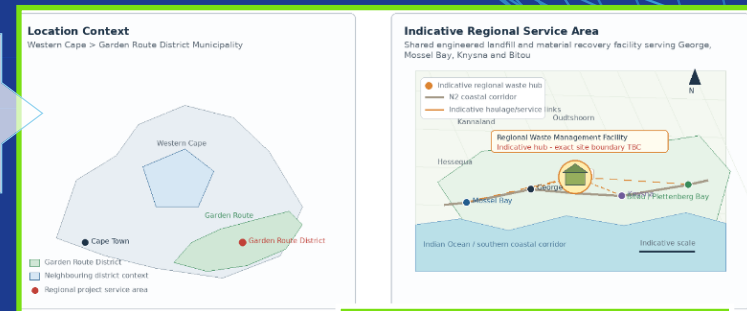


GARDEN ROUTE REGIONAL WASTE MANAGEMENT FACILITY

From Waste Disposal to Resource and Energy Recovery

MAP OF THE PROJECT



PROJECT SUMMARY

The Garden Route Regional Waste Management Facility was initially conceived to address landfill capacity constraints, environmental compliance challenges, and fragmented waste management systems across the Garden Route District. The project has an initial design capacity of approximately 8,500 tonnes of waste per month and is intended to serve the George, Mossel Bay, Knysna and Bitou municipalities.

The capital and long-term operational requirements associated with a full-scale regional landfill provide an opportunity to explore how the existing regional waste management approach could be complemented by resource recovery, circular economy and potential waste-to-energy interventions. The project can be repositioned as an integrated regional resource recovery and circular economy platform, where waste is increasingly diverted from landfill through material recovery, recycling, composting, beneficiation and the potential conversion of suitable residual waste streams into energy.

The opportunity is therefore to move from waste disposal towards resource and energy recovery. By extracting greater value from the regional waste stream, the project could reduce the quantity of waste requiring final disposal, reduce pressure on landfill infrastructure, attract private-sector participation and create new green economy opportunities. Landfill infrastructure would remain necessary for residual waste that cannot practically or economically be recovered. However, the strategic opportunity is to minimise the amount of waste ultimately requiring disposal by progressively developing an integrated circular economy and potential waste-to-energy model.

The map above provides the regional location context for the Garden Route Regional Waste Management Facility and the participating municipalities of George, Mossel Bay, Knysna and Bitou.

PROJECT STATUS



The project is identified in the Garden Route District Municipality's planning documents, with the Regional Waste Management Facility Project Gateway Review Report serving as a key project reference. The project has progressed beyond the procurement documentation stage and is now in active implementation, with Phase 1 construction underway, including the initial landfill cell and associated infrastructure. While a PPP / private-sector-led route was previously pursued, the project is currently being advanced by the District Municipality, supported by initial loan co-funding. The broader funding requirements, affordability and longer-term operational and delivery structure remain subject to further assessment.

This creates an opportunity, as part of the longer-term planning for the regional waste management system and future project phases, to assess how the existing landfill investment could be complemented by a phased and integrated resource recovery and circular economy model incorporating:

Material recovery and recycling

Organic waste treatment and composting

Waste beneficiation

Recovery of value from suitable waste streams

Production of waste-derived fuels where appropriate

Potential waste-to-energy solutions, subject to technical, financial and regulatory feasibility

Any future integrated waste management solution should be informed by detailed waste characterisation and waste-flow analysis, technology assessment, affordability and financial viability analysis, market demand, environmental and regulatory requirements, and the availability of sufficient and reliable waste feedstock.

FINANCIAL NEEDS



Approximate value: R288.8 million

The current estimated project value relates to the existing Regional Landfill Waste Disposal Site concept. Should additional resource recovery or potential waste-to-energy components be progressed, the project scope and associated cost estimates would need to be reassessed and updated following further feasibility work. The capital and operational requirements associated with developing and operating a full-scale regional landfill create an opportunity to explore an alternative or complementary investment model that reduces long-term dependence on disposal. Rather than directing investment predominantly towards landfill capacity, the project could be structured to progressively divert waste towards activities that recover economic value from the waste stream.

Potential investment opportunities include:

Material recovery and recycling infrastructure

Waste sorting and beneficiation

Organic waste treatment and composting

Production of refuse-derived fuel or other waste-derived products

Potential energy generation from suitable residual waste streams

Supporting infrastructure for residual waste disposal

Digital systems for waste tracking, monitoring and optimisation

A phased approach could allow the project to prioritise viable resource recovery interventions while developing only the landfill capacity required for residual waste. This could also create opportunities to crowd in private-sector finance, technology and operational expertise, particularly where commercially viable value can be recovered from waste.

GARDEN ROUTE REGIONAL WASTE MANAGEMENT FACILITY

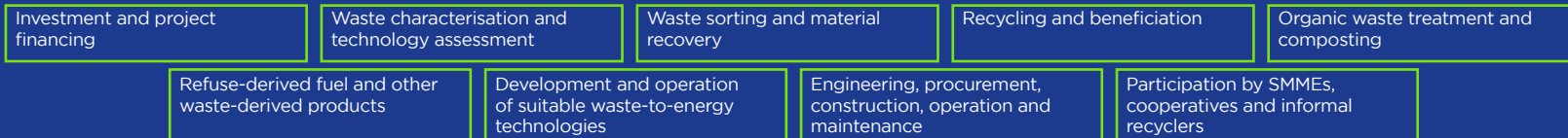
From Waste Disposal to Resource and Energy Recovery

PUBLIC/ PRIVATE SECTOR OPPORTUNITY



The project presents a strong opportunity for public-private collaboration in developing a regional circular economy, resource recovery and potential waste-to-energy platform. The public sector can provide regional coordination, governance and regulatory oversight while ensuring that the solution remains aligned with municipal service delivery requirements, environmental compliance and affordability.

Private-sector participation could include:



The regional scale of the waste stream provides an opportunity to explore solutions that may not be viable at the level of an individual municipality. The project could therefore provide a platform for combining public-sector service delivery requirements with private-sector investment, innovation, technology and operational expertise.

KEY PARTIES



- Garden Route District Municipality – project owner and regional implementation lead.
- George, Mossel Bay, Knysna and Bitou municipalities – municipal beneficiaries and users of the regional system.
- Western Cape Government / Department of Local Government – infrastructure coordination and SIDAFF-related support.
- Pegasys / SIDAFF Programme – project preparation support.
- Potential PPP and private-sector partners.
- Waste management, recycling and resource recovery operators.
- Potential technology and waste-to-energy partners.
- Development finance institutions and investors.
- Environmental and waste regulatory stakeholders.
- Technical, environmental, financial and transaction advisors.
- Local businesses, communities, SMMEs, cooperatives and informal recyclers.

FROM WASTE DISPOSAL TO RESOURCE AND ENERGY RECOVERY



The Strategic Opportunity

The Garden Route Regional Waste Management Facility presents an opportunity to rethink the traditional landfill model. The funding and affordability challenges associated with full-scale regional landfill infrastructure create an opportunity to explore whether a greater proportion of the regional waste stream can be diverted towards resource recovery, recycling, beneficiation and potential energy generation.

The objective would be to progressively move waste up the value chain:

Waste Generation ➡ Separation and Sorting ➡ Material Recovery ➡ Recycling and Beneficiation ➡ Organic Waste Treatment ➡ Potential Energy or Fuel Recovery
➡ Residual Waste Disposal

Under this approach, landfill becomes the last resort for residual waste, rather than the primary destination for the regional waste stream.

GARDEN ROUTE REGIONAL WASTE MANAGEMENT FACILITY

From Waste Disposal to Resource and Energy Recovery

FROM WASTE DISPOSAL TO RESOURCE AND ENERGY RECOVERY



This transition could:

Reduce the volume of waste requiring final disposal

Extend the operational life of landfill infrastructure

Reduce long-term pressure on municipal waste management systems

Unlock recyclable materials and other recoverable resources

Create opportunities for energy or fuel recovery from suitable residual waste streams

Attract private-sector investment and technology partners

Support green jobs, SMMEs and local enterprise development

Strengthen the circular economy within the Garden Route District

Any waste-to-energy component would require further feasibility assessment to determine the appropriate technology, available feedstock, scale, affordability, environmental implications, regulatory requirements and commercial viability. The opportunity is therefore not simply to finance and construct another landfill. It is to explore how the Garden Route's regional waste stream can progressively be transformed from a disposal challenge into a resource that supports material recovery, economic activity and, potentially, energy generation.

TIMELINE



PHASE	INDICATIVE PERIOD	KEY ACTIVITIES
Phase 1 landfill infrastructure implementation	2026	Construction of the initial landfill cell and associated regional waste management infrastructure
Waste characterisation and resource recovery feasibility	To be confirmed	Assess waste volumes, composition, recoverable materials and available feedstock
Waste-to-energy opportunity assessment	To be confirmed	Assess suitable technologies, scale, potential energy or fuel outputs, affordability and commercial viability
Delivery and investment model assessment	To be confirmed	Assess appropriate funding, public/private participation and implementation structures
Phased resource recovery implementation	Future phases	Develop viable recycling, beneficiation, composting and resource recovery interventions
Potential energy or fuel recovery	Subject to feasibility	Progress viable waste-to-energy or waste-derived fuel opportunities
Operations and monitoring	Ongoing	Monitor waste diversion, resource recovery, financial performance, environmental compliance and regional service delivery