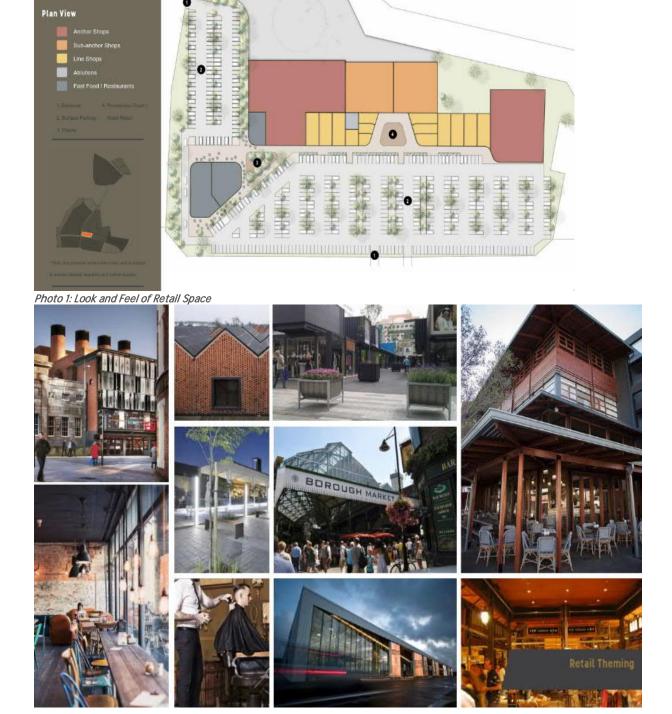
Facility Name	Address	Distance from S&J
Institute Status Acres Combined School	Railway St, Georgetown, Germiston, 1401	5.8km
Edu-Build Institute JP Campus	Corner Mons &, Menin Rd, Delville, Germiston, 1401	6.3km

These institutions could be approaches for potential locations or partnerships in training programmes.

Refer to Annexure F for a detailed framework of the potential S&J EcoDistrict Strategies, the associated assessment overview along with the preliminary overview of the responsibilities, funding and implementation timeline of the identified strategies, projects, and programmes.

Artistic Render 2: The proposed retail centre (layout and look and feel)

Retail



## 8.2.8 Historic & Cultural Resources:

The Winding House is the most prominent historic resource in the S&J EcoDistrict and will be celebrated as a cultural asset. The intent behind this celebration is set out in the preceding section, with further details on how the S&J EcoDistrict will integrate the Winding House events centre into the Roadmap Matrix as set out in Annexure F.

Artistic Render 3: The Winding House events centre (layout and look and feel)

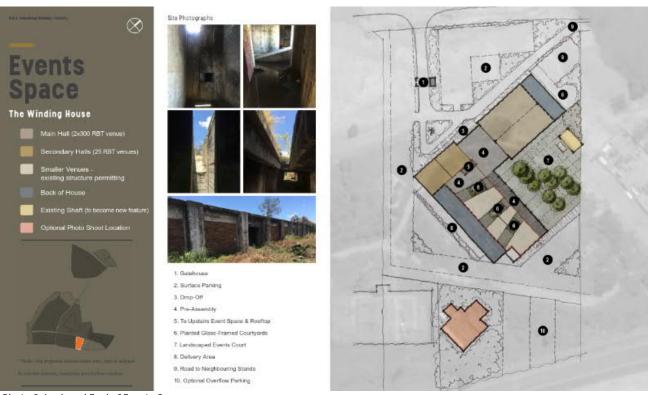
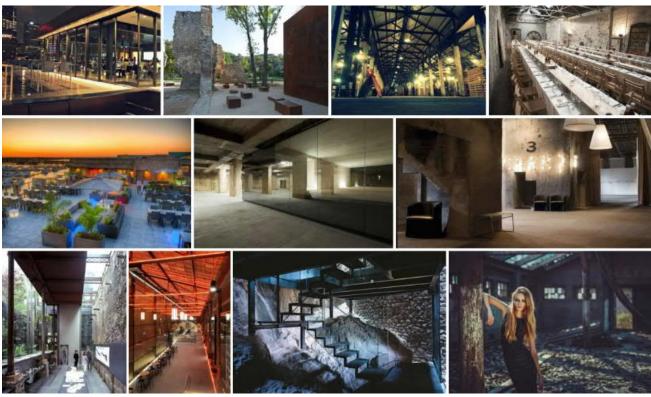


Photo 2: Look and Feel of Events Space



Photo 3: Additional perspective view of the proposed eventing space



## 8.2.9 Health & Human Services:

Over 90 clinics are operated by the City of Ekurhuleni, of which nine are open 24/7 and 18 are open 12-hours a day from Monday to Saturday. There are social development offices as well as rehabilitation centres that provide further healthcare services.

There are a number of clinics and government hospitals in the surrounding area that will be accessible to the S&J Industrial Estate community.

Table 11: Clinics and Government Hospitals Closer than 10km in Proximity (filtered according to distance from S&J)

Facility Name	Address	Туре	Operational Times	Distance from S&J
Alberton North Clinic	Cnr Hendrik Potgieter & 2nd Ave Alberton North	Clinic	Mon to Fri 08:00-16:30	3.6km
Germiston City Clinic	Cnr Queen & Cross Street, Germiston	Clinic	Mon to Fri 08:00-16:30	5km
Bertha Gxowa GateWay Clinic	1 Angus Street, Germiston (Private bag 1035, Germiston)	Clinic	Mon to Fri 08:00-16:30	5.3km
Bertha Gxowa Provincial Hospital	Angus St, Germiston South (Industries E A), Germiston, 1401	Hospital	Open 24 hours	5.3km
Dukathole Clinic	Kiewietjie Rd, Tedstonville Ext 1	Clinic	Mon to Fri 08:00-16:30 & Sat 08:00-14:00	8.3km
Bedfordview Clinic	3 Skeen Boulevard, Bedfordview	Clinic	Mon to Fri 08:00-16:30	9.6km
Elsburg Clinic & [Dental]	772 Ext, Cnr Els and Voortrekker Str, Elsburg	Clinic	Mon to Fri 08:00-16:30	9.9km

## 8.2.10 Public Safety:

It is the role of the Ekurhuleni Metropolitan Police Department (EMPD) to provide community safety, traffic policing and related security services and personal protection of the community, political offices, Council and visiting dignitaries. This includes the following divisions relevant to the S&J Industrial Estate<sup>46</sup>:

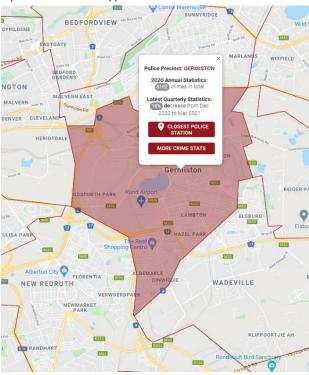
- Licensing which is responsible for the administration and logistics, including running of a Business Desk and development of standards and ensuring compliance;
- Compliance Bylaw enforcement: Monitoring violations and attending to complaints relating to street trading; vagrancy; signage and advertising; dumping; land invasion; waste; etc.

<sup>&</sup>lt;sup>46</sup> Source: https://www.ekurhuleni.gov.za/departments/2/empd.html

- Operations and Specialized Services improves safety and security to plan and execute crime prevention through operations and joint operations with other law enforcement agencies; and
- Security and Loss Control consist of four sections Security, CCTV and Alarms, Anti-Cable Theft and Loss Control (investigations) that deals with security related matters of the institution.

The S&J Industrial Estate falls within the Germiston Police Precinct, which covers the area in red shown in the map below. More detailed crime statistics for the area immediately surrounding the estate is currently not available, but as seen from the image below, the South African Police Services has reported an 18% decrease in crime from December 2020 to March 2021.

Map 6: Police Precinct Applicable to S&J



Source: https://www.crimestatssa.com/ [Accessed October 2021]

A state-of-the-art closed circuit television system surveillance system will be installed on the perimeter as well as at the guardhouses. Video analytics will be used with Black Screen Technology to monitor for perimeter intrusions and the system will be monitored offsite by the Intel Dynamic Intelligence Centre.

CCTV cameras installed to date in the different precincts:

- 11 PTZ<sup>47</sup> cameras which are all monitored remotely:
- 47 static<sup>48</sup> cameras, of which 30 are currently being monitored remotely;
- 11 LPR<sup>49</sup> cameras which are not monitored; and
- 6 ANPR<sup>50</sup> (sniper) cameras which are monitored.

These cameras are installed across the S&J NPC, Ganymede Precinct, around the POD Office as well as Amalthea Precinct.

## 8.2.11 Access Roads:

Linked to security, as well as transportation (which is dealt with in the following section) is access roads, and how the access control system will be used to ensure tenant safety.

- Tenants will gain access via the S&J Industrial Estate application which can be downloaded from the apple application store or from the Google Play Store.
- Tenants will register for parking, be verified as a tenant, and then gain access to the park via a license plate recognition system.

 $<sup>^{47}</sup>$  Pan, tilt and zoom camera. This refers to a camera that can zoom up to 100–200m, rotate 360 degrees and tilt 90 degrees.

<sup>&</sup>lt;sup>48</sup> This refers to various types of cameras. Used for fixed monitoring of perimeter monitoring and monitoring of general areas.

<sup>&</sup>lt;sup>49</sup> License Plate Recognition Camera. Used at Entrances to read vehicle number plates and open vehicle boom gates based on an approved list.

<sup>&</sup>lt;sup>50</sup> Automated Number Plate Recognition Camera. Used in the precinct, to read vehicle number plates, linked to law enforcement external databases to verify and alert on stolen and suspicious vehicles.

- 'Admyt' has been the preferred system but may be changed to a similar system in due course.
- Visitors can also be given temporary / one off access via the system.

Alternatively, those tenants who do not wish to register via the app will be registered on the biometrics system, to gain access to the estate. This system will also be utilized for staff accessing the estate on foot.

Deliveries and visitors will not be pre-booked on the LPR system. The guard on duty will scan the vehicle license disc and the driver's license upon entry and exit. This will allow verification that the same driver leaves with the vehicle used to enter.



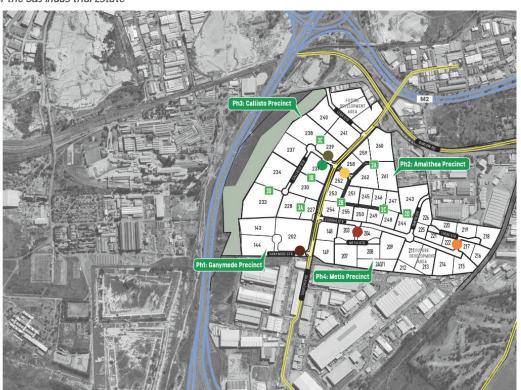
## 8.2.12 <u>Iransportation (All Modes):</u>

The S&J Industrial Estate is ideally located between the Geldenhuys- and Elands Interchanges, which makes it both highly visible as well as accessible. This area, which sits within reasonable proximity to the Johannesburg City Centre, is easily accessible via major highways and offers train, bus, and taxi public transport options.

The map below depicts the gatehouse locality, the location of the S&J sales offices and well as the internal street network.

Map 7: Internal street network of the S&J Indus trial Estate





S&J Industrial Estate | Conte

### Map 8: Signage Entrance Wall

S&J Industrial Estate | Precinct Elements

## SIGNAGE ENTRANCE WALL

### Gosforth South



#### Specifications:

Cast-in-situ concrete wall with

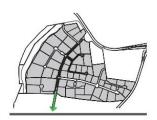
precast, customised wall panels

supplied by Wilson Stone.

....

Plascon, Lisbon Cove, GR-Y11

Sealed to supplier spec.





Design Perspective



Completed Wall

All internal roads and common area landscaping will be managed and controlled by the Company. It is to be noted that no road cutting/crossing for services by any Member<sup>51</sup> and or their own contractor will be permitted.

Map 9: Street Furniture - Public Litter Bins

\$&J Industrial Estate | Precinct Elements

# **STREET** FURNITURE

**Public Litter Bins** 



Specifications:

Wilson Stone

Modus 900 Dustbin

Customised branding

Natural concrete finish

On paving apron



Design perspective

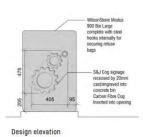






Photo of Installed Litter Bin

Within the public roads, distinct street furniture elements are incorporated, which portray to the identity of S&J Industrial Estate. These elements have various practical and aesthetic functions. Due to the nature of the Industrial Environment, materials selected are robust, and designs are simplistic. The images above and below provide an insight into the completed precinct elements.

 $<sup>^{\</sup>rm 51}$  Referring to each registered owner of an Erf.

## Map 10: Street Furniture - Sidewalk Details

S&J Industrial Estate | Precinct Elements

## STREET FURNITURE

### Sidewalk Details

Specifications:

#### Sidewalk Paving

Grey Interlocker to eng. Spec

### Cycle Path Paving

Bosun Urban Paver Smal

Colour: Granite

#### **Paving Features**

400 x 400 Flagstone

Customised branding

Natural concrete finish

On paving apron

1m Landscape buffer between

back of kerb and sidewalk to

landscape architect design









## Map 11: Street Furniture - Streetlights

&J Industrial Estate | Precinct Elements

# **STREET** FURNITURE

## Street Lights

Specifications:

Regent Lighting- Europa

engineer's specification

Single side fitting

Colour: charcoal Height: 5m

Light Source, height and spacing to

MODEL NUMBER
C141 - SINGLE D DEGREE
C143 - DOUBLE D DEGREE
C144 - DOUBLE 15 DEGREE
C144 - DOUBLE 15 DEGREE
C145 - FAMP POLE MOUNT

C146 - 74MM POLE MOUNT
SPECIFICATIONS
HOUSING: Luminaire head manufactured from 3CR1

pole attrusted durinium.

UGHT SOURCE: The fitting is designed to operate a 80% Ruserscent lamp and LED up to 64%. The LED is an Osram high powered LED mounted onto an attention, circuit boar incorporating Zener disease and thermal protection.

Ambient temperature 36°C, designed for 55 000 hours.

DIFFUSER: Toughered glass or high impact acrylic offering added protection for optical lenses.

LENSES: For LED: Modular optical lenses are used. Muterial

LINESS: For LED - Modular optical lenses are used. Multerial PMMA. Various tens options available for different applications allowing for customsofulions. REFLECTOR: Miro 4 grade material with reflectance efficiency

of 93%. PiniSht: Powder cooled. MOUNTING: Post mounted - vertical post. Recommended - mounting freight 3,5m to 5m. Recto

1.6". Side over option 7/amm 60 paies.
ACCESSOMES: A Cookes door, ARCE and book coge. Bose plat option - bose plot with subor option - bose plote with subor plots with resultant plots for Pridget mornaling apil can be litted over the subory observed for Pridget mornaling apil can be litted over the subor observed between the control option of Pridget for the princip apil can be litted over the princip option with a princip and princip a

FASTINES: 1 All extends screws are staintess steel. Cold pland and SAS approved to limitate PRF agest protection GASKET: Gaskets are manufactured from post custed sticor number implants. Stillicana: gaskets perform in a wid temperature range—40°C to 4200°C. INGRESS PROTECTION: 19:45.

MECHANICS: Ambient Temperature: 1, 36°C, Weight: Europa Single-124g totalinchading control gear. Windage: Mox. projected areas for mounting Europa Single Head-0.1 m<sup>3</sup>. Europa Double Head-0.2 m<sup>3</sup>.





Photos of installed street lights

It should be noted that permeable paving is encouraged to assist with stormwater management. The figure below provides insight into the specific guidelines set out regarding streetscape design.

Map 12: Streetscape Design Guidelines<sup>52</sup>

S&J Industrial Estate | Street Scapes

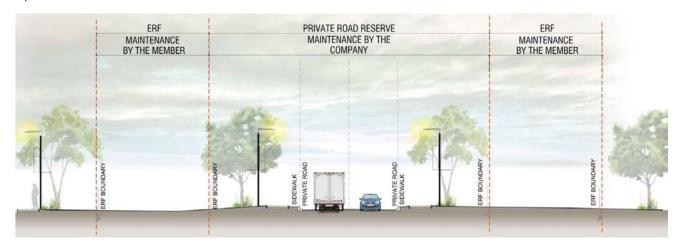
### STREETSCAPE DESIGN







Map 13: Private road reserve53



Map 14: Public road reserve54



 $<sup>^{\</sup>rm 52}$  S&J Industrial Estate Development Manual, 2021

<sup>&</sup>lt;sup>53</sup> S&J Industrial Estate Development Manual, 2017

 $<sup>^{54}</sup>$  S&J Industrial Estate Development Manual, 2017

#### 8.2.13 Gatehouses

Below are photos of the gatehouses developed to date.

Photo 4: Photos of developed gatehouses









#### 8.2.14 Water Supply:

The council water reticulation system is provided within the road reserve. Each Member<sup>55</sup> is responsible for application/deposits and connection fees and meter costs to council for its connection. This will be for both sanitary use as well as fire system supply. Designs that reduce the potable water consumption of the building are encouraged. Leak detection systems are recommended. Water supply for heat rejection systems and fire water systems to be from a non-potable source as far as possible. Water tanks must be screened.

#### 8.2.15 Wastewater Treatment<sup>56</sup>

Rainwater/Stormwater Management: The site was previously used as a mine tailings storage facility. Some of the tailings have been relocated to an alternative tailings' storage facility by the previous owners of the site, while other tailing remains on site and the relocation still have to be actioned in the future. In essence, the S&J Industrial Estate development itself will serve as the mine closure and rehabilitation plan for the site (NeII, 2021). The site is vacant with a watershed separating the drainage to the east and to the west. The larger western catchment topography falls at approximately 3.0% to the west. Along the western boundary of the site there is an existing wetland and natural watercourse which erven 1–30; 34–42 and road sections r1–r35 and r40 will discharge directly into. The eastern catchment drains at approximately 2.0% before discharging into the existing Transnet servitude. Erven 31–33; 43–55 and road sections r36–39 and r41–r46 will discharge to the east. Stormwater runoff generated by the site is currently discharged overland off site.

Ekurhuleni Metropolitan Municipality (EMM) requires on-site attenuation all new developments regardless of size. Therefore, stormwater attenuation will be required for each erf (Erven 1–55) and will be managed via an internal system which will be directed towards the low point of each erf where attenuation will be provided. These structures are to be designed to attenuate the 1:25 with a maximum discharge of the predevelopment 1:5-year event. The outflow from each of the attenuation structures will be such that the post-development outflow for the 1:25 year storm event does not exceed the pre-development outflow for the 1:5-year storms. An attenuation facility will be constructed at each erf before discharging into the surrounding infrastructure.

In line with the S&J Industrial Estate Development Manual, each Member will, at its own cost, be responsible for its own stormwater management system, as well as maintenance thereof. Every erf more than 8500 m<sup>2</sup> must be

 $<sup>^{55}</sup>$  Registered owner of an Erf and Member of the S&J NPC.

<sup>&</sup>lt;sup>56</sup> Information in this section taken extensively from the Stormwater Management Report. Proposed Development: Jupiter Extension 9 On: Remainder Of Portion 2 Of The Farm Elandsfontein 90-Ir And Portion 531 Of The Farm Elandsfontein 108-Ir For Abland. Stormwater Management Report. K&T Report #: 6192c. Rev 0. October 2016

provided with stormwater attenuation ponds for the control of stormwater within the boundaries of such erf. Should there be a possibility of contaminated stormwater, ponds must be lined and designed in such a way to not adversely affect ground water. Storm water systems must be designed by professional registered Civil engineers. These ponds are to be maintained by the owner or user to the satisfaction of the Association. Stormwater from the attenuation pond overflow will be discharged into the estate's stormwater infrastructure to be constructed and provided by the Developer. The Panel would encourage stormwater attenuation ponds be designed to be an attractive landscape feature.

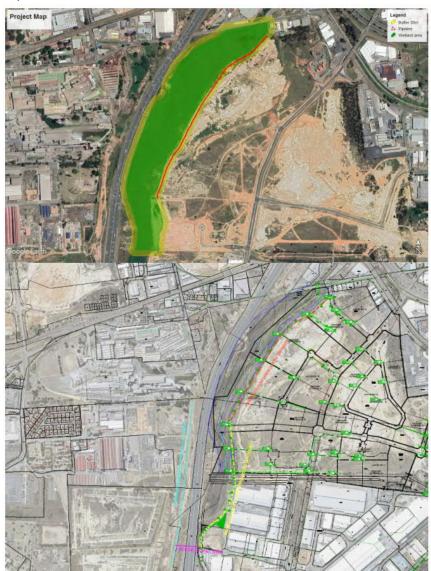
The attenuation facilities will have a filtering system to collect unwanted material. The materials will be removed from the filtering systems and will be disposed from the township. The discharge structures will have energy dissipaters to reduce the impact on the surrounding areas.

#### 8.2.16 <u>Natural Environment:</u>

There is a natural watercourse along the western boundary of the site. A flood line hydrology analysis has been prepared and the 1:50 and the 1:100-year flood lines have been determined as specified by Chapter 14, Part 3 of the Water Act (Act 36 of 1998), as required in terms of the Town Planning and Townships Ordinance (Ordinance 15 of 1986). Additionally, the riparian zone will need to be determined by a specialist environmental consultant. No construction will take place within the riparian zone.

The figure to the right depicts the extent of the delineated wetland area and the pipeline route within the buffer area (30m) (above) and the proposed project layout (below). The wetland was assessed as being Moderately Modified (C PES Class) which means a change in ecosystem processes and loss of natural habitat and biota is great, however, some remaining natural habitat features are still recognisable. Detailed PES assessment results are presented in Table 2 below. This is an improvement from the status recorded during the 2014 baseline assessment, namely Seriously Modified (E PES Class).

Several alien species are present within the larger project area, with only two (2) species recorded within the delineated wetland system. These two species are classed Category 1b1 alien plant species which must be removed. These species can be removed mechanically, preferably by hand. No chemical control is required. Photographs of the species which are to be removed are presented in Photo 5, with the location of these species presented in Map 15 below. These species may be removed



during the rehabilitation programme and do not require water use authorisation.

Map 15: The extent of the delineated wetland area57

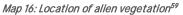
Photo 5: Category 1b species - stands of Cortaderia Selloana and Arundo Donax predominantly on the edges of the wetland<sup>68</sup>

<sup>&</sup>lt;sup>57</sup> Source: S&J Industrial Estate Wetland Rehabilitation & Landscape Management Plan, 2019

<sup>&</sup>lt;sup>58</sup> S&J Industrial Estate Wetland Rehabilitation & Landscape Management Plan, 2019



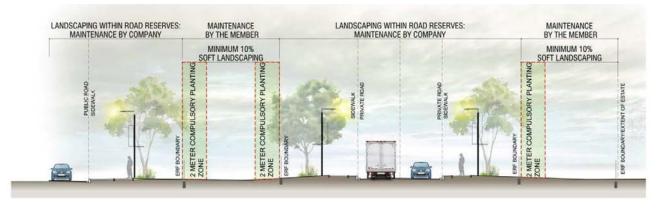
The specific location of the two alien plant species to be removed is shown in the map below.





All boundary treatment to be suitably landscaped as an integral part of the overall site's landscape design. A two [2] meter planting zone at any street [internal or public] facing boundary is mandatory as set out in the Figure below.

Map 17: Landscaping zones and maintenance responsibility areas



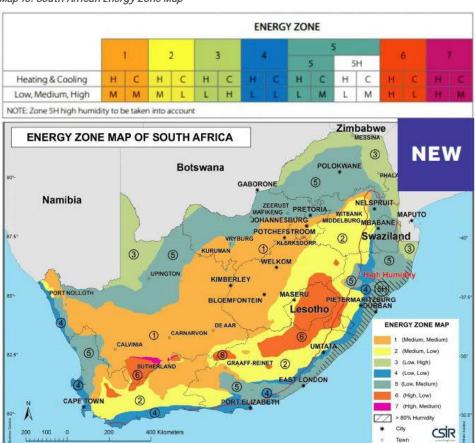
<sup>&</sup>lt;sup>59</sup> S&J Industrial Estate Wetland Rehabilitation & Landscape Management Plan, 2019

#### 8.2.17 <u>Climate:</u>

Summers in Ekurhuleni are considered mild with temperatures seldom above 30°C, it falls within the summer rainfall region of South Africa and the experience of hot wet summers and cool dry winters are normal. More than 80% of the rainfall occurs from October to April. Average rainfall for the region is between 715mm to 735 mm annually. The region is prone to intense rainfall events in terms of thunderstorms, which generally fall in the late afternoons. These storms account for the major flooding and heavy rainfall events that affect Ekurhuleni and can cause significant damage to livelihoods and infrastructure (Tyson and Preston-Whyte, 2000).

The South African National Standards (SANS) 10400-XA, which provides for the application of Regulation XA, or the minimum requirements of the South African National Building on energy efficiency and environmental sustainability in building design is currently in the process of being replaced with an updated version which will introduce tighter requirements for the energy performance components of building standards for public, commercial, and residential building sectors.

Most importantly, the climatic zone map reference in the earlier version of SANS 10400-XA, has been replaced with the Energy Zone Map developed by the CSIR<sup>60</sup>. The map indicates the 7 energy zones throughout South Africa, determined by the amount of heating and cooling energy required to bring the internal temperatures of buildings into thermal comfort levels.



Map 18: South African Energy Zone Map<sup>61</sup>

The legend on the map indicates the level of heating and cooling energy needed in accordance with the Energy Zone as follows:

- a) Zone 1 = Medium heating and medium cooling
- b) Zone 2 = Medium heating and low cooling energy
- c) Zone 3 = Low heating and high cooling energy
- d) Zone 4 = Low heating and low cooling energy
- e) Zone 5 = Low heating and medium cooling energy (Zone 5H 85% humidity area)
- f) Zone 6 = High heating and low cooling energy
- g) Zone 7 = High heating and medium cooling energy

<sup>&</sup>lt;sup>60</sup> The Council for Scientific and Industrial Research.

<sup>&</sup>lt;sup>61</sup> The Council for Scientific and Industrial Research.

The first step in determining compliance with the energy efficiency regulations is to identify the energy zone for the building location.

The S&J Industrial Estate falls within Energy Zone 1 confirming again the mild climate conditions in the area. By integrating good passive design features, the expectations are that the warehouses, offices, and other developments planned for this node, would be comfortable for end users.

#### 8.2.18 Baseline Year Indicator Results

A preliminary, integrated list of the Roadmap Priorities, Objective Categories, Objectives, Indicators, Baselines and 2030 Targets can be found in Annexure C. It is anticipated that this will remain a dynamic plan that will be completed in a more definitive manner once the Roadmap is approved, while the expectation is that it will continue to expand and evolve as the development unfolds. The aim of reaching carbon neutrality at a future date remains one of the most important constants in this process.

#### 8.3 Baseline Performance Assessment

The S&J Industrial Estate's baseline energy consumption and CO<sub>2</sub> emissions inventory was established using a modelling tool developed in-house as part of an appointment for the City of Johannesburg which had specifically focussed on testing the EcoDistrict Methodology in a specific node within its jurisdiction. The intent behind that appointment is to understand the applicability of the certification tool or guideline in the South African context, to create a tool to calculate the energy use and associated carbon emissions inventory in line with the EcoDistrict requirements and advise on the replicability of the proposed approach for replicability elsewhere in the City.

The S&J project, as demonstrated in an earlier section of this report, falls just east of the physical border of the City of Johannesburg in the City of Ekurhuleni, but the City of Johannesburg is one of the organisations that have provided a *Letter of Support* as part of the Imperatives Commitment process, and they have indicated that they realise the touchpoints that exist between the ongoing work they are doing around EcoDistricts and the journey the S&J Industrial Estate has embarked on.

## 8.3.1 <u>Modelling Protocol</u>

In line with the EcoDistrict requirements, the model created for the City of Joburg, and applied in the S&J EcoDistrict submission development process, the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories was regarded as the starting point for CO<sub>2</sub> emissions inventory guidance, with the following modifications:

- The emissions inventory boundary is a district's primary boundary.
- It is only necessary to inventory CO<sub>2</sub> emissions; other greenhouse gas emissions are optional.
- Using the Global GHG Protocol scope categories, CO<sub>2</sub> emissions to be inventoried include:
  - Scope 1. Operational emissions from sources located within the district, including those in the building, transportation, and infrastructure sectors.
  - o Scope 2. Operational emissions occurring outside the district from the use of grid-supplied electricity and thermal energy within the district in the building, transportation, and infrastructure sectors.

Although Greenfield development districts that are currently vacant are exempt from the baseline energy use and CO<sub>2</sub> emissions inventory requirement, it was deemed an important step in the S&J Industrial Estate roadmap development process to create a full understanding of the magnitude of the CO<sub>2</sub> emissions profile. Doing so would guide the discussion around appropriate Strategies, Projects, and Programmes to consider as part of the decarbonization efforts linked to the overarching goal of the EcoDistrict approach.

The build-out projection does include energy use and  $CO_2$  emissions estimates as occupancy will likely begin in line with the top structure build out with selected interventions in line with Net Zero mandates and other carbon emission reductions and other interventions that will occur over time to a neutrality year.

There is no energy consumption or carbon emissions related to infrastructure (wastewater treatment facilities, landfills, etc.) within the physical boundary of the S&J Industrial Estate, and those would therefore be considered Scope 3 emissions. The energy baseline and CO<sub>2</sub> emissions inventory only account for Scope 1 and Scope 2 emissions as described in the Global GHG Protocol and the EcoDistricts Certified Handbook (page 56).

#### 8.3.2 Energy Use Profile

The energy baseline and CO<sub>2</sub> emissions inventory only account for Scope 1 and Scope 2 emissions as described in the Global GHG Protocol and the EcoDistricts Certified Handbook (page 56).

Table 12: S&J Industrial Estate Estimated baseline energy consumption in million BTU/year for the 2021 calendar year

BASE YEAR ENERGY USE							
Energy Use (kWh/year)							
	Scope 1		Scope 2				% of Total
	Buildings	Internal	Grid-Supplied Electricity			Total Annual	Annual
Energy End Uses	Using Natural Gas/Fuel Oil	Transport Fuels	Buildings	Internal Transportation	District Infrastructure	Energy Use	Energy Use
Buildings							
Residential						-	0.0%
Non-Residential			9 653 992			9 653 992	81%
Buildings Sub-Total			9 653 992			9 653 992	81%
Transportation (Internal Pe	erson/Trips)						
Motor vehicles		2 234 045				2 234 045	19%
Transit Vehicles							0.0%
Transportation Sub-Total		2 234 045				2 234 045	19%
Infrastructure							
Streetlights					39 200	39 200	0.3%
Traffic Control					900	900	0.0%
Infrastructure Sub-Total					40 100	40 100	0.3%
TOTAL							
District Total	-	2 234 045	9 653 992	-	40 100	11 928 137	100%

#### 8.3.3 CO<sub>2</sub> Emissions Inventory

Table 13: S&J Industrial Estate Estimated baseline CO<sub>2</sub> emissions in metric tons/year for the 2021 calendar year

BASE YEAR CO2 EMISSIONS							
	Carbon Emissions (kg of Carbon per Year/year)					% of	
	Scope 1			Scope 2		Total	Total
Energy End Uses	Buildings	Internal	Grid-Supplied Electricity			Annual	Annual
	Using Natural Gas / Fuel Oil	Transport Fuels	Buildings	Internal Transportation	District Infrastructure	Energy Use	Energy
Buildings							
Residential						-	0.0%
Non-Residential			11 584 791			11 584 791	81%
Buildings Sub-Total			11 584 791			11 584 791	81%
Transportation (Internal Pe	erson/Trips)						
Motor vehicles		2 680 854				2 680 854	19%
Transit Vehicles						-	0.0%
Transportation Sub-Total		2 680 854				2 680 854	19%
Infrastructure							
Streetlights					47 040	47 040	0.3%
Traffic Control					1 080	1 080	0.0%
Infrastructure Sub-Total	-	-	-	-	48 120	48 120	0.3%
			TOTAL				
District Total	-	2 680 854	11 584 791	-	48 120	14 313 765	100%
ADJUSTED BASE YEAR EMISS	SIONS						
On-Site Sequestration (CO2					152 250	152 250	1.1%
metric tons/year) <sup>1</sup>					132 230	132 230	1.170
Excess Renewable Power							
Sales Offsets (CO2 metric							0%
tons/year) <sup>2</sup>							
Adjusted District Total	-	2 680 854	11 584 791	-	- 104 130	14 261 515	100%
(CO2 metric tons/year) Notes:							

Current estimates for on-site sequestration are based on the 609 trees already on site – 306 Acacia galpinii/Apiesdoring, 178 Celtis africana / Witstinkhout, 99 Liquid Amber / Sweet Gum Trees and 19 Vachellia Xanthophloea / Fever Trees.

The renewables on site are currently feeding energy into the buildings on which they are located. In South Africa feedback back into the grid is not a legal option at the moment, but the development is investigating how grid feedback can be scaled should the necessary legal agreements be put in place.

#### 9. EXISTING LOCAL TARGETS & PARALLEL EFFORTS

#### 9.1 LOCAL TARGETS - EKHURHULENI

Regarded as an important industrial and logistics hub in South Africa, the City aims to become a "delivering, capable, sustainable" city by 2055. As part of these efforts, the City has prioritized responding to climate change through various initiatives.

The EMM's Green City Action Plan<sup>62</sup> has identified actions—including city-level policies, investments, and planning strategies—that can help the City meet its climate mitigation and sustainability targets. Specific targets pursued in the Green City Action Plan are aligned with the City's existing Ekurhuleni+ Challenge 2030 targets, as follows<sup>63</sup>:

- a) 25% reduction in fossil fuel energy use\*
- b) 20% reduction in private fossil fuel vehicle kilometres travelled\*\*
- c) 20% improvement in water security\*\*
- d) 50% reduction in waste sent to landfill\*
- e) 20% reduction in greenhouse gas (GHG) emissions\*.

As set out in the Climate Protection Imperative Commitment in the Imperatives Commitment document, the S&J Industrial Estate EcoDistrict commits to align with the EMM targets for 2030 as interim targets to guide the roll-out of their roadmap to decarbonization at a future target date (currently set for 2050). These might be updated as required over the coming years to retain alignment with local targets and other parallel efforts deemed relevant.

#### 9.2 PARALEL EFFORTS - CITY OF JOBURG

The City of Johannesburg has committed to adopting a Climate Action Plan aligned with the aims and targets of the Paris Agreement. Long before the Paris Agreement was signed, the City was already at the forefront of low-carbon development and resilience planning. The City's long-term strategy, known as the 2040 Growth and Development Strategy (GDS) made provisions for a resilient, liveable, sustainable urban environment, compatible with a healthy natural environment and underpinned by infrastructure supportive of a low-carbon economy. COJ has committed to the following two overarching goals: 1) Net-zero emissions by 2050; and 2) A Climate-resilient City by 2050 (COJ, 2021<sup>64</sup>).

The details of these goals are set out below:

Table 14: COJ Climate Action Plan Targets

GOAL 1: NET-ZERO EMIS	GOAL 1: NET-ZERO EMISSIONS TARGETS			
Category	Target			
Affordable Clean Energy	<ul> <li>By 2030, 35% of electricity consumed is generated from renewable energy sources.</li> <li>By 2050, all residents have access to safe, affordable, and net-zero emissions energy.</li> </ul>			
Optimised Energy Efficiency in Buildings	<ul> <li>By 2030, new buildings operate at net-zero emissions. In addition, the City commits to only developing, owning, and occupying assets with net-zero emissions operations.</li> <li>By 2050, all buildings operate at net-zero emissions.</li> </ul>			
Green Transport	<ul> <li>By 2030, 70% of commuters use public transport, walk or cycle.</li> <li>By 2050, 90% of commuters use public transport, walk or cycle and all residents have access to safe, affordable and net-zero-emissions transport.</li> </ul>			
Alternative Waste Management	<ul> <li>By 2030, per capita municipal solid waste generation has been reduced by at least 15%. The volume of municipal solid waste sent to landfill or incinerated has been reduced by at least by 50%, and at least 70% of waste is diverted away from landfill and incineration, compared to 2016.</li> <li>By 2050, 100% of solid waste is diverted from landfill and remaining methane emissions from waste are captured.</li> </ul>			
Improved Water Supply & Wastewater Treatment	<ul> <li>By 2030, a comprehensive review has been undertaken of the energy use by, potential energy savings and energy generation opportunities in the water and wastewater systems, and a Net-Zero-Energy programme has been developed.</li> <li>By 2050, net-zero emissions have been achieved in all water and wastewater systems, including water treatment, conveyance, supply, and wastewater treatment and disposal.</li> </ul>			

<sup>&</sup>lt;sup>62</sup> City of Ekurhuleni. 2021. Draft Green City Action Plan.

<sup>63 \*</sup>Ekurhuleni+ Challenge 2030 target; and \*\*New target but aligned with Ekurhuleni+ targets.

<sup>&</sup>lt;sup>64</sup> City of Johannesburg. September 2021. Climate Action Plan.

GOAL 2: A CLIMATE RES	ILIENT CITY TARGETS
Category	Target
Water Security	<ul> <li>By 2030, 100% of residents have access to a reliable water supply and 96% have access to sanitation services. The city is fully water secure.</li> <li>By 2050, 25% of water supplied comes from alternative sources, average per capita water demand is reduced to 175 litres per day, water losses are reduced to below 20% and Blue Drop status is maintained above 95%</li> </ul>
Resilient Human Settlements	<ul> <li>By 2030, all households have access to safe, resilient, and affordable basic services.</li> <li>By 2050, 100% of the population is accommodated in affordable, resilient, and low-carbon housing. All citizens have access to safe and sustainable open space, with tree cover of over 30%</li> </ul>
Flood & Drought Management	<ul> <li>By 2030, flood management is mainstreamed and improved across all sectors to minimise social, economic, and environmental impacts of flooding.</li> <li>By 2030, fully functional early warning systems are in place for floods, droughts, fires and storms, and the response plans for floods and droughts have been updated.</li> <li>By 2050, no houses, offices, industries, or critical infrastructure are located in high-flood risk areas and water supply and food systems are drought proof.</li> </ul>
Resilient Infrastructure	<ul> <li>By 2030, all current backlogs of upgrades to urban stormwater infrastructure have been addressed and updated stormwater guidelines have been developed.</li> <li>By 2050, the City of Johannesburg has been transformed into a Water Sensitive City which incorporates Water Sensitive Urban Design (WSUD) into all aspects of urban planning.</li> <li>By 2050, the city has 30% green cover (including green roofs) for city and passive building cooling.</li> </ul>
Healthy Communities	<ul> <li>By 2030, the City is compliant with the National Ambient Air Quality Standards (NAAQS) and aspires towards compliance with WHO standards.</li> <li>By 2030, the negative impacts of higher temperatures and heat waves on food security, human and environmental health have been reduced.</li> <li>By 2050, all communities enjoy clean air, are resilient to the health impacts of climate change and are food secure.</li> </ul>

Source: City of Johannesburg. September 2021. Climate Action Plan

#### 10. ROADMAP HORIZON YEAR

The S&J EcoDistricts horizon year for the purpose of this Roadmap is the year 2030. This is in alignment with the internal targets set for the Redefine portfolio, the EMM Climate Action Plan in its drive as a metro toward carbon neutrality. This time horizon is also expected to coincide with the anticipated development roll-out of 100% of the top structures within the S&J EcoDistrict, market allowing. The S&J EcoDistrict aims to be a net carbon neutral community by the year 2050.

#### 10.1 DISTRICT BUILD-OUT ESTIMATE

As set out in Section 3 the S&J Industrial Estate will span an impressive 160ha. It is further expected that the gross leasable area development rights that will be awarded to the project over the course of its development, is expected to be approximately 975,151m<sup>2</sup>. The development rights are applied for and awarded incrementally as the market dictates.

The following table provides insight into the anticipated roll-out of the development of the top-structures on site. *Table 15: S&J Industrial Estate Development Timeline* 

Description	Dates
Infrastructure Jupiter Ext 28- Roads and infrastructure	Jul-20
Start Spare Pro - Top structure	Aug-20
Infrastructure Jupiter Ext 10,17,18 -Internal roads and infrastructure	Targeting Nov 2023
Infrastructure Jupiter Ext 16, 34 -Internal roads and infrastructure	Targeting 2024
Infrastructure Jupiter Ext 10,17,18 -Internal roads and infrastructure	Targeting 2024

Description	Dates
Infrastructure Jupiter Ext 19,20 - Internal roads and infrastructure	Targeting 2026
Infrastructure Jupiter Ext 21,22,23,24 -Internal roads and infrastructure	Targeting 2030

#### 10.2 HORIZON YEAR PERFORMANCE TARGETS

The S&J Roadmap is organized according to the EcoDistrict priorities and include at least one indicator for each of the priority objective categories and for each of the Imperatives. The baseline performance and 2030 targets for indicators (where possible) have been documented in Annexure C.

The majority of the indicators will require more intensive tracking but will also require criticality of mass before the strategies linked to specific objectives will be implemented. The development is currently still in the very early stages with bulk enabling infrastructure installed, and site-specific development now taking place as the market dictates.

Once the S&J Industrial Estate EcoDistrict reaches formal certification, the responsibilities for operationalising every element associated with the EcoDistrict, including refining the potential strategies (set out in greater detail in the following section) and tracking the relevant indicators, will be assigned to the appropriate team, and tracked and reported on in the biennial progress reports.

#### 11. POTENTIAL STRATEGIES

The S&J EcoDistricts Roadmap is organized by the EcoDistrict Priorities and includes at least one potential strategy for each of the priority objective categories (while in most instances, to provide opportunity of choice, more than one potential strategy was provided).

As a master planned EcoDistrict, the intent behind some of the strategies were to capture the opportunities associated with planned growth of this entirely new development. It is also this anticipated growth, which could be planned and controlled through the master planning process, which informed all decisions and strategy guidance set out below. It is anticipated that as more S&J NPC members come on board, more robust discussions and decision–making will refine the strategies, projects and programs and will also extend the list of actions taken on the ground.

Refer to Annexure F for a detailed framework of the potential S&J EcoDistrict Strategies, the associated assessment overview along with the preliminary overview of the responsibilities, funding and implementation timeline of the identified strategies, projects, and programmes.

Table 16: S&J Roadmap Potential Strategies

EcoDistrict Priority	Objective Categories	Potential Strategies
PLACE		Develop a S&J cohort of people (made up of representatives from some of the business operating in the precinct) who can connect with the community about this plan, who can communicate and activate people about development and progress and can explain how the S&J EcoDistrict relates to regional and national trends
	Engagement & Inclusion	Adopt the S&J EcoDistricts Roadmap framework to refine the implementation Action Plan and align efforts with other communities (including COJ and EMM)
	Engagement & Inclusion	Initiate interaction with the Ekurhuleni Metropolitan Municipality to engage on municipal regulations, goals, and targets to foster a community culture that ensures transparent and inclusive review processes and project implementation. Collective impact should be underscored
		Create an S&J NPC forum focussed on interaction with surrounding communities to share the EcoDistrict intentions, lessons learned and aspirations
	Culture & Identity	Highlight and share storytelling through community events
		Appropriate event programming at celebrated spaces
		Incorporate appropriate plaques or other signage to celebrate site heritage

EcoDistrict Priority	Objective Categories	Potential Strategies
		Create an S&J marketing campaign to conceptualize, communicate, and control the S&J EcoDistricts identity, narrative and how it is viewed by the region and beyond
		Promote universally accessible mobility routes for all modal types (including non-motorised transport)
		Conduct a transportation survey of those who work in S&J to assess accessibility and identify areas of improvement
	Public Spaces	Create an environment to supports safe and comfortable pedestrian movement throughout the node
		Conduct a neighbourhood walkability audit on an annual basis to identify areas that need improvement
		Program: Regular graffiti removal
		Program: Public area cleaning and maintenance
	Housing	Establish a dialogue with the Ekurhuleni Metropolitan Municipality to advocate for public transportation routes that provide accessibility to a range of housing typologies
		Facilitate a housing affordability survey
	Access to Opportunity	Work with local businesses and relevant NGOs or training facilities to identify and host relevant training opportunities (for people working in the S&J EcoDistrict as part of multi-skilling/upskilling/reskilling for alternative positions within the precinct itself)
	Economic Development	Create or facilitate short- and long-term employment opportunities for surrounding communities in the precinct (similar to the <i>Guys in Green</i> test case)
		Assess potential of attracting emerging sectors to locate in the S&J EcoDistricts
PROSPERITY		Facilitate conversations around the circular economy with businesses both within S&J and located in the immediate vicinity to facilitate economic resilience and growth potential
		Facilitate the establishment or establish business clusters that connect the S&J EcoDistrict community to the regional and global economy.
		Partner with suitable organisation to provide suitable training to SMMEs to facilitate greater participation in the formal economy
	Innovation	Establish S&Js reputation as a place to start and grow a business. A business incubator can support and encourage entrepreneurs and local business enterprises to connect to the regional economy
HEALTH &		Create living streets, plazas, and other engaging pedestrian experiences
WELLBEING	Active Living	Facilitate the creation of an active, visible, and welcoming health and wellness coaching program in the community (i.e., lunchtime run/walk for life, etc)
		Conduct a neighbourhood walkability audit on an annual basis to identify areas that need improvement
		Implement and effectively manage the rehabilitation of groundwater affected by previous operations on site
		Enhance and preserve the wetland
	Health	Provide a list of COVID19 vaccination sites, and information on local healthcare professionals (government clinics or government hospitals within 10km of the S&J EcoDistrict) indicating the type of facility and support which can be accessed
		Incorporate 'complete streets principles' to guide road design and repairs
	Safety	Ensure that there an S&J disaster management plan in place and communicated to the wider S&J Community

EcoDistrict Priority	Objective Categories	Potential Strategies
		Create an effective plan for remote CCTV monitoring for the S&J EcoDistrict and actively track implementation roll-out and impact on the safety and security within the EcoDistrict
		Formulate and implement a plan for security patrols, appropriate access control and security monitoring (not elsewhere classified) for the S&J EcoDistrict
		Provide information on the current location of facilities where S&J community members can access fresh food options outside of the S&J EcoDistrict
	Food Systems	Expand and improve access to fresh food sourcing options within S&J
		Engage with a relevant service provider/NGO or medical aid (or similar) to provide training or pop-up events in the S&J Community on healthy food choices, healthier food preparation or other similar content
		Implement the urban design/streetscape framework to support all travel modes, with specific focus on universal access and non-motorised transport
	Street Network	Develop a Green Travel Plan for the S&J node and require all businesses within the node to participate in related surveys with staff movement, transport to and from their site, to facilitate potential synergistic approaches
		Establish a transportation baseline by issuing a transport/travel survey asking where workers live, and how they get there
		Ensure that all legislative requirements related to universal access are met or exceeded
CONNECTIVITY	Mobility	Advocate for an increase in the use of alternative transportation and better connection between the S&J EcoDistrict and the broader region
		Investigate the provision of electrical vehicle charging points within the S&J EcoDistrict at strategic locations
		Investigate or support projects that will increase the walkability and/or improve access to amenities for cyclists or pedestrians within the S&J EcoDistrict
		Identify areas with more frequent traffic accidents and target them with safety improvements
		Provide or facilitate access to good quality fibre or wireless networks
	Digital Network	Investigate and motivate for the provision of free Wi-Fi at selected public spaces within the S&J EcoDistrict
		Create a shade tree policy, including requirements for parking lots, new development, and tree removal/replacement
	Natural Features	Ensure implementation of the development master plan and associated policies for new development (including parking lots) that require a certain quantity of green infrastructure (e.g., landscaping, tree canopy cover, etc.)
		Implement the wetland rehabilitation plan and actively manage the wetland in the S&J node
LIVING		Actively manage the tree cohort on site and compost any landscaping items for re-use on site
LIVING INFRASTRUCTURE	Ecosystems Health	Actively implement and promote projects and investments made in green infrastructure projects (this could look into the investment made into the wetland rehabilitation, the extent of investment made into the landscaping on site, etc.)
		Track the conversation rate of the extent of land converted from previous operation impact area into the S&J Industrial Estate
	Connection with Nature	Actively promote the use of the public infrastructure (benches, etc) during lunchtime to engage with nature
		Actively track the extent of land area earmarked for green streetscape / landscaping provided/developed

EcoDistrict Priority	Objective Categories	Potential Strategies
		Develop an Integrated Pest Management Plan for the S&J EcoDistrict that promotes and requires the use of only non-toxic pest control to ensure a safe site and limit negative impact on the wildlife located in the wetland
		Investigate viability of an install active owl boxes throughout the EcoDistrict as an alternative form of pest management
		Buildings to be 100% electric. No combustion for cooking or hot water heating
		Investigate and motivate for the viability of including renewable energy technologies in the community (link to the net zero targets for 2050 set by EMM) [Renewable energy offset]
		BUILDING SPECIFIC - Ensure that minimum energy code requirements are met by all new buildings, with no rationalisation of hot water requirements for all building types. i.e., minimum 50% of hot water on a site to be heated by non- electric resistance means. [S&J Minimum requirements]
		BUILDING SPECIFIC - Electrical distribution boards to be designed for submetering by grouping loads. GS ENE-2 Guidance [Good practice future proofing design]
	Air & Climate	BUILDING SPECIFIC - Investigate smart meters and other potential data sources to track and manage water and energy consumption. [Operational efficiency]
		Conduct periodic audits and transparency reports to reduce municipal energy consumption
		Create energy, water and power benchmarks that are reported against within the development. Automated reporting in line with EPC benchmarks. [Operational efficiency]
		Enabling infrastructure for feed into common grid. SSEG Guidelines. [Renewable energy offset]
		Investigate the feasibility of a district-scale solar farm – assess the viability of wheeling agreements being put in place to facilitate feeding back into the municipal grid. [Renewable energy offset]
		Establish energy education programs for the community
RESOURCE REGNERATION	Water	BUILDING SPECIFIC - Create a water efficiency guideline for all end-users within the S&J community. Benchmark against EDGE - Showers - 6I/min - Wash hand basins (bathrooms - 4I/min - Kitchen taps - 6I/min (excluding commercial kitchens) [S&J minimum requirements]
		Assess viability to introduce rainwater harvesting requirements in the community [Regeneration/renewable]
		Develop and implement an appropriate stormwater quality management plan
		Educate the community about water conservation and the floodplain
		Activate the community to engage in behaviours that reduce water consumption and minimize flooding and its impacts
		Set out requirements regarding the use of landscaping or permeable pavers for stormwater management
		New buildings to provide EMP in line with Green Star requirements, including waste management plan to divert 75% of construction waste to landfill
		Track S&Js combined waste profile and increase the community's diversion rate from landfill
	Waste	Investigate the creation of S&J waste management targets and policies, including event standards
		Partner with waste reduction non-profits for education and resources
		Establish strong relationship with the municipality to future plan around service delivery, service breakdowns and alternative community responses to remain operational in such conditions
		Develop communication materials around recycling

EcoDistrict Priority	Objective Categories	Potential Strategies	
		Install tri-sorter waste bins in public right of way	
		Assess potential of creating a composting intervention on site	
		Advocate that all businesses on site participate in an organic waste recycling project (including all events hosted on site)	
		Facilitate a conversation around partnerships with restaurants to implement an anaerobic digestion program that converts food waste into energy	

#### 12. STRATEGIES ASSESSMENT

The S&J Industrial Estate EcoDistrict is still in development and will continue to be for at least the next 8 years in line with the current District Build-Out Estate. The intent behind most of the strategies, and therefore also the assessment was to ensure that the focus falls on creating new building stock that is as resource efficient as possible that can then be supported by appropriate efforts to decarbonise the electricity sources that serve those buildings while not have to carry unnecessary loads. This strategy is already being seen in the buildings that are already on site. Fuel shifting and improved other efficiencies where possible, reducing waste and understanding the power that lies with the preservation and increase in natural carbon sinks also form an impart part of the overall Action Plan.

The recommendations in the Action Plan have been assessed, the results of which will inform the S&J Industrial Estate EcoDistricts immediate priorities over the next 8 years. Prioritisation will be given to the recommendations that are fully within the S&J NPCs control, that align with the S&J Industrial Estate EcoDistricts values, and which match the organisation capacity and funding available during that same period.

The S&J Industrial Estate EcoDistrict will also continue to place significant importance on ensuring that there is continue alignment between the recommendations, anticipated outcomes, and the intent of the three Imperatives of Equity, Resilience and Climate Protection.

The S&J Industrial Estate EcoDistrict considered risk, level of stakeholder support and impact on the 2030 (and later) performance targets when assessment all the recommendations contained within the Action Plan. Refer to Annexure F for the full strategies assessment.

Below is an overview of the ranking criteria and scoring used in the assessment process.

Table 17: Ranking Criteria and Scoring Descriptions for S&J Industrial Estate EcoDistrict Recommendations

Ranking Criteria	Score 1	Score 2	Score 3
Technical Readiness	Few to no key steps for implementation of this project/program are in place	Some, but not all key steps for implementation of this project/program are in place	All key steps for implementation of this project/program are in place
Financial Soundness	The S&J Industrial Estate EcoDistrict has neither the funds nor a fundraising plan to implement this project/program	The S&J Industrial Estate EcoDistrict has partial funds and/or a fundraising plan to implement this project/program	The S&J Industrial Estate EcoDistrict has all the funds to implement this project/program
Risk	Implementation of this project/program has high risk of negative social, economic, or environmental consequences	Implementation of this project/program has moderate risk of negative social, economic, or environmental consequences	Implementation of this project/program has low risk of negative social, economic, or environmental consequences
Capacity to Manage	The S&J Industrial Estate EcoDistrict / S&J NPC will not have sufficient capacity to implement this project/program until 8+ years from now	The S&J Industrial Estate EcoDistrict / S&J NPC has sufficient capacity and partner support to implement this project/program within the next 4-6 years	The S&J Industrial Estate EcoDistrict / S&J NPC has sufficient capacity and partner support to implement this project/program within the next 3 years
Level of Stakeholder Support	Stakeholders have not expressed support for this project/programme, or have expressed concern	Stakeholders have expressed moderate support of this project/program	Stakeholders have expressed enthusiastic and full support of this project/program

Impact on Targets	Implementation of this project/program would make minor progress towards fulfilling S&J Industrial Estate EcoDistrict commitment to the six EcoDistrict Priorities	Implementation of this project/program would make moderate progress towards fulfilling S&J Industrial Estate EcoDistrict commitment to the six EcoDistrict Priorities	Implementation of this project/program would make significant progress towards fulfilling S&J Industrial Estate EcoDistrict commitment to the six EcoDistrict Priorities
Contribution to Climate Neutrality Targets	Implementation of this project/program would reduce Scope 1 and Scope 2 community-wide carbon emissions slightly or not at all	Implementation of this project/program would moderately reduce Scope 1 and Scope 2 community-wide carbon emissions	Implementation of this project/program would significantly reduce Scope 1 and Scope 2 community-wide carbon emissions

In some cases, the assessment process had to deviate from this overall assessment strategy to accommodate for the projects/programs or strategies that were a little more nuanced, or where the input form additional stakeholders would ideally enable a more robust assessment – and which can only be done once a larger portion of the development is underway or complete.

The assessment captured in Annexure F does however provide a significant starting point to guide the activities of the S&J Industrial Estate EcoDistrict in the coming years. Additional reporting will be provided as part of the biennial progress reporting to retain certification.

#### 12.1 Carbon Emission Calculations

There are several actions listed in the Action Plan (set out in Annexure F) that will not directly contribute to overarching goal of carbon neutrality but will indirectly or cumulatively contribute. Those impacts are listed in the Action Plan as far as they are known or anticipated.

The sections below, provide a little more insight into the actions and specific performance targets that are directly quantifiable. The same model used to calculate the Energy Use Profile and associated CO<sub>2</sub> Emissions Inventory, which was described in greater detail in Section 8, was used to calculate the information below.

#### 12.1.1 <u>General Model Inputs</u>

As set out throughout this document, the S&J Industrial Estate development is at the earlier stages of top structure development and the expectation is that the baseline results shown here will be updated over time to reflect all changes on the ground as the specific details are confirmed.

The table below shows the various model inputs and their source:

Table 18: S&J Industrial Estate EcoDistrict Input Sources

Input	Source document	Provided by
Development Area	S&J Land Area and Bulk - 16 May 2022 (Redefine	Redefine Properties
Breakdown of development types	None. Estimated	Solid Green Consulting cc
Traffic into and out of development	S&J Master Traffic Impact Assessment Draft	Civil Concepts

#### 12.1.2 Neighbourhood Inputs - Current Development

A land area- and bulk schedule was used to understand the current context of the study area. Individual erven were captured as part of the schedule. There is currently no detailed information on anticipated usage for every site within the development which, ideally would have provided the total land use context for the area and also provided information on usage that would allow aggregation into typical sites - but this type of information will only be known once the development portions are put to market and development takes place.

These sites would ultimately form the basis for extrapolation to the different model levels, namely blocks, to precinct scale, and ultimately to neighbourhood scale. As more information is available on different sites coming online in the development, the model would be updated to include new information.

#### 12.1.3 Area Inputs

As a reflection of what is currently happening on site, only industrial sites are currently captured in the model. In future iterations, the information will be further broken into different space types (office, storage, etc.).

For the purpose of the current overview, the total gross leasable area (GLA) that will be developed in totality was split up as per the table below:

Table 19: Area Contribution Assumptions

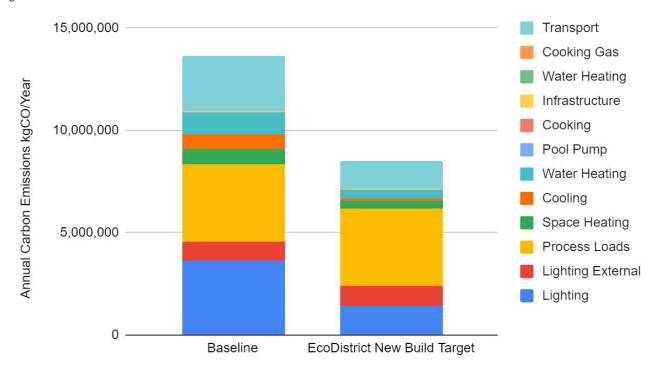
Industrial Type	Description	% of Development Assumed
Warehouse (Light Industrial)	Primarily storage, small amount of process load	50%
Warehouse (Medium Industrial)	Even distribution of storage and process load	30%
Warehouse (High Industrial)	Primarily process	20%

There is currently 73,467m<sup>2</sup> of warehousing already installed on site. This figure was used to calculate the baseline energy use profile and carbon emissions inventory profile set out in Section 8. This will also be used as the business-as-usual baseline.

With a 'future focus' an EcoDistricts *New Build Target* was developed. This is based on potential savings that can be achieved from energy efficiency focused design and setting specific targets for fuel switching of delivery vehicles to electricity instead of fossil fuel. This is based on the anticipated full gross leasable area development rights that will be awarded to the project over the course of its development, which is expected to be approximately 975,151m<sup>2</sup>.

This is expected to result in a 34% saving, as illustrated by the graph below:

Figure 2: Carbon emissions reduction



To move the emissions profile from the calculated baseline to the EcoDistrict New Build Target, the table below set out the specific route or interventions proposed.

Table 20: EcoDistricts Carbon Emissions Reduction Targets

	Baseline	EcoDistrict New Build Target	Saving	Intervention
Lighting	3,636,617	1,454,647	40.00%	Natural light optimisation through the use of skylights
Lighting External	929,358	929,358		
Process Loads	3,798,244	3,798,244		
Space Heating	727,323	363,662	50.00%	Increased insulation of the buildings to exceed building code by 30%
Cooling	727,323	145,465	20.00%	Passive design optimisation and making use of fresh air as much as possible
Water Heating	1,090,985	436,394	40.00%	100% non-resistive heating with no option for rationalisation
Infrastructure	48,120	48,120	100.00%	
Water Heating	0	0	100.00%	

	Baseline	EcoDistrict New Build Target	Saving	Intervention
Transport	2,680,853	1,340,427	50.00%	Fuel switch of delivery vehicles to electricity, offset by on site renewables
Renewables		7,175,888		Renewables to offset 100% of remaining load

The development aims to be fully developed by 2030. From 2022 onwards, the roll out of buildings will have to meet energy efficiency criteria to ensure that every new building is a low energy building.

The buildings in the current baseline were built to business-as-usual but since this represents only 8% of the development, the remainder of the development can be built in a manner where the stock will be ready for offsets and will not require any immediate energy efficiency retrofit.

This means the district can focus on fuel switching and renewable energy offset only.

Between 2030 and 2050, the goal is to ensure renewable energy production matches carbon emissions. The emissions figures include scope 1 and 2. In order to offset scope 1 emissions with renewables, excess solar photovoltaics (PV) must be fed back into the grid.

The main challenge will be ensuring legislation is changed to allow feed back into the grid and thus facilitate net-zero carbon.

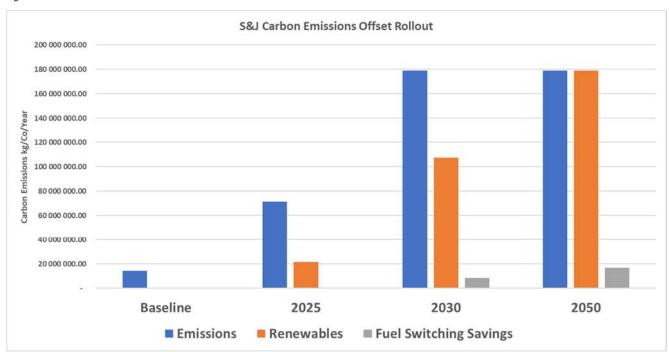


Figure 3: Carbon offset rollout

The graph above shows the growth in carbon emissions from the baseline due to new buildings coming online. It further illustrates the planned roll-out of renewables leading to targeted neutrality in 2050. The contribution of savings due to fuel switching is shown separately.

#### 12.2 Pathway to Carbon Neutrality Updates

Throughout the lifetime of the development, more accurate information on site development, land use, energy intensity and the association carbon emissions inventory will become available. The S&J Industrial Estate EcoDistrict will work continuously with all relevant stakeholders to communicate the current Action Plan that drives the partway to carbon neutrality and update the realities of the experiences on the ground as part of the biennial reporting.

#### 13. RESPONSIBILITIES, FUNDING, AND IMPLEMENTATION SCHEDULE

The implementation of the proposed Action Plan will be impacted on by the speed at which development roll-out will happen on site, and although some of the projects/programs and strategies have already been assigned with specific budgets, some of these activities will only be unpacked in greater detail from 2022 onward as more sites

are now coming online, which also means additional owners are starting to participate in the S&J NPC and the S&J Industrial Estate EcoDistrict decision making processes.

Annexure F also provides an overview of the responsible parties, potential funding sources, implementation schedule and implementation costs (where costs are known).

It should be noted that it is anticipated that the next 8 years, while the development is expected to reach complete build out, the focus on the S&J NPC is expected to fall into three broad categories of action:

- 1. **S&J Industrial Estate EcoDistrict Establishment Phase**: This will entail operationalisation of the commitments made and targets set in this Roadmap and related documentation into appropriate documentation to ensure that it is incorporated into the Memorandum of Incorporation as well as other relevant mandate documentation of the S&J NPC. This will ensure not only that the role of the S&J NPC in operationalising the EcoDistrict is clear, but that the roles and responsibilities of each of its members are captured and shared accordingly. This correlates to the Short-Term Planning processes in the Action Plan. It is anticipated that that this will take between 1 and 3 years.
- 2. **The Action Phase**: the second phase is expected to be a period of focussed time where specific attention is paid to action and implementing the emissions reductions strategies linked to ensuring that all new stock that is constructed adheres to the recommendations set out in this document and the strategies Action Plan. This will be the Short- to Medium Term and it is expected that this phase will take between 3 and 8 years.
- 3. **The Long Term or Maintenance Phase**: is expected to take place after the development reaches complete build out and the focus falls on fuel shifting and renewables. This will be from year 8 onward and will entail ongoing effort with less focussed time on implementation to maintain the roadmap pathway identified.

ANNEXURE A – FULL ROSTER OF ATTEN	NDANCE TO ROADMAP DEVELOP	MENT ACTIVITIES

Steering Committee & External Parties Engagements for	Last Name, First Name	Adam Koekemoel	Adrie r Fourie	Anelisa Keke	Chantelle Mathomes	Chilu Lombe	Chris Roberg	Gareth Ahier	Clare Morony	Grant Silverman	Hein n Papenfus	Ilse Swanepoel		Joshua van Tonder	Marijke Coetzee		Mike Ruttell	Morgan Wratten	Nomamfengu Mbele	Retha Bezuidenhout	Roan Stewart	Tebogo Mojapelo	Victor Mathey	Elsabeth van der Merwe	Is'haaq Akoon
Roadmap Development and Adoption			Solid			Solid																			
		Redefine		Redefine				Redefine				Redefine			-		-			Abreal		Abland	Redefine		EMM
TOTAL ATTENDANCE	125	6	33	7	7	11	4	9	2	3	7	12	9	1	6	10	8	7	14	6	3	1	18	1	1
S&J Industrial Estate High-Level EcoDistrict Introduction and Relevance Discussion	7																								
EcoDistricts Introduction Overview Presentation and Discussion Preparation Dry-Run	4																								
EcoDistricts Introduction Overview Presentation for Initial 31/07/2020 Decision to Proceed	6																								
Implementation of an EcoDistrict 30/10/2020	10																								
Alignment of Redefine CSI Framework to EcoDistrict Imperative Commitment Requirements	18																								
EcoDistrict/Redefine ESG Alignment Discussion	2																								
EcoDistrict Workshop 1 02/12/2020	16																								
S&J Industrial Estate Site Visit 28/01/2021	8																								
SG Internal Strategic Workshop 10/02/2021	3																								
Steering Committee Workshop Prep with Core Liaison Team	5																								
Redefine Internal Responsibilities & Way Forward	7																								
S&J Workshop Prep with Core Liaison Team 30/04/2021	6																								
EcoDistrict Workshop 2 - Overarching Protocol Alignment Session - Full Steering Committee Members	10																								
SG Internal Strategic Workshop 10/05/2021	3																								
S&J EcoDistrict Introduction & Strategic Support Request Discussion with Ekhurhuleni Metropolitan Municipality	4																								
Combined EcoDistrict Imperatives Commitment, Formation and Roadmap Integrated Workshop - Full Steering Committee	11																								
S&J EcoDistrict Strategic Planning Session to proceed with Initial Formation and Roadmapping Strategic Engagement	2																								
S&J Workshop Prep with Core Modelling Team 07/11/2021	2																								
S&J Industrial Estate EcoDistrict Roadmap Development Workshop	20																								
Strategic Catch-Up to Debrief Workshop and Next Steps 19/11/2021	2																								
S&J Strategic Work Session with Core Modelling Team 07/11/2021	2																								
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	4																								

S&J Industrial Estate EcoDistrict Steering Committee & External Parties Engagements for Roadmap Development and	Last Name, First Name	Adam Koekemoei			Chantelle Mathomes		Chris Roberg	Gareth Ahier	Clare Morony	Grant Silverman	Hein Papenfus	Ilse Swanepoel	Johann Nell		Marijke Coetzee		Mike Ruttell	Morgan Wratten	Nomamfengu Mbele	Retha Bezuidenhout		Tebogo Mojapelo		Elsabeti van der Merwe	ls'haaq
Adoption	Affiliation	Redefine	Solid Green	Redefine	Abland	Solid Green	Abland	Redefine	Redefine	e Abland	Abland	Redefine	Redefine	Redefine	Redefine	Solid Green	Redefine	Redefine	Solid Green	Abreal	Abman	Abland	Redefine	ЕММ	ЕММ
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	5																								
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	4																								
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	4																								
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	2																								
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	3																								
S&J Industrial Estate - EcoDistrict Roadmap Discussion Session - Objectives, Indicators and Strategies	4																								
S&J Strategic Work Session with Core Modelling Team 30/11/2021	2																								
Strategic Catch-Up and Next Steps 27/01/2022	2																								
S&J Strategic Work Session with  Core Modelling Team  02/02/2022																									
S&J Strategic Work Session with Core Modelling Team																									
S&J Strategic Work Session on Roadmap Elements																									
Strategic Catch-Up and Finalising Roadmap for Submission	2																								

Accepted and present
Status of attendance unknown
Declined
Tentative but attendance status
unknown

2

### **ANNEXURE B - SIGNATORIES**

The names and affiliations of the mandated signatories of the S&J EcoDistrict Roadmap are set out below. The Mandated Signatories acting on behalf of the S&J Industrial Estate EcoDistrict NPC Trustees are as follow:

Redefine Properties Limited, represented by:

# Johann Nell

Johann Nell

National Asset Manager

johannn@redefine.co.za

**GGP Investments Proprietary Limited**. represented by:

# Roan Stewart

Roan Stewart

Asset Manager

stewart@abreal.co.za

and The Pivotal Fund Proprietary Limited, represented by:

# Joshua van Tonder

Joshua van Tonder

Development Manager

joshua@redefine.co.za

ANNEXURE C – ROADMAP AND 2030 TARGETS	PRIORITIES, OBJECTI\	/E CATEGORIES, OB.	JECTIVES, INDICATO	DRS, BASELINES

EcoDistrict Priority	Objective Categories	Objectives	Indicators	Baseline (2021)**	2030 Performance Targets	Source of Information/Notes
PLACE	Engagement & Inclusion	Ensuring engagement of the S&J community in EcoDistrict planning and project implementation is robust and inclusive.	% of community engaged in public consultation processes (e.g., S&J NPC Forum attendance rates, number of social media subscribers, worker/employee survey participation rates, number of vulnerable group representative organisations within the S&J community that are engaged with).	Current Baseline Indicators for Social Media Subscribers: - Facebook = 331 - Instagram = 188 - LinkedIn = 342	Target a 5% growth across all social media platforms.     Target a 15% response rate for employee surveys.     Target a 15% participation rate for S&J NPC Forum Meetings.	Marketing Team to track and report annually to the S&J NPC
	Culture & Identity	The (proposed) character of the S&J Industrial Estate EcoDistrict is communicated and strengthened through positive engagement.	# of times the S&J EcoDistrict is positively mentioned in the media (through media tracking to be put in place).	Currently not tracking as formal tracking for references to the S&J EcoDistrict will only start once the certification is in place.	25 articles by 2025 50 articles by 2030	Marketing Team to track and report annually to the S&J NPC
	Public Spaces	Public spaces are accessible to S&J community*.	Length of road designed and constructed for accessibility (e.g. pedestrians / cyclists / disabled) expressed as a % of total road built in the S&J EcoDistrict.	Currently 100% of all roads have accessibility designed into their structure in some way - if not on both side, on one side of the walkway mimimum.	85% of all roads to achieve the indicator at full build out	Abland Development Team to track and report annually to the S&J NPC
		Public spaces are high quality, engaging and active.	Extent of street furniture installed on site (# of bins, # streetlights – information to be shown per km²).	Europa road Bus stops; Q1 Dustbins; Q6  Demetri Road Dustbins; Q2	85% of original target (with the understanding that some of the original design might have been adjusted, implementation schedule changed, or no longer required as a result of experience on the ground)	Abland Development Team to track and report annually to the S&J NPC
				Amalthea Dustbins; Q8  Gosforth Road Bus stops/ Pause area: 1. South to North Q1 2. North to South Q2		
				Dustbin; 23  Ganymede Precinct		
	Housing	A diversity of housing is available within reasonable proximity to public transportation and alternative modes of travelling to and from the EcoDistrict.	% of affordable housing units accessible from the S&J Industrial Estate through existing public transport routes	Dustbins; Q4 No housing survey conducted to date.	Information on different housing typologies to be made available to S&J community members during the course of 2022.	Driven by the S&J NPC, engagement with EMM
		and non the Leobistice	Extent of housing diversity within travel distance (i.e. 5km) from the S&J EcoDistrict (perhaps captured in terms of type of housing and potentially state per mode of transport) [Note: this is just an indicative number, and information to be sourced from employee transport surveys and as part of the development of a Green Travel Plan - see strategy table]	No survey conducted yet, Green Travel Plan still to be developed	2024 - Green Travel Plan in place 2024 - Conduct 1st employee transport survey	Both driven by the S&J NPC, perhaps with input from Solid Green
PROSPERITY	Access to Opportunity	Career pathways and training are available for employees within the S&J EcoDistrict to allow multi-skilling and resilience between different employment opportunities.	Number of training programs available either through business within the S&J EcoDistrict or within in the wider node matched to EcoDistrict-specific job opportunities	1 - Guys in Green	5 training programs by 2030	Driven by the S&J NPC with input from all of their members, engagement with relevant NGOs or NPOs or even government support programs
			# of eligible* EcoDistrict participants enrolled in training programs (*people employed in businesses located in the EcoDistrict).	Not implemented yet	100 people by 2030	Information to be sourced from the relevant training providers / directly from the booking system depending on how the process is managed. S&J NPC to drive track and report.
			Nr of Business within S&J community linked to training facilities in surrounding node	Not implemented yet	100% of S&J NPC members should ideally participate in the overarching program	S&J NPC to drive, track and report
	Economic Development	New job creation occurs through economic development.	# of jobs created through construction in the EcoDistrict (to be pulled by Abland during construction from the main contractors and provided to the S&J NPC)	Currently being sourced from the relevant consultants	Based on an economic study conducted, it is anticipated that approximately 40,000 additional employment opportunities would be generated during the construction phase of the proposed development. It should however be noted, many of those jobs were linked to the development of the bulk infrastructure that have already been installed. Current employment numbers for the two sites developed to date will be used to determine new employment targets linked to the development of the top structures moving forward and will be included in the table as part of the biennial report back.	For the actuals, S&J NPC will work with its members to track and report
			# of people employed by the NPC directly (security, gardeners, etc.)	Total: 6 Ganymede Guardhouse: - 1 Day Guard and 1 Night Guard  Vacant Land: - 1 Day Guard and 1 Night Guard  Precinct	Attention to be paid to the racial and gender composition	S&J NPC to drive, track and report
			# of permanent jobs created through economic development (i.e. through new businesses located in the area) - pulled from all companies by S&J NPC	- 1 Day Guard and 1 Night Guard in patrolling vehicle Stampmill Unit 1 - 113 Stampmill Unit 2 - 8 Stampmill Unit 3 - currently vacant Stampmill other: - Gardeners: 16 - 1 Site Manager and 1 Operations Manager - 1 Cleaner  Sparepro - 495	Based on an economic study conducted, it is anticipated that approximately 4,000 additional employment opportunities would be generated during the operational phase of the proposed development.  Accurate information will however be sourced for all S&J NPC members annually and recorded for reporting purposes	For the actuals, S&J NPC will work with its members to track and report
	Innovation	Interaction between entrepreneurs is fostered (could take the form of SMME support or engagement between businesses	# of SMMEs that participated in a pop-up event for start-ups, held in the EcoDistrict	- see Roadmap report for detailed breakdown  Not implemented yet	5 SMMEs by 2025 10 SMMEs by 2030	S&J NPC to drive, track and report
		within the S&J EcoDistrict to facilitate a strong industrial estate dynamic.	# of incubators, accelerators, maker spaces and co-working spaces in the EcoDistrict	Not implemented yet	1 space by 2030	S&J NPC to facilitate either in S&J NPC facilities or through engagements with its members identify suitable locations on the premises
			# of programs, pop-up events for SMMEs and enrolment levels to cultivate business innovation (for instance events focussed on cultivating the circular economy)	Not implemented yet	2 events by 2025 4 events by 2030	S&J NPC to facilitate or work with relevant organisations to host events

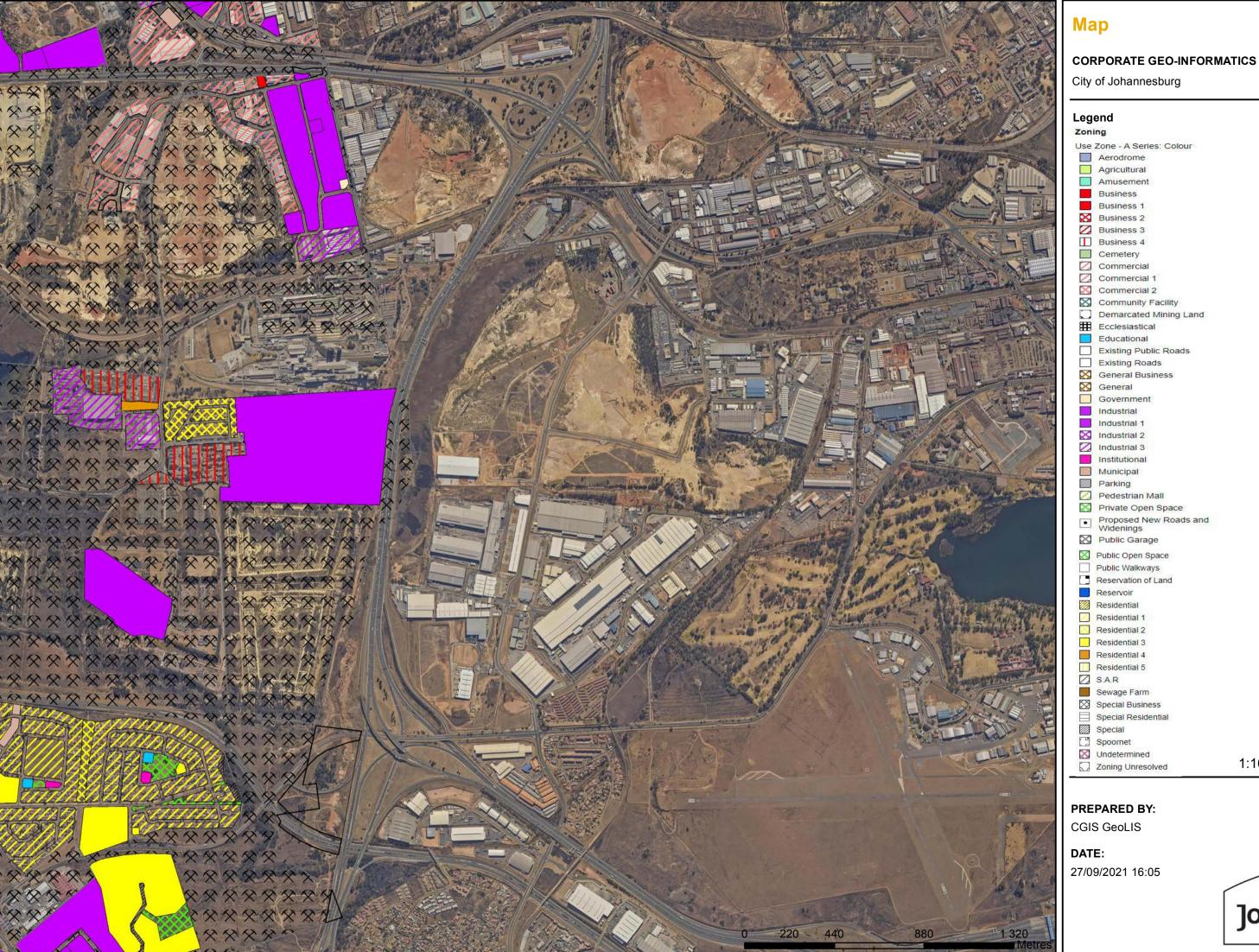
EcoDistrict Priority	Objective Categories	Objectives	Indicators	Baseline (2021)**	2030 Performance Targets	Source of Information/Notes
HEALTH & WELLBEING	Active Living	Pedestrians are prioritized by making walking, biking, and public transportation easier and safer.	Percentage of street length in the district with sidewalks on both sides	Curently 80.5% of all roads have walkways on both sides: Europa road (670m) Walkways; 670 meters both sides	80% of all roads	Abland Development Team to track and report annually to the S&J NPC
				Dimitri Road (330m) Walkways; 330 meters one side only		
				Amalthea (340m) Walkways; 340 meters both sides		
				Gosforth Road (1.6km) Cycle lane; 1Km Ganymede side Pedestrian; 1. South to North 1.6Km 2. North to South 1.1Km		
				Ganymede Precinct (300m) Walkways; 250m one side		
	Health	Previous operation impact areas are remediated and regenerated.	Volume of rehabilitated groundwater expressed as a % of total water consumption in the S&J area for reuse for irrigation	Information to be captured and tracked	No specific target, but would rather see a healthy water balance approach used to guide the planning process to ensure that there is not more water extracted for use than can be placed back into the water table through in	S&J NPC to drive, track and report
			% of the wetland habitat rehabilitated	100%	New target/indicator to be defined	S&J NPC to coordinate. S&J NPC also need to track the ownership of the wetland to understand the operational control.
		Ensure that employee health within the EcoDistrict is regarded as important to overall precinct well-being.	# of Employee Health Plans that are in place on site (linked to each business)	Requirement not yet communicated to the S&J NPC members	100% of all S&J Members present in the EcoDistrict	S&J NPC to drive, track and report
	Safety	The built environment is designed for public safety.	# of safety-related incidents reported (type of incidents include motor vehicle accidents/thefts/pedestrian accidents/etc). [Reported to SAPS or the Security Company present in the area]	20 Security Incidents (Annually): - 1 Utility related incident, water leak & interuption - 0 Utility related incident, electricity related incidents - 0 Utility related incident, loadshedding - 2 Emergency related incident, fire related - 0 Emergency related incident, medical emergency - 6 Emergency related incident, vehicle acident - 0 Emergency related incident, building damage - 0 Maintenance related incident, general building repairs	reduce by 5%	S&J NPC to drive, track and report with input from relevant service provider
				- 10 Maintenance related incident, security equipment repairs		
			# of engagements with 'at risk' groups and sharing knowledge and information on anticipated shocks and stresses that might affect them		30% of the S&J Community by 2030	S&J NPC to drive, track and report
			Extent of area covered by remote monitoring	100% of developed area	100% of EcoDistrict	S&J NPC to drive, track and report
			Nr of security guards in the EcoDistrict # of CCTV cameras installed	Total: 75  11 PTZ cameras which are all monitored remotely; 47 static cameras, of which 30 are currently being monitored remotely; 11 LPR cameras which are not monitored; and 6 ANPR (sniper) cameras which are monitored	Target relates to coverage, and coverage should be 100%	S&J NPC to drive, track and report  S&J NPC to drive, track and report with input from relevant service provider
	Food Systems	Healthy and affordable fresh food is accessible.	% of commercial / industrial space with access to at least 1 fresh food source (Nearby grocery stores / food garden)	Pick n Pay Family Germiston - 4.8km Pick n Pay Redruth - 5.5km Pick n Pay Hyper Steeldale - 6.1km Woolworths New Redruth Alberton - 6.9km	Reduce travel distance and time Possible inclusion of food options in retail component within S&J EcoDistrict	Driven by the S&J NPC
		Number of people educated on healthy food preparation or consumption who improve their knowledge, awareness, skills, or attitudes.	# of people that participated in healthy food options related training sessions	Not implemented yet	30% of the S&J Community by 2030	S&J NPC to drive, track and report
CONNECTIVITY	Street Network	The street network supports all travel modes (vehicles, pedestrian, cycling, other)	# of intersections per square km	5 Intersections with Traffic Lights	No specific target set	S&J NPC to drive, track and report (perhaps with input from the Abland development team)
			# of public transportation stops per square km	Total Nr: 4 Gosforth Road Bus stop/pause area - 1. South to North Q1 - 2. North to South Q2 Europa Road	No specific target set	S&J NPC to drive, track and report (perhaps with input from the Abland development team)
				- Bus Stop Q1		
			% of total street length with bicycle/pedestrian sharing	Gosforth Road (1.6km) Cycle lane; 1Km Ganymede side Pedestrian; 1. South to North 1.6Km 2. North to South 1.1Km	No specific target set	S&J NPC to drive, track and report (perhaps with input from the Abland development team)
		The street network accommodates people of diverse ages and abilities.	Total length of road with pavements/sidewalks designed for universal access	Currently 100% of all roads have accessibility designed into their structure in some way - if not on both side, on one side of the walkway mimimum.	85% of all roads to achieve the indicator at full build out	Abland Development Team to track and report annually to the S&J NPC
	Mobility	EcoDistrict travel, internally and externally, is safe, efficient, and multimodal.	,, .	No survey conducted yet, Green Travel Plan still to be developed	2024 - Green Travel Plan in place 2024 - Conduct 1st employee transport survey	Both driven by the S&J NPC, perhaps with input from Solid Green
			Mode split of daily person trips.	No survey conducted yet, Green Travel Plan still to be developed	2024 - Green Travel Plan in place 2024 - Conduct 1st employee transport survey	Both driven by the S&J NPC, perhaps with input from Solid Green
			# of EV charging points provided at strategic locations # of projects that increase the walkability and/or improve access to	Not implemented yet	2 bays by 2030	S&J NPC to drive, track and report
			amenities for cyclists within the S&J EcoDistrict.		2 projects by 2030	S&J NPC to drive, track and report
1	Digital Network	Quality fibre networks and wireless connectivity is available throughout the EcoDistrict.	% of Estate with access to good quality fibre or wireless networks % of public spaces with free wi-fi	Current coverage not calculated.  Not implemented yet	65% of the EcoDistrict 50% of public spaces by 2030	S&J NPC to drive, track and report S&J NPC to drive, track and report

Delta uniform delta per legis per de la colorida servir de montre de la colorida servir de montre de la colorida servir de montre del colorida servir del co	EcoDistrict Priority	Objective Categories	Objectives	Indicators	Baseline (2021)**	2030 Performance Targets	Source of Information/Notes
determine the sedent to which the Excitation has a treat determine product full training potent of full training potent full training p	LIVING INFRASTRUCTURE		The quality and functions of habitat are enhanced.	% of the EcoDistrict with tree canopy cover	Europa road Trees: Apiesdoring; Qg6  Dimitri Road Trees: 1. Apiesdoring Q52 2. Witstinkhout Q1  Amalthea Trees: 1. Apiesdoring Q14 2. Witstinkhout Q46  Gosforth Road Trees: 1. Acacia Galpinii / Apiesdoring Q116 2. Celtis Africana / Witstinkhout Q107 3. Liquid Amber/ Sweet Gum Q99  Ganymede Precinct Trees: 1. Vachellia Xanthophloea/ Fever tree Q19 2. Apiesdoring Q28 3. Wit stinkhout Q24	Target to be defined within the next 6 months.	S&J NPC to drive, track and report
Projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects that create green infrastructure   Money is invested in projects on projects green green infrastructure   Money is invested in the project green green green infrastructure   Money is invested in the project green gre			Natural features are protected.	% alien vegetation removed from the S&J Wetland and NPC will	determine the extent to which the EcoDistrict has a tree canopy cover to determine potential future targets.	Adjustment of indicator required moving forward - but until	S&J NPC to drive, track and report
this could look into the wettend rewatement made into the wettend rehabilitation, the extent of investment made into the landscaping and starpmill - Landscaping around all other roal firedscaping around starpmill - Landscaping around all other roal firedscaping starpmill - Landscaping around starpmill - Landscaping around all other roal fi			· ·	·	implemented	no alien vegetation does not return	
regenerated for use as land for redevelopment into the S&J industrial Estate (tracking the conversation rate) Connection with Nature  Access to nature is improved.  Access to nature is improved.  Area of green streetscape/landscaping provided/developed Area of green streetscape/landscaping provided and the street of the S&J Industrial Estate Development Manual characteristic and exclusion in the required to capture to be required to provide a mariture. A decided accurated the required to capture in the responsible to ensure that several exclusion in the required to provide a mariture. A decided accurated the required to provide a mariture. A decided accurated the required to provide a mariture. A decided accurated the required to provide a mariture. A decided accurated the transport in the fact that the provided accurate the transport inflastructure throughout the node accurated through remarks that are not zero carbon by 2030 All sectors improve energy efficiency, reduce waste, and increase natural carbon sinks.  The intent is to communicate energy efficiency design and portal naturation accurated through remark meleting (and water) All sectors improve energy efficiency design and increase natural carbon sinks.  The int		Ecosystems Health		(this could look into the investment made into the wetland rehabilitation, the extent of investment made into the landscaping on site, etc.)	<ul> <li>Landscaping around Sparepro</li> <li>Landscaping around Stampmill</li> <li>Landscaping around all other road infrastructure installed to date</li> <li>Rehabilitation of wetland</li> </ul>	20 projects by 2030	·
Development Manual, each late is required to provide a minimum of 10% landscaping (which may include storms water attenuation). A detailed calculation is required to capture the minimum amount of landscaping with the may include storms water attenuation. A detailed calculation is required to capture the minimum amount of landscaping streat will be required for site developer specifically, there will also be a calculation that captures the landscaping streat capte that is provided around the transport infrastructure throughout the node.  Number of active ow/ boxes installed/bat boxes (to note that this will require an integrated Pest Management Strategy to be put in place to ensure ALL pest control on site is non toxic, and this will ensure that the owls are the pest control and it would also keep the wetland free from toxin washed down in stormwater)  RESOURCE REGENERATION  All sectors improve energy efficiency, reduce waste, and increase natural carbon sinks.  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that are net zero carbon by 2030  ### of new buildings that			regenerated for use as land for redevelopment into the S&J	Extent of land converted from previous operation impact area into the S&J Industrial Estate (tracking the conversation rate)	Area of site is 355,124 hectares. Calculation would need to consider all areas that are	· ·	S&J NPC to drive, track and report (perhaps with input from the Abland development team)
will require an Integrated Pest Management Strategy to be put in place to ensure ALL pest control on site is non toxic, and this will ensure that the owls are the pest control and it would also keep the wetland free from toxins washed down in stormwater)  RESOURCE REGENERATION  Air & Climate  All sectors improve energy efficiency, reduce waste, and increase natural carbon sinks.  # of new buildings that are net zero carbon by 2030  # of new buildings that are net zero carbon by 2030  None yet.  # of new buildings that are net zero carbon by 2030  None yet.  # of new buildings that are net zero carbon by 2030  None yet.  # of new buildings that are net zero carbon by 2030  Driven by the S&J NPC, perhaps with in solid Green  # of new buildings that are net zero carbon by 2030  # of new buildings that are net zero carbon by 2030  None yet.  # of new buildings that are net zero carbon by 2030  # of new buildings that are ne			Access to nature is improved.	Area of green streetscape/landscaping provided/developed	Not calculated yet	Development Manual, each site is required to provide a minimum of 10% landscaping (which may include stormwater attenuation). A detailed calculation is required to capture the minimum amount of landscaping that will be required from site developer specifically, there will also be a calculation that captures the landscaping/streetscape that is provided	
increase natural carbon sinks.  Increase natural carbon sinks.				will require an Integrated Pest Management Strategy to be put in place to ensure ALL pest control on site is non toxic, and this will ensure that the owls are the pest control and it would also keep the	,	Management Plan to be developed by 2024.	Driven by the S&J NPC, perhaps with input from Solid Green
through smart metering (and water)  % of energy generated through renewables (possible future target)  Not calculated yet  Target to be defined within the next 6 months.  S&J NPC to drive, track and report	RESOURCE REGENERATION	Air & Climate	All sectors improve energy efficiency, reduce waste, and increase natural carbon sinks.	# of new buildings that are net zero carbon by 2030	None yet.	operational guidelines to all new S&J NPC members to ensure energy consumption is firstly as low as possible, to then determine possible offset.  Target for net zero to be defined within the next 6 months.	
				through smart metering (and water)	,		·
1 Website Wilder   District   Dis		177		9,0	,	ŭ .	1
(expressed as megalitres)		Water	Potable water is used efficiently.	<u> </u>	Not calculated yet	Target to be defined within the next 6 months.	S&J NPC to drive, track and report
Extent to which landscaping on site includes water wise plants (to be linked to the development manual)  Not calculated yet  Target to be defined within the next 6 months.  S&J NPC to drive, track and report				be linked to the development manual)	,		· ·
Alternative water sources are used for non-potable purposes. % of buildings connected to non-potable water sources Not calculated yet Target to be defined within the next 6 months. S&J NPC to drive, track and report			1 1 1	·	,	9	•
to improve their knowledge, awareness, skills, or attitudes.  Impacts and prevention who improved their knowledge, awareness, skills, or attitudes.  Impacts and prevention who improved their knowledge, awareness, skills, or attitudes.  Impacts and prevention who improved their knowledge, awareness, skills, or attitudes.			to improve their knowledge, awareness, skills, or attitudes.	impacts and prevention who improved their knowledge, awareness, skills, or attitudes	. ,	, , ,	
Stormwater is retained through green infrastructure.  Annual volume of stormwater attenuated on site  Not calculated yet  Target to be defined within the next 6 months.  S&J NPC to drive, track and report			7 7		,	9	•
recycling. diverted from landfill from all members regarding waste dat		Waste	recycling.	,	No hazardous waste created on site to date	diverted from landfill	S&J NPC to drive, track and report - with input from all members regarding waste data
			The residual value of organic waste is captured.		Not implemented yet	for energy recovery or composting annually (a % loss is	S&J NPC to drive, track and report - with input from all members regarding waste data
*The definition for S&J Community as set out in the Imperatives Commitment and Roadmap reports refers  **Where details not completed yet, indicator to be refined with on-the-ground team and collection to start as soon as certification secured		,	·	1	1		

ANNEXURE D - SPATIAL DEVELOPMENT FRAMEWORK LAND USE MAP OF SURROUNDING NODE (EMM)



ANNEXURE E - SPATIAL DEVELOPMENT FRAMEWORK LAND USE MAP OF SURROUNDING NODE (COJ)



1:16 000



ANNEXURE F - ROADMAP STRATEGIES, STRATEGIES ASSESSMENT, RESPONSIBILITIES, FUNDING, AND IMPLEMENTATION TIMELINES

												AF	PLICAE	BLE PRIOF	RITIES												S	TRATEGY AS	SESSMEN	Т		
			Imperativ	ves		Plac	:e			Prosperity		Hea	lth & W	/ellbeing		Conr	nectivit	ty	Living	Infrastru	cture		ource neration	Techni	cal Financial	Ca	nacity to	Level of	Impact on		on to carbon and timeline	
OBJECTIVES	STRATEGIES			Climate	Engagement	Culture &	Public		Access to	Economic		Active		Food	l Str	reet		Digital	Natural	Ecosystem	Connection			Readin	ess Soundness	Risk Co	Manage	Stakeholder Support	Targets	Scope	Contribution to Carbon Neutrality	Strategy Assessment Score
Ensuring engagement of the S&J community in EcoDistrict planning and project implementation is robust and inclusive.	Develop a S&J cohort of people (made up of representatives from some of the business operating in the precinct) who can connect with the community about this plan, who can communicate and activate people about development			Protection	& Inclusion	Identity	Spaces	Housing	Opportunity	Development	Innovation		ealth Sare				Oblity	Network	Features	Health	with Nature	Air & Climate	Water Waste	2	1	2	2	3	3	Zero Contribution	neutrainy	14
	explain how the S&J EcoDistrict relates to regional and national trends.  Adopt the S&J EcoDistricts Roadmap framework to refine the implementation Action Plan and align efforts with other communities (including COJ and EMM).	~	<b>✓</b>	<b>Z</b>	✓						~				(									2	2	1	2	3	3	Zero Contribution	1	14
	Initiate interaction with the Ekurhuleni Metropolitan Municipality to engage on municipal regulations, goals and targets to foster a community culture that ensures transparent and inclusive review processes and project implementation. Collective impact should be underscored.	<b>✓</b>						~			~				(									2	2	2	2	2	3	Zero Contribution	1	14
	Create an S&J NPC forum focussed on interaction with surrounding communities to share the EcoDistrict intentions, lessons learned and aspirations.	~	~	~	~						~				(									2	2	2	2	3	3	Zero Contribution	1	15
The (proposed) character of the S&J Industrial Estate	Highlight and share storytelling through community events.	~			~	~									[									1	3	2	2	2	3	Zero Contribution	1	14
EcoDistrict is communicated and strengthened through positive engagement.	Appropriate event programming at celebrated spaces.	~			~	~									(									1	1	2	2	3	3	Zero Contribution	1	13
p. source origination	Incorporate appropriate plaques or other signage to celebrate site heritage.	~			~	<b>V</b>	~								(									2	2	1	2	3	3	Zero Contribution	1	14
	Create an S&J marketing campaign to conceptualize, communicate, and control the S&J EcoDistricts identity, narrative and how it is viewed by the region	<b>~</b>			✓	~					~				(									2	2	1	2	3	3	Zero Contribution	1	14
Public spaces are accessible to the S&J community.	and beyond.  Promote universally accessible mobility routes for all modal types (including non-motorised transport).	~	<b>V</b>									~			8	~	<b>✓</b>						0 0	2	3	2	3	3	3	Indirectly reduces scope emissions (minimizes single occupan	2	18
	Conduct a transportation survey of those who work in S&J to assess accessibility and identify areas of improvement	~			$\checkmark$	<b>✓</b>	~					✓				~	~							1	1	1	2	3	3	car trips)  Zero  Contribution	1	12
Public spaces are high quality, engaging and active.	Create an environment to supports safe and comfortable pedestrian movement throughout the node.	~			<b>~</b>		~					~		2 0	8	~	~						0 0	2	2	1	3	3	3	Indirectly reduces scope emissions (minimizes single occupan car trips)	2	16
	Conduct a neighbourhood walkability audit on an annual basis to identify areas that need improvement		~	<b>~</b>	$\checkmark$		~					~	~	2 0		~	~						0 0	1	1	1	2	3	3	Indirectly reduces scope emissions (minimizes single occupan	2	13
	Program: Regular graffiti removal						~								[									3	3	1	3	3	2	car trips) Zero Contribution	1	16
	Program: Public area cleaning and maintenance						~								[									3	3	1	3	3	2	Zero Contribution	1	16
A diversity of housing is available within reasonable proximity to public transportation and alternative modes of travelling to and					$\checkmark$			~							(		~							2	2	1	2	3	2	Zero Contribution	1	13
from the EcoDistrict.	Facilitate a housing affordability survey.	<b>~</b>			~			~			~				(									2	2	1	2	3	2	Zero Contribution	1	13
Career pathways and training are available for employees within the S&J EcoDistrict to allow multi-skilling and resilience between different employment opportunities.	Work with local businesses and relevant NGOs or training facilities to identify and host relevant training opportunities (for people working in the S&J EcoDistrict as part of multi-skilling /upskilling /reskilling for alternative positions within the precinct itself).	<b>~</b>	<b>V</b>		✓				<b>~</b>	<b>V</b>	~				(									1	1	1	1	2	2	Zero Contribution	1	9
New job creation occurs through economic development.	Create or facilitate short- and long-term employment opportunities for surrounding communities in the precinct (similar to the Guys in Green test case).	~	<b>~</b>						<b>▽</b>	<b>V</b>	<b>✓</b>				(									1	1	1	1	2	2	Zero Contribution	1	9
	Assess potential of attracting emerging sectors to locate in the S&J EcoDistricts		<b>V</b>						<b>V</b>	<b>V</b>	<b>V</b>				(									1	1	1	1	2	2	Zero Contribution	1	9
	Facilitate conversations around the circular economy with businesses both within S&J and located in the immediate vicinity to facilitate economic resilience and growth potential		<b>✓</b>						<b>✓</b>	<b>&gt;</b>	~				(									1	1	1	1	2	2	Zero Contribution	1	9
	Facilitate the establishment or establish business clusters that connect the S&J EcoDistrict community to the regional and global economy.		<b>V</b>		<b>✓</b>				<b>✓</b>	<b>Y</b>	<b>V</b>				(									1	1	1	1	2	2	Zero Contribution	1	9

												A	PPLICA	BLE PRIC	ORITIES												S	TRATEGY A	SSESSMEN		n ha!	
			Imperativ	ves		Plac	е			Prosperity	,	He	alth & W	/ellbein	g	Con	nectivit	у	Living	Infrastru	cture		ource neration	Technica	al Financia	ıl <sub>Risk</sub>	Capacity to	Level of Stakeholder	Impact on	Contributio neutrality a	n to carbon nd timeline Contribution	Strategy
OBJECTIVES	STRATEGIES	Equity	Resilience	Climate Protection	Engagement & Inclusion	Culture & Identity	Public Spaces	Housing	Access to Opportunity	Economic Development	Innovation	Active Living	Health Sat	Fo fety Sys	ood stems N	Street Network M	lobility N	Digital Network	Natural Features	Ecosystem Health	Connection with Nature	Air & Climate	Water Waste	Readines	ss Soundne	SS	Manage	Support	Targets	Scope	to Carbon Neutrality	Assessmen Score
nteraction between entrepreneurs is fostered could take the form of SMME	Partner with suitable organisation to provide suitable training to SMMEs to facilitate greater participation in		~								~													1	1	1	1	2	2	Zero Contribution	1	9
support or engagement between businesses within the	Establish S&Js reputation as a place to start and grow		<b>V</b>		~					~	~													2	1	2	2	3	3	Zero	1	14
S&J EcoDistrict to facilitate a  Pedestrians are prioritized by making walking, biking, and	encourage entrepreneurs and local business  Create living streets, plazas, and other engaging pedestrian experiences.																										_			Contribution Indirectly reduces scope 1		
oublic transportation easier and safer.							<b>✓</b>									<b>V</b>	<b>✓</b>							3	2	1	2	3	3	emissions (minimizes single occupant car trips)	2	16
	Facilitate the creation of an active, visible and welcoming health and wellness coaching program in the community (i.e. lunchtime run/walk for life, etc)					<b>V</b>																		3	2	1	2	3	3	Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	16
	Conduct a neighbourhood walkability audit on an annual basis to identify areas that need improvement						~					<b>V</b>	✓ 8	<b>2</b> [		<b>✓</b>	~		<b>&gt;</b>	$\checkmark$				3	2	1	2	3	3	Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	16
Previous operation impact reas are remediated and egenerated.	Implement and effectively manage the rehabilitation of groundwater affected by previous operations on site.		~	abla	0								✓ [						$\checkmark$	~	$\checkmark$			3	3	2	2	3	2	Indirectly reduces scope 3 emissions (minimizes quantity of stormwater that must be filtered)	2	17
	Enhance and preserve the wetland.			$\checkmark$			~							2 [					~	<b>~</b>	<b>V</b>			3	2	2	2	3	2	Indirectly reduces scope 3 emissions (minimizes quantity of stormwater that must be filtered)	2	16
Ensure that employee health within the EcoDistrict is regarded as important to overall precinct well-being.	Provide a list of COVID1g vaccination sites, and information on local healthcare professionals (government clinics or government hospitals within 10km of the S&J EcoDistrict) indicating the type of facility and support which can be accessed.	<b>~</b>					~						<b>V</b>	<b>Z</b> [										3	3	1	2	3	1	Zero Contribution	1	14
The built environment is designed for public safety.	Incorporate 'complete streets principles' to guide road design and repairs.	~		<b>V</b>			✓							2 [		<b>✓</b>	~							3	2	2	3	3	3	Reduces scope 1 emissions (minimizes single occupant car trips)	3	19
	Ensure that there an S&J disaster management plan in place and communicated to the wider S&J Community.  Create an effective plan for remote CCTV monitoring		<b>V</b>													<b>V</b>			<b>V</b>	<b>V</b>				2	2	2	2	3	1	Zero Contribution	1	13
	for the S&J EcoDistrict and actively track implementation roll-out and impact on the safety and security within the EcoDistrict.		<b>V</b>				<b>V</b>																	3	3	1	3	3	1	Zero Contribution	1	15
	Formulate and implement a plan for security patrols, appropriate access control and securiting monitoring (not elsewhere classified) for the S&J EcoDistrict.		<b>V</b>				~							2 [		<b>V</b>								3	3	1	3	3	1	Zero Contribution	1	15
Healthy and affordable fresh food is accessible.	Provide information on the current location of facilities where S&J community members can access fresh food options outside of the S&J ECoDistrict.	<b>V</b>			~								✓ [		~									3	3	1	3	3	1	Zero Contribution	1	15
	Expand and improve access to fresh food sourcing options within S&J.	~			~								<b>V</b>		~									2	2	1	2	3	1	Zero Contribution	1	12
nealthy food preparation or consumption who improve	Engage with a relevant service provider/NGO or medical aid (or similar) to provide training or pop-up events in the S&J Community on healthy food choices, healthier food preparation or other similar content.	<b>V</b>			<b>~</b>								<b>Z</b> (		~									2	2	1	2	3	1	Zero Contribution	1	12
	I Implement the urban design/streetscape framework to support all travel modes, with specific focus on universal access and non-motorised transport.	<b>V</b>	✓	<b>V</b>								<b>Y</b>		<b>Z</b> [		<b>V</b>	<b>~</b>							3	3	1	3	3	2	Indirectly reduces scope 1 emissions (minimizes single occupant	2	17
The street network accommodates people of diverse ages and abilities.	Develop a Green Travel Plan for the S&J node and require all businesses within the node to participate in related surveys with staff movement, transport to and from their site, to facilitate potential synergistic approaches		~	$\checkmark$								<b>~</b>	✓ 5	2 [		~	✓							2	2	2	2	3	2	car trips)  Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	15
	Establish a transportation baseline by issuing a transport/travel survey asking where workers live, and how they get there.	✓	~	<b>✓</b>	✓		~							<b>Z</b> (		<b>✓</b>	✓							2	2	2	2	3	2	Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	15

													APPLICA	BLE PRIC	ORITIES													9	STRATEGY A	SSESSMEN	Т		
			Impera	tives		Plac	e			Prosperity		He	ealth & W	/ellbeing	1	Conne	ectivity		Living Ir	nfrastruct	ure		ource neration						Level of		Contribution	n to carbon nd timeline	
				Olimente	F	Oultran 0	Dodella					A 45		For		Church .	D:	eitel Ne	E.			J			nical Fir iness Sou	iancial Indness	Risk	Capacity to Manage	Stakeholder Support	Impact on Targets	Scope	Contribution to Carbon	Strategy Assessment
OBJECTIVES	STRATEGIES Ensure that all legislative requirements related to	Equity	Resilience	Climate Protection	Engagement & Inclusion	Identity	Public Spaces	Housing	Access to Opportunity	Economic Development	Innovation	Active Living	Health Saf	ety Syste	ems Ne	Street letwork Mob	oility Net	gital Na work Fea	tural Ec itures	Health wi	th Nature	Air & Climate	Water Was	te								Neutrality	Score
	universal access are met or exceeded.	$\checkmark$	$\checkmark$		<b>~</b>		~					<b>~</b>					2   [							)     :	3	2	2	2	3	1	Zero Contribution	1	14
EcoDistrict travel, internally and externally, is safe, efficient and multimodal.	Advocate for an increase in the use of alternative t, transportation and better connection between the S&J EcoDistrict and the broader region.	✓						~	0					2 0		<b>Z</b>	2 (							]	3	2	2	2	3	2	Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	16
	Investigate the provision of electrical vehicle charging points within the S&J EcoDistrict at strategic locations.		✓	✓					0		~					<b>Z</b>	2 (					$\checkmark$		] :	2	2	2	2	3	2	Could reduce scope 1 emissions (moving away from fossil fule based vehicles)	2	15
	Investigate or support projects that will increase the walkability and/or improve access to amenities for cyclists or pedestrians within the S&J EcoDistrict.			<b>V</b>			~					<b>Y</b>	<b>Z</b>			<b>Z</b>					<b>V</b>			] :	2	2	2	1	3	2	Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	14
	Identify areas with more frequent traffic accidents and target them with safety improvements.															✓ ·	2   [							) :	3	1	2	2	3	1	Zero Contribution	1	13
Quality fibre networks and wireless connectivity is	Provide or facilitate access to good quality fibre or wireless networks.								~		<b>~</b>						) [	<b>V</b> [						) :	3	3	1	2	3	1	Zero Contribution	1	14
available throughout the EcoDistrict. The quality and functions of	Investigate and motivate for the provision of free wifi at selected public spaces within the S&J EcoDistrict. Create a shade tree policy, including requirements for								$\checkmark$		<b>✓</b>						] [	<b>V</b>						) :	2	1	3	1	3	1	Zero Contribution Carbon	1	12
habitat are enhanced.	parking lots, new development, and tree removal/replacement. Ensure implementation of the development master plan and associated policies for new development		<b>V</b>	~			<b>V</b>					<b>~</b>							<b>V</b>	<b>✓</b>	<b>V</b>	<b>✓</b>		) :	3	2	1	2	3	3	sequestration strategy	3	17
	(including parking lots) that require a certain quantity of green infrastructure (e.g. landscaping, tree canopy cover, etc.).			~												<b>Z</b>	) I		<b>✓</b>	$\checkmark$	<b>✓</b>	$\checkmark$		] :	3	2	1	2	3	3	Carbon sequestration strategy	3	17
Natural features are protected	I. Implement the wetland rehabilitation plan and actively manage the wetland in the S&J node.			<b>✓</b>										) c			] [		<b>V</b>	<b>~</b>	~			) :	3	2	1	2	3	3	Carbon sequestration strategy	3	17
	Actively manage the tree cohort on site and compost any landscaping items for re-use on site.																J 1							)							onacogy		
Money is invested in projects that create green infrastructure.	Actively implement and promote projects and investments made in green infrastructure projects (this could look into the investment made into the wetland rehabilitation, the extent of investment made into the landscaping on site, etc.).		<b>✓</b>	✓										<b>.</b>			] [		<b>~</b> ]	~	<b>V</b>	<b>∀</b>		]	2	2	3	2	3	2	Indirectly reduces scope 3 emissions (minimizes quantity of stormwater that must be filtered) - will depend on the green infrastructure item	2	16
Previous operation impact areas are remediated and regenerated for use as land for redevelopment into the S&J Industrial Estate.	Track the conversation rate of the extent of land converted from previous operation impact area into r the S&J Industrial Estate.			~													] [		~	<b>✓</b>		~		]   :	3	1	3	1	3	1	Zero Contribution	1	13
Access to nature is improved.	Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.	~				~	~					<b>~</b>		2			] [		<b>✓</b>	~	<b>~</b>			] :	2	2	2	1	3	2	Indirectly reduces scope 1 emissions (minimizes single occupant car trips)	2	14
	Actively track the extent of land area earmarked for green streetscape/landscaping provided/developed.		~	~													ו		~	<b>✓</b>	<b>~</b>	<b>~</b>		]   :	3	2	1	2	3	3	Carbon sequestration	3	17
	Develop an Integrated Pest Management Plan for the S&J EcoDistrict that promotes and requires the use of only non-toxic pest control to ensure a safe site and limit negative impact on the wildlife located in the wetland.		<b>V</b>	~											<b>.</b>		] [		<b>-</b>	✓					1	1	3	2	3	1	strategy  Zero  Contribution	1	12
	Investigate viability of an install active owl boxes throughout the EcoDistrict as an alternative form of pest management.		<b>V</b>											) c			] [			<b>V</b>	~			)	ı	1	3	2	3	1	Zero Contribution	1	12
All sectors improve energy efficiency, reduce waste, and	Buildings to be 100% electric. No combustion for cooking or hot water heating		~	<b>✓</b>													] [	<b>–</b> (				<b>~</b>		) :	2	2	3	2	3	3	Scope 2	3	18
increase natural carbon sinks.			~	~					0		~						] [					$\checkmark$		] :	2	3	3	2	3	3	Reduces scope 1 and scope 2 emissions (energy conservation and renewable energy)	3	19
	BUILDING SPECIFIC - Ensure that minimum energy code requirements are met by all new buildings, with no rationalisation of hot water requirements for all building types. i.e. minimum 50% of hot water on a site to be heated by non-electric resistance means. [S&J Minimum requirements]			$\checkmark$											ם 		] [					✓		] :	2	2	3	2	3	3	Reduces scope 1 and scope 2 emissions (energy conservation and renewable energy)	3	18

												,	APPLICA	BLE PRIOI	RITIES						Res	ource					S	TRATEGY A	SSESSMEN	T Contributio	n to carbon	
			Imperat			Plac				Prosperity		He	alth & V	Vellbeing		Conne	ctivity	Livir	ng Infrastri	ucture		neration		hnical adiness S	Financial Soundness	Risk C	apacity to Manage	Level of Stakeholder	Impact on Targets	neutrality a	nd timeline Contribution	
OBJECTIVES	STRATEGIES		Resilience	Climate Protection	Engagement & Inclusion	Culture & Identity	Public Spaces	Housing	Access to Opportunity	Economic Development	Innovation	Active Living	Health Sa	Food fety System	d Str ms Net	reet twork Mobil	Digita ity Netwo	al Natural ork Features	Ecosystem Health	Connection with Nature	Air & Climate	Water W	aste					Support		Scope	to Carbon Neutrality	Assessment Score
	BUILDING SPECIFIC - Electrical distribution boards to be designed for sub-metering by grouping loads. GS ENE-2 Guidance [Good practice future proofing design]																				~			2	2	3	2	3	3	Zero Contribution	1	16
	BUILDING SPECIFIC - Investigate smart meters and other potential data sources to track and manage water and energy consumption [Operational efficiency]			<b></b>											) [						<b>V</b>	<b>V</b>		2	2	3	2	3	3	Reduces scope 1 and scope 2 emissions (energy conservation and renewable	3	18
	Conduct periodic audits and transparency reports to reduce municipal energy consumption			✓											) [						<b>V</b>			1	1	3	2	3	1	energy)  Zero  Contribution	1	12
	Create energy, water and power benchmarks that are reported against within the development. Automated reporting in line with EPC benchmarks.  Operational efficiency			✓											) [						<b>V</b>	<b>V</b>		1	1	3	2	3	1	Zero Contribution	1	12
	Enabling infrastructure for feed in to common grid. SSEG Guidelines. [ Renewable energy offset]			~											) [						✓			2	2	3	2	3	3	Reduces scope 1 and scope 2 emissions (energy conservation	3	18
	Investigate the feasibility of a district-scale solar farm - assess the viability of wheeling agreements being put in place to facilitate feeding back into the municipal grid. [Renewable energy offset]		~												) [						<b>V</b>			2	2	3	2	3	3	and renewable energy) Reduces scope 1 and scope 2 emissions (energy conservation and renewable	3	18
	Establish energy education programs for the community.		✓	~											) [						<b>V</b>			1	1	3	2	3	1	energy)  Zero  Contribution	1	12
Potable water is used efficiently.	BUILDING SPECIFIC - Create a water efficiency guideline for all end-users within the S&J community. Benchmark against EDGE Showers - 6l/min Wash hand basins (bathrooms - 4l/min Kitchen taps - 6l/min (excluding commercial kitchens) [S&J minimum requirements]		<b>~</b>	<b>V</b>											1 [							<b>V</b>		2	2	3	2	3	2	Indirectly reduces scope 3 emissions (minimizes quantity of potable water that needs to be captured, cleaned and recirculated back into the	2	16
	Assess viability to introduce rainwater harvesting requirements in the community [Regeneration/renewable]			<b>V</b>											) [									2	2	3	2	3	2	water grid) Indirectly reduces scope 3 emissions (minimizes quantity of stormwater that must be filtered)	2	16
Water quality is protected from pollutants.	Develop and implement an appropriate stormwater quality management plan.		~	~											1 [			~	<b>V</b>					2	2	3	2	3		Indirectly reduces scope 3		16
People are educated on water safety impacts and prevention	Educate the community about water conservation			~	<b>V</b>									<b>7</b> 0		<b>7</b> 0		~		~				1	1	3	2	3	1	emissions Zero Contribution	1	12
to improve their knowledge,	Activate the community to engage in behaviors that reduce water consumption and minimize flooding and its impacts.			<b>~</b>	<b>~</b>										) [							✓ (		1	1	3	2	3	2	Indirectly reduces scope 3 emissions (minimizes quantity of stormwater that must be filtered)	2	14
Stormwater is retained through green infrastructure.	Set out requirements regarding the use of landscaping or permeable pavers for stormwater management.			<b>V</b>											) [			~		<b>V</b>		<b>V</b>		1	1	3	2	3	2	Indirectly reduces scope 3 emissions (minimizes quantity of stormwater that must be filtered)	2	14
	New buildings to provide EMP in line with Green Star requirements, including waste management plan to divert 75% of construction waste to landfill		<b>V</b>	<b>V</b>															<b>V</b>					2	2	3	2	3		Reduces scope 3 emissions (out of boundary waste)		18
	Track S&Js combined waste profile and increase the community's diversion rate from landfill.		~	~																			<b>V</b>	2	2	3	2	3	1	Zero Contribution	1	14
	Investigate the creation of S&J waste management targets and policies, including event standards	<b>V</b>	<b>V</b>	<b>V</b>																				2	2	3	2	3	3	Reduces scope 3 emissions (out of boundary waste)	3	18
	Partner with waste reduction nonprofits for education and resources  Establish strong relationship with the municipality to	~	~	<b>V</b>																				2	2	3	2	3	3	Reduces scope 3 emissions (out of boundary waste) Reduces scope 3	3	18
	future plan around service delivery, service breakdowns and alternative community responses to remain operational in such conditions.  Develop communication materials around recycling.		<b>V</b>																					2	2	3	2	3	3	Reduces scope 3 emissions (out of boundary waste) Zero	3	18
The residual value of organic	Install tri-sorter waste bins in public right of way		<b>✓</b>	~						Ш														2	2	3	2	3	1	Contribution Reduces scope 3	1	14
waste is captured.				~			<b>V</b>												<b>✓</b>					2	2	3	2	3	3	emissions (out of boundary waste)	3	18

												A	PPLICAE	BLE PRIOR	ITIES										5	TRATEGY A	SSESSMEN	NT .		
			Impera	tives		Plac	:e			Prosperity		Hea	alth & W	/ellbeing		Connect	ivity	Livin	g Infrastru	ıcture	ource neration	Technical	. Financial	Diek	Capacity to	Level of Stakeholder	Impact on	Contribution neutrality a	nd timeline	Chuckagu
OBJECTIVES	STRATEGIES	Equity	Resilience		Engagemen & Inclusion			Housing	Access to Opportunity	Economic Development	Innovation	Active Living F	Health Safe	Food ety System	Street is Netwo		Digital Network	Natural Features	Ecosystem Health	Connection with Nature	Water Waste	Readilless	s Soundnes	S	Manage	Support	Targets	Scope	to Carbon Neutrality	Strategy Assessmen Score
	Assess potential of creating a composting intervention on site.			~			~												~			2	2	3	2	3	3	Reduces scope 3 emissions (out of boundary waste)	3	18
	Advocate that all businesses on site participate in an organic waste recycling project (including all events hosted on site).	~		$\checkmark$			~												<b>V</b>			2	2	3	2	3	3	Reduces scope 3 emissions (out of boundary waste)	3	18
	Facilitate a conversation around partnerships with restaurants to implement an anaerobic digestion program that converts food waste into energy.			<b>V</b>																		2	2	3	2	3	3	Reduces scope 3 emissions (out of boundary waste)	3	18

												APPLICA	ABLE PRIO	RITIES						Doe	ource			RES	PONSIBILITI	ES, FUNDING AND	IMPLEMENTATIO	ON TIMELINE		
			nperative	Climate	Engagement	Plac	Public	Acces	Prospe	ic	Activ	Health &	Foo	d St	Connect	Digital	Natural	g Infrastru Ecosystem	Connection	Regen	eration	Lead Organization		Implementation Status	n Timeline (S M-L)	- Implementation Costs	Funding Source	Implementation Schedule	Documentation	Notes
&J community in EcoDistrict lanning and project	Develop a S&J cohort of people (made up of representatives from some of the business operating in the precinct) who can connect with the community about this plan, who can communicate and activate people about development and progress and can	1	esilience F	Protection	& Inclusion	Identity	Spaces Ho	Opport	nity Developm	nent Innovat	ion Livin	g Health S	afety Syste	ms Net	work Mobility	Network	Features	Health	with Nature	Air & Climate	Water Waste		Redefine (potentially supported by Solid Green or another service provider -	Current	Ongoing	TBC - will form part of current marketing budget but will need to be transferred to the NPC operational	Short Term - Redefine Medium/Long Term - S&J NPC Levies	Ongoing	S&J Industrial Estate EcoDistrict Business Engagement Strategy	
	explain how the S&J EcoDistrict relates to regional and national trends. Adopt the S&J EcoDistricts Roadmap framework to refine the implementation Action Plan and align efforts with other communities (including COJ and EMM).	~	✓	<b>✓</b>	✓					<b>✓</b>				) (								S&J NPC	TBC)  Redefine (potentially supported by Solid Green or another service provider - TBC)	TBC	M-L	budget in due course				This is a cost per an currently included in Operating Budget EcoDistrict Recertification and Biennial Report
	Initiate interaction with the Ekurhuleni Metropolitan Municipality to engage on municipal regulations, goals and targets to foster a community culture that ensures transparent and inclusive review processes and project implementation. Collective impact shoul be underscored.	$\sim$								<b>~</b>				)							0 0	S&J NPC	Redefine (potentially supported by Solid Green or another service provider - TBC)	Current	Ongoing					Вістіпаттерої
	Create an S&J NPC forum focussed on interaction with surrounding communities to share the EcoDistrict intentions, lessons learned and	$\checkmark$	<b>V</b>	<b>V</b>	~					~				) [								S&J NPC		Current	Ongoing					
(proposed) character of S&J Industrial Estate District is communicated	aspirations. Highlight and share storytelling through community events.				~	<b>V</b>								) [								S&J NPC	TBC		M-L					
strict is communicated strengthened through tive engagement.	Appropriate event programming at celebrated spaces.				~	~								)								S&J NPC	External Partners or Private Sector Hosts		L	Event Specific	External			Current signs
	Incorporate appropriate plaques or other signage to celebrate site heritage.				~		~							]								S&J NPC				TBC				Current signal provision does include this proje
	Create an S&J marketing campaign to conceptualize communicate, and control the S&J EcoDistricts identity, narrative and how it is viewed by the region and beyond.				<b>~</b>	<b>V</b>				<b>V</b>				)								S&J NPC	Redefine	TBC	M-L	CAPEX Budget (signage budget specific cost TBC)	Short Term - Redefine Medium/Long Term - S&J NPC Levies			
lic spaces are accessible to S&J community.	Promote universally accessible mobility routes for all modal types (including non-motorised transport). Conduct a transportation survey of those who work in										~			) [									Potentially							
	S&J to assess accessibility and identify areas of improvement	$\checkmark$			~	$\checkmark$	<b>~</b>				~			)								S&J NPC	supported by Solid Green or another service provider - TBC		M-L	Operational Budget (from Levies)				
lic spaces are high quality, aging and active.	Create an environment to supports safe and comfortable pedestrian movement throughout the node.				~		~				~			) (									.50							
	Conduct a neighbourhood walkability audit on an annual basis to identify areas that need improvemen	t 🔲	~	<b>V</b>	~		<b>V</b>				~	~		) (							0 0	S&J NPC	Potentially supported by Solid Green or another service provider -		M-L	Operational Budget (from Levies)				
	Program: Regular graffiti removal						~							) [								S&J NPC	TBC Cleaning Service Provider	Current	S-M-L	Operational Budget (from Levies)				
versity of housing is	Program: Public area cleaning and maintenance  Establish a dialogue with the Ekurhuleni Metropolitar						~							] [								S&J NPC	Cleaning Service Provider Potentially	Current	S-M-L	Operational Budget (from Levies)				
lable within reasonable kimity to public sportation and alternative des of travelling to and n the EcoDistrict.					~									) (							0 0	S&J NPC	supported by Solid Green or another service provider - TBC		M-L	Operational Budget (from Levies)				
m the Ecobistnet.	Facilitate a housing affordability survey.	$\checkmark$			$\overline{\checkmark}$					~				)							0 0	S&J NPC	Potentially supported by Solid Green or another service provider - TBC		M-L	Operational Budget (from Levies)				
eer pathways and training available for employees nin the S&J EcoDistrict to w multi-skilling and lience between different ployment opportunities.	Work with local businesses and relevant NGOs or training facilities to identify and host relevant training opportunities (for people working in the S&J EcoDistrict as part of multi-skilling /upskilling /reskilling for alternative positions within the precinc itself)	~	✓		<b></b>				~					) (							0 0	S&J NPC	твс		M-L		Skills Levies from Member Organisations (but TBC)			
v job creation occurs ough economic elopment.	Create or facilitate short- and long-term employmer opportunities for surrounding communities in the precinct (similar to the Guys in Green test case).		✓						$\checkmark$	~				) (								S&J NPC	All NPC Members	Ongoing	S-M-L		For opportunities external to S&J NPC budget will also be external, otherwise this will fall within the operational budget	3		
	Assess potential of attracting emerging sectors to locate in the S&J EcoDistricts		<b>V</b>						~	~				) (							0 0	S&J NPC	Potentially supported by Solid Green or another service provider -		S-M		TBC			
	Facilitate conversations around the circular economy with businesses both within S&J and located in the immediate vicinity to facilitate economic resilience and growth potential		<b>V</b>			0			✓	✓				) (								S&J NPC	Potentially supported by Solid Green or the Regenerative Collaborative of South Africa or and organisation such as the African Circular Economy		S-M	Investigate events/engagements that have limited to no costs as a departure point and then identify specific investigations to unpack in greater detail(and costs	TRC			
	Facilitate the establishment or establish business clusters that connect the S&J EcoDistrict community to the regional and global economy.		<b>V</b>		~				~	<b>V</b>				) [								S&J NPC	Network  Gauteng Growth &  Development  Agency	Ongoing	S (but ongoing	accordingly) TBC	TBC	As required		Potential exposi the S&J Indust Estate EcoDistr
raction between epreneurs is fostered ald take the form of SMME	Partner with suitable organisation to provide suitable training to SMMEs to facilitate greater participation in the formal economy.		<b>V</b>						~	<b>V</b>				) (								S&J NPC	SEDA/CityCon Africa/Other		S-M	TBC	S&J NPC			international e
port or engagement ween businesses within the EcoDistrict to facilitate a	Establish S&Js reputation as a place to start and grov a business. A business incubator can support and encourage entrepreneurs and local business		<b>V</b>		~				~	<b>V</b>				)								S&J NPC								
marinalization catata	Create living streets, plazas, and other engaging pedestrian experiences.													)								S&J NPC	Abland as the development	Ongoing	S-M	Development Budget				
safer.	Facilitate the creation of an active, visible and welcoming health and wellness coaching program in the community (i.e. lunchtime run/walk for life, etc)					~					~			) (								S&J NPC	partner for S&J		M-L		S&J NPC			
	Conduct a neighbourhood walkability audit on an annual basis to identify areas that need improvemen	t					<b>V</b>				~	$ \mathbf{\nabla}$		] [	<b>V</b>		✓	<b>V</b>				S&J NPC	Potentially supported by Solid Green or another service provider - TBC		S-M		ТВС			This requires a g number of partic than is currently p in the node, s implementation t at a future date si for the engagem yield relevant re
evious operation impact eas are remediated and generated.	Implement and effectively manage the rehabilitation of groundwater affected by previous operations on site.			<b>V</b>										) (			~	<b>V</b>	~			S&J NPC								,
	Enhance and preserve the wetland.			~	П		~		П					1		П				П		S&J NPC	Guys in Green (or other relevant			R150,000				This is a cost per ar currently included i

Martine   Mart													A	PPLICABL	E PRIORIT	IES										RES	PONSIBILIT	IES, FUNDING ANI	D IMPLEMENTATIO	ON TIMELINE		
Part					Climate	Engagement	Culture &	Public		Access to	Economic		Active		Food	Street		Digital	Natural	Ecosystem	Connection	Rege	neration	Organization					Funding Source		Documentation	Notes
Marke   Mark	Ensure that employee health	Provide a list of COVID19 vaccination sites, and	Equity	Resilience	Protection	& Inclusion	Identity	Spaces	Housing	Opportunity	Development	Innovation	Living H	lealth Safety	Systems	Network	Mobility	Network	Features	Health	with Nature	Air & Climate	e Water Waste									
Part	regarded as important to	(government clinics or government hospitals within																														now just need to be
Maria Paris	overall precinct well-being.		$\checkmark$					~						✓										S&J NPC		Ongoing	S-M-L					website and
Market   M																																formats deemed
**************************************																																Once development is
Marie   Mari	designed for public safety.	road design and repairs.	$\checkmark$		<b>~</b>			$\checkmark$								$\checkmark$	~							S&J NPC		Ongoing	S-M	Development Budget	t			
Maria   Mari																									partner for S&J							
Maria				$\checkmark$												$\checkmark$			$\checkmark$	~				S&J NPC	TBC							
Property of the property of																+																This is a cost per annu
*** *** *** *** *** *** *** *** *** **			d $\square$	$\checkmark$				~																S&J NPC	Keypoint			R67,500				currently included in th
*** Property of the control of the c																																current system
March   Marc		appropriate access control and securiting monitoring		$\checkmark$				~								$\checkmark$								S&J NPC	Keypoint			R2,459,492				currently included in th
Martine   Mart	Healthy and affordable fresh																															current system
Market Ma		facilities where S&J community members can access	S																													Roadmap and would
Set of sequence of the control of th		riesh rood options outside of the 3a2 Ecobistrict.									П							П						S&J NPC		Ongoing	S-M-L					provided on the S&J
Manifest Man			-		_	-				_		_																				communicated in othe
Second Continue																																
Martine   Mart			$\checkmark$			~									$\checkmark$									S&J NPC	TBC		M-L					
Martine   Mart	Number of people educated o															+-	+															offering
Martine	healthy food preparation or	medical aid (or similar) to provide training or pop-up																														number of participant
Maria   Mari	their knowledge, awareness,	choices, healthier food preparation or other similar	$\checkmark$			$\checkmark$									$\checkmark$									S&J NPC	TBC		M-L					in the node, so
Second Continue	Sides, or activates.	oontone.																														at a future date suitabl
Commonweal Commonwea																																
Part	travel modes (vehicles,	to support all travel modes, with specific focus on		$\checkmark$	<b>~</b>								$\checkmark$			$\checkmark$	~							S&J NPC	development	Ongoing	S-M	Development Budget	t			
Martine properties   Partine	The street network	Develop a Green Travel Plan for the S&J node and																							partner for S&J							
Martine   Mart		related surveys with staff movement, transport to an																								1						
Page of the through the control of			$\checkmark$	$\checkmark$	$\checkmark$								$\checkmark$	<b>V</b>		$\checkmark$	$\checkmark$							S&J NPC	Green or another	·	S-M		TBC			
Substitution of the control of the																																
Part		Establish a transportation baseline by issuing a																														
Part		transport/travel survey asking where workers live,																														number of participant
Part		, ,	~	$\checkmark$	<b>~</b>	~		$\checkmark$					$\checkmark$			$\checkmark$	~							S&J NPC	Green or another	1	S-M		TBC			in the node, so
Part																																at a future date suitabl
Contact in the contact of the cont																																
Confidence   Con			$\checkmark$	$\checkmark$		$\checkmark$		~					$\checkmark$	<b>V</b>		$\checkmark$	~							S&J NPC	Partners		S-M-L					
## Manufacture   Section																									(responsiblity TBC	:)						
Control   Cont																										1						than is currently preser
Part			$\checkmark$													$\checkmark$	~							S&J NPC	Green or another		S-M		TBC			implementation to star
Professional Pro																																
Part		Investigate the provision of electrical vehicle chargin	a																						Redefine (specific	:						
Moderate production of the p		points within the S&J EcoDistrict at strategic location	s. 🗆	$\checkmark$	<b>~</b>							<b>~</b>				$\checkmark$	$\checkmark$					$\checkmark$		S&J NPC	of supporting role							
Company   Comp				П						П								П						S8.INPC	150)							
Self-production and extended and well-designed and the well-design		cyclists or pedestrians within the S&J EcoDistrict.																														
services connectivity in the Carbonization with the provided profession and forest control of the provided profession and the Carbonization with the Carbonizati	O	and target them with safety improvements.	_													$\checkmark$	~							S&J NPC								
Secretary publications of productions of production	wireless connectivity is	wireless networks.								<b>~</b>		$\checkmark$						$\checkmark$						S&J NPC								
In the late of the product of the pr	EcoDistrict.	at selected public spaces within the S&J EcoDistrict.								<b>~</b>		~						~						S&J NPC								
International registerations and the exemption of the development in malar plants and processing disperties of the development in malar plants and processing disperties of the development in malar plants and processing disperties of the development in malar plants and processing disperties of the development in malar plants and processing disperties and	The quality and functions of habitat are enhanced.	parking lots, new development, and tree	or 🔲	~	~			~					$\checkmark$			~			~	<b>~</b>	<b>~</b>	<b>~</b>		S&J NPC								
plan and also calced policies for new development, including partial policies for the region of the foliability partial policies for the foliability partial parti		Ensure implementation of the development master																														
of green inflastructure (e.g. landscaping), tree camply cover, etc.)  Natural features are protected.  Actively managers the wetland in the S&I node and composition and promote projects and promote from the set of the condition of the S&I node and promote from the set of the condition of the S&I node and promote from the set of the condition of the S&I node and promote from the set of the condition of the S&I node and promote from the set of the condition of the S&I node and promote projects and promote projects and infrastructure.  Money is invested in projects that create green are remediated and remember of the set of the condition of the S&I node and promote projects and infrastructure.  Money is invested in projects that create green are remediated and remember of the set of the condition of the S&I node and promote projects and infrastructure.  Money is invested in projects that create green are remediated and remember of the set of the condition of the S&I node and promote projects and infrastructure.  Money is invested in projects that create green are remediated and remember of the set of the public infrastructure projects from the set of the public infrastructure from the project in reduced promote the set of the public infrastructure from the project in reduced promote the set of the public infrastructure from the project in reduced project in the S&I node are already and the set of the public infrastructure from the publi		plan and associated policies for new development	,																						Our :- 0 /							currently included in th
Natural features are protected.  Natural features are protected.  Implement the wetland rehabilitation plan and actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and compost actively manage the wetland in the Star and composition and the star and promote projects and investment made in green infrastructure projects infrastructure the condition of the investment made in green infrastructure projects in the landscaping on allow etc.)  Previous operation impact areas are remediated and remember the convention may be stored to the con		of green infrastructure (e.g. landscaping, tree canopy	/	П	$\overline{\checkmark}$					П	П	П						П	$\overline{\checkmark}$	$\sim$				S&J NPC	other relevant			R802.599				current system for
Natural features are protected. Implement the wetland inhabilitation rates and protection of the relevant any landscaping literal state of the section of th			-		_														_	_	_	_				S						entire NPC incl
Natural features are protected.  Implement the wetland rehabilitation plan and protective ymanage the vete cohort on alle and composit only invested in projects and my lambda properties and my lambda projects and lambda proj																																precinct & Calisto
Actively manage the tree cohort on site and compost any landscaping items for re-use on site.    Actively manage the tree cohort on site and compost any landscaping items for re-use on site.	Natural features are protected				~														~	<b>~</b>	~			S&J NPC								. recinct from Sept 202
Money is invested in projects that create green infrastructure.  We converted to the converted from the beautiful to the landscape of the converted from project and regenerated for use as an land a Estate.  Access to nature is improved.  Access to nature is improved.  Actively promote the use of the public infrastructure.  S&J NPC  S&J NPC  S&J NPC  SAJ NPC  SA		Actively manage the tree cohort on site and compos						_	_	_			+-+			_									0							
Money is invested in projects that create green infrastructure.  Where is infrastructure.  Previous operation impact area are remediated and regenerate for redevelopment into the \$8.1 influstrial Estate.  Access to nature is improved.  Actively track the coverage of the extent of land area earmarked for land land land land land land land land		any tandscaping items for re-use on site.																						S&J NPC	other relevant			R233,350				Operating Budget base
Money is invested in projects that create green infrastructure.  Actively implement and promote projects and investments made in green infrastructure projects (this could look into the investment made in the landscaping on site of this could look into the investment made into the landscaping on site of the extent of investment made into the landscaping on site of the extent of investment made into the landscaping on site of the extent of land converted from previous operation impact area and for redevelopment into the S&J industrial Estate.  Access to nature is improved.  Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.  Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.  Actively promote the use of the public infrastructure intended for a continue and area armanked for a continue and area arm					J					J		J									J					3						currently installed on
that create green infrastructure.  Infrastructure.  Investments made in green infrastructure projects (this could look into the investment made into the wetland rehabilitation, the extent of investment made into the unadacaping on site, etc.).  Previous operation impact areas are remediated and regenerated for use as land for redevelopment into the S&J industrial Estate.  Access to nature is improved.  Actively promote the use of the public infrastructure projects (this could look into the landarea earmarked for look with the extent of investment made into the wetland rehabilitation, the extent of investment made into the unadacaping on site, etc.).  I rack the conversation rate of the extent of land converted from previous operation impact area into the S&J industrial Estate.  Actively promote the use of the public infrastructure (benches, etc) during funch-time to engage with nature.  Actively track the extent of land area earmarked for land area ear	Money is invested in projects	Actively implement and promote projects and																														
wetland rehabilitation, the extent of investment made into the landscaping on site, etc.).  Previous operation impact areas are remediated and regenerated for use as land for redevelopment into the S&J Industrial Estate.  Access to nature is improved.  Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.  Actively track the extent of land area earmarked for land area earmarked f	that create green	investments made in green infrastructure projects			<b>~</b>														~	$\checkmark$	~	~		S&J NPC								
Previous operation impact areas are remediated and regenerated for use as land for redevelopment into the S&J Industrial Estate.  Access to nature is improved.  Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.  Actively track the conversation rate of the extent of land converted from previous operation impact area into converted from previous operation impact area into conversation rate of the extent of land converted from previous operation impact area into conversation rate of the extent of land converted from previous operation impact area into conversation rate of the extent of land converted from previous operation impact area into conversation rate of the extent of land converted from previous operation impact area into conversation rate of the extent of land area earmarked for land area earm		wetland rehabilitation, the extent of investment made	e <b>"</b>		_	J	J			J	J	J	_		J		J			_	_	_										
regenerated for use as land for redevelopment into the S&J industrial Estate.  Access to nature is improved.  Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.  Actively track the extent of land area earmarked for Actively track the extent of		Track the conversation rate of the extent of land																														
Industrial Estate.  Access to nature is improved.  Actively promote the use of the public infrastructure (benches, etc) during lunch-time to engage with nature.  Actively track the extent of land area earmarked for Actively track the extent of	regenerated for use as land fo				$\checkmark$														~	$\checkmark$		$\checkmark$		S&J NPC								
(benches, etc) during lunch-time to engage with nature.  Actively track the extent of land area earmarked for sequence of the standard area earmarked for	Industrial Estate.	Actively promote the core of the core of the																														
Actively track the extent of land area earmarked for	Access to nature is improved.	(benches, etc) during lunch-time to engage with	~				$\checkmark$	$\checkmark$					$\checkmark$	$\overline{\mathbf{v}}$					~	$\checkmark$	$\checkmark$			S&J NPC								
green streetscape/landscaping provided/developed.		Actively track the extent of land area earmarked for	d. 🗆	~	~				П	П	П	П	П						$\overline{\mathbf{v}}$			<b>~</b>		S&J NPC								

												APPLICABL	E PRIORIT	IES										RESPONSIBILITI	IES, FUNDING AND	D IMPLEMENTATIO	N TIMELINE		
			Imperat	tives		Place			Prosperi	ty .		ealth & Wel			nnectivi	ty	Living	Infrastru	ıcture		ource neration	Lead	Partner	Implementation Timeline (S	6- Implementation		Implementation	Documentation	Notes
OBJECTIVES	STRATEGIES	Equity		Climate	Engagement & Inclusion	Culture &	Public	Access Housing Opportu	to Economic		Active		Food	Street		Digital	Natural	Ecosystem	Connection			Organization	Organization(s)	Status M-L)	Costs	. aanig Jource	Schedule	Desamonadon	
	Develop an Integrated Pest Management Plan for the S&J EcoDistrict that promotes and requires the use of only non-toxic pest control to ensure a safe site and limit negative impact on the wildlife located in the wetland.	f	$\checkmark$	~														$\checkmark$				S&J NPC	Potentially supported by Solid Green in alignment with Pest Control Service Provider		R13,500				This is a cost per annum currently included in the Operating Budget for current system for current pest control approach - should be aligned with proposed integrated pest management plan that
	Investigate viability of an install active owl boxes throughout the EcoDistrict as an alternative form of pest management.		<b>V</b>					0 0										<b>V</b>	<b>~</b>		0 0	S&J NPC							requires green products
All sectors improve energy efficiency, reduce waste, and	Buildings to be 100% electric. No combustion for cooking or hot water heating		~	~																~		S&J NPC							
increase natural carbon sinks.	Investigate and motivate for the viability of including renewable energy technologies in the community (link to the net zero targets for 2050 set by EMM) [Renewable energy offset]		~	~						$\checkmark$										$\checkmark$		S&J NPC	Redefine (specific of supporting role TBC)						
	BUILDING SPECIFIC - Ensure that minimum energy code requirements are met by all new buildings, with no rationalisation of hot water requirements for all building types. i.e. minimum 50% of hot water on a site to be heated by non-electric resistance means. [S&J Minimum requirements]	e 🗆		~																$\checkmark$		S&J NPC	Potentially supported by Solid Green or another service provider - TBC	S-M		TBC			
	BUILDING SPECIFIC - Electrical distribution boards to be designed for sub-metering by grouping loads. GS ENE-2 Guidance (Good practice future proofing design)			<b>V</b>																~		S&J NPC	Potentially supported by Solid Green or another service provider - TBC	S-M		TBC			
	BUILDING SPECIFIC - Investigate smart meters and other potential data sources to track and manage water and energy consumption.[Operational efficiency]			<b>V</b>								0 0								<b>V</b>		S&J NPC	Potentially supported by Solid Green or another service provider - TBC	S-M		TBC			
	Conduct periodic audits and transparency reports to reduce municipal energy consumption			<b>V</b>																$\checkmark$		S&J NPC	Potentially supported by Solid Green or another service provider - TBC	S-M		TBC			
	Create energy, water and power benchmarks that are reported against within the development. Automated reporting in line with EPC benchmarks. [Operational efficiency]			<b>V</b>																~		S&J NPC	Potentially supported by Solid Green or another service provider - TBC	S-M		TBC			
	Enabling infrastructure for feed in to common grid. SSEG Guidelines. [ Renewable energy offset]			~																~		S&J NPC							
	Investigate the feasibility of a district-scale solar farm - assess the viability of wheeling agreements being put in place to facilitate feeding back into the municipal grid. [Renewable energy offset]		~	~								0 0								~		S&J NPC	Redefine (specific of supporting role TBC)						
	Establish energy education programs for the community.		<b>V</b>	~								0 0								<b>V</b>		S&J NPC	Potentially supported by Solid Green or another service provider - TBC	S-M		TBC			
Potable water is used efficiently.  Alternative water sources are	BUILDING SPECIFIC - Create a water efficiency guideline for all end-users within the S&J community. Benchmark against EDGE Showers - 61/min Wash hand basins (bathrooms - 41/min Kitchen taps - 61/min (excluding commercial kitchens) IS&J minimum requirements] Assess viability to introduce rainwater harvesting		<b>V</b>	✓																		S&J NPC	All developers to adhere to the building guidelines	Ongoing S-L	Included in development cost, should not add additional costs	Developers own			
	s. requirements in the community [Regeneration/renewable]			$\checkmark$																		S&J NPC							
pollutants.	n Develop and implement an appropriate stormwater quality management plan.		~	~													$\checkmark$	$\checkmark$				S&J NPC							
People are educated on water safety impacts and prevention to improve their knowledge,				~	~									<b>V</b>			$\checkmark$	<b>~</b>	~			S&J NPC							
	Activate the community to engage in behaviors that reduce water consumption and minimize flooding and its impacts.			~	$\checkmark$																	S&J NPC							
Stormwater is retained through green infrastructure.	h Set out requirements regarding the use of landscaping or permeable pavers for stormwater			<b>V</b>				0 0									~	<b>~</b>	<b>~</b>			S&J NPC							
Waste is diverted from landfill through reduction, reuse, and recycling.	sanaagement.  S New buildings to provide EMP in line with Green Star requirements, including waste management plan to divert 75% of construction waste to landfill		<b>V</b>	~								0 0						✓				S&J NPC	All developers to adhere to the building guidelines	Ongoing S-L	Included in development cost, should not add additional costs	Developers own			
	Track S&Js combined waste profile and increase the community's diversion rate from landfill.		$\checkmark$	<b>V</b>																		S&J NPC			additional costs				
	Investigate the creation of S&J waste management targets and policies, including event standards	~	<b>V</b>	~																		S&J NPC							
	Partner with waste reduction nonprofits for education and resources	~	~	~																		S&J NPC							
	Establish strong relationship with the municipality to future plan around service delivery, service breakdowns and alternative community responses to remain operational in such conditions.		~																			S&J NPC							
The residual value of organic	Develop communication materials around recycling. Install tri-sorter waste bins in public right of way			<b>V</b>			<b>□</b>															S&J NPC S&J NPC							
waste is captured.	Assess potential of creating a composting intervention on site.			~			$\overline{\mathbf{v}}$											~				S&J NPC							
	Advocate that all businesses on site participate in an organic waste recycling project (including all events hosted on site).			~			~					0 0						<b>V</b>				S&J NPC	All NPC members & a company such as 'The Compost Kitchen'	Not yet started M-L					
	Facilitate a conversation around partnerships with restaurants to implement an anaerobic digestion program that converts food waste into energy.			<b>V</b>								0 0						<b>V</b>				S&J NPC	TBC once the restaurants/food establishments for the area confirmed	Not yet started M-L					