

Moonlit Sanctuary:
Wastewater
Innovation &
Environmental
Leadership



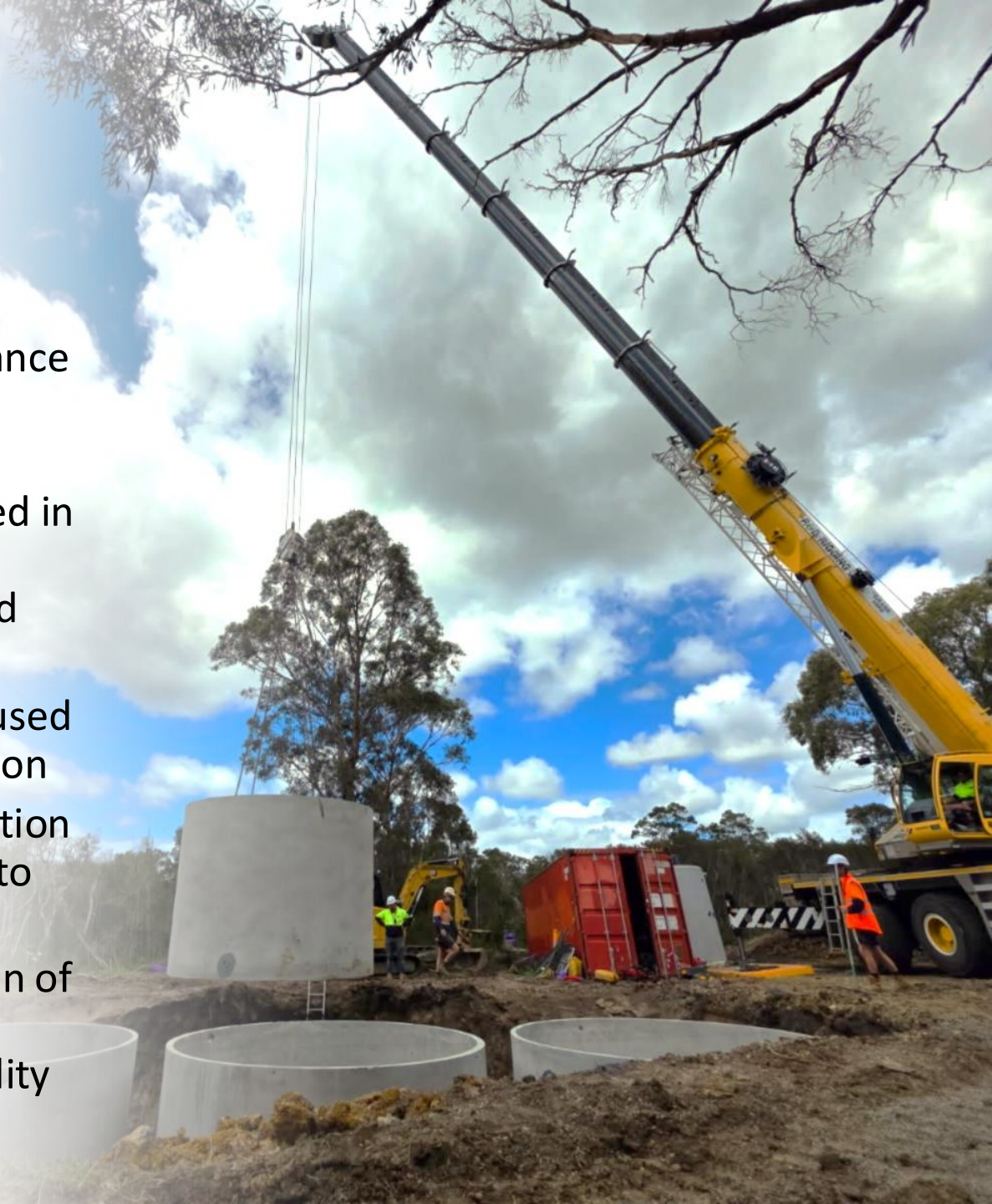


Why This Story Matters

- A credible sustainability story: wastewater treated and reused to support ecosystem outcomes
- Rare combination: wildlife conservation + tourism + water innovation + education
- Government and council-ready case study with measurable infrastructure
- A wastewater partnership that elevates Moonlit as an environmental leader

Moonlit Sanctuary protecting Koala's

- Not infrastructure for compliance only, infrastructure for conservation.
 - Moonlit Sanctuary invested in best-in-class onsite wastewater treatment and reuse
 - Treated water is safely reused through controlled irrigation
 - Irrigation supports vegetation and habitat, contributing to koala care outcomes
 - Moonlit becomes a beacon of sustainable tourism and environmental responsibility



The Wastewater Challenge



Water Treatment & Upgrade Infrastructure Delivered

- Robust onsite water treatment + reuse system designed for environmental protection and operational resilience.
 - 1 × 20,000L Primary BOD Reduction Tank
 - 1 × 20,000L Balance Tank
 - 2 × 20,000L Water Recycling & Storage Tanks
 - 2 × Commercial Water Treatment Systems
 - 1 × 10,000L Pumping Station
 - 2,700m² waste-flow drip line irrigation field



Engineering Approach (Minimal Disturbance)



HORIZONTAL
DIRECTIONAL
DRILLING (HDD)
USED FOR
TRENCHLESS
INSTALLATION



PROTECTED
HABITATS,
WALKWAYS,
LANDSCAPED
ZONES AND
EXISTING
INFRASTRUCTURE



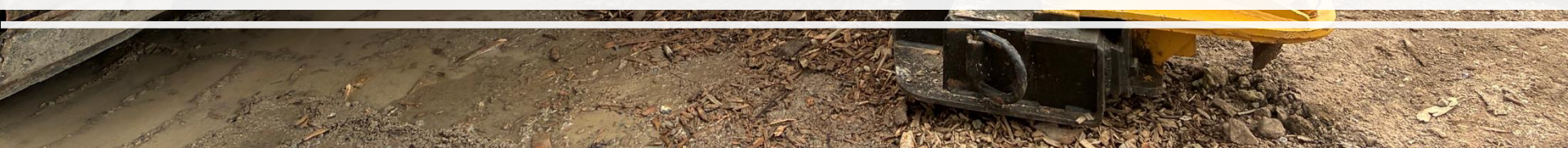
PRECISION
DELIVERY IN A
SENSITIVE
CONSERVATION
ENVIRONMENT



BEST PRACTICE
CONSTRUCTION
METHODS FOR
PROTECTED SITES

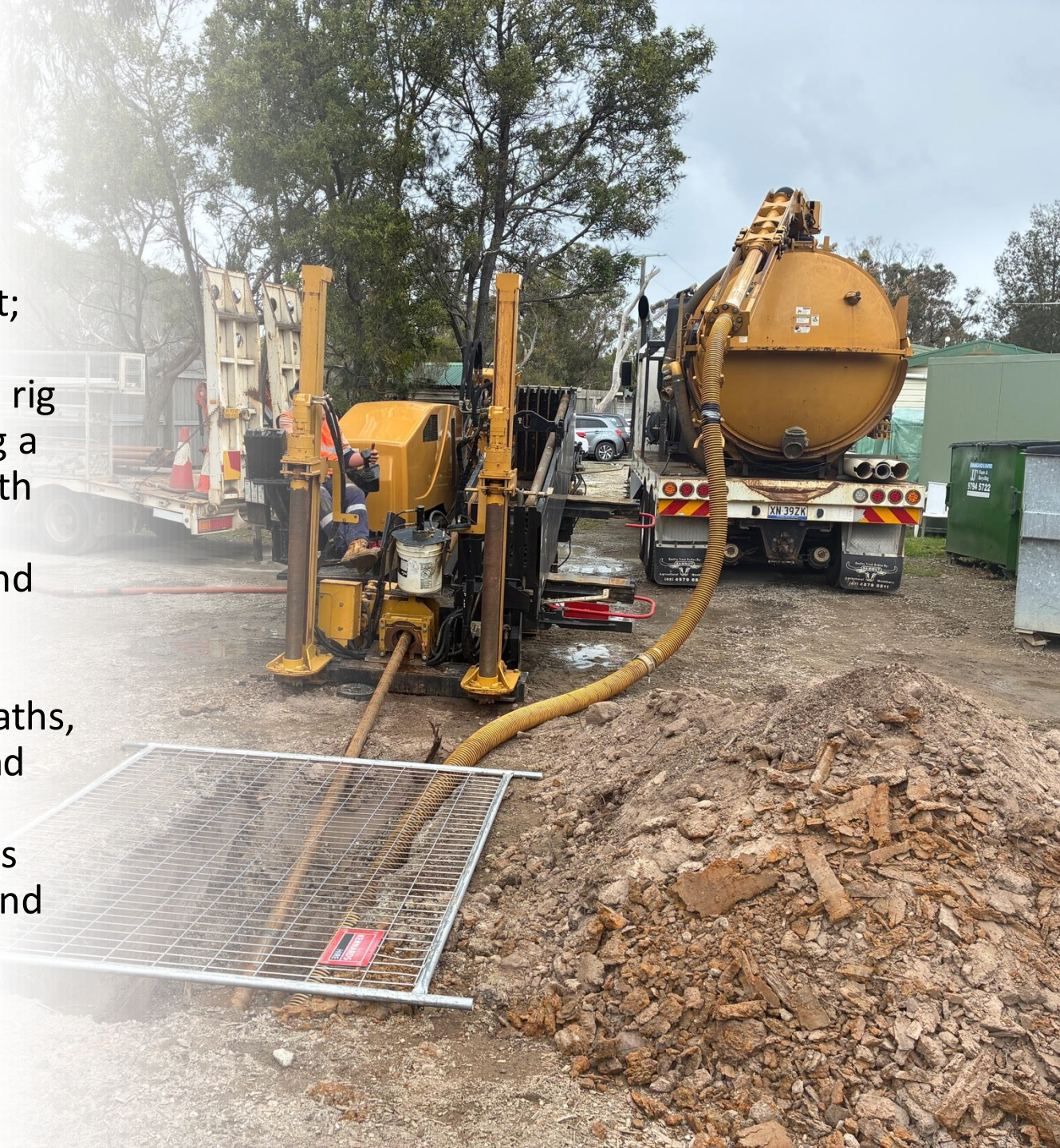


Precision engineering to protect a sensitive environment. SSA used Horizontal Directional Drilling (HDD) to install key underground services with minimal surface disturbance.



HDD is a specialized trenchless technique that;

- uses a surface launched rig to steer a drill head along a planned underground path
- allowed us to install underground pipelines and conduits without open trenches
- avoided disruption to paths, roads, animal habitats and buildings
- is ideal for sensitive sites like wildlife sanctuaries and high-traffic visitor areas





The Circular Water Loop (Simple Explanation)

1. Wastewater captured onsite from operations
2. Treatment systems process wastewater to safe reuse standards
3. Treated water stored and managed through recycling tanks
4. Controlled drip line irrigation distributes treated water
5. Irrigation supports vegetation growth and habitat resilience
6. Outcome: sustainability, reduced environmental load, ecosystem support

Irrigation & Koala Habitat Benefit

- Treated water becomes a resource, not a waste product
- Irrigation supports eucalyptus planting and vegetation growth
- Supports habitat stability and contributes to koala care outcomes
- Real-world example of circular water management for conservation



Environmental Outcomes (Benefits)

- Protects local ecosystem through safe, controlled treatment and reuse
- Reduces reliance on external water resources
- Reduces waste discharge risk through reuse pathway
- Strengthens sustainability leadership in tourism and conservation
- Supports long-term infrastructure resilience for the sanctuary



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Compliance & Governance (Credibility)

- Credibility matters. This is a story decision-makers can trust.
 - Designed by SSA environmental engineers & wastewater solutions experts
 - Strong compliance focus and regulatory alignment
 - Engagement with environmental standards bodies
 - Proof points suitable for councils and government stakeholders
 - EPA compliance to the highest standards (EPA certification in process)
 - Council Approvals obtained (Casey Council)

Wastewater Partnership & Management

Moonlit Sanctuary

- Environmental champion and conservation leader
- Invests in sustainability and best practice infrastructure
- Protects wildlife, habitat and visitor experience
- A shining example of responsible eco-tourism

Septic Systems Australia

- Wastewater expertise and technical stewardship
- Ensures systems perform safely and reliably
- Supports compliance and long-term system health
- Enables Moonlit Sanctuary wastewater management story with confidence and credibility