



Project Infrastructure Planning

1. Project Details

Project Name	Creation of a regulatory sandbox to position the Western Cape as a Global Hub for Drone Innovation.
Location	Saldanha Bay Local Municipality
Sector	Technology
Department	Department of Economic Development and Tourism
Project Owner	Fernel Abrahams Hendrickse
Project Manager	Fernel Abrahams Hendrickse

1.1 Background & Justification

The Western Cape Government (WCG) is establishing a Regulatory Sandbox for Drones and UAVs to position the Province as a global hub for drone innovation. This initiative, aligned with the Growth for Jobs (G4J) strategy and WCIF 2050 Principles, aims to provide a controlled environment for testing, regulatory adaptation, and commercialisation of unmanned aviation technologies.

Spanning 2024 to 2025, the project follows a six-phase development model that includes stakeholder engagement, technical requirements, site selection, operational design, and governance finalisation. Viable locations such as Saldanha, Atlantis, and George have been shortlisted based on airspace, infrastructure, and community impact criteria.

The sandbox supports a phased implementation model, progressing from VLOS and EVLOS to BVLOS and UTM-integrated operations, with a long-term goal of enabling fully functional drone corridors. It offers direct engagement with SACAA, ATNS, DoT, and includes frameworks for trial authorisations, exemptions, and real-time compliance monitoring.

The project is designed to de-risk investment and attract participation from drone operators, manufacturers, technology firms, and research institutions. It also supports job creation, STEM education, and inclusive economic growth through gender responsive procurement and local enterprise development.

As the sandbox transitions into a public-private partnership (PPP), investors are offered clear pathways to co-develop infrastructure, manage operations, and commercialise drone services. With regulatory alignment, scalable infrastructure, and structured governance in place, the sandbox presents a compelling investment opportunity to lead Africa's drone innovation landscape.

1.2 Project Scope

The scope of work for the WC Drone and UAV Regulatory Sandbox covers the full lifecycle of designing, establishing, operating, and scaling a mission-oriented regulatory innovation platform. The project includes structured stakeholder engagement with regulators, industry, municipalities, research institutions, and communities, supported by a documented engagement plan and research methodology. It entails close collaboration with national aviation authorities to define sandbox-specific regulatory frameworks, trial authorisations, and alternative compliance mechanisms aligned with risk-based aviation principles. The scope further includes technical planning for ground and airspace requirements, enabling phased operations from VLOS and EVLOS to BVLOS and future Unmanned Traffic Management integration. A comprehensive site identification and feasibility process underpins the selection of viable locations, alongside infrastructure planning for a minimum viable sandbox with scalable expansion capability. Governance and institutional arrangements are established through multi-stakeholder oversight bodies and an operational management team. The project also includes operationalisation of sandbox activities, digital compliance and monitoring systems, financial and

comercial structuring, performance tracking, and a phased transition towards public-private partnership models and long-term operational sustainability.

2. Objectives & Key Focus Areas

Objective	Key Focus Area
Position the WC as a Global Hub for Drone Innovation	Enhancing Private Sector Partnerships
Establish a Regulatory Sandbox for Drones and UAVs	- Prioritising Infrastructure for Maximum Impact - Innovation & Futures Planning
Support Economic Growth and Job Creation	Prioritising Infrastructure for Maximum Impact
De-Risk Private Sector Investment in the Drone Sector	Enhancing Private Sector Partnerships
Build an Integrated Drone Innovation Ecosystem	- Prioritising Infrastructure for Maximum Impact - Strengthening Municipal Infrastructure

3. Project Timeline & Cost

Estimated Duration	2 Year(s) & 0 Month(s)
Estimated Start Date	01 Nov 2024
Estimated Cost	R 2.1M

4.Project Stage-0 Submission & Approval

Self Approved By: Fernel Abrahams Hendrickse

Self Approved On: 24 Dec 2025 01:50:21 PM

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5. Environmental & Social Considerations

5.1 Environmental Considerations

- Greenhouse gas emissions and deforestation contributing to climate change
- Loss of biodiversity due to habitat destruction and fragmentation

5.2 Social Considerations

- Assessment of community impacts such as displacement and livelihood loss
- Protection of health and safety from environmental hazards

- Promotion of social equity and fair distribution of development benefits
- Engagement with stakeholders throughout the project lifecycle

6. Regulatory & Environmental Approvals

6.1 National Level

6.2 Provincial and Local Levels

- Provincial Environmental Departments: Implement and enforce environmental regulations within provinces
- Municipalities: Play a role in environmental management, especially in land-use planning and development applications

6.3 Other Relevant Entities

- Council for Scientific and Industrial Research (CSIR)
- UAS Sandbox Task Force (UAS-SB-TF)

7. Identify Key Stakeholders

7.1 Government

- Department Of Infrastructure
- Department of Environmental Affairs and Development Planning
- Western Cape Government
- Department of Economic Development and Tourism

7.2 State-Owned Entities

- Western Cape Archives and Records Service (WCARS)

7.3 Private Sector

- Financial Institutions

7.4 Civil Society

- Civil society organizations advocating for community needs

7.5 Other Stakeholders

8. WCG Sector Priorities

Outcomes	Social	Energy & Water	Economic	Technology	Ecological
Households have increased access to basic services and improved shelter				Short Term 1-5 YRS	

9. Infrastructure Type

9.1 Hard

As a secondary component, it enables Hard infrastructure. Although not dominant, the project includes limited and enabling hard infrastructure, such as:

- Ground facilities and test sites (minimum viable sandbox)
- Communications and digital equipment

- Physical safety and operational infrastructure
- Future scalable infrastructure for BVLOS and corridors

9.2 Soft

Primarily classified as Soft Infrastructure. The Western Cape Drone and UAV Regulatory Sandbox is fundamentally a soft infrastructure project, because its core function is to create institutional, regulatory, and governance capability, not a large physical asset.

It is a Soft infrastructure because:

- It establishes regulatory frameworks, trial authorisations, exemptions, and alternative compliance mechanisms.
- It builds institutional capacity within government and regulators.
- It creates rules, processes, digital systems, and coordination mechanisms.
- Its main "asset" is regulatory certainty and learning, not concrete or steel.

9.3 Critical

10. Project Stage-1 Submission & Approval

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