

WASTE SERVICES & LANDFILL MANAGEMENT



MARKET SECTORS



Industrial



Waste Management



Construction



Construction



Defence

WHAT CAN EPIC DO?

At Epic Environmental, we provide comprehensive support and technical engineering services across the waste management industry.

Our waste management group includes project managers, environmental engineers, scientists and technical specialists with extensive knowledge on waste management. Our team delivers practical and pragmatic solutions across the waste industry.

We acknowledge that the waste management sector is both a public service and a commercial operation. It therefore requires cost-effective, practical and beneficial outcomes for stakeholders, the community and the environment.

LANDFILL DESIGN

At Epic, we provide support in all areas concerning the design, management and construction of new containment, leachate treatment, landfill gas extraction and utilisation systems, across all aspects of the landfill life cycle. Our devoted landfill engineering team routinely undertakes the design, tendering, supervision, contract management and validation of greenfield and operational landfill development sites. Working closely with our landfill engineers, our environmental team provides technical support using their expertise across planning, environmental permitting, hydrogeology, ecology and rehabilitation. Our team provides all the support needed to successfully develop cost-effective and efficient waste management facilities that meet the highest regulatory compliance requirements.

Our core areas of landfill design and management expertise include:

- Liner design and certification through CQA programs
- Hydraulic design of leachate collection systems
- Landfill capping systems and construction quality assurance
- Landfill gas and leachate monitoring
- Alternative capping systems and design efficacy trials
- Leachate management and treatment design and assessment.

GROUNDWATER AND LEACHATE MANAGEMENT

Epic can assist in all aspects of leachate and groundwater management, including assessment, monitoring, containment and treatment. An assessment of the hydrogeological characteristics of the underlying groundwater resources is essential in formulating a protective design. It is also needed to address potential failures due to historical landfill practices. Our specific services include:

- Installation of groundwater monitoring well networks
- Groundwater assessment and remediation
- Assessment of off-site groundwater quality and potential off-site impacts
- Assessment of leachate quality, volume and flow characteristics
- Site specific leachate management and treatment options
- Assessment of ground contamination impacts.

CONSTRUCTION SUPERVISION AND QUALITY ASSURANCE

Epic provides a full range of construction and site management services during tender phase assessment, construction/quality assurance oversight and project start-up. Engineered landfill projects comprising multi-layer liners systems and geo-synthetics require a full-time quality assurance/quality control program. This program needs to take overall responsibility for observing and documenting activities related to the production, handling, storage, and installation of landfill liner and capping systems.

Epic can produce a comprehensive CQA report and associated drawings developed at the completion of the construction or capping program. This provides not only a mandatory regulatory deliverable, but a critical tool to assist in the future management of the facility.

REMEDIATION AND REDEVELOPMENT

Epic has a proven record in the assessment of historical landfill sites and has developed cost-effective rehabilitation and remediation strategies to achieve project objectives.

With the ongoing growth of our urban environment, historical landfill sites are becoming a valuable resource for both commercial and public reuse. An assessment of the potential environmental risks and constraints is vital when developing the best beneficial reuse outcomes.

Our team can manage the design and implementation of remedial works for former tips and waste disposal locations. We can efficiently assess a range of feasible options to determine the most effective reuse option for any given site.



OUR EXPERIENCE

- **Remondis - Rochedale Landfill Cell 7** – providing construction quality assurance consulting services for a 40,000m² landfill cell.
- **Cleanaway - Willawong Resource Recycling Facility** – facilitating the off-maintenance requirements of council. Epic engaged an appropriate rehab contractor, project managed the works and liaised with council. Off-maintenance was successfully achieved.
- **Cleanaway - Cell 2B, New Chum Landfill** – provision of CQA services for a 20,000m² landfill cell. Epic's ability to provide a registered professional engineer of Queensland as part of the CQA team ensured that minor design variations could be efficiently endorsed.